Evaluation of Clinical Nurse and Midwife Specialist and Advanced Nurse and Midwife Practitioner Roles in Ireland

(SCAPE)

FINAL REPORT

December 2010

Mission Statement of the National Council

The purpose of the Council is to promote and develop the professional roles of nurses and midwives in partnership with stakeholders in order to support the delivery of quality nursing and midwifery care to patients/clients in a changing healthcare environment.

National Council for the
Professional Development
of **Nursing** *and* **Midwifery**

*An Chomhairle Náisiúnta d'Fhorbairt
Ghairmiúil an Altranais agus
an Chnáimhseachais*

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**University of Dublin
Trinity College Dublin
School of Nursing and
Midwifery**

**School of Nursing and
Midwifery**

Prepared for the National Council for the Professional Development of Nursing and Midwifery in Ireland

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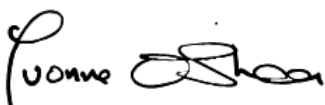
The Irish health system has moved towards a population health approach for the provision of health services and healthcare. Changing models of care delivery in tandem with the changing demographic and epidemiological profile of the population will signal the service requirements into the future. The Irish health service is driven by policy direction aiming to provide more services within primary, community and continuing care. The nursing and midwifery professions in Ireland have undergone significant change over the past decade, particularly in relation to the clinical role and responsibilities of nurses and midwives in order to provide responsive care delivery. Patient safety and risk controls necessitate on-going clinical audit, utilization of evidence-based practice, adherence to clinical guidelines, introduction of care pathways and peer review. *The Report of the Commission on Nursing* (Government of Ireland 1998) was the catalyst for the introduction of a clinical career pathway that would encompass progression from staff nurse or staff midwife to clinical nurse or midwife specialist to advanced nurse or midwife practitioner. The creation and development of this clinical career pathway has taken place against a background of health service reform, an integrated approach to health policy and service model implementation, and development of pre- and post-registration education and training programmes within the higher education sector and in local and regional centres of nurse and midwife education.

To this end the National Council for the Professional Development of Nursing and Midwifery commissioned a joint research team from the Schools of Nursing and Midwifery, Trinity College, Dublin and the National University of Ireland, Galway through an open tender process to evaluate the role of the Clinical Nurse/Midwife Specialist and Advanced Nurse/Midwife Practitioner, focusing on the clinical and economic impact of the roles.

This study, through extensive research methods, utilising a variety of data collection tools, has examined the clinical outcomes of clinical specialists and advanced practitioners in Ireland. This study has demonstrated conclusively that care provided by clinical specialists and advanced practitioners improves patient/client outcomes, is safe, acceptable and cost-neutral. Nursing and midwifery care is provided in a complex changing environment and it is critically important that resources are utilised in a cost-effective, strategic manner. The study shows the potential of clinical specialists and advanced practitioners to support implementation of health policy, meet the changing health needs of the population, address patient expectations, contribute to service reconfiguration and provide nursing and midwifery leadership for the introduction of care models and care programmes into the HSE and, potentially, other health services. Clinical specialists and advanced practitioners support a safe environment for patients by increasing the use of evidence-based clinical guidelines. Their overall positive effect on patient/client care, other staff and the health services in general is very apparent. Given these considerable benefits, and the fact that the economic analysis did not demonstrate a difference in costs between services with clinical specialists/advanced practitioners and the comparison sites, there is a strong case for introducing more clinical specialists and advanced practitioners.

This Final Report and a Summary Report are available to download from our website: www.ncnm.ie

I would like to thank the research teams led by Professor Cecily Begley from the School of Nursing and Midwifery, Trinity College, Dublin and Professor Kathy Murphy from the School of Nursing and Midwifery, National University of Ireland, Galway for their professionalism, hard work and dedication to the project. I would like to thank the Steering Committee, Valerie Small, Aveen Murray, Mary Duff and Professor Sally Redfern for their expert advice and support. Finally I would like to thank my colleagues Dr Kathleen Mac Lellan, Head of Professional Development, Dr Sarah Condell, Research Development Officer and Mary Farrelly, Professional Development Officer who continuously supported this project.

Yvonne O'Shea
Chief Executive Officer

Glossary & Acronyms

ADoM	Assistant Director of Midwifery
ADoN	Assistant Director of Nursing
AMP	Advanced Midwife Practitioner
ANP	Advanced Nurse Practitioner
AP	Advanced Practitioner, referring to both Advanced Nurse Practitioner and Advanced Midwife Practitioner (when neither is being referred to distinctly).
APN	Advanced Practice Nursing. This is an umbrella term used to encompass the specific roles of nurses who practise at a more advanced level than that of traditional nurses.
CCU	Coronary Care Unit
CMM	Clinical Midwife Manager
CMS	Clinical Midwife Specialist
CNM	Clinical Nurse Manager
CNS	Clinical Nurse Specialist
CS	Clinical Specialist, referring to both Clinical Nurse Specialist and Clinical Midwife Specialist (when neither is being referred to distinctly).
DE	Documentary evidence
Delphi	The Delphi survey technique, which is used in the SCAPE Study, is a structured, group-interaction process that is directed in 'rounds' of collection of views and opinion, and feedback. This iterative, multistage process is designed to transform views and opinion into group consensus.
DNA	Did not attend
DoHC	Department of Health and Children
DoM	Director of Midwifery
DoN	Director of Nursing
EB	Evidence-based
EBP	Evidence-based practice
ED	Emergency Department
GP	General Practitioner
HIPE	Hospital In-Patient Enquiry
HIQA	Health Information and Quality Authority
HRB	Health Research Board
HSE	The Health Services Executive is responsible for providing health and personal social services for everyone living in Ireland, with public funds.
INMO	Irish Nurses and Midwives Organisation
KPI	Key performance indicators
MDT	Multidisciplinary team

Midwife-led care	Midwife-led care has been defined by the Cochrane protocol as "the context of care where the midwife is the lead professional in the planning, organisation and control of the care given to a woman from initial booking to the postnatal period" (RCOG 2001). In these models, the midwife is, in partnership with the woman, the lead professional with responsibility for assessing her needs, planning her care, referring her to other health professionals as appropriate and ensuring provision of maternity services (Hatem et al 2008).
National Council	National Council for the Professional Development of Nursing and Midwifery, referred to as 'the National Council' in the text and as NCNM in references.
NCNM	National Council for the Professional Development of Nursing and Midwifery
NQAI	National Qualifications Authority of Ireland
Non-postholding	Clinical areas where Clinical Nurse Specialists, Clinical Midwife Specialists, Advanced Nurse Practitioners and Advanced Midwife Practitioners are not employed.
Nurse-led care	Nurse-led care is distinct from nurse-coordinated or nurse-managed services. It is provided by nurses responsible for case management, which includes comprehensive patient/client assessment, developing, implementing and managing a plan of care, clinical leadership, and decision to admit or discharge. Patients/clients will be referred to nurse-led services by nurses, midwives or other healthcare professionals, in accordance with collaboratively agreed protocols. Such care requires enhanced skills and knowledge and the nurse will need preparation in both the clinical and management aspects of the role. Such nurses will be practising at an advanced level and may be working in approved specialist or advanced practice roles (NCNM 2003).
NP	Nurse Practitioner
OPD	Out Patient Department
PCCC	Primary Community and Continuing Care
PHN	Public Health Nurse
PM	Policy maker
Postholder	A Clinical Nurse Specialist, Clinical Midwife Specialist, an Advanced Nurse Practitioner, or an Advanced Midwife Practitioner
Postholding	Clinical areas where Clinical Nurse Specialists, Clinical Midwife Specialists, Advanced Nurse Practitioners and Advanced Midwife Practitioners are employed.
SCAPE Study	This report, The *Evaluation of Clinical Nurse and Midwife Specialist and Advanced Nurse and Midwife Practitioner Roles in Ireland*, is referred to as the *SCAPE Study (Specialist Clinical and Advanced Practitioner Evaluation)* for the sake of brevity.
RA	Research Assistant
Specialist practice	Specialist practice indicates that a nurse or midwife is practising in a focused area of clinical practice, with additional education and experience in that clinical area.
SHO	Senior House Officer
SPO	Donabedian's structure-process-outcome framework
SU	Service user

Definition

Advanced Nurse/Midwife Practitioner (ANP/AMP)[1, 2]

ANPs/AMPs promote wellness, offer healthcare interventions and advocate healthy lifestyle choices for patients/clients, their families and carers in a wide variety of settings in collaboration with other healthcare professionals, according to agreed scope of practice guidelines. They utilise advanced clinical nursing/midwifery knowledge and critical thinking skills to independently provide optimum patient/client care through caseload management of acute and/or chronic illness. Advanced nursing/midwifery practice is grounded in the theory and practice of nursing/midwifery and incorporates nursing/midwifery and other related research, management and leadership theories and skills in order to encourage a collegiate, multidisciplinary approach to quality patient/client care.

Advanced nursing and midwifery practice is carried out by autonomous, experienced practitioners who are competent, accountable and responsible for their own practice. They are highly experienced in clinical practice and are educated to Master's degree level (or higher). The postgraduate programme must be in nursing/midwifery or an area which is highly relevant to the specialist field of practice (educational preparation must include substantial clinical modular component(s) pertaining to the relevant area of specialist practice).

ANP/AMP roles are developed in response to patient/client need and healthcare service requirements at local, national and international levels. ANPs/AMPs must have a vision of areas of nursing/midwifery practice that can be developed beyond the current scope of nursing/midwifery practice and a commitment to the development of these areas.

Core concepts

Autonomy in clinical practice

An autonomous ANP/AMP is accountable and responsible for advanced levels of decision making which occur through management of specific patient/client caseload. ANPs/AMPs may conduct comprehensive health assessment and demonstrate expert skill in the clinical diagnosis and treatment of acute and/or chronic illness from within a collaboratively agreed scope of practice framework alongside other healthcare professionals. The crucial factor in determining advanced nursing/midwifery practice, however, is the level of decision making and responsibility rather than the nature or difficulty of the task undertaken by the practitioner. Nursing or midwifery knowledge and experience should continuously inform the ANP's/AMP's decision making, even though some parts of the role may overlap the medical or other healthcare professional role.

Expert practice

Expert practitioners demonstrate practical and theoretical knowledge and critical thinking skills that are acknowledged by their peers as exemplary. They also demonstrate the ability to articulate and rationalise

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[1]National Council for the Professional Development of Nursing and Midwifery (NCNM) (2008) *Framework for the Establishment of Advanced Nurse/Midwife Practitioners* (4th edn.) NCNM, Dublin.

[2]National Council for the Professional Development of Nursing and Midwifery (NCNM) (2008) *Accreditation of Advanced Nurse Practitioners and Advanced Midwife Practitioners* (2nd edn.) NCNM, Dublin.

the concept of advanced practice. Education must be at Master's degree level (or higher) in a programme relevant to the area of specialist practice and which encompasses a major clinical component. This postgraduate education will maximise pre- and post-registration nursing/midwifery curricula to enable the ANP/AMP to assimilate a wide range of knowledge and understanding which is applied to clinical practice.

Professional and clinical leadership

ANPs/AMPs are pioneers and clinical leaders in that they may initiate and implement changes in healthcare service in response to patient/client need and service demand. They must have a vision of areas of nursing/midwifery practice that can be developed beyond the current scope of nursing/midwifery practice and a commitment to the development of these areas. They provide new and additional health services to many communities in collaboration with other healthcare professionals to meet a growing need that is identified both locally and nationally by healthcare management and governmental organisations. ANPs/AMPs participate in educating nursing/midwifery staff, and other healthcare professionals through role-modelling, mentoring, sharing and facilitating the exchange of knowledge both in the classroom, the clinical area and the wider community.

Research

ANPs/AMPs are required to initiate and coordinate nursing/midwifery audit and research. They identify and integrate nursing/midwifery research in areas of the healthcare environment that can incorporate best evidence-based practice to meet patient/client and service need. They are required to carry out nursing/midwifery research which contributes to quality patient/client care and which advances nursing/midwifery and health policy development, implementation and evaluation. They demonstrate accountability by initiating and participating in audit of their practice. The application of evidence-based practice, audit and research will inform and evaluate practice and thus contribute to the professional body of nursing/midwifery knowledge both nationally and internationally.

The nurse/midwife must:

1. Be a registered nurse or midwife on An Bord Altranais' live register

2. Be registered in the division of An Bord Altranais' live register for which the application is being made

    or,

    in recognition of services which span several patient/client groups and/or registrations, provide evidence of validated competencies relevant to the context of practice

3. Be educated to Master's degree level (or higher). The postgraduate programme must be in nursing/midwifery or an area which reflects the specialist field of practice (educational preparation must include a substantial clinical modular component(s) pertaining to the relevant area of specialist practice)

4. Have a minimum of 7 years post-registration experience, which will include 5 years experience in the chosen area of specialist practice

5. Have substantive hours at supervised advanced practice level

6. Have the competence to exercise higher levels of judgement, discretion and decision making in the clinical area above that expected of the nurse/midwife working at primary practice level or of the clinical nurse/midwife specialist

7. Demonstrate competencies relevant to context of practice

8. Provide evidence of continuing professional development.

Definition

Clinical Nurse/Midwife Specialist (CNS/CMS)[3]

The area of specialty is a defined area of nursing or midwifery practice that requires application of specially focused knowledge and skills, which are both in demand and required to improve the quality of patient/client care. This specialist practice will encompass a major clinical focus, which comprises assessment, planning, delivery and evaluation of care given to patients/clients and their families in hospital, community and outpatient settings. The specialist nurse or midwife will work closely with medical and para-medical colleagues and may make alterations in prescribed clinical options along agreed protocol driven guidelines.

The specialist nurse or midwife will participate in and disseminate nursing/midwifery research and audit and provide consultancy in education and clinical practice to nursing/midwifery colleagues and the wider interdisciplinary team. A nurse or midwife specialist in clinical practice has undertaken formal recognised post-registration education relevant to his/her area of specialist practice at level 8 or above on the NQAI framework. Such formal education is underpinned by extensive experience and clinical expertise in the relevant specialist area. The level of practice of a CNS/CMS is higher than that expected of a staff nurse or midwife.

Clinical focus

The CNS/CMS's work must have a strong patient focus whereby the speciality defines itself as nursing or midwifery and subscribes to the overall purpose, functions and ethical standards of nursing or midwifery. The clinical practice role may be divided into direct and indirect care. Direct care comprises the assessment, planning, delivery and evaluation of care to patients and their families. Indirect care relates to activities that influence others in their provision of direct care.

Patient/client advocate

The CNS/CMS role involves communication, negotiation and representation of the patient/client values and decisions in collaboration with other health care workers and community resource providers.

Education and training

The CNS/CMS remit for education and training consists of structured and impromptu educational opportunities to facilitate staff development and patient/client education. Each CNS/CMS in tandem with his/her line manager is responsible for his/her continuing professional development, including participation in formal and informal educational activities, thereby ensuring sustained clinical credibility among nursing/midwifery, medical and paramedical colleagues.

Audit and research

Audit of current nursing/midwifery practice and evaluation of improvements in the quality of patient/client care are essential requirements of the CNS/CMS role. The CNS/CMS must keep up to date with relevant

[3]National Council for the Professional Development of Nursing and Midwifery (NCNM) (2008) *Framework for the Establishment of Clinical Nurse/Midwife Specialist Posts* (4th edn.) NCNM, Dublin.

current research to ensure evidence-based practice and research utilisation. The CNS/CMS must contribute to nursing/midwifery research which is relevant to his/her particular area of practice. Any outcomes of audit and/or research should contribute to the next service plan.

Consultant

Inter and intra-disciplinary consultations, across sites and services are recognised as key functions of the clinical nurse/midwife specialist. This consultative role also contributes to improved patient/client management.

1. The person must be a registered nurse/midwife.

2. The person must be registered in the division in which the application is being made. In exceptional circumstances, which must be individually appraised, this criterion may not apply.

3. The person must have extensive experience and clinical expertise, i.e. a minimum of five years post-registration experience (following registration either in midwifery or in the division of nursing in which the application is being made) including a minimum of two years experience in the specialist area.

4. The person must have the ability to practice safely and effectively, fulfilling his/her professional responsibility within his/her scope of practice (An Bord Altranais 2000).

5. The person must provide evidence that they engage in continuing professional development.

6. The person must have undertaken formal recognised level 8 NQAI post-registration education major award relevant to his/her area of specialist practice prior to their application.

CHAPTER 1
Executive summary

1.1 Background to the study

1.1.1. Introduction to Irish health services

1.1.1.1. Clinical pathways for nurses and midwives

The nursing and midwifery professions in Ireland have undergone substantial change over the past decade, particularly in relation to the clinical role and responsibilities of nurses and midwives. *The Report of the Commission on Nursing* (Government of Ireland 1998) was the catalyst for the introduction of a clinical career pathway encompassing progression from staff nurse or staff midwife to clinical nurse or midwife specialist (CNS/CMS) to advanced nurse or midwife practitioner (ANP/AMP). The creation and development of this clinical career pathway has taken place against a background of health service reform, an integrated approach to health policy and service model implementation, and development of pre- and post-registration education and training programmes within the higher education sector and in local and regional centres of nurse and midwife education. It was recognised that specialist and advanced-practice skills would enhance service delivery, thereby building the capacity of the nursing and midwifery resource. Other factors contributing to the development of the clinical career pathway include the establishment of regional structures such as the Nursing and Midwifery Planning and Development Units and the provision of funding by the National Council for the Professional Development of Nursing and Midwifery (National Council) for projects such as site preparation for ANP/AMP posts.

1.1.1.2. Frameworks for Clinical Specialist and Advanced Practitioner posts

The National Council for the Professional Development of Nursing and Midwifery was formed in November 1999 under a statutory instrument (SI No. 376 of 1999), on foot of a recommendation made by the Commission on Nursing (Government of Ireland 1998, para 6.12). As stated in the statutory instrument, two of its main statutory functions are to monitor the ongoing development of nursing and midwifery specialties (taking into account changes in practice and service need), and to support and assist the health boards[4] and other relevant bodies in the creation of specialist and advanced practice nursing and midwifery posts. The National Council determined the appropriate level of qualification and experience for entry into the posts. The frameworks for the clinical career pathway in nursing and midwifery were established by the National Council in 2000, using definitions and core concepts devised by the Commission on Nursing. In the immediate clinical career pathway, applications for CNS and CMS posts were processed by members of the National Council who were located at the Department of Health and Children. The intermediate pathway, launched the following year, involved the publication of the first edition of the framework document, *CNS/CMS – Intermediate Pathway* (NCNM 2001a). Development of the definition, core concepts and framework for advanced nurse practitioners (ANPs) and advanced midwife practitioners (AMPs) was taking place simultaneously; the first edition of the document *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Posts* was published the same year (NCNM 2001b). The number of CNS/CMS and ANP/AMP posts grew from 2000 to 2010 and their respective frameworks were revised in response to developments taking place in the Irish health system and the higher-education sector.[5] Responsibility for accreditation of ANP/AMP posts and registration of ANPs and AMPs has been with An Bord Altranais (the Irish Nursing Board) since January 2010, in accordance with Statutory Instrument No. 3 of 2010 (DoHC 2010a).

The introduction of CNS and CMS posts and the effectiveness of associated roles were first evaluated by

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[4]The health boards were subsequently subsumed within the Health Service Executive's administrative areas following the establishment of the executive in 2005.

[5]More detailed accounts of the developments that took place within the clinical career pathway can be found in the subsequent editions of the CNS/CMS and ANP/AMP framework documents and the NCNM's annual reports.

the National Council in 2004 (NCNM 2004). This evaluation demonstrated that, while the posts had been widely accepted, there was a need for guidance in demonstrating the outcomes of the roles. A preliminary evaluation of ANP roles showed similar results (NCNM 2005a). These evaluations were conducted against a background of health service reform and intensive restructuring of the Irish health system, and led to the publication by the National Council of position papers relating to specialised areas of nursing (NCNM 2005b, c, 2006 and 2007) and of guidance in establishing the need for clinical specialist and advanced practitioner roles (NCNM 2005d, NCNM 2010a).

1.1.1.3. Health service reform, 2001-2010

Changes to operation of the health system and its structures were signalled by the national health strategy, *Quality and Fairness – A Health System for You* (DoHC 2001a), and the primary care strategy, *Primary Care – A New Direction* (DoHC 2001b) and the Health Service Reform Programme (DoHC 2003a). These strategies underlined the importance of four guiding principles for the health system: equity, people centeredness, quality and accountability. In addition, they laid the groundwork for an integrated, population health approach to service provision by identifying specific population groups (e.g., children, Travellers, asylum seekers, people with mental health disorders, and older people) and specific diseases and causes of mortality (e.g., cardiovascular disease, cancer and lifestyle issues). The national health strategy set out four national goals: better health for everyone, fair access, responsive and appropriate care delivery, and high performance; and six frameworks for change aiming to strengthen primary care:

- reform the acute hospital system
- reform funding of the system
- develop the human resource within the system
- reform organisational structures
- improve performance through supporting quality, planning and evidence-based decision making.

The achievement of these goals and the successful implementation of the frameworks would require a "qualified, competent workforce" (DoHC 2001a, p.116), and would include the further development of CNS/CMS and ANP/AMP posts using the National Council's frameworks. Reports advocating role changes and a reduction in the working hours of junior doctors (DoHC 2003b) provided further stimuli for the expansion of nursing and midwifery roles and for the establishment of more nurse- and midwife-led clinics (NCNM 2005b, NCNM 2010b).

The Health Service Reform Programme was formally launched by the DoHC in 2003 (DoHC 2003a), in line with one of the many recommendations contained in the national health strategy (DoHC 2001a). The next seven years would see the publication of other policy documents, all aiming to consolidate the themes of quality and value for money within the health system to ensure that patients and service users receive healthcare that is not only of a high standard, but is based on the efficient use of resources. The integration of the health system envisaged in the national health strategy (DoHC 2001a) and the national primary care strategy (DoHC 2001b) has been carried forward within policy/strategy documents relating to, *inter alia,* cancer care (*A Strategy for Cancer Control in Ireland*, DoHC 2006a), mental health (*A Vision for Change – Report of the Expert Group on Mental Health Policy,* DoHC 2006b) and chronic disease (*Tackling Chronic Disease – A Policy Framework for the Management of Chronic Diseases,* DoHC 2008). Policy direction has consistently aimed to reduce reliance on acute hospitals and provide more services within primary, community and continuing care. Most recently, the national cardiovascular health policy, *Changing Cardiovascular Health: National Cardiovascular Health Policy 2010-2019* (DoHC 2010b), has distinctly advocated an integrated approach to service provision in relation to cardiovascular disease,

stroke care, obesity and diabetes, thus building on earlier policy documents (DoHC 2005, 2006b, 2008). Nursing roles referred to specifically in the cardiovascular strategy include CNSs and ANPs, especially in relation to cardiovascular nursing. It is envisaged that nursing roles will evolve in line with the implementation of the policy. Specific areas of practice and roles mentioned include:

- anticoagulation services in acute hospitals

- specialist heart failure nurses working in primary care

- specialist nurses working in stroke units

- nurses working in the area of in-patient stroke rehabilitation

- nurses working in the community in early supported discharge (following stroke care)

- cardiovascular clinical nurse specialists in community liaison roles

- stroke liaison nurses in general and comprehensive stroke centres.

Patient safety has become a major concern in the health system, and this is reflected in international policy developments (WHO 2002), with the launch of the World Alliance for Patient Safety in 2004 and the publication of a series of reports on investigations into patient safety failures in Ireland. Established in 2007, the Commission on Patient Safety and Quality Assurance identified the many factors that could help to prevent adverse incidents in healthcare provision and service delivery (Government of Ireland 2008). The commission's report *Building a Culture of Patient Safety* (Government of Ireland 2008) provides a clear insight into the ways in which nurses and midwives with the right skills, knowledge and expertise can contribute to the prevailing safety and quality agenda.[6]

The establishment of the Mental Health Commission and the Health Information and Quality Authority (HIQA) are key in the progression of the quality and safety agenda.[7] The national health strategy and subsequent DoHC publications had acknowledged the importance of good health information in ensuring the quality of healthcare provision and delivery through evidence-based practice (DoHC 2001a, 2001b, 2003a, 2004). Use of and reference to evidence-based guidelines and standards are fast becoming the norm within the Irish health service today.

1.1.1.4. HSE: models of care delivery

A key outcome of the Health Service Reform Programme was the establishment of the Health Service Executive (HSE) in 2005. It was the first body with legal responsibility for managing the operation of the health services in Ireland as a unified system. It brought together the roles of many agencies that had previously operated as separate entities. In keeping with the *Health Act, 2004*, the objective of the HSE is to use the resources available to it in the most beneficial, effective and efficient manner to improve, promote and protect the health and welfare of the public. Its vision and its national goals and objectives have been set out in its various corporate and national service plans (HSE 2008).

A number of the HSE's plans and policy documents have delineated clear roles for CNSs and ANPs, particularly in the areas of cancer care and chronic disease management. The HSE's National Cancer Forum (HSE 2006a) sets out its strategy for cancer control in Ireland, including plans for an enhanced role for nurses within the multidisciplinary team. For example, ANPs are identified as key team members in

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[6]The DoHC has established an Implementation Steering Group charged with implementing the recommendations of the Commission on Patient Safety and Quality Assurance.

[7]The Mental Health Commission was established under the *Mental Health Act, 2001* and its remit includes the promotion of high standards in the delivery of mental health services. The Health Information and Quality Authority is responsible for setting standards for health and social care services and for monitoring the quality of these services.

the National Cancer Screening Service's (NCSS) plan for a colorectal cancer screening programme (NCSS 2009). The HSE's national chronic disease prevention and management programme presents clear roles and opportunities for CNSs and ANPs in the future (HSE 2006b, c).

National policy direction in relation to patient safety and quality of care has been outlined above, and its implementation is evident in the structures and programmes of the HSE. The HSE's Quality and Clinical Care Directorate has the threefold task of improving the quality of care delivered to all users of HSE services, access to all services and cost-effectiveness. This directorate also aims to improve and standardise patient care throughout the organisation by bringing together clinical disciplines and enabling them to share innovative solutions to deliver greater benefits to every user of HSE services. This will be delivered through the HSE's programmes, in line with national standards. These clinical programmes, led by a frontline multidisciplinary team of clinicians, have been established with the purpose of focusing on programmes relating to chronic disease management, outpatient management, emergency function-related programmes, and others, including obstetrics and gynaecology. There is a Lead Clinical Nurse on each national clinical programme working group. A Director of Nursing/Midwifery Strategic Reference Group has been convened to support the programme development (ONMSD 2010a, b).

1.1.1.5. Summary

As first signalled in the national health strategy (DoHC 2001a), the Irish health system has moved towards a population health approach to the provision of health services and healthcare. Changing models of care delivery in tandem with the changing demographic and epidemiological profile of the population will signal the service requirements for specialist and advanced practice nursing and midwifery posts into the future. To this end the National Council commissioned the Schools of Nursing and Midwifery, Trinity College Dublin, and National University of Ireland, Galway through an open tender process, to evaluate the role of the Clinical Nurse/Midwife Specialist and Advanced Nurse/Midwife Practitioner, focusing on the clinical and economic impact of the roles.

1.1.2. Introduction to the study

Prior to the commencement of this study, referred to as the SCAPE study (Evaluation of Clinical Nurse and Midwife Specialist and Advanced Nurse and Midwife Practitioner Roles in Ireland), there were 69 accredited advanced practitioners (APs): 68 in nursing and one in midwifery (NCNM 2008a). The total number of clinical specialists (CSs) in approved positions was 2,032: 1,966 in nursing and 66 in midwifery (NCNM 2008a).

Considerable research has already been undertaken, both nationally and internationally, evaluating the effectiveness of advanced practice in the many nursing specialties:

- emergency department (Small 1999, Timoney 2002)
- oncology (Ritz et al 2000)
- haematology (Taylor et al 1997)
- mental health (Reasor and Farrell 2005)
- neonatology (Woods 2006)
- HIV (Aiken et al 1993)
- paediatrics (Niemes et al 1992)
- gerontology (Evans et al 1997, Naylor et al 1999)
- primary care (Mundinger et al 2000a)

- heart failure (McCauley et al 2006)

- cardiac rehabilitation (Burgess et al 1987)

- cardiac surgery (Lombness 1994)

- critical care (Burns and Earven 2002, Fairley and Closs 2006).

In contrast, there has only been limited evaluation of advanced midwifery practice (Alexander et al 2002, Watson et al 2002), perhaps because fewer such posts exist.

In the Irish context, evaluation of the AP role is in its infancy. Nevertheless, the positive impact of the role is revealed in the areas of sexual health (Delamere 2000, 2003) and emergency department care (Small 1999, Keenan 2002). Moreover, a preliminary evaluation of the advanced nurse practitioner role has revealed that ANPs consider the main benefit of their role is to service users, with the provision of continuity of care (NCNM 2005a). It is timely, given the growth in the numbers of specialist and advanced-practice roles, that a major national objective evaluation of the posts is being undertaken in Ireland.

A number of structures to evaluate specialist and advanced roles have been developed, many of which are based on Donabedian's structure-process-outcome (SPO) framework. In the context of specialist and advanced nursing and midwifery practice, structure includes the components necessary to facilitate care delivery, such as the characteristics of the practitioner, and resources and support in the practice setting. Process refers to the care provided by the practitioner and the appropriateness of that care. Outcome refers to practitioner-sensitive outcomes, which are complex and involve interventions undertaken based on the knowledge the nurse or midwife has, including theoretical, practical and scientific knowledge.

Advanced nursing practice "is more than being an expert by experience in a speciality" (Por 2008, p. 85). It is crucial that valid nursing and midwifery sensitive outcome measures be selected in any evaluation of specialist and advanced practice in order to identify the distinctive focus of advanced practice and to explain the complexity of specialist interventions. In addition, the 'hidden' aspects of the advanced and specialist roles need to be captured. Failure to develop suitable measurement tools could lead to improvements in care attributable to advanced and specialist roles being missed.

The tension between the need to identify quantifiable outcome measures and the challenge of capturing the indeterminate, qualitative aspects of specialist and advanced practitioners requires a flexible evaluation model. The model chosen for this project is that proposed by Schulz et al (2002), adapted by Gerrish et al (2007), which has a "broad inclusive approach" (p. 590) addressing symptomatology, quality of life, social significance and social validity (see Appendix 1a). The model is concerned with the practical value of an intervention and whether or not it makes a real difference to patients (Gerrish et al 2007) and is thus ideal to evaluate the clinical significance of specialist and advanced practice roles in Ireland, because it addresses multiple outcomes related to clinical significance, a key consideration in this project. The value of this framework is that it can be used flexibly to identify reliable and clinically relevant outcomes from the perspective of both the client group and the practitioner.

1.1.3. Terms of reference

The terms of reference for the project, as set out by the call for tender by the National Council, are to:

- Review the literature on the evaluation of healthcare interventions, with specific reference to the study aim,

- Undertake original data collection to evaluate the clinical outcomes, service delivery (i.e., the service process) and economic implications of the CNS/CMS and the ANP/AMP – the team will relate the

research outcomes to the clinical services of the CNS/CMS and the ANP/AMP, standardising for patient characteristics, morbidity data, etc,

- Compare a number of sites with CNS/CMS and ANP/AMP services to those that do not have such services – this may be a retrospective or prospective data collection process; service users' well-being and satisfaction with the services should be included in the evaluation,

- Develop, as part of the deliverables, a validated tool which can be used in future studies to determine outcomes for clinical services of CNSs/CMSs and ANPs/AMPs – this will aid future monitoring and evaluation of such services,

- Provide an interim and final report – the latter should clearly identify clinical outcomes, service delivery (i.e., the service process), economic implications in terms of efficiency (outputs relative to cost) and effectiveness (outcomes relative to inputs) of services.

1.2 Methodology

1.2.1. Aim

To produce a focused evaluation of the clinical services provided by clinical nurse and midwife specialists and advanced nurse and midwife practitioners in Ireland.

1.2.2. Objectives

- To review the literature on the evaluation of healthcare interventions offered by similar postholders internationally.

- To develop and validate a tool to determine outcomes for clinical services of specialists and advanced practitioners.

- To use the validated instrument to compare clinical outcomes in care environments with and without the clinical input of specialists and advanced practitioners as part of the care team.

- To examine the impact of the clinical specialists' and advanced practitioners' clinical interventions/care on service users' (i.e., patients or clients) experience of care.

- To explore service users' well-being and satisfaction with care received from approved clinical specialist and accredited advanced practitioner postholders.

- To explore the financial implications of clinical specialist and advanced practitioner posts for the Irish health services, in terms of efficiency and effectiveness.

- To provide an interim and final report, the latter of which clearly identifies the clinical outcomes, service delivery and economic implications of clinical specialist and advanced practitioner posts in terms of efficiency and effectiveness of services.

1.2.3. Literature review

1.2.3.1. Concept analysis

A detailed concept analysis of *advanced practice* was undertaken (Chapter 4); this identified many

different articulations of clinical specialist (CS) and advanced practice (AP) roles. There was also much consensus that specialist and advanced nursing and midwifery brings added value to practice. The challenge facing nursing and midwifery today is to provide the evidence that specialist and advanced practice nurses and midwives bring a unique aspect of care to the healthcare community or service provision.

Of all the specialist or advanced practice roles in nursing and midwifery, the role of CS is the most unclear in the international literature. However, clarity about the CS role is evident in Ireland, due to the clear guidelines and approval criteria laid down by the National Council (NCNM 2008b, c, d, e, f). The future of the CS role internationally depends upon "a clear definition and delineation of the role" (Henderson 2004, p. 40). Their role is most at risk in the US, where numbers graduating between 1996 and 2000 increased by only 12.9% as compared to a 45% increase in the number of NP graduates (Henderson 2004).

This issue is also evident in the UK, where Hill (2000) raises concerns about the proliferation of 'site-specific' cancer clinical nurse specialists which may result in a fragmented service to patients. However, the recent effort in the US to curb the proliferation of multiple narrow sub-specialisations in advanced practice roles is intended to regulate advanced practice more consistently and assure public safety and provision of quality care (APRN Joint Dialogue Group 2008).

Wiedenbach (1963), in her seminal work, urged nurses to capture both the art and the science of high-level caring. In the ensuing years, the task has become more daunting due to the development of multileveled nursing practice. However, the literature continues to urge that the blended art and science of nursing not be left behind despite advances in nursing practice. We suggest therefore, that the work of Ingersoll et al (2000) requires special mention. Ingersoll et al (2000) began to uncover the unique layer of advanced practice nursing when she identified two unusual indicators in her Delphi study of nurse-sensitive outcomes. These two indicators, 'perception of being well cared for' and 'the sense of trust in the provider', may be the beginnings of deciphering the 'added value' that nursing offers to patient care.

Cunningham (2004) questions how "to measure, as Benner (1984) suggests, the exquisite skill in clinical judgment that comes from 'knowledge embedded in practice' which may be a deciding variable in APN care" (p.228). Perhaps this is the Holy Grail referred to by Callaghan (2008). However, Bourbonniere and Evans's (2002) work, which uses the term 'contextual thinking' to denote the APN's high level of data synthesis, reveals evidence to show that this quest may be achievable.

The tension mentioned above – between identifying quantifiable outcome measures and capturing the indeterminate, qualitative aspects of advanced practitioners (and by implication specialist practitioners) – is documented (Gerrish et al 2007). The SPO method of evaluation is best set within the framework of an evaluation model of advanced practice. The development of an evaluation model of specialist and advanced practice was viewed as essential to this project and addressed the criticisms of Sidani and Irvine (1999) in relation to the inconsistent findings in research evaluating the impact of the AP, which they attribute to not using a conceptual framework to guide the identification of the specific nurse sensitive outcomes (Sidani and Irvine 1999).

The approach proposed by Schulz et al (2002) was identified by Gerrish et al (2007) as a possible framework for evaluating the impact of advanced practice roles. This model encompasses: (i) symptomatology, (ii) quality of life, (iii) social significance and (iv) social validity (see Appendix 1a) and therefore addresses the multiple outcomes related to clinical significance, which was a key consideration in this project. The value of this framework is that it can be used flexibly to identify reliable and clinically relevant outcomes from the perspective of both the client group and the practitioner.

The following points summarise the concept analysis:

• Confusion surrounding the terminology used to describe specialist and advanced practice nursing and midwifery roles is evident internationally. However, clarity on these roles is evident in Ireland.

- Nurse-led care is considered practice at a higher level, and nurses in these roles may be working in approved specialist or advanced practice roles. Midwife-led care is also regarded as a feature of advanced midwifery practice.

- There is clarity internationally on the core roles distinguishing specialist and advanced practice in nursing. There is less clarity internationally on the core roles distinguishing specialist and advanced midwifery practice. However, a recent report in the UK (Department of Health 2010) has clearly distinguished between the two roles.

- *Role expansion and role development* are the terms of choice to use when discussing advanced nursing and midwifery practice.

- The CNS role in the US is under threat. There are now considerably more nurses in NP roles than CNS roles. The decline in CNS posts may be related to their indirect care role, as US CNSs spend minimal time on direct patient care, whereas the principal focus of NP practice in the US is on direct patient care, with a defined patient caseload.

- The opposition of the medical profession has been identified as one of the main barriers to the development of more advanced nursing roles, although considerable support is also noted from medical personnel who work with CSs/APs.

- Three essential antecedents to advanced practice have been identified, one external and two internal. The external antecedent is the changes in medical practice internationally. The internal antecedents are higher education and clinical expertise.

- Identifying the outcomes of specialist and advanced practice is complex. Research evidence evaluating outcomes of advanced practice can be grouped into:

  - The effectiveness of advanced practice roles

  - Comparing advanced practice nurses and midwives and medical/other healthcare counterparts

  - Satisfaction with advanced practice roles

  - Advanced practice skills and functions

  - 'Value-added' contributions of advanced practice

  - Advanced practice sensitive indicators.

1.2.3.2. Systematic review of systematic reviews

Research studies have indicated that the introduction of CS and AP roles has contributed to positive patient/client outcomes; however, many of these studies are descriptive in nature, are small scale, and do not involve comparisons. For the purposes of this research, a systematic review of systematic reviews of randomised trials was also undertaken to identify the effects of nurse- and midwife-led interventions on clinical outcomes and establish if such interventions are effective (Section 4.11). Following a comprehensive search (Appendix 2a), 20 systematic reviews were selected from 818 unique citations using the AMSTAR quality-assessment tool (Appendix 2b). This was undertaken in the absence of a sufficient body of literature reporting on randomised trials of specialist or advanced practice care, and in the knowledge that nurse-led clinics are viewed by some international authors on a par with advanced practice (Loftus 2001, Hatchett 2003). In addition, the National Council has indicated that those working in nurse and midwife-led clinics may require some skills and knowledge that reflect practice at an advanced level (NCNM 2003).

There was significant variability in the outcomes reported in which the effectiveness of nurse-led interventions was measured. This suggests a lack of agreement on core outcomes that should be reported

when evaluating nurse-led interventions. It might also suggest that outcome measures chosen are not sensitive to the impact of nurse-led interventions. Challenges in identifying outcomes sensitive to the role of nurses are recognised in the literature (Resnick 2006, Kleinpell 2007) although attempts to do so are evident (Ingersoll et al 2000, Mundinger et al 2000b).

The reviews included ranged from those with minimal quality concerns to those that raised significant concerns. Trials included in the reviews were generally not of high quality; many used methods that could have introduced bias (for example, poor allocation concealment, or publication bias not addressed). The evidence from this systematic review suggests that nurse-led interventions have a similar impact on clinical outcomes to that of usual care (defined as the care that is normally provided by the various members of the multidisciplinary team), across various client groups and clinical conditions, with the exception of psychological outcomes of satisfaction, anxiety and depressive symptoms, all of which are improved by nurse-led care. Midwife-led models of care were found to have significant benefit, including cost benefits, across clinical and psychological outcomes. Importantly, there is no evidence of harm associated with nurse or midwife-led interventions. There is conflicting evidence in the literature on the cost-effectiveness of nurse-led interventions, which is exacerbated by a lack of high quality economic data.

The outcomes identified by this systematic review of systematic reviews (Appendix 3) were used in the development of the Round 1 Delphi instruments.

1.2.4. Design and sample

1.2.4.1. Design

A three-phase mixed-method, explanatory sequential design was used for the evaluation, in keeping with the aim of the study (Chapter 3):

- The initial literature review and focus group interviews with key stakeholders led into the quantitative Phase 1 of data collection (Delphi and evaluative studies).

- This was followed by the Phase 2 case study, where the aim was to explore in greater depth the results generated from the quantitative studies, by contrasting the work of CSs/APs in 'postholding' areas with that of other clinicians in matched 'non-postholding' areas, where no CS or AP (or 'postholder') was employed. An economic evaluation was also included in this phase.

- A third, interpretive phase followed which sought new information from policy makers and incorporated data from all phases (Figure 1.1).

Figure 1.1: Sequential Explanatory Design (adapted from Plano-Clarke & Creswell, 2008)
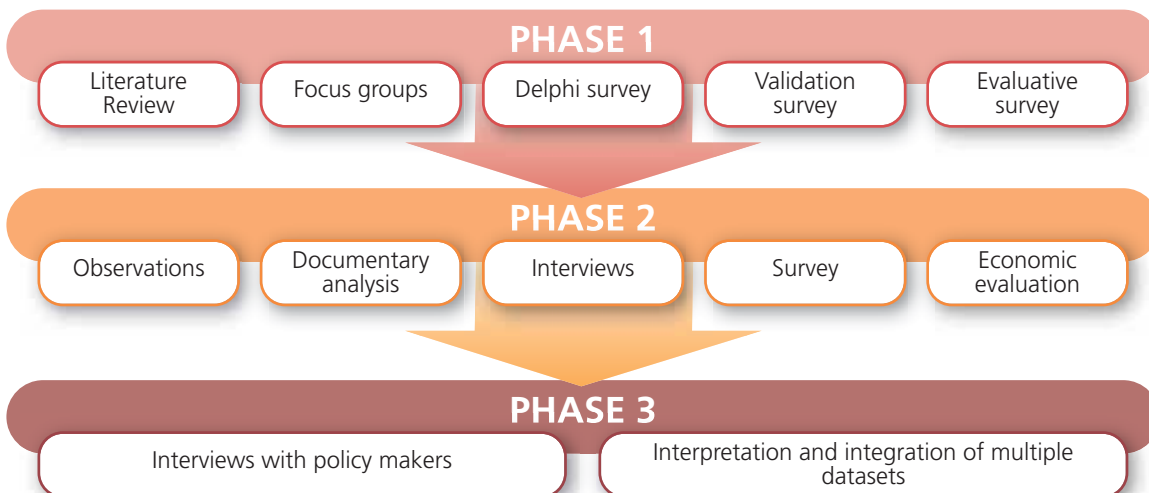
1.2.4.2. Phase 1 – focus groups

In the qualitative part of Phase 1, the draft findings of the review and concept analysis provided the basis for interview schedules for focus group and individual interviews with key stakeholders. Seven focus groups with five health professional groups were undertaken (Table 1.1):

- two with Clinical Nurse and Midwife Specialists
- one with Advanced Nurse and Midwife Practitioners
- one with Directors of Nursing or Midwifery and Medical Consultants
- one with Assistant Directors of Nursing or Midwifery and Clinical Nurse or Midwife Manager 3s
- two with Staff Nurses and Midwives.

Individual interviews (n=9) were conducted with some stakeholders when it was not possible for them to attend a focus group. In addition, one focus group was undertaken with service user advocates from mental health (n=4), and individual interviews (n=5) were undertaken with people experiencing mental health issues or chronic health problems (Table 1.1).

There were a total of 63 stakeholder attendees across the focus groups and individual interviews (Table 1.1). The interviews addressed five key areas:

- elements of the CS/AP role
- perception of outcomes
- impact on services
- differences between CS and AP outcomes
- policy issues.

Data analysis was guided by the constant comparative technique (Corbin and Strauss 2008), using a coding framework based on the Schulz model (Appendix 1b). Perceived outcomes were identified at the level of the individual practitioner, staff, and the hospital/healthcare service, and an analysis grid was developed to compare outcomes identified across stakeholder groups (Appendix 4). These outcomes were merged with the findings of the literature review and concept analysis to create the Round 1 Delphi tool.

Table 1.1: Distribution of focus group participants			
Focus group/ interviews	Location	Participants	Attendance
FG1	East	ANP/AMP	11
FG2	East	CNS/CMS	6
FG3	East	DoNs/Medical Consultants	3
FG4	West	CNS/CMS	6
FG did not run	West	ANP/AMP	replaced with individual interviews
FG5	West	ADoNs/CNM3s	6
FG6	West	Service User Advocates	4
FG7	East	Staff Nurse	8
FG8	West	Staff Nurse	5
Individual interviews	East and West	DoNs/DoMs	4
Individual interviews	East and West	Consultants	3
Individual interviews	West	ANPs	2
Individual interviews	East and West	Service Users	5
Total participants			63

1.2.4.3. Phase 1 – Delphi, validation and evaluative surveys

The quantitative part of Phase 1 comprised two parallel, three-round, online Delphi surveys involving 47 APs and 620 CSs. The purpose of the Delphi surveys was to develop a minimum generic data set of indicators for clinical specialists and advanced practitioners to evaluate specialists' and advanced practitioners' perceptions of the impact of their role on service users, health services and other health professionals.

A validation survey was then undertaken with a sample of 299 other health professional groups who work with CSs and APs, including medical personnel, physiotherapists, occupational therapists and speech and language therapists. The purpose of this survey was to evaluate other stakeholders' perceptions of the relevance of the outcomes identified in the Delphi study in measuring key distinctive contributions to patient/client outcomes made by CSs and APs.

An evaluation survey involving 602 CSs and 48 APs was then undertaken to identify the impact of CSs' and APs' perceptions of the impact of their role on outcomes experienced by service users and other health professionals, and on outcomes for healthcare services. Participants used the tools developed through the Delphi process and were also asked to identify outcomes specific to their specialist role (Appendices 5a and 5b) so that the survey instruments could be adapted to a specific role for future use.

1.2.4.4. Phase 2

In Phase 2 case study, the aim was to explore in greater depth the results generated from the quantitative studies. Observations of 23 CSs/APs in postholding areas and 23 clinicians providing a service in similar care contexts in matched non-postholding areas were conducted (four hours with each person). Field notes comprising 'pen-pictures' (Appendix 6a) were completed to provide narrative descriptions of observations made. In addition, researchers completed a scoresheet of key behaviours such as good communication skills, safety aspects, use of research evidence and education of patients/clients (Appendix 6b), in both postholding and non-postholding sites. Documentary evidence such as audits, copies of

publications, guidelines, information leaflets and postholders' work diaries were also collected and a quantitative summary made of them.

In-depth interviews based on semi-structured interview schedules developed from the Delphi Round 2 instrument (Appendices 7a-e) were used to gather data from 41 service users/family members/carers, 41 healthcare professionals and 23 Directors of Nursing or Midwifery who oversaw care in eight health-service provider sites with APs or CSs, 10 matched sites without any postholders and five sites which had postholders in the hospital/service, but not in the particular area under study. In addition, 279 service users returned completed questionnaires, also based on the Delphi Round 2 instrument (Appendix 8). The economic evaluation included 10 matched pairs of postholding and non-postholding sites, and compared salary costs across the sites. An evaluation tool was derived from those used in the literature, and developed using comments and suggestions from the Delphi Round 2 phase.

1.2.4.5. Phase 3

A third interpretive phase then followed, which sought new information from 12 key policy makers, and incorporated data from all phases. The policy makers were interviewed by telephone or face-to-face, to provide background context for the Phase 2 findings. Respondents included representatives of the DoHC, the HSE and a number of relevant organisations that govern or shape health policy in Ireland. An outline of the draft findings formed the basis for the interview schedule (Appendix 9) and was discussed with each policy maker in relation to the wider health service context. Interpretation of all data sets was then undertaken, and results were determined to be very strongly, strongly, moderately or weakly supported, based on the number of data sources providing evidence.

1.2.5. Ethical issues

Ethical approval was granted by the Research Ethics Committee of the Faculty of Health Sciences in Trinity College Dublin and all local research ethics committees. All participants gave informed consent and data were kept confidential and, where possible, anonymous.

| **1.3** | Findings from focus group interviews (phase 1) |

Perceived outcomes for the patient/client, staff and service/healthcare were identified. In all there were 17 patient/client outcomes identified, including patient satisfaction, reduction of morbidity, and promotion of self management. There were nine staff related outcomes, including increased knowledge, empowerment, retention and work satisfaction. There were also 27 service/healthcare outcomes, including waiting times, continuity, research, leadership and collaboration. Concern was raised in focus groups with managers about the potential of the CS role to de-skill staff nurses, as some participants reported that CSs could work in ways that limited staff development. Facilitators of focus groups with SNs/SMs, therefore, included an additional question in relation to this. Participant SNs/SMs in these groups were clear that de-skilling did not occur and, furthermore, suggested that the CS/AP educational function contributed to the knowledge development of staff.

1.4   Results of Delphi study (phase 1)

Round 1 of the Delphi survey had a response rate for the CS survey of 45% (n=282) and for the AP group of 64% (n=30). Round 2's response rate for the CS survey was 76% (n=215) and for the AP group was 93% (n=28). The response rate for the final (Round 3) survey was 94% (n=202) for the CS group and 96% (n=27) for the APs.

In the CS Delphi, 47 items achieved the consensus criteria for inclusion as core outcomes identified. Of these, individual and personal outcomes experienced by patients and service users were predominant, highlighting the impact of specialist practice on direct patient care. Personal status and clinical status were the key outcomes in this category, alongside outcomes relevant to patients' and clients' health care treatment. The next most featured category was 'outcomes for nurses, midwives and other professionals'. This second category of outcomes focused on the impact of specialist nurses and midwives on the clinical environment. These outcomes referred to knowledge and attitudes of other nurses, peers, other professions and patients, along with research based initiatives and indicators of good practice and development. The third category of outcomes on health care services and settings highlighted quality of care in the work group and organisation. The items that achieved core status were included in the tool to establish a resource of CS sensitive outcomes.

In the AP three-round Delphi survey, 52 items achieved the consensus criteria for inclusion as core outcomes. Again, individual and personal outcomes experienced by patients and service users were predominantly identified. Direct care outcomes, patient safety, research and leadership were core, highlighting the impact on services and practice. The findings place consensus outcomes of advanced practice most strongly in the clinical domain, with a focus on personal outcomes in relation to patient engagement, satisfaction and comprehension, quality of life, physical health status, healthcare provision and patient safety. This represents a comprehensive clinical perspective that encompasses the quality of care provided, and well-being across all three bio-psycho-social domains. The respondents also had a strong sense of working in organisations and with other professionals. Outcomes concerning practice development and research based practice were strongly represented. The respondents identified an impact on knowledge and attitudes, especially in relation to other nurses and midwives. The APs in the survey were less concerned with costs than with the quality of care delivered to patients and service users.

1.5   Validation survey with key stakeholders (phase 1)

The validation survey of 299 stakeholders was conducted with a response rate of 23% (n=69). Across all sections, most outcomes were rated highly and similarly for CSs and APs. However, APs received a higher mean average on most outcomes. Some participants commented that, although they had often rated the answers to outcomes similarly for both CSs and APs, they believed that the depth of knowledge and the scope of practice are distinct for each category. They suggested that they would rate the AP as having more in-depth knowledge, being more research focused, and supporting not only nursing staff but also junior doctors and others in the multidisciplinary team.

| **1.6** | Evaluative survey with APs and CSs (phase 1) |

The evaluative survey had a response rate of 43% (n=261) for the CS group and 56% (n=27) for the AP group. Clinical specialists and advanced practitioners perceived their role as having an important impact on outcomes experienced by service users and other health professionals, and on outcomes for healthcare services. All outcomes in both evaluative surveys achieved high mean ratings with narrow confidence intervals, confirming the importance of and providing evidence of validity for the core outcome data sets. The evaluative survey also identified 290 role specific outcomes across 48 clinical specialist roles and 29 outcomes across six advanced practitioner roles.

| **1.7** | Results of case study (phase 2) |

The analysis of qualitative data in this study revealed four themes – clinical practice, clinical leadership, professional leadership, and research – that applied to both CSs and APs. 'Professional leadership' and 'research', however, occurred more frequently in conversations about APs than CSs, and more data emerged about APs' involvement in these two areas. Quantitative data collected from service users supported mainly the clinical practice theme. Quantitative data from the 'key behaviours' scoresheet and from collation of all types of documentary evidence substantiated these four themes.

Postholders appeared to differ from members of the clinical team in non-postholding sites in the areas of assessment and diagnosis, and referral. They had a positive impact on readmission rates, collaborative decision making, continuity of care, waiting lists/waiting times and workload management, and ensured a smoother transition of patients/clients through the healthcare system. Postholders also developed good relationships with patients/clients because they gave people time, listened to concerns and showed empathy. The areas where postholders were identified as having more of a positive impact, related to developing therapeutic communication, health promotion, education of service user and family, the use of physical and psychosocial interventions, and increased patient/client satisfaction.

There were many similarities between the roles of AP and CS in the clinical practice area, as both roles were very clinically focused. APs and CSs were both seen as having the autonomy to manage their caseloads, which ensured smoother transition of patients/clients through the healthcare system. The quantitative results, however, showed APs working at a higher level than CNSs. CMSs appeared to work usually at a level equivalent to CNSs, but one that was sometimes equal to, or higher than, APs, in particular in respect of their client education and health promotion role, and continuity of care. It should be noted, however, that these results were based on responses from clients attending just three CMSs. APs appeared to be engaging in autonomous decision making to a much greater degree than were CNSs or CMSs.

A key distinction was that APs appeared to be able to both refer and accept referrals, in contrast to CSs, whose ability to make referrals was not evidenced in the fieldnote observations. In particular, there was fieldnote evidence that some healthcare professionals (e.g. physiotherapist, occupational therapist) would not accept referrals from them. The APs were also seen as performing an assessment, screening and diagnostic role, which helped to reduce total visit times and ensure faster throughput of patients or clients. Therefore, the autonomous role of the APs was linked to their success in reducing waiting time as the service user could be seen by one person rather than waiting to be referred to other members of the team.

Postholders, in particular APs, provided effective clinical leadership and influenced practice through formal and informal education, guideline development and service development; through role modelling, mentoring, coaching, motivating, inspiring and empowering team members, and through their active membership of the multidisciplinary team and various committees. This resulted in improved continuity of patient/client care, prompt referral of patients/clients to a relevant specialist, reduced admission rates, and reduced workload of doctors; enhanced the use of evidence-based assessments and interventions by multidisciplinary teams; improved family/carer satisfaction with information, and motivated other healthcare staff to advance their professional knowledge and skills.

APs demonstrated autonomous clinical decision making more often than CSs, and were more frequently sought for their clinical expertise by the multidisciplinary team. They also mentored a wide range of healthcare staff within their own area of clinical practice, including new staff nurses or midwives, undergraduate student nurses or midwives, medical registrars, other therapists and CSs. APs were highly valued for their leadership in developing and benchmarking policy and guidelines against national and international standards. Many of the CSs were developing and strengthening their clinical leadership roles and demonstrated a number of the activities identified as part of the role of the Advanced Nurse Practitioner (NCNM 2005a), such as teaching, consultancy, and practice development.

Postholders, particularly APs, demonstrated professional leadership through leading initiatives in developing education programmes that were accredited by third-level institutions and professional bodies, and shaped and influenced policy through membership of national committees. They advanced practice and service provision through their contribution to national guideline development. The data indicated, however, that they lacked sufficient administrative support and protected research time to achieve within their working day all the specific competencies as outlined by the National Council (NCNM 2008b). For example, all six APs in the study were undertaking research, but all except one were supporting or leading on projects in their own time. In addition to two CNSs and one CMS conducting research and working at an advanced practice level while awaiting accreditation as APs, six other CSs were also involved in research, while the remainder were more heavily involved in leading or supporting audit activities, in line with their role remit.

Both CSs and APs were active in teaching and developing new educational modules locally and nationally. Where APs differed was in their contribution to education in national masterclasses and on occasions at international level. Both CSs and APs contributed to national and international guideline development. In addition, APs set up national fora for networking and sat on high level national committees and some international groups. Overall, advanced practice roles provided a number of strategic advantages such as improved service delivery, faster throughput, reduced costs and a clear governance and accreditation structure.

The results of the economic analysis did not show a difference in costs between CS/AP care compared with usual care given by a multidisciplinary team, when only salaries were used in the comparison. This suggests that the higher salaries payable to CSs/APs may be partially or completely offset by an increase in activity levels. Since no difference in costs was seen, there is a case for introducing more CSs/APs, as the qualitative data and quantitative service user surveys showed clinical, professional and health service benefits.

| 1.8 | Results of interviews with policy makers – contextualising Phase 2 findings |

Most of the 12 participant policy makers spoke favourably about CS and AP roles and praised them for their greater organisational skills, and better continuity of care and follow-up, which were perceived to lead to improved care and compliance. They believed that CSs/APs were often leaders in their field who should receive recognition from managers and colleagues for this role. These participants praised the auditing skills of CSs/APs and expressed a wish for more research activity. There was considerable acknowledgement that lack of resources – including budget cuts, a government applied moratorium on recruitment, and budget holders' interest in immediate monetary savings – hampered development of the CS/AP roles. The important contribution CSs/APs could make to the HSE transformation agenda in the future was emphasised.

| 1.9 | Limitations and strengths of the study |

1.9.1. Limitations

The research in this study was restricted by the extent of available information both from published research and data within the Irish healthcare system. The limitations outlined below provide detail of specific challenges that emerged for the research team:

- There was a lack of good information available from published work, so that the systematic review of reviews was unable to reach a definite conclusion (4.11).

- There were a number of challenges encountered in matching some of the postholding sites with comparable clinical sites that cared for similar patients/clients, where no CSs/APs were employed (7.4.8). This occurred particularly in the field of intellectual disability, and recruiting sufficient numbers of service users from that area to complete the survey was also difficult (7.4.8.4).

- Although 279 service users completed surveys, the numbers were not always sufficient to demonstrate statistically significant results, even though apparent differences were seen; this is discussed further in section 8.2.6.7.

- There were not always hard data such as service audits to corroborate what was observed in practice or what was discussed in the interviews. However, this is perhaps more of a limitation in how data are collected and recorded within the health service than a limitation in this precise methodology.

- It was unfortunate, but unavoidable, that no Advanced Midwife Practitioner could be included in the study as the criterion of "at least 1 year in post" could not be met by any potential participants.

- For the economic analysis, suitable and sufficient data were only available in 20 sites, or 10 matched pairs, whilst this is a limitation it is, however, notably greater in quantity than in many other similar studies across the world. Further discussion of the limitations of the economic section is detailed in section 10.4.

1.9.2. Strengths

1.9.2.1. Phase 1

- The complex mixed-method design chosen for this study lent strength and integrity to all phases of the project.

- The Delphi instrument developed was firmly grounded in:

  - the findings from two comprehensive and detailed reviews

  - the views of key stakeholders (health professionals, CSs/APs and service users) collected in focus groups

  - consensus from three rounds of a Delphi study with the main contributors (the CSs/APs)

  - a comprehensive validation exercise by a group of key stakeholders (other health professionals)

  - a final evaluation by CSs/APs.

- The Delphi method itself provided consensus of expert opinion without the bias that can occur in situations where panel members can be intimidated or inhibited.

- The response rates in the Delphi study of 45% and 64% in Round 1, with higher rates of 76% and 93% in Round 2, and 94% and 96% in Round 3, were excellent.

1.9.2.2. Phase 2

- Simultaneous triangulation of quantitative and qualitative data improved the credibility and validity of the findings.

- Multiple data sources (literature, focus groups, Delphi results, documentary evidence, interviews with clinicians, service users, Directors of Nursing and Midwifery and policy makers, and service user surveys) increased the reliability of the findings.

- The extensive observation periods allowed the research assistants time to add factual and interpretative data to the context in which care was being delivered in both postholding and non-postholding sites.

1.9.2.3. Phase 3

- Interviews with policy makers enabled contextualisation of the data, which helped to ground the findings in the real world.

- All sources of data were combined and integrated – a key outcome of mixed-methods designs.

- The integration of so many types of data, from both the qualitative and quantitative paradigms, increases the validity of the work and strengthens the final conclusion.

<table>
<tr><td>**1.10**</td><td>Analysis and synthesis of findings from all data</td></tr>
</table>

1.10.1. Introduction

Five main sources of data were used in this study; other sources were gathered within them as necessary. These five sources were:

- focus groups with 63 key stakeholders

- Delphi survey with 312 CSs/APs (evaluated and validated after completion by 288 CSs/APs and 69 key stakeholders)

- case study observation (184 hours) and interviews (41 service users/family members/carers, 41 healthcare professionals and 23 Directors of Nursing or Midwifery). Observation included quantitative data in the form of recorded 'key behaviour indicators' and quantified documentary evidence

- case study service user survey (279 surveys). Demographic details of service users who completed surveys are outlined in Appendix 10

- interviews with 12 policy makers

In addition, an economic evaluation was conducted in 20 sites (10 matched pairs).

1.10.2. Outline of synthesis of findings from all data sets

Six tables are used in this section to present outcomes on CSs/APs across the different data sets, with contrasting data given on non-postholding areas where appropriate.

Column one in each table identifies the outcomes from focus groups. The terms used by participants were used as descriptors for each outcome examined. Other comparable descriptors were used by other sections of the study; for example, 'provides more timely care' from the focus groups (Table 1.2, no. 13) was linked with 'speed of access to care/treatment delay/waiting for appointment' from the Delphi survey, and with 'reduced waiting lists' and 'prompt treatment' from the case study.

Column two identifies the outcomes from the Delphi, validation and evaluative surveys.

Column three presents the evidence from interviews in practice, the case study observations as recorded in field notes and documents, and the quantitative 'key behaviours' scoresheet.

Column four presents evidence from service user questionnaires and, for the cost section only, economic analysis. This is for the purpose of clarity, and to present all data together in tabular form, but it should be noted that the economic analysis is an extra source of data for that one outcome alone.

Column five presents evidence from policy maker interviews.

Column six identifies the extent of evidence across the data sets. As service user surveys were applicable only for certain outcomes (e.g., they were not asked about research output, audit, teaching other staff, using evidence based guidelines), there are five sources of data for these outcomes and four for the remainder. Evidence is thus considered very strong if evident in 5/5 or 4/4 sources, strong if 4/5 or 3/4 sources, moderate if 3/5 or 2/4 sources, weak if 2/5 sources. One piece of evidence alone is considered an unsubstantiated outcome.

There were key differences in outcomes between the CS and AP data sets in the first two columns, with more outcomes identified for APs. When an outcome is exclusive to one group, this is indicated by *(AP)* or *(CS)* in the tables. When differences are seen between CS and AP outcomes, these are highlighted in

bold in the text.

The integration of data sets resulted in four discrete areas of outcomes:

- individual patient/client outcomes

- outcomes specific to other healthcare staff

- outcomes specific to the health services

- barriers to implementing the CS/AP role.

Abbreviations for multidisciplinary team (MDT), documentary evidence (DE), evidence-based (EB) and service user (SU) are used throughout the tables and are explained on the first occasion only.

1.10.3. Patient/client outcomes

There were 20 individual patient/client outcomes; of these, there was very strong evidence to support 15, strong evidence for four and no evidence for one (Table 1.2). The outcome for which there was no evidence was *'decreases mortality'.* This was identified initially in the focus groups but there were no data to support it in the Delphi study or case study work. However, it is difficult to provide observational or case study data in relation to this outcome and further work may be required comparing mortality rates of services to determine if this is, or is not, an outcome related to CS or AP practice.

There was strong evidence to support the two outcomes *'increases advocacy'* and *'promotes self-management skills';* there is evidence across all data sets of this second activity, with higher level working seen in the AP Delphi results. Policy makers emphasised the importance of this outcome to the HSE transformation agenda and the need to re-orientate services in the direction of chronic disease management.

Strong evidence also supported *'preparedness for treatment/intervention'.* Evidence from postholding sites in the case study found that patients/clients were prepared for interventions, and service users were given more information and practical advice. Strong evidence was also evident for *'reduces exacerbations of condition'.* The Delphi results supported this outcome and postholding sites in the case study provided evidence of reduced readmission rates. This is an important finding that should result in cost savings for the HSE; hence it would be important to explore this further.

Very strong evidence was presented to support *'earlier diagnosis and intervention',* and there were data from the case study work showing that CSs/APs did perform assessments, diagnose and provide interventions. There was some evidence from the service users' quantitative survey that **waiting times at the first visit in CS services were less than in CMS or AP services,** but, in the service users' comments on the survey, **APs appeared to have the shortest waiting times.** The waiting time for treatment appeared very much lower in AP (12 hours) and CMS (1 hour) sites than in non-postholding sites (239 hours). This may be due to the level of autonomy in the AP and CMS services, which may be facilitating swifter throughput. These data may all depend much on the service specialty, which could explain the differing results.

Very strong evidence supports *'conducts holistic assessment',* which was identified in focus groups and in case study sites where there was evidence of holistic assessment being undertaken. Service users also felt they had more time to discuss problems in postholding sites. There was very strong evidence for the outcome *'decreases morbidity'.* This was divided by the Delphi into a number of outcomes, including symptom management, physical comfort, **pain (AP only)** and *'promotes patient safety'.* Policy makers identified direct care as a key part of the role for CSs and APs. However, they felt that some CS roles had moved from direct care to a more consultative function, where they advised others.

Very strong evidence supports *'increases knowledge'* and *'promotes self-efficacy'* as outcomes for APs and CSs. In the case study, the perception of respondents in postholding sites was that CSs/APs educated service users and families. The survey results showed that service users were given more information in postholding sites, and this difference was significant. *'Adherence to treatment'* was also very strongly supported by a range of evidence, with more service users stating that they followed advice in postholding sites. Very strong evidence of *'preventing complications'* was also presented; observational data provided corroboration of the provision of interventions that prevent complications. Another outcome supported across data sets was *'promotes wellness';* well-being includes all bio-psycho-social domains. *'Promoting health'* was also very strongly supported, with a significant difference in the proportion of service users who had information about healthy lifestyles in postholding and non-postholding sites. Very strong evidence also exists for *'conduit to other services';* this was supported in Delphi and there was evidence in postholding sites in the case study of referral to other health professionals.

'Patient/client satisfaction' was also very strongly supported across data sets. Service users in postholding sites were significantly more satisfied with their care. This is an important outcome in a client focused health service that aims to match services more closely to patient/client expressed needs. *'Patient/client perception of being well cared for'* was very strongly supported across data sets. Observational work in case study postholding sites revealed that CSs/APs provided emotional support and personalised care. There was a difference in service users' perceptions of time given to discuss problems between postholding and non-postholding sites. *'Trust in the practitioner'* was translated in the Delphi work as *'therapeutic relationships'.* Evidence of good relationships was seen across data sets but perceptions of the extent to which practitioners were viewed by service users as open and honest varied; 100% agreed that this was the case with ANP or CMS and 86-87% in CNS and non-postholding sites. *'Family support'* was also very strongly supported across data sets, with more positive findings in postholding sites.

The last outcome for which there was very strong evidence was *'provides more timely care'.* No difference was seen in overall waiting times between postholding and non-postholding sites, in the service users' survey. However, there were significant data from interviews with service users and clinicians stating that waiting times were reduced, in particular with APs (see sections 8.2.2.4, 8.2.2.5, 8.2.5.3). Some policy makers also highlighted that access to care had increased because of AP services (Table 1.2).There was also documentary evidence from two sites of audits of waiting times having demonstrated a reduction due to CS/AP presence (Table 9.1).

There was a significant difference between waiting times for CNS, CMS and AP services. **Waiting times to be seen at the first visit in CNS services were significantly shorter.** This may be because the CNSs appeared to be running a more scheduled service, with appointments, whereas the CMSs and APs were caring for more acute or emergency patients and clients. The service users' comments on the survey gave evidence of shorter waiting times for AP services in the ED, compared with EDs in the non-postholding sites.

Table 1.2: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on individual patient/client outcomes

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
1	Decreases morbidity	Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation) Physical comfort (e.g. nausea, physical discomfort, being settled) **Pain (severity, pain relief) (AP)** Appropriateness of medication regime (e.g. degree to which dosage, type of medications is appropriate) Promotes patient/client safety. Potentially avoidable adverse events are prevented (e.g. misdiagnosis, medication errors, inappropriate treatment)	Uses physical interventions to decrease symptoms (8.2.4.3, 8.2.5.2, 8.2.5.3)	78% of SUs said they received enough treatment to help improve their symptoms (20% said 'not applicable') (8.2.6.5) 76% of SUs attending CSs/APs were very satisfied with the physical care received, compared with 66% of those attending non-postholders (8.2.6.4, Table 8.13) 100% of SUs had confidence in the CS/AP to provide the care they needed (8.2.6, Table 8.8)	Direct care identified as key part of role for CSs/APs (11.2.1, 11.2.2, 11.2.8) Some concerns in relation to CS and the focus of working through others only (indirect rather than direct care) (11.2.2) CSs/APs identified as very safe practitioners (11.2.2)	Very strong evidence (5/5 sources)
2	Decreases mortality	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	No evidence
3	Increased knowledge of service users/family	Communication (non-verbal/verbal skills, SU's expression of preferences) The SU's knowledge (possessing relevant information, understanding of medical condition/treatment, making sense of personal experience) Family/carer adjustment **(family ability to support SU's physical needs, acceptance of illness) (AP)**	Educates SUs and family (8.2.4.2, 8.2.5.2) Carer's satisfaction with information increased (9.2.8.1) Tailored information resources developed by CSs/APs (9.2.1, Table 9.1)	CSs/APs gave SUs and their families more information (8.2.6.3), completely revealed all the danger signals to look out for (64% in postholding sites vs. 44% in non-postholding sites) (8.2.6.3)	Policy makers were clear that knowledge is enhanced and this makes a difference. Also comments made on the increased safety of care due to continuity (11.2.2)	Very strong evidence (5/5 sources)
4	Promotes self management	The person's knowledge (e.g. possessing relevant information, understanding of medical condition/treatment, making sense of personal experience) **Physical self care capacity** (e.g. ability to manage general needs or illness-specific needs) **(AP)** **Personal independence in society** (e.g. ability to manage daily affairs, everyday functioning in home/community) **(AP)**	Teaches self-management (8.2.4.2, 9.3.4)	CSs/APs gave SUs more information about self help and support groups (38% vs. 33%) (8.2.6.3) and how to maintain a healthy lifestyle (51% vs. 44%) (8.2.6.3) Significantly more SUs in postholding sites said the clinician supported them to manage their own condition (77% vs. 64%) (8.2.6.3); more said they did not need information (40% vs. 30%) (8.2.6.3)	Policy makers want an increased focus on community and chronic disease management in line with HSE transformation agenda (11.2.8). No mention of CSs/APs promoting self-management, although that could be due to lack of practical experience of CS/AP work	Strong evidence (4/5 sources), with higher level working seen in the AP Delphi results

Table 1.2: (continued)

		Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
5	Adherence to treatment	Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	Evidence of improved medication compliance (8.2.4.2, 8.2.5.3) and adherence to treatment (8.2.5.2)	No difference seen between sites in SUs views of following the advice given to them (8.2.6.5), but 98% attending a CS/AP said they did follow the advice given to them (8.2.6.5)	Some mention of patient compliance due to continuity of care (11.2.2)	Very strong evidence (5/5 sources)
6	Earlier diagnosis and intervention	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Assessment and diagnosis conducted by CSs/APs (8.2.1.1) **Waiting time for treatment appeared lower in AP and CMS sites than in CNS or non-postholding sites (8.2.3.5)**	Waiting times in CS/AP services were said to be significantly less (8.2.2.4) **Waiting times for first appointment less for CS than AP (8.2.3.5)**	Some evidence that earlier diagnosis contributes to swifter access to services (11.2.2) Policy makers suggest that links within community would make this more likely (11.2.8)	Very strong evidence (5/5 sources)
7	Reduces exacerbations of condition	Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	Reduced readmission rates and re-emergence of acute symptoms (8.2.2.1, 8.2.4.2, 8.2.5.2, 8.2.5.3, 9.2.2)	82% said the CS/AP made a positive difference to their health and well-being (Table 8.13)	No evidence stated, but raised the need to have integrated care, hospital and community functioning together. Funding mechanism at present makes this difficult (11.2.8)	Strong evidence (4/5 sources)
8	Prevents complications	Maintenance of safe environment (e.g. risks in the clinical environment to patient/client and others, safe home environment)	Provides education (8.2.4.2, 8.2.5.2) and interventions that prevent complications (8.2.4.3, 8.2.5.3)	More CSs/APs told SUs about medication side-effects (44% vs. 40%) (8.2.6.3)	Evidence and knowledge-based care used (11.2.2), which improves safety (11.2.3)	Very strong evidence (5/5 sources)
9	Conducts holistic assessment, identifies problems beyond those with which client presented	Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc, are appropriate)	Evidence of holistic assessment (8.2.1.1, 8.2.2.3, 8.2.4.2) Evidence of extra problems identified (8.2.4.2) Holistic assessment not so clear in non-postholding sites (8.2.4.3)	More SUs in postholding sites were given health information and extra advice (8.2.6) More SUs had sufficient time to discuss their problems in postholding sites (83% vs 69%) (8.2.6.5)	Policy makers note this as a key element of advanced practice (11.2.2)	Very strong evidence (5/5 sources)

Table 1.2: (continued)

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
10	Conduit to other services/ referral	Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc, takes place)	Referral to other healthcare professionals (8.2.1.2) Referral from other professionals, **mainly to APs** (8.2.1.2) Co-ordination of multidisciplinary team (9.2.1.1)	Data not collected	Some evidence of referral by CSs/APs to other services (11.2.2)	Very strong evidence (4/4 sources)
11	Promotes wellness (averting problems)	Quality of life – Psychological (psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image) – Physical (physical well-being: pain, mobility, physical comfort) **greater knowledge (validation survey) (AP)** Well-being across different domains (e.g. bio-psycho-social domains, person's needs in multiple areas of functioning) Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	Provides information, support and education of service users, and clinics (8.2.4.2, 8.2.4.3, 8.2.5.2)	CSs/APs gave all the information SUs needed, including extra information, and more frequently gave information on danger signals (8.2.6.3)	Some evidence (11.2.3)	Very strong evidence (5/5 sources)
12	Promotes health	Health promotion beliefs (e.g. beliefs about healthy lifestyle, acceptance of behaviour change advice, self directed on health promotion needs)	Provides information, support and education of SUs, and clinics (8.2.4.2, 8.2.4.3, 8.2.5.2) Tailored information resources developed by CSs/APs (9.2.1, Table 9.1)	CSs/APs gave information on danger signals (64% vs. 44%) Significantly more SUs in postholding sites said the CS/AP gave them information on how to maintain a healthy lifestyle (51% vs. 44%) (8.2.6.3)	Some evidence of this (11.2.2)	Very strong evidence (5/5 sources)
13	Provides more timely care	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Reduced waiting lists (8.2.2.4, 8.2.2.5) Prompt treatment (8.2.5.3) Waiting time reduced by CS/AP, some believe **APs reduced it more** (8.2.2.4) DE of decreased waiting time in 2 sites (Table 9.1)	Waiting times in CS/AP services were said to be significantly less (8.2.2.4) Waiting times **for CS services were less than for CMS or AP** (8.2.3.5)	Policy makers gave some evidence in some services that waiting lists reduced and access increased (11.2.2)	Very strong evidence (5/5 sources)

Table 1.2: (continued)

		Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
14		Patient/client preparedness for intervention	Appropriateness of interventions (degree that medical/nursing/ midwifery procedures, interventions and treatments are appropriate) Preparedness for treatment (SU expectations for surgery, awareness of treatment side-effects)	Prepared for interventions (8.2.5.2)	SUs were given more information and practical advice in postholding sites (8.2.6.3) SUs said CSs/APs gave more explanation of why they needed assessments (66% vs. 50%) (8.2.3.3)	No evidence	Strong evidence (4/5 sources)
15		Patient/ client satisfaction	Patient/client satisfaction with information (e.g. satisfaction with professional advice) Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)	Good relationships (8.2.5.1), better knowledge and health (8.2.5.2, 8.2.5.3) Decreased litigation (9.3.4) More SU satisfaction surveys used by CSs/APs (9.2.1, Table 9.1)	CSs/APs spent longer with clients (8.2.3) Higher rates of satisfaction in postholding sites (75.5% vs. 65.8%) (8.2.6.4) 40% of SUs answering the survey saw a positive difference in care given by CS/AP compared with care given by other members of MDT (8.2.6.7)	Policy makers believed there was an impact on patient/client satisfaction, and made comments on decreased litigation (11.2.2)	Very strong evidence (5/5 sources)
16		Increases patient/client perception of being well cared for	Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	CSs/APs provided emotional support (8.2.4.3) and personalised care (8.2.5.3)	Satisfaction increased in postholding sites (8.2.6) More SUs had sufficient time to discuss their problems (83% vs. 69%) (8.2.6.5)	Some evidence of client satisfaction (11.2.1)	Very strong evidence (5/5 sources)
17		Increases advocacy – SU wishes are known, respected	Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)	Evidence of acting as an advocate (8.2.1.2, 8.2.4.4, 9.2.5, 9.2.6)	More SUs had sufficient time to discuss their problems (8.2.6.5), particularly when attending CMSs (Table 8.14)	Policy makers noted the improvement in services (11.2.1), but no mention of advocacy	Strong evidence (4/5 sources)
18		Added value outcome: trust in practitioner, feeling known	Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility) Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which person's voice is heard)	Develops good relationships with SUs (8.2.4.1) Clients trust them (8.2.5.1), feel comfortable with them (8.2.5.1, 8.2.5.3)	CSs/APs spent longer with clients (33% for >31 minutes vs. 14% in non-postholding sites) (8.2.3.6) CSs/APs included service users in all communications (93% vs. 76%) (8.2.6.2) 100% attending an AP or CMS said "Yes, definitely, the clinician was honest and open with me" vs 86% attending a CNS and 87% a non-postholding site (8.2.6.6)	Some positive comments re added value (11.2.1)	Very strong evidence (5/5 sources)

Table 1.2: (continued)					
	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
19	Promotes self-efficacy/self-esteem	Shared decision making (e.g. patient/client involvement in decision-making, involvement of family) Self-esteem (e.g. person's opinion of self, body image, positive/negative self beliefs) Mood (e.g. postnatal depression, feeling down, depression) Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	Provides education, self-help groups (8.2.4.2)	SUs and families were given all information needed in postholding sites (50% vs. 46%) (8.2.6.3)	Many policy makers believed that expansion into chronic disease management was difficult because of structures (11.2.8)	Very strong evidence (5/5 sources)
20	Provides family support	Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment) Family/carer quality of life (e.g. degree of carer strain, impact of illness on family well-being) **(AP)**	Carer's satisfaction with information increased (9.2.8.1)	Fewer family members required information or support in postholding sites (51% vs. 36%) (8.2.6.3), and families were given more information (8.2.6.3)	Policy makers agreed this was an important element and there was some evidence of it occurring (11.2.1)	Very strong evidence (5/5 sources)

1.10.4. Outcomes specific to other healthcare staff

There were 11 outcomes specific to other healthcare staff: very strong evidence for nine, strong evidence for one, and moderate evidence for one (Table 1.3). *'Provides career advice'* was supported by the case study work where advice on career opportunities was noted, but the evidence is moderate only. *'Increases work satisfaction and retention'* was supported by strong evidence but related to the AP role only, and would need to be explored further.

Very strong evidence was found to support the following outcomes:

- reduces potential to de-skill junior staff

- increases knowledge and skill of other care providers

- development of services

- makes staff feel well supported

- promotes positive attitudes **(very strong for AP, strong for CS)**

- provides role model

- motivates staff

- contributes to more competent staff

- empowerment of other staff **(very strong for AP, strong for CS).**

Case study data from postholding sites revealed evidence of CSs and APs educating staff and developing new services, and policy makers gave many examples of service developments led by APs or CSs. The concerns expressed by a few participants regarding CSs/APs de-skilling junior staff were not borne out by the data. Across data sets there was very strong evidence of APs and CSs engaging in staff education, and being a resource. Policy makers differentiated between CS and AP roles, suggesting that, although both roles provided clinical leadership, **APs provided more leadership, and at a higher level.**

Table 1.3: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to other healthcare staff

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
1	Increases knowledge and skill of other care providers	Achievement of new educational intervention for staff nurses/midwives/other professionals Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience) Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, junior doctors, occupational therapists, etc)	Educates (9.2.7.1) and motivates (9.2.8.2) staff More education of MDT by CSs/APs (20 CS/AP sites compared with 5 non-postholding sites) (9.2.1, Table 9.1)	Some policy makers were clear that CS/AP roles do contribute to better knowledge across services, and that they educate many other healthcare staff (11.2.3)	Very strong evidence (4/4 sources)
2	Empowerment of other staff	Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition)	Educates staff to empower them for role expansion (9.2.7.1, 9.2.8.1, 9.2.8.2), brings staff along with them (9.2.11) (CS/AP but **AP appears to act at a higher level**)	Leadership and teamwork noted by policy makers as **AP outcome** (11.2.4)	**Very strong evidence** (4/4 sources) **for AP** **Strong evidence** (3/4 sources) **for CS**
3	Makes staff feel supported	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)	Seen as a resource by the MDT (9.2.1.1)	Evidence of their usefulness as a resource for staff (11.2.2.)	Very strong evidence (4/4 sources)
4	Development of services	Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment)	Evidence of developing new patient/client services (9.2.5) 11 CS/AP sites had developed new initiatives vs. 1 non-postholding site (9.2.1, Table 9.1)	All policy makers gave examples of service development led by APs and some by CSs (11.2.1)	Very strong evidence (4/4 sources)
5	Promotes positive attitudes	Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development) Openness to innovation – Healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team) Other nurses' or midwives' attitudes to their work (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights) **(AP)**	Evidence of contribution to staff development and motivating staff to develop themselves (9.2.8.1, 9.2.8.2)	**Difference between AP and CS roles,** evidence of CS contribution not as clear, but examples were given of teaching and encouraging staff (11.2.3, 11.2.4)	**Very strong evidence** (4/4 sources) **for AP** **Strong evidence** (3/4 sources) **for CS**
6	Increases work satisfaction and retention **(ANP only)**	Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role)	Some evidence of AP's effect on other staff's retention (9.2.8.1)	No evidence	**Strong evidence** (3/4 sources) **for AP only**

Table 1.3: (continued)

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
7	Provides role model	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care). Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development)	CSs/APs led guideline or policy development (9.2.3). Acted as role models in autonomous clinical decision making **(APs more often)** (9.2.9, 9.2.10)	Policy makers suggested this was very important for younger staff and provided evidence of strong clinical leadership (11.2.3) and work on guideline development (11.2.3)	Very strong evidence (4/4 sources)
8	Contributes to more competent staff	Use of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to EB guidelines). Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to EB practice) Achievement of new educational intervention for peers (e.g. education on assessment, or management, of a condition) Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care) Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience) Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)	Educates staff (9.2.7.1, 9.2.8.1, 9.2.8.2) Demonstrated clinical leadership (9.2) More education of MDT by CSs/APs (20 CS/AP sites compared with 5 non-postholding sites) (9.2.1, Table 9.1) Guidelines and updating of guidelines seen in almost all CS/AP sites (9.2.1, Table 9.1)	Policy makers clear that this is an outcome (11.2.3, 11.2.4)	Very strong evidence (4/4 sources)
9	Provides career advice	No evidence	Advises other staff on further education (9.2.8.2)	No evidence	Moderate evidence (2/4 sources)
10	Reduces potential to de-skill junior staff (medical & nursing)	Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience). Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)	Some concern re de-skilling of other staff (8.2.2.5, 9.2.2, 9.2.6) but strong acknowledgment also of their staff education input (9.2.1.1, 9.2.7.1, 9.2.8.1, 9.2.8.2, 9.3.2)	Some policy makers concerned that there is the potential to de-skill staff nurses, related to CS role only (11.2.1, 11.2.2), but no proof. Evidence given of teaching junior medical and nursing/midwifery staff (11.2.3)	Very strong evidence (4/4 sources) that they educate and develop staff
11	Motivates staff	Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development) Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role)	Motivated and empowered staff (9.2.4, 9.2.6, 9.2.8.1, 9.2.8.2)	Some evidence that CSs/APs brought other staff along with them and stimulated developments (11.2.3)	Very strong evidence (4/4 sources)

1.10.5. Outcomes specific to the health services

1.10.5.1. Introduction

There were 21 outcomes specific to the health services, with very strong evidence for 13, strong for six, moderate for one, and no evidence for one. The outcomes are grouped into three main areas: service delivery, service development and service quality. Those that relate to service delivery (Table 1.4) are:

- waiting times
- throughput
- accessibility
- length of stay
- continuity of care
- readmission rates
- reduces costs
- reduces criminality
- improves communication across the MDT
- collaboration.

Those that relate to service development (Table 1.5) are:

- policy development
- strategic planning
- service expansion
- potential to work across hospital and community
- community knowledge/support/advocacy groups
- leadership.

Those that relate to service quality (Table 1.6) are:

- conducts audit
- expert advice
- implements research evidence
- promotes evidence based practice
- conducts research.

1.10.5.2. Service delivery

'Reduces criminality' was the outcome with no evidence, which had come from the initial focus groups. It is possible that this outcome may be seen from CS/AP practice in the mental health or intellectual disability areas, but it was not seen as a generic finding. Moderate evidence supported *'leads to shorter*

length of stay'. Strong evidence supported:

- reduced readmissions

- reduced costs.

There was very strong evidence to support:

- decreased waiting times

- increased throughput

- increased continuity of care

- increased accessibility

- increased communication with the MDT

- increased collaboration.

These outcomes were associated with the AP role and demonstrate the potential of APs to impact on service delivery targets. There was some evidence, however, from the service users' survey that **waiting times were less in CS services when compared to AP services.** In the service users' comments on the survey, **APs appeared to have the shortest waiting times,** however. The waiting time for treatment appeared very much lower in AP (12 hours) and CMS (1 hour) sites than in non-postholding sites (239 hours) (Table 8.4). This may be due to the level of autonomy in the AP and CMS services, which may be facilitating swifter throughput.

Table 1.4: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service delivery

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
1	Decreases waiting times	Waiting times (e.g. prompt appointments, waiting times for triage) **(AP)**	Reduces waiting times and waiting lists (8.2.2.4, 8.2.2.5)	**Waiting times within CS** services were **significantly less than AP/CMS** services (8.2.3.5) but **waiting times reduced more in AP services,** according to SU comments (Table 8.16)	Policy makers gave some evidence in some services that access increased and waiting lists reduced (11.2.2)	Very strong evidence (5/5 sources) for both CS and AP
2	Increases throughput	Waiting times (e.g. prompt appointments, waiting times for triage) **(AP)**	Increases throughput (8.2.2.5)	Data not collected	**Policy makers identify this within AP role** (11.2.2)	**Very strong evidence** (4/4 sources) for **AP** **Strong evidence** (3/4 sources) for **CS**
3	Decreases readmission rates	Appropriateness of initiating/ending healthcare episodes (e.g. degree to which appropriate admission, discharge, etc, takes place)	Reduced readmission rates (8.2.2.1, 8.2.4.2, 8.2.5.2, 8.2.5.3, 9.2.2)	Data not collected	No evidence	Strong evidence (3/4 sources)
4	Reduces criminality (CNS only)	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	No evidence
5	Leads to shorter length of stay	No evidence	Some evidence of shorter lengths of stay (9.2.8.1)	Data not collected	No evidence	Moderate evidence (2/4 sources)
6	Improves continuity of care/carer	Continuity of care (e.g. consistency in patient/client interactions with same staff member)	Continuity of care and carer (8.2.2.3)	No difference seen in continuity of care (8.2.3) but more SUs attending CSs/APs were given sufficient time to discuss their problems (8.2.6.5) and other measures of continuity were high (8.2.3). **CMS spent more time with SUs than AP or CS** (Tables 8.14, 8.16)	Policy makers clear that this is an outcome (11.2.2)	Very strong evidence (5/5 sources)
7	Increases accessibility	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Reduced waiting times (8.2.2.4, 8.2.2.5) Improved access to specialised health services (9.2.8.1)	**Waiting times for first visit in CS** services were **significantly less than in AP/CMS services** (8.2.3.5)	Swifter access in some services (11.2.2)	Very strong evidence (5/5 sources)
8	Improves communi-cation across MDT	Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)	Improving communication in the MDT (9.2.1.1, 9.2.2, 9.2.11). In 7 sites, CSs/APs coordinated the MDT (Table 9.1)	Data not collected	Policy makers clear that there is evidence of this (11.2.1)	Very strong evidence (4/4 sources)

Table 1.4: (continued)

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
9	Increases collaboration among care providers	Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)	Collaborative decision making in MDT (8.2.2.2), co-ordination of MDT (9.2.1.1). Referral to other professionals (CS/AP) and from other professionals, mainly to APs (8.2.1.2)	No difference seen in collaborative decision making (8.2.3.3) but 96% said care was delivered in a planned and coordinated manner (8.2.3.3)	Policy makers clear that there is evidence of this (11.2.1)	Very strong evidence (5/5 sources)
10	Reduces costs	Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc, are appropriate)	Efficient use of resources (8.2.2.4)	Overall, no difference found in costs between postholding and non-postholding matched sites, when comparing staff costs only (Chapter 10)	Some evidence that policy-makers believe CS/AP services to be cost-effective (11.2.6) due to increased clinical effectiveness	Strong evidence (4/5 sources) on the cost-effectiveness of roles. Evidence from 1 source for no differences in salary costs

1.10.5.3. Service development

Strong or very strong evidence was gathered for outcomes related to service development. Contribution to service development, strategic planning and guideline development was evident across data sets.

Strong evidence was available for:

- potential to work across hospital and community.

There was very strong evidence for:

- contributes to policy development, guidelines
- contributes to strategic planning of services
- potential for service expansion e.g. nurse-/midwife-led clinics
- increases community knowledge/support/advocacy groups
- practises leadership.

There was very strong evidence that CSs and, in particular, ANPs *'practise leadership'*. The ANPs led initiatives in developing education programmes that were accredited by third-level institutions and professional bodies; shaped and influenced policy through their membership of national committees and through written submissions; and further advanced practice and service provision through their contribution to national guideline development (Table 1.5).

1.10.5.4. Service quality

There was very strong evidence for:

- promotes evidence-based practice
- implements research evidence.

Strong evidence was seen for:

- provides expert clinical advice
- conducts audit
- conducts research.

The standard of evidence for these last two outcomes is particularly high, as it was gathered from case study sites and includes examples of actual audits and of research and publications. **The outcome 'conducts research' was associated with APs mainly** but it was also noted that the volume of research was limited (perhaps understandably, given that only six APs were included in the case study). Issues such as support, team research and links with higher education were raised as suggestions to improve research output. It is clear from the data that **leadership and research were outcomes most associated with AP roles,** but there was also strong evidence that the amount of, and barriers to, research output was an area of concern (Table 1.6).

Table 1.5: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service development

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
1	Contributes to policy development, guidelines	Use of clinical guidelines (e.g. staff nurse or midwife awareness and uptake of guidelines, staff access to evidence-based guidelines) Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based guidelines)	Develops guidelines at national/international level (9.3.1) DE of guidelines in 21/23 CS/AP sites (9.2.1, Table 9.1). DE of policy development in 6 CS/AP sites, compared with 1 non-postholding site (9.2.1, Table 9.1)	Policy makers clear that this is a key element of both roles and gave clear examples of how CSs/APs were leading this development (11.2.3, 11.2.4)	Very strong evidence (4/4 sources)
2	Contributes to strategic planning of services	Achievement of new educational intervention – patient/SU (e.g. information leaflets on condition, education on self monitoring of condition) Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)	Involved in national committees/advisory groups (9.3.1). Sets up national fora (9.3.3) Evidence of service planning in 11 CS/AP sites (1 in non-postholding site) (9.2.1, Table 9.1). CSs/APs contributed to 41 committees (4 in non-postholding sites) (9.2.1, Table 9.1)	Policy makers clear about this as a key outcome (11.2.4) although evidence not clear in all services	Very strong evidence (4/4 sources)
3	Potential for service expansion e.g. nurse-/midwife-led clinics	Nursing/midwifery staff understanding of CS role (e.g. knowledge about specialist role, integration of specialist role in unit) Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)	Takes on medical workload (8.2.2.5, 9.2.2). Runs clinics (8.2.2.5, 8.2.4.3)	Policy makers clear – many opportunities for expansion, nurse-/midwife-led clinics (11.2.8), chronic disease (11.2.8), new hospital structures and midwifery practice (11.2.7)	Very strong evidence (4/4 sources)
4	Increases community knowledge/ support/advocacy groups	Quality of life – social (social well-being inclusive of relationships with social network, friends and family)	Some evidence of representing healthcare issues within the public arena, visiting support groups and teaching in schools (9.3.2)	Evidence in some services only (11.2.8)	Very strong evidence (4/4 sources)
5	Potential to work across hospital/ community	Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)	No evidence	Policy makers deemed this essential, want an increased focus on community and chronic disease management in line with HSE transformation agenda (11.2.8)	Strong evidence (3/4 sources)
6	**Practises leadership (AP mainly)**	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)	Mentors (9.2.7.2, 9.2.8.2) and supports staff (9.2.1.1), advice sought on clinical decisions (9.2.1.1), encourages networking (9.2.9, 9.2.10). Educates at national and international level **(AP mainly)** (9.3.2). Enhances the profile of nursing and midwifery (9.3.3)	**Evidence of this in AP role** (11.2.3) and evidence of education at national level (11.2.4)	Very strong evidence (4/4 sources)

Table 1.6: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service quality

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
1	Implements research evidence	Research awareness in clinical practice (e.g. knowledge of research process in your unit, team or ward) Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice) Achievement of new clinical initiatives (e.g. implementation of new wound dressing, new assessment procedure)	Uses evidence-based tools (9.2.4). Implements research-based practice (9.4.1)	Policy makers identify this as essential, and provide good evidence of implementation occurring (11.2.2)	Very strong evidence (4/4 sources)
2	Promotes evidence-based practice	Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice) Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines)	Uses best practice and evidence-based assessment tools (9.2.4). Clear evidence of use of research-based practice (9.2.1.2, 9.2.3) Evidence-based guidelines in 21/23 CS/AP sites (9.2.1, Table 9.1)	Clear evidence of this (11.2.3)	Very strong evidence (4/4 sources)
3	No evidence	Provides expert clinical advice	Clearly seen as an expert resource (9.2.1.1), educator (9.2.7.1, 9.2.8.1) and mentor (9.2.7.2, 9.2.8.2)	Clear evidence that CSs/APs are seen as expert resource personnel (11.2.2) and educators (11.2.4)	Strong evidence (3/4 sources)
4	Conducts audit	No evidence	Clear evidence of the conduct of audits (9.2.3), especially by CSs (9.4.2) All CS/AP sites had documented audits (12/23 non-postholding sites) (9.2.1, Table 9.1)	Evidence in many services of this (11.2.5)	Strong evidence (3/4 sources)
5	Conducts research	Research activity level in clinical practice (e.g., involvement of your unit in research, research collaboration with other units, developing a research project) **(AP)**	Research conducted **by all 6 APs and 9 CSs** (even though it is not expected of them) (9.4.3) DE showed 15 CSs/APs conducting research compared with 7 clinicians in non-postholding sites (5 were medically-led projects) (9.2.1, Table 9.1)	Many policy makers raised concern re low output of research, but cited some publications by CSs/APs (11.2.4) Perhaps not aware that this was not part of the CS role. Suggested the need for protected time, collaborative research and links with higher education (11.2.5).	Very strong evidence (4/4 sources) **that research is conducted by APs, and a small amount of research is conducted by 9 CSs (53%)**

1.10.6. Barriers to implementing the role

There was moderate evidence to show that CSs/APs lacked administrative support, resources and protected time for research (Table 1.7), which prevented them from fulfilling all aspects of their role. In the field of maternity care, a previous study had shown some division in the midwifery and obstetric professions regarding the appropriateness or otherwise of the introduction of CMSs and, in particular, AMPs (NCNM 2004). The arguments against such roles are aired in section 9.5 and also outlined by one of the 12 policy maker participants (Table 1.7).

In other countries, the medical profession is seen to have raised some barriers to the introduction of CS/AP posts. The policy makers in this study warned that good communication was necessary in the preparation period. This study, however, shows unanimous support for such posts from consultants and senior doctors in the AP postholding sites, who highly valued the APs with whom they were working. This may be as a result of the National Council's approval and accreditation process whereby the hospital site has to prepare for the introduction of CS/AP roles, with the involvement of all clinicians (2008b, c).

Table 1.7: Barriers to implementation of the role

	Evidence from case study: interviews, field notes and documentary evidence	Evidence from policy maker interviews	Evidence rating
1	Needs administrative support (8.2.2.5)	Policy makers noted the lack of resources to support CSs/APs (11.2.6)	Moderate evidence (2/4 sources)
2	Lack of time and resources (9.2.11), particularly to conduct research (9.4.3)	Policy makers noted the lack of protected time for CSs/APs to conduct research (11.2.5)	Moderate evidence (2/4 sources)
3	Strong support was seen from doctors and other clinicians for CS/AP roles (8.2.1.1, 8.2.2.3, 8.2.2.5)	Challenges to the introduction of the roles were outlined (11.2.7), and remedies suggested	Moderate evidence (2/4 sources)
4	Divided opinions on the benefits/need for advanced midwifery practice as midwives described as already at that level (9.5)	Similar opinions expressed by one policy maker (11.2.1)	Moderate evidence (2/4 sources)

1.10.7. Differences between ANP and CNS/CMS roles

Throughout the study, a number of differences were seen between the roles of the AP, CNS and CMS, which is understandable due to the specific core concepts and expectations for each role. Many of these differences are related to the 'autonomy' concept of the AP role, which would, for example, facilitate a higher level of case management and physical care and treatment. The sources of these data have been integrated in Table 1.8, and show differences in eight main areas.

Of these, APs rated very highly on:

- physical care and treatment

- case management (diagnosis, intervention, referral)

- leadership and empowerment of other staff

- conducting research.

In addition, they were the only ones who rated *'job satisfaction'* as an important outcome.

APs and CMSs both rated very highly in:

- communication and interpersonal relations

- increasing self management of patients/clients.

CMSs rated very highly in:

- improving continuity of care and carer.

There were contradictory data as to whether CSs or APs reduced waiting times the most. Waiting time is a good example of an outcome that would be very susceptible to change, depending on the specialty area. For instance, there was good documentary evidence in the postholding emergency department that the ANP had reduced waiting times for patients, but this finding did not occur in some other settings. In the mental health field, the item asked in the service users' survey regarding how well postholders or clinicians had explained tests, x-rays and assessments to them would not have received a high rating as they usually need few, if any, such tests. Similar variations can be seen in many other clinical areas and, for this reason, caution must be exercised in interpreting and using these data. However, it is apparent that, overall, APs do rate very highly in the areas of leadership and research, and in higher level physical and psychological care compared with CSs. CMSs rate very highly in increasing the self management of patients/clients and in communication, clinical and practice based areas, and particularly highly in improving continuity of care and carer (Table 1.8).

Table 1.8: Integrated data sources showing differences between ANP, CMS and CNS roles					
Role	Evidence of differences from focus-group outcomes	Evidence of differences from Delphi outcomes/ validation and evaluative surveys	Evidence of differences from case study: interviews, observation	Evidence of differences from service users' (SUs) questionnaires	Evidence of differences from policy maker interviews
Communication and interpersonal relations				**APs scored more highly than CSs in some aspects of communication,** being open and honest, explaining medicines, treating SUs with respect (Table 8.14) **CMSs (92%) and APs (77%) explained more completely** why SUs needed tests than **CNSs (51%).** Similar results re danger signals (Table 8.2) and time to discuss problems (Table 8.5)	
Physical care, treatment		Pain (severity, pain relief) **(AP only)** Quality of life – physical and best practice in clinical service delivery, greater knowledge (validation survey) **(AP only)**		**APs scored more highly than CSs in some aspects of giving sufficient treatment to improve symptoms** (Table 8.14)	
Improves continuity of care/carer				CMSs spent more time with SUs than AP or CS (Tables 8.14, 8.16). **More SUs attending CMS noticed a difference in care given** (Table 8.15)	
Improves access, efficiency		**Waiting times** (e.g. prompt appointments, waiting times for triage) **(AP only)**	Waiting time reduced by both CSs/APs, some of the opinion that **APs reduced it more** (8.2.2.4)	Waiting times for first visit to **CS services were significantly less than in AP/CMS services** (8.2.3.5) (Table 8.4), but **waiting times reduced more in AP services,** according to SU comments (Table 8.16) Waiting time for treatment appeared lower in **AP and CMS sites than in CNS or non-postholding sites** (8.2.3.5)	
Increases self-management of patients/clients		Assisting SUs to develop physical self care capacity **(AP only).** Increasing SUs' personal independence in society (e.g. ability to manage, everyday functioning) functioning in home/community) (AP)		**CMSs scored more highly than APs and CNSs in explaining why SUs needed specific tests, and explaining the results to them** (Table 8.14) **and in teaching, advising, being easy to understand** (Table 8.16)	
Case management, diagnosis intervention, referral			Referral from MDT **(mainly APs)** (8.2.1.2) Demonstrated autonomous clinical decision-making **(APs more often)** (9.2.9, 9.2.10)		Policy makers identify that **APs increase throughput** (11.2.2)

Table 1.8: (continued)

Role	Evidence of differences from focus-group outcomes	Evidence of differences from Delphi outcomes/validation and evaluative surveys	Evidence of differences from case study: interviews, observation	Evidence of differences from service users' (SUs) questionnaires	Evidence of differences from policy maker interviews
Leadership, empowerment of other staff, promotes positive attitudes	**Practises leadership (ANP mainly)**	**Other nurses' or midwives' attitudes to their work** (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights) **(AP)** **Supports junior doctors as well as nurses/midwives (validation survey) (AP)**	Educates at national and international level **(AP mainly)** (9.3.2). Educates staff to empower them (9.2.7.1, 9.2.8.1, 9.2.8.2) (CS/AP, **but AP appears to act at a higher level**) Clinical expertise sought by MDT, **APs particularly** (9.2.7.2)		**Evidence of this in AP role** (11.2.3) and evidence of education at national level (11.2.4) Leadership and teamwork noted by policy makers as **AP outcome** (11.2.4), **evidence of CS contribution not as clear** (11.2.3, 11.2.4)
Conducts research		**Research activity** in clinical practice (e.g., involvement in research, research collaboration, publishing, developing a research project) **(AP)**	Research conducted **by all 6 APs and 9 CSs (53%)** (9.4.3)		
Job satisfaction	Increases work satisfaction and retention **(ANP only)**		Some evidence of **AP's effect** on other staff's retention (9.2.8.1)		

<table>
<tr><td>**1.11**</td><td>Discussion of findings</td></tr>
</table>

1.11.1. Patient/client outcomes

Fifteen patient/client outcomes were clearly identified as part of the role of CSs/APs, with very strong support from the various types of data. Strong support was evident for a further four outcomes also. The number of outcomes, and number of tasks and behaviours included under each patient/client outcome heading, illustrates the broad clinical focus ascribed to the CS/AP roles in Ireland (NCNM 2008b, c, d), in line with some (but not all) other countries (Woods 1997, Henderson 2004).

Care of service users through physical and psychosocial interventions, with early diagnosis and holistic assessment and appropriate referral to other clinicians, featured strongly. These findings concur with those of other studies, notably Bourbonniere and Evans (2002), who describe APs demonstrating high levels of expertise in the assessment, diagnosis and treatment of complex health problems of individuals, groups and communities. Kring (2008) and Carryer et al (2007) speak of CSs/APs as "expert" practitioners and "dynamic" practitioners, respectively; based on the SCAPE data, these titles could be applied to the CSs/APs of Ireland. It is clear that these practitioners provide added value, and that their contribution is vital to support the chronic disease, patient-centric model of care proposed by the HSE (HSE 2006b).

Evidence in the SCAPE study points towards positive outcomes as a result of CS/AP interventions, such as decreases in morbidity, reduced exacerbation of symptoms, and reduced complications. Laurant et al's (2005) systematic review of substitution of doctors by nurses in primary care showed similarly that appropriately trained nurses could produce as high quality care as primary care doctors, with similar good health outcomes for patients. Bonsall and Cheater's (2008) overview of the impact of advanced practice roles also found that nurses working in advanced primary care roles provided safe and effective care, and that patient satisfaction was generally high. Although the literature reports some evidence of decreased mortality in certain client groups (McCorkle et al 2000), there were no data apparent from the SCAPE study to show this effect.

The evidence from the systematic reviews included in the SCAPE study (section 4.11) suggests that, in agreement with these findings, nurse-led interventions have a similar impact to usual care on the majority of clinical outcomes across various client groups and clinical conditions. The review found that psychological outcomes of satisfaction, anxiety and depressive symptoms were all improved for nurse-led care, and the SCAPE findings concur with that. Such findings are particularly important in the mental health field, where the care provided by CSs/APs has been shown to make a difference (NCNM 2004, 2005a). Midwife-led models of care were found, in the review, to have significant benefit across both clinical and psychological outcomes. Importantly, there is no evidence of harm associated in the international literature with nurse or midwife-led interventions. The SCAPE study, similarly, found no instances of negative influences of CS/AP care on patient/client outcomes in any of the data sources. In addition, there was evidence of decreased litigation, a finding previously noted in other evaluations (NCNM 2005a).

Education of patients/clients has been previously noted as an important function of the CS role (NCNM 2004), and an important part of the AP role also (NCNM 2005a). The special health promotion and education skills of the CSs/APs in the SCAPE study led to increased knowledge of service users, resulting in improved adherence to treatment, increased wellness and a greater level of self-efficacy and support, similar to the findings of comparable studies in the UK (Gerrish et al 2007). Considerable patient/client satisfaction and an impression of being well cared for was part of the CSs/APs 'added value' (Mundinger et al 2000b), with service users in postholding sites expressing themselves significantly more satisfied with their care. This is an important outcome in a client focused health service that aims to match services

more closely to patient/client needs. In particular, the emphasis on health promotion and increased self-management is very much in line with the vision expressed in the HSE's National Service Plan that will have 530 primary care teams in operation by the end of 2011 (HSE 2010a).

Observational work in case study sites revealed that CSs/APs provided emotional support and personalised care, which may have resulted in the improved therapeutic relationships and trust noted among service users attending CSs/APs. Such findings of increased satisfaction have been noted in other studies (Sakr et al 1999, Kinnersley et al 2000, Bryant and Graham 2002, Douglas et al 2003, Bonsall and Cheater 2008), particularly in relation to emotional care, health promotion and education.

It should be noted that care given in both postholding and non-postholding sites was good, and much of it excellent, but there were indications of the extra 'added value' for the individual patient or client that was present in the postholding sites. Previous researchers have drawn attention to the need to design methods that successfully identify the distinctive focus of advanced practice (Bryant-Lukosius and DiCenso 2004, Kleinpell and Gawlinski 2005). The SCAPE study, by using a comprehensive mixed methodology, including extensive study of international literature, has succeeded in isolating a number of key differences between CS/AP care and care given by other clinicians. Some of these (reduced readmission rates, increased adherence to best-practice guidelines, reduced complications, increased continuity of care, increased patient access to care, increased patient satisfaction, increased patient education/health education, increased education of patients' family, teaching/counselling/listening, coordination of care, community resource access and holistic care) had been identified in other work also (Kleinpell and Gawlinski 2005, Plager and Conger 2007). These key attributes of the CSs/APs are of prime importance in fulfilling the targets of the HSE's Transformation Programme, of providing easy access to services and ensuring that people have confidence in the services (HSE 2006c).

Ingersoll et al's (2000) two indicators, 'perception of being well cared for' and 'the sense of trust in the provider' came through clearly as two outcomes very strongly supported by the SCAPE study data. Overall, it was clear from the findings that CSs/APs in Ireland are contributing strongly to patient and client satisfaction and positive health outcomes. As well as providing a high standard of care, these practitioners provide 'added value' for service users and their families.

1.11.2. Outcomes specific to other healthcare staff

Nine outcomes specific to other healthcare staff were clearly identified as functions of the role of CSs/APs, with very strong support from the various types of data. Strong support was evident for one outcome and moderate support for one further outcome. The outcomes illustrate the importance of the positive effect these roles have on the health services in Ireland, findings comparable with the international literature (Kleinpell and Gawlinski 2005).

Education of other staff is seen universally as an advanced practice role (Kring 2008, NCNM 2008d). As part of their role, these Irish CSs/APs were seen to act as role models, and motivated, empowered and supported staff to advance their careers, increasing their knowledge and skill and promoting positive attitudes, particularly in relation to evidence-based guidelines, thus contributing towards more competent staff. Although a few participants expressed the concern that CSs/APs could possibly 'de-skill' other staff, no proof was seen of this. The overwhelming amount of data demonstrating the CSs/APs' immense educative role undoubtedly refutes this idea. The literature also is clear that the role of CNSs is more to do with disseminating knowledge and empowering generalist nurses to take on new roles, rather than the clinical specialist taking over patent/client care themselves (Jack et al 2002, NCNM 2004).

These findings concur with much of the work on specialist nurses and midwives in Ireland and other countries, which demonstrated empowerment of generalist nurses to care for patients in their absence, through education and support (Ling 2005), role modelling to manage disruptive patient behaviours and

improve morale, and acting as a nurse advocate and resource (Linck and Phillips 2005, NCNM 2004). APs, in particular, have been found previously to educate all members of the multidisciplinary team (NCNM 2005a), and this was clearly shown in the SCAPE findings also. 'Added value' is seen here once more, in terms of two criteria noted in previous work: 'increased adherence to best-practice guidelines' and 'increased staff education' (Kleinpell and Gawlinski 2005).

Job satisfaction came through clearly in a previous study of APs in Ireland (NCNM 2005a), as a prime motivator of all the APs included. The SCAPE study, similarly, noted this finding in the Delphi section.

It is clear from these findings that CSs/APs in Ireland are making a strong contribution to the education, support and development of nurses, midwives and other healthcare staff. As well as acting as a key resource and providing a high standard of support and education, these practitioners provide added value for all other healthcare professionals through their educative actions.

1.11.3. Outcomes specific to the health services

1.11.3.1. Service delivery

Six service delivery outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further two outcomes and moderate support for one. The number of tasks and behaviours included under each service delivery outcome heading shows clearly the strategic importance of CS/AP roles in Irish health services (HSE 2006c).

CSs/APs were responsible for increased collaboration and improved communication within the multidisciplinary team. Working individually with, in the case of APs and some CMSs, autonomy and decision making powers, they decreased waiting times and increased patient/client throughput in their services. As a result, readmission rates were decreased and resource costs fell, similar to findings from other areas (Kleinpell and Gawlinski 2005). Previous evaluations and reviews of the effects of CS/AP care also found improvements in, for example, child and adolescent mental health services (NCNM 2009), where waiting lists reduced from over one year to seven weeks following the introduction of an ANP service. Similarly, audits of CS/AP care in Ireland have found a 36% reduction in bed occupancy rates and a 22% decrease in length of stay (NCNM 2010c). The ability of APs to embrace professional leadership through active engagement in policy development suggests they are well positioned to act as clinical advisors to the National Clinical Care Programmes currently being established by the Quality and Clinical Care Directorate.

The systematic review of reviews in this study (section 4.11) found conflicting evidence on the cost effectiveness of nurse-led interventions, which is exacerbated by a lack of high quality economic data. Midwife-led models of care are, however, associated with cost savings compared with medical-led models of care. The findings from the SCAPE study, while not detecting any overall decrease or increase in costs due to CS/AP posts being implemented, did provide evidence that resource usage was decreased. Some concerns expressed by participants on the high cost of AP posts can be dispelled by examining the salary scales. The ANP's salary as set by the Department of Health and Children[8] would not equate to even twice a junior staff nurse's salary, is very little above a senior dual qualified nurse's salary and much less than a senior registrar's.

The economic findings of SCAPE did tend to show that, when nurses or midwives were substituted for doctors, salary costs fell, similar to the position in the US where nurse practitioners are widely recognised as a more cost-effective alternative to physicians (Dunn 1997). When CSs/APs are replacing staff nurses or midwives, then salary costs are, naturally, going to increase; however, there was evidence from SCAPE

[8]From 1st January 2010, an AP salary (1st year) is €54,870. Staff nurse salary (1st year) is €30,234. A senior dual qualified nurse's salary is €45,271. A senior medical registrar's salary (1st year) is €65,347 (http://www.dohc.ie/publications/pdf/salary_scales_jan10.pdf?direct=1)

that CSs/APs were more cost-effective due to their enhanced and expanded role. The effectiveness of both CS and AP roles had been previously demonstrated (NCNM 2004, 2005a) and strong evidence was shown by SCAPE to support these findings. Increasing the numbers of CSs and APs as currently modelled, therefore, would assist the HSE to deliver optimal and cost-effective primary, secondary and tertiary care, as planned in the national chronic disease management programme (HSE 2006b).

The continuity and holism of care seen in this study, and noted previously (NCNM 2005a), did provide enhanced care and increased service user satisfaction. Role expansion, such as was found in a number of areas in this study, occurs when additional skills and responsibilities are integrated into the specialist role, thus expanding the sphere of nursing or midwifery practice and influence. It is seen as central to advanced practice (Mac Lellan 2007). The implementation of the European Working Time Directive will require a major contribution from nurses and midwives, through expansion of roles, which, within the framework of advanced practice as set out by the National Council, will be of inestimable value (NCNM 2010b). The HSE's National Service Plan in the area of chronic disease management (HSE 2010a) includes development and expansion of the role of CNSs and ANPs, as does the recent report on plans for the reconfiguration of acute hospital services in Cork and Kerry (Higgins 2010). ANPs are also listed as key team members in the National Cancer Screening Service (NCSS) plan for a colorectal cancer screening programme (NCSS 2009).

Role extension also occurred in this study, which can lead to fragmentation of care (Mantzoukas and Watkinson 2007), or a decrease in nursing or midwifery philosophy as a more medical focus becomes dominant (Arslanian-Engoren et al 2005). The ideal situation is said to be a blend of nursing (or midwifery) and medicine (Brown and Draye 2003). This was found in the roles examined in this study as patient/client satisfaction and other measures showed high levels of advanced nursing and midwifery practice in tandem with the conduct of some tasks previously deemed to be medical only. Autonomy, which is also considered central to effective performance of advanced practice roles (Mac Lellan 2007, Srivastava et al 2008) was evident in the practice of the ANPs and some CSs. Patient/client outcomes appeared to be at least the same as those for usual care, as measured by all sources of data, findings similar to Laurant et al's (2005) systematic review of substitution of doctors by nurses in primary care, and the systematic review of reviews in section 4.11. In some areas – for example, pain management – patient/client outcomes were improved and, in previous audits of CS/AP care across the country (NCNM 2010c), results included breastfeeding rates increasing from 42% to 49%, MRSA rates falling by 19% and pressure ulcers rates from 7.6% to 1.5%.

1.11.3.2. Service development

Five service development outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further one outcome. The tasks and exemplars of achievement given under each service development outcome heading are at a strategic level, showing the importance of advanced and specialist practice roles for the future health services in Ireland (HSE 2006c).

Postholders were shown to be involved in policy development, strategic planning, and service expansion and development. They also increased community knowledge and support and had the potential to work across hospital and community, which is essential for future healthcare plans (HSE 2010a). APs, in particular, were found to demonstrate leadership in their roles, through developing accredited education programmes, their membership of national committees and their contribution to national guideline development. Very little of the international literature dwells on these aspects of the CS/AP role, apart from noting that leadership is one part of the AP's role (Carryer et al 2007, Mantzoukas and Watkinson 2007, Spross and Lawson 2009).

Professional leadership as a dimension of the CS/AP role was perhaps not as well developed when

compared to the outstanding clinical leadership aspects of their practice. However, in comparison to the 2005 evaluation of the role of advanced practitioner in Ireland (NCNM 2005a), APs appear to be more involved in professional leadership activities at both national and international level. The ability of APs to embrace professional leadership through active engagement in policy development suggests that they are well positioned to act as clinical advisors to the National Clinical Care Programmes currently being established by the Quality and Clinical Care Directorate (ONMSD 2010b).

The HSE has recently committed to investing in clinical leadership development, which it believes should be part of ongoing professional and organisational development rather than being implemented on a once off basis (HSE 2010b). Given the CSs/APs' experience in this area, their expertise should be used to help fulfil this aspiration, by mentoring and developing others.

1.11.3.3. Service quality

Two service quality outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further three outcomes. The fact that *'conducts audit'* did not come through clearly as a finding in the Delphi survey of CSs and APs is interesting, as there was clear and practical evidence of audits being conducted throughout all postholding sites and managers were profuse in their appreciation of the role of CSs/APs in their conduct. Audits by CSs/APs have been used to illustrate the effectiveness of specialist and advanced practice care in a number of previous evaluations (NCNM 2009, 2010a), and the numbers of audits performed in the SCAPE study were higher in postholding sites. These skills are essential since continuing commitment to audit and the measurement and recording of key performance indicators are part of future healthcare plans (HSE 2010a).

Two other outcomes, *'implementing research'* and *'promotes evidence-based practice'* were very strongly supported by diverse types of data and demonstrate the fulfilment by CSs/APs of the National Council's accreditation criteria (NCNM 2008d). These key elements of the role are found across countries in the majority of studies on specialist and advanced practice (Kleinpell and Gawlinski 2005). When practised with clinical expertise and in line with clients' preferences, they demonstrate 'best practice' (Haynes et al 1996).

Conducting research, an expectation of APs only, was found to be an output of all six APs in the study, as well as of nine CSs, in common with expectations worldwide for advanced practice roles (Manley 1997, Mantzoukas and Watkinson 2007, Kring 2008, Spross and Lawson 2009). A number of the CSs who were undertaking research were preparing to be accredited as APs, and were either undertaking a Master's degree (with the obligation to conduct a research thesis), or preparing a portfolio of activities for submission to the National Council.

Although the output of some APs was considerable, most found it hard to find the time to conduct research, and had to spend personal time on their research activities. These individuals were high achievers and demonstrated strong personal initiative that drove them to succeed. They all presented their work at conferences and five of the six APs had research publications. The National Council's *Review of Achievements* contains examples of CSs/APs' initiatives and research; the 2009 version lists a sample of 14 publications stemming from APs' research (NCNM 2009). Similarly, 29 examples of APs' research projects were presented five years ago (NCNM 2005a). It is obvious that research skill and motivation is present, but is in its infancy and is occurring against all the odds, with little support. Formal links between CSs/APs and clinical and academic research networks should be instituted where appropriate and feasible, to ensure that patient centred, multidisciplinary research develops alongside clinical and technical research within clinical specialties. Funding for research, and dedicated time to pursue research actively in their specialist areas, as envisaged by the HRB (HRB 2009) and DoHC (DoHC 2009), are essential and will bring benefits in terms of improvements in patient/client care.

1.11.4. Differences between AP and CS roles

Internationally, many reports present CSs and APs together as though they were performing the same function. Roles described as specific to the AP include the provision of holistic care and health promotion and engaging in research (Arslanian-Engoren et al 2005), engaging in complex reasoning and skills of analysis (Bourbonniere and Evans 2002), and applying comprehensive skills in patient assessment (Carryer et al 2007). In addition, advanced practice nurses are described as nurses who have an expert knowledge base, complex decision making skills and clinical competencies that allow for expanded practice (Sheer and Wong 2008).

In Ireland, a clear distinction between the core concepts of advanced practice and clinical nurse specialist/clinical midwife specialist is made (Furlong and Smith 2005). The core concepts of clinical practice, patient advocacy, education and training, research and audit, and consultation, are outlined by the National Council for the clinical nurse or midwife specialist in Ireland (NCNM 2008c). Four core concepts of advanced nurse practitioners and advanced midwife practitioners are given as: autonomy in clinical practice, expert practice, professional and clinical leadership, and research (NCNM 2008d).

The SCAPE study has substantiated these concepts, commencing with the focus group interviews, which, while agreeing that CSs and APs had many outcomes in common, identified decision making, autonomy, research and leadership as differentiating characteristics of advanced practice. The Delphi survey delineated nine additional advanced practice outcomes, many of which were corroborated by the case-study data. Some policy makers and DoN/DoMs raised a concern about consistency of practice across clinical specialist areas, particularly in relation to CSs who may have been approved in the early days of the initiative, and about lack of governance that led to individualist developments. These seemed to be isolated experiences that were not borne out by data from other sources. Advanced practice, in contrast, was unanimously endorsed. A recent report on the development of CNS and ANP roles in Canada, based on over 60 stakeholder interviews and a review of over 500 articles, found growing consensus related to the purpose of ANP roles, but identified inconsistencies in perceptions and practice related to the roles of ANPs, patterns of deployment, and integration (DiCenso and Bryant-Lukosius 2010).

We in Ireland have the benefit of clarity around the two roles, given the National Council's frameworks and accreditation processes. Data in the case study confirmed that the role of advanced practitioners was strongly influenced by having national standards and requirements, and an accreditation process as published by the National Council (NCNM 2008d). The document, *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Posts* (4th Edition) (NCNM 2008b) provides for a standardised development of AP roles. The proactive development of AP posts to meet population and service needs, and site preparation undertaken, enhanced role clarity, ensured consistencies in practice, and reduced barriers to AP integration within the healthcare team. Participants in the case study, particularly Directors of Nursing or Midwifery, valued highly the support and guidance they received from the National Council in the development of AP posts and roles. It is now important to identify and implement strategies to ensure continued support of CS and AP roles as currently structured. In particular, CS roles need clarity, and CSs need encouragement for continued development.

In summary, then, there is a clear difference in the two posts. Advanced practice roles provide a number of strategic advantages such as improved service delivery, faster throughput, reduced costs and a clear governance and accreditation structure. This is understandable, as the posts are at different levels on the same clinical career pathway. The fact that CMSs work, and are rated in this study, at a similar level to APs for certain aspects is also understandable, as midwives start from a position of autonomy even at point of registration, and presumably develop that skill even more at clinical specialist level. In addition, CMSs rated more highly in continuity of care and carer, an area in which midwives would be trying to excel, even prior to undertaking clinical specialist roles.

At present in Ireland there are large numbers of CSs and comparatively few APs. Benefits in outputs from APs are considerable, including a higher level of patient/client care, increased leadership and greater research output. The feasibility, therefore, of supporting a number of the current CSs to develop their skills and education in order to become APs should be considered. This should be a key focus of the HSE for the future in line with its transformation plans for increased community care and support for managing chronic illness.

1.11.5. Barriers to implementing the role

There was moderate evidence, from the case study data and policy makers' interviews, to show that CSs/APs lacked administrative support, resources and protected time for research (Table 1.7), which prevented them from fulfilling all aspects of their role. Barriers may also be seen in the introduction of new CS/AP posts in Ireland. O'Shea (2008) describes the evolution of advanced practice nursing in Ireland and details, in addition to the absence of physicians in some areas, other influential changes in medical practice such as technological advances, the transfer of tasks from medicine to nursing, the expansion of healthcare coverage through community nursing, and the reorientation of healthcare systems to primary care (p. 4). In particular, the transfer of medical tasks to nursing has been seen internationally as a competing demand that acts as a constraint to implementing fully the nursing roles of research, leadership and education in the practice setting (Plager and Conger 2007).

Opposition from organised medicine to the role has been seen internationally. In Sweden, Lindblad et al (2010) report some opposition from GPs to the new role of ANP in primary care. In the US, this opposition is seen especially with regard to prescribing roles (Norris and Melby 2006). Some resistance by doctors to the NP role also occurred in New Zealand, but the view more recently is that doctors have "mellowed" in their attitude to the NP role (O'Connor 2008, p.13). Similarly, in Northern Ireland, Griffin and Melby (2006) report GPs being less positive than emergency doctors and nurses towards the development of advanced practice roles in emergency nursing. British CNSs report the importance of physician support to their role (Boyle 1997).

However, the SCAPE study showed clear support for CSs/APs from doctors, other clinicians and policy-makers, which may be a result of the National Council's accreditation process whereby the hospital site has to prepare for the introduction of AP roles, with the involvement of all clinicians. Strong support has also been seen in another Irish study of views of key stakeholders in the healthcare field (O'Shea 2008), which showed that the medical profession had a positive view of the CSs/APs, believed they were good coordinators of care and welcomed the idea of more nurse- and midwife-led services. Similar endorsement from Irish health policy documents (ONMSD 2010a, HSE 2010a) clearly shows the esteem in which these practitioners are held.

Recommendations from the policy makers in the SCAPE study for the development of CS/AP posts included the need for extensive dialogue with all clinicians, strong clinical governance and guidelines on collaborative decision making. Previous work has demonstrated that good communication with all key parties was essential in the preparation for AP roles (NCNM 2005a). Ireland is unique in having established frameworks and standards for the expansion of nursing and midwifery roles (NCNM 2010b), which include all these points, and this strength should be maintained.

Opposing points of view were raised as to the appropriateness or otherwise of the introduction of CMSs and, in particular, AMPs, findings similar to previous work (NCNM 2004). The arguments against such roles are aired in section 9.5, and a similar argument was raised by one policy maker (Table 1.7). However, the outstanding success of the CMS roles portrayed in this study, in addition to previous audits and evaluations of CMSs (NCNM 2004, 2010a, 2010c), would suggest that more CMSs and AMPs should be encouraged. The National Council strongly supports this view, maintaining that such enhanced midwifery roles are of

the greatest importance to support future plans to develop more community based maternity services (NCNM 2008g).

Internationally, education for APs is being advanced to Master's level where, again, Ireland leads the field. The success of the CS/AP roles shown by this study is therefore due, in part, to the strong frameworks, entry criteria, educational standards and accreditation processes set up. Any change to these processes might adversely affect the documented outcomes in the future.

1.12 Conclusion

The majority of the CSs/APs in this study had complex roles and most worked closely with a multidisciplinary team. It has been stated previously (Gerrish et al 2007) that the precise contribution that CSs/APs make to care is hard to identify and attribute directly to them, due to this close relationship. The benefit of using mixed methodology in this major national study is clear, however, in that the majority of outcomes highlighted have been substantiated by a number of different sources. As interview data corresponded with documentary evidence, service users' questionnaires and comments, fieldnotes, and key behaviour scoresheets, as well as with the policy maker and focus group data, and Delphi surveys, both between- and within-method triangulation corroborated the findings.

The weight of evidence demonstrating the key and influential roles of these personnel is considerable. The overall positive effect of CSs/APs on patient/client care, other staff and the health services in general is very apparent. Given these considerable benefits, and the fact that the economic analysis did not demonstrate a difference in costs between services with CSs/APs and the comparison sites, there is a strong case for introducing more CS and AP posts across the country. In particular, expansion of the CS/AP roles in chronic disease management and community care is essential to the transformation agenda of the HSE. CMS and AMP posts should also be encouraged.

Strong structures and processes around approval/accreditation and, for APs, re-accreditation, have led to this consistently high standard of practitioner and outcomes. The success of the introduction of these roles in Ireland now needs to be maintained and developed to ensure continued excellence into the future.

1.13 Recommendations

Introduction

This study, through extensive research methods, using a variety of data collection tools, has examined the clinical outcomes of CSs and APs in Ireland. Boxes 1, 2 and 3 summarise the main findings for CSs and APs, which had strong and very strong evidence.

This study has demonstrated conclusively that care provided by CSs and APs improves patient/client outcomes, is safe, acceptable and cost neutral. Nursing and midwifery care is provided in a complex changing environment and it is critically important that resources be used in a cost-effective, strategic manner. The study shows the potential of CSs and APs to support implementation of health policy, meet the changing health needs of the population, address patient expectations, contribute to service reconfiguration and provide nursing and midwifery leadership for the introduction of care models and care programmes into the HSE and, potentially, other health services. CSs and APs support a safe environment for patients by increasing the use of evidence-based clinical guidelines and by the conduct of research.

Clinical Specialists: Main Findings (strong and very strong evidence[9])

The CS caseload involves working with the MDT to provide specialised assessment, planning, delivery and evaluation of care using protocol driven guidelines. The CS role maximises the team impact on patient outcomes. Care delivery and caseload management is delivered in line with core concepts identified by the National Council *(clinical focus, patient/client advocacy, education and training, audit and research, consultancy).*

Clinical care is a significant part of the CS role in Ireland. This is contrary to international and, in particular, US profiles where the literature shows CSs have limited patient/client contact. Overall, there was no additional cost for CS service (staff costs and activity levels for matched CS and non-CS services). CS services had decreased costs for colposcopy and managing challenging behaviour. CSs were working to expand and develop practice (many CSs were working towards AP role).

Table 1.8 outlines integrated data sources showing differences between CMS and CNS roles.

Box 1 outlines main findings CNSs.

Box 2 outlines main findings CMSs.

Box 1: Clinical Nurse Specialist Main Findings (strong and very strong evidence)

Evidence demonstrated that CNSs:

Reduced morbidity

Decreased considerably SUs waiting times

Provided earlier access to care. **CNSs provided early access to first visits**

Decreased readmission rates

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Increased continuity of care

Increased patient/client satisfaction

Increased communication with patients/clients and families

Promoted patient/client self-management

Had significant MDT support for the role

Provided clinical leadership

Conducted clinical audit (and 53% conducted research).

[9]Further details in Tables 1.2 to 1.6.

Box 2: Clinical Midwife Specialist Main Findings (strong and very strong evidence)

Evidence demonstrated that CMSs:

Reduced morbidity

Decreased waiting times

Provided earlier access to care. **CMSs provided early access to treatment**

Decreased readmission rates

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Increased continuity of care. **CMSs spent significant time with SUs teaching, advising and explaining tests and results**

Increased patient/client satisfaction. CMSs were noted by service users to make a difference to their care

Increased communication with patients/clients and families. **CMSs spent significant time with SUs to discuss their problems**

Promoted patient/client self management

Had significant MDT support for the role

Provided clinical leadership

Conducted clinical audit (and 53% conducted research).

Advanced Practitioners: Main Findings (strong and very strong evidence[10])

The AP caseload involves holistic assessment, diagnosis, autonomous decision making regarding treatment, provision of interventions and discharge from a full episode of care. Care delivery and caseload management is provided by APs in line with core concepts identified by the National Council *(autonomy in clinical practice, expert practice, professional and clinical leadership, research).*

The education level of APs in Ireland is in line with international standards. Overall, there was no additional cost for AP service (staff costs and activity levels for matched AP and non-AP services). AP services had decreased costs for ED minor injuries and sexual health.

Box 3: Advanced Practitioners Main Findings (strong and very strong evidence)

Evidence demonstrated that APs:

Reduced morbidity

Decreased waiting times

Provided earlier access to care

Decreased readmission rates

Increased patient/client throughput

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Developed guidelines for local, regional and national distribution

Increased continuity of care

Increased patient/client satisfaction

Increased communication with patients/clients and families

Promoted patient/client self management

Worked to expand and develop scope of practice to include more complex care provision

Demonstrated high job satisfaction

Had significant MDT support for the role

Provided clinical and professional leadership

Conducted audit and research.

[10]Further details in Tables 1.2 to 1.6.

Recommendations

Service Delivery and Service Planning

1. This study has demonstrated that care provided by CSs and APs is cost neutral and improves patient/client outcomes. There are therefore demonstrable value-added benefits for patient/client outcomes and service delivery as a result of having CSs and APs as part of the overall nursing or midwifery team.

    It is recommended that service planning and service development incorporate the roles of CS and AP where appropriate. This should include strategic short, medium and long term planning at national, regional and local level, based on service need, in order to ensure coherent service development. In particular:

    a. Further expansion of CS roles in chronic illness management and community care is essential to support the transformation agenda of the HSE, to provide increased continuity of care and to manage the hospital/community interface.

    b. Further expansion of AP roles in chronic illness management and community care is essential to support the transformation agenda of the HSE, to facilitate patient/client access, early diagnosis, treatment and continuity of care, and to manage the hospital/community interface.

    c. Clear delineation between CS and AP roles should be maintained; where the service requires competencies at AP level, systems should be identified to facilitate the required development as appropriate, with emphasis on the entire nursing/midwifery resource, grounded in service need.

    d. CS and AP role development should ensure that the unique nursing or midwifery contribution to holistic care is retained.

2. This study collated more economic data than most international studies examining CS and AP practice. Cost data were limited for a number of CS and AP services, which impacted on the extent of detailed judgement that could be made about the cost-effectiveness of CS and AP roles. The importance of being able to demonstrate efficiency and cost-effectiveness cannot be understated; guidance on the data required is given in Appendix 11.

    It is recommended that consideration be given at service, regional and national level to improving the collection of data to facilitate economic analysis. Cost data should be recorded, available and standardised across all health authorities so that complete economic data analysis is possible in the future.

3. This study has demonstrated significant improved clinical outcomes for patients and clients. The importance of ongoing measurement of clinical outcomes is critical to ensuring maximisation of resources. The tool developed for this study provides key outcome areas for measuring the impact of CS and AP roles.

    a. It is recommended that specific key performance indicators be developed for core CS and AP clinical outcomes to facilitate future audit and research.

    b. It is recommended that specific clinical specialty outcomes be developed and implemented for CSs and APs.

    c. It is recommended that clear governance structures and systems be put in place for all CS roles to reduce diversity of outcomes and maximise impact.

4. The findings of this study indicate that, in services that had CSs and APs, evidence-based practice,

motivation of staff nurses and midwives, practice development, innovation and clinical leadership all increased. This indicates that, in addition to improving direct patient/client care, CSs and APs maximise the potential to impact on the practice of others and on the service as a whole.

It is recommended that considerable emphasis be placed on the clinical and professional leadership aspect of CS and AP roles when such roles are being developed, in order to maximise their potential to influence and develop the practice of others and contribute to service development.

Role Development

5. This study has demonstrated that the core concepts of CS and AP practice outlined by the National Council are being fulfilled by CSs and APs and that the current national frameworks and standards (based as they are on international evidence on role development and excellence in clinical practice) have proven to be robust and successful in improving patient/client care and service delivery. The level of preparation put into service needs analysis, defining roles and integrating them into services has contributed significantly to their success. Lack of clarity around role development that results in reduced role effectiveness has been demonstrated in other countries. Therefore, it is imperative that current frameworks and standards be maintained to mitigate this risk, and that the visibility of the roles be increased.

   a. It is recommended that current standards and frameworks for CS and AP roles be maintained and enhanced to ensure that the positive outcomes identified in this study are continued and improved upon.

   b. Regular audit of CS and AP roles and outcomes should be conducted, using the CS and AP evaluation tools based on the minimum data sets derived from the Delphi survey, with speciality specific additions, and results should be disseminated through case reviews, annual reports and through the service planning process.

6. It is clear from the findings of this study that developments in the clinical career pathway of Midwifery and Intellectual Disability Nursing have not taken place at the same pace as in some of the disciplines of nursing. Consideration now needs to be given to how CS and AP posts in these two areas can be developed, with the involvement of all stakeholders, based on service need.

   It is recommended that those in leadership positions in areas of Intellectual Disability Nursing and Midwifery progress the debate in order to ensure appropriate consideration is given to enable the development of the clinical career pathway in the interest of excellence in health service delivery and client care.

Continuing Professional Development

7. APs (and some CSs) were engaging in research, and clinical audit was well established for both CSs and APs. On going support to build these skills is required.

   a. It is recommended that collaborative research networks of CSs and APs, clinicians and academics in relevant disciplines be established in order to maximise research potential.

   b. It is recommended that links with nursing and midwifery academic areas be forged, including, where possible, partnerships, secondments, or joint appointments, in order to maximise CS/AP research and publications.

   c. It is recommended that protected time to pursue research and publication activities be established for all APs.

    d. It is recommended that both CSs and APs be provided with access to educational opportunities and resources to develop their skills in audit and measurement of clinical outcomes in order to increase quality care, research and audit in practice.

8. Both this study and the literature highlighted the importance of continuing professional development to maintain and develop further skills and competencies and to support expanded roles.

    The data identified a clear differentiation between CS and AP in terms of leadership roles.

    a. It is recommended that clear governance structures, models of clinical supervision and mentorship be developed and implemented in order to maximise the effectiveness of the CS/AP role.

    b. It is recommended that key competencies and key performance indicators specific to AP leadership and research outcomes be identified.

    c. It is recommended that key competencies and key performance indicators specific to the leadership role of the CS be developed.

    d. It is recommended that CSs and APs have access to a variety of continuing professional development activities such as competency development, peer review, education and training in order to achieve their key performance indicators.

9. The issue of professional isolation for APs is well documented in the international literature, and also emerged as an issue, for some, in this study. If advanced practitioners are to demonstrate true professional leadership, this aspect of their role development needs support.

    It is recommended that APs be facilitated to participate in national and international networks in order to maximise professional leadership potential.

Future Research

10. This study provides a list of key outcome areas, which can be used as a minimum data set for measuring the impact of CS and AP roles and outcomes. It was evident from the literature review that clinical outcome measurement tools for CS and AP services are limited. The importance of being able to demonstrate clinical outcomes for CS and AP roles cannot be overstated.

    It is recommended that future research focus on developing methods for capturing *specific* clinical outcomes related to CS and AP interventions for their clinical specialty.

11. A number of key research gaps were identified during this study.

    It is recommended that further research be conducted into:

    a. evaluating the effects of CS or AP interventions through randomised controlled trials using nurse- and midwife- sensitive outcomes identified in this study,

    b. the effects of CS and AP care on patients/clients in specialist areas (e.g. reduction in (re)admissions for people experiencing mental health problems, and chronic disease management),

    c. the application and appropriateness of the CS and AP models in intellectual disability nursing,

    d. the factors that maximise CS/AP effectiveness,

    e. the differences between CS and AP roles,

    f. work satisfaction and retention among CSs/APs.

CHAPTER 2
Background to the study

2.1	Introduction to specialist and advanced practice roles in Ireland

The nursing and midwifery professions in Ireland have undergone significant change over the past two decades. In addition to reforms in education and research, the clinical role and responsibilities of nurses and midwives have changed almost beyond recognition in certain areas. The *Report of the Commission on Nursing* (Government of Ireland 1998) was the first catalyst, spearheading the introduction of clinical career pathways, including clinical nurse and midwife specialists and advanced nurse and midwife practitioners, among other recommendations. Further reports advocating role changes and a reduction in working hours of junior doctors (DoHC 2003b) have led to an expansion of nursing roles and an increase in nurse and midwife-led clinics. Prior to the commencement of this study, there were 120 approved advanced nursing/midwifery practitioner (ANP/AMP) posts (nursing 119, midwifery 1), with accredited advanced practitioners numbering 69 (nursing 68, midwifery 1) (NCNM 2008a). The total number of clinical nursing/midwifery specialists (CNS/CMS) in approved positions was 2,032 (children's nursing 104; general nursing 1,207; intellectual disability nursing 131; midwifery 66, and psychiatric nursing 524) (NCNM 2008a). Despite the proliferation of these roles and the undoubted positive feedback that is available anecdotally and from other Irish studies (Small 1999, Delamere 2000, Keenan 2002, Delamere 2003, NCNM 2004, 2005a), no major nationwide evaluation of the posts has been undertaken to date; this study is, therefore, timely.

2.2	Evaluation of specialist and advanced practice roles

Considerable research has been undertaken both nationally and internationally evaluating the effectiveness of advanced practice in the many nursing specialties; outcomes of these studies will be presented in the next chapter. These studies cover such diverse areas as:

- emergency department (Small 1999, Timoney 2002)

- oncology (Ritz et al 2000)

- haematology (Taylor et al 1997)

- mental health (Reasor and Farrell 2005)

- neonatology (Woods 2006)

- HIV (Aiken et al 1993)

- paediatrics (Niemes et al 1992)

- gerontology (Evans et al 1997, Naylor et al 1999)

- primary care (Mundinger et al 2000a)

- heart failure (McCauley et al 2006)

- cardiac rehabilitation (Burgess et al 1987)

- cardiac surgery (Lombness 1994)

- critical care (Burns and Earven 2002, Fairley and Closs 2006).

In contrast, however, there has only been limited evaluation of advanced midwifery practice (Watson et al 2002, Alexander et al 2002) – understandably, as it is a smaller field of practice and fewer such posts exist.

In the Irish context, evaluation of the ANP role is in its infancy. Nevertheless, the positive impact of the role is revealed in the areas of sexual health (Delamere 2000, 2003) and emergency department care (Small 1999, Keenan 2002). Moreover, a preliminary evaluation of the advanced nurse practitioner role has revealed that ANPs consider the main benefit of their role is to service users, through providing continuity of care (NCNM 2005a).

It is argued that nurses working in advanced roles add value to the provision of healthcare services (Spross and Heaney 2000), but the extent of the evidence supporting this assertion is limited (Kleinpell 2002). In the research already undertaken, it is evident that there is a need to describe the precise interventions of specialists and advanced practitioners clearly in order to understand the process and outcomes of such practice (Cunningham 2004). A variety of strategies for measuring such outcomes exists, with the choice of approach depending on the interventions provided.

2.3 Challenges in evaluation of advanced practice roles

Providing evidence on advanced practice outcomes has been hindered by the variety of roles that have evolved in the United Kingdom (UK), United States (US) and worldwide. However, because of the careful regulation of specialist and advanced practice roles in Ireland, role clarity was not anticipated as a problem in this project. Nevertheless, we still considered it important to establish the extent to which role clarity had been achieved. Another issue evident in a review of the literature was the proliferation of studies where nurses in advanced practice roles are compared with doctors (e.g. Taylor et al 1997). This approach is criticised by some (Hughes 2003), as it fails to explicate the complexity of care delivered by nurses in such roles, a task that has been acknowledged as being particularly difficult (Bryant-Lukosius and DiCenso 2004). This complexity of care is, in part, due to the fact that nurses often work as part of a collaborative team (Kleinpell and Gawlinski 2005), thus making it difficult to evaluate their individual contribution to patient care (Fairley and Closs 2006). This difficulty is strongly revealed in a report on the contribution of nurses in advanced practice roles in the UK (Gerrish et al 2007), where it is concluded that "the more complex the role, the harder it was to be clear about the APN's individual impact" (p. ix).

2.4 Structure-process-outcome approach

A number of frameworks to evaluate specialist and advanced roles have been developed (Hegyvary 1991, Grimes and Garcia 1997, Byers and Brunell 1998, Irvine et al 1998). Many are based on Donabedian's structure-process-outcome (SPO) framework (Grimes and Garcia 1997, Byers and Brunell 1998, Irvine et al 1998) in which *structure,* process and outcome are interrelated categories of quality assessment (Donabedian 1966). In the context of specialist and advanced nursing and midwifery practice, *structure* includes the components necessary to facilitate care delivery, and refers to characteristics of the practitioner (e.g. education, experience) and the practice setting (e.g. adequacy of resources, medical staff support). *Process* refers to the care provided by the practitioner and the appropriateness of that care (e.g. client education, physical and psychosocial needs met), which aims to deliver personalised care for

each patient within best practice guidelines. This aspect of advanced practice is critical to understanding the impact of such practitioners (Cunningham 2004). Much research has been conducted on the process of what advanced practitioners do, but additional work is needed in order to describe comprehensively the "interactions and activities" that occur between advanced practitioners and clients in their care (Cunningham 2004, p. 220).

Outcome refers to practitioner sensitive outcomes, which, according to Byers and Brunell (1998), are complex and involve interventions undertaken as a result of the knowledge the nurse or midwife has, including theoretical, practical and scientific knowledge. These include: "clinical outcomes, perceived outcomes, functional status outcomes" (p. 301) and the clients' and families' satisfaction with the care received. Moreover, outcomes may be direct or indirect and the 'key informants' are often the practitioners themselves (Coster et al 2006). The SPO approach attempts to capture the unique contribution that advanced practitioners make to care and is recommended by Kleinpell and Gawlinski (2005) for evaluative studies. This approach was also adopted by Gerrish et al (2007) in their study evaluating the impact of advanced practice roles in the UK.

2.5	Outcome measures

The very nature of specialist and advanced nursing and midwifery practice requires that any instrument proposing to determine outcomes for clinical services of such specialists and advanced practitioners, for future monitoring and evaluation of such services, must be:

- sensitive to the specifics of the role, including the client group

- sensitive to the care provided

- accommodating to new and emergent roles, as determined by service need.

Yet those who fund and provide health services will require comprehensive evaluation of advanced and specialist nursing and midwifery roles in a format sufficiently broad to inform health policy decisions on the future funding and development of such roles.

In general, the conceptual model of outcome research has tended to focus on multidisciplinary outcomes that measure broad, generic health status such as service user satisfaction and general health (Behrenbeck et al 2005). While important, such outcomes are insensitive to the range of care provided by specialists and advanced practitioners. Identifying outcomes sensitive to such care is complex and challenging (Bryant-Lukosius and DiCenso 2004) due, in part, to their multidimensionality, whereby such outcomes are influenced by both structure and process factors (Byers and Brunell 1998). Nevertheless, using nursing and midwifery sensitive outcomes is vital if nurses and midwives are to demonstrate effectively that they make a critical, cost-effective contribution to the provision of healthcare (International Council of Nurses 2008). Failure to identify these outcomes may, at best, lead to improvements in care attributable to advanced and specialist roles being missed, or, at worst, undermine the contribution of such roles to the provision of high quality healthcare. For example, Burgess et al (1987), in a randomised controlled trial (RCT) of cardiac rehabilitation, comparing advanced practice nurses' rehabilitation care with usual care (defined as care that is normally provided by the various members of the multidisciplinary team), used outcome measures for distress, anxiety, depression and family support. Moreover, Small (1999), in an evaluation study of the role and scope of practice of Ireland's first emergency nurse practitioner, retrospectively reviewed patient profiles for injury types and time spent from triage to discharge. These illustrate the need also to identify specific interventions that relate to specialties.

The evaluation of outcomes helps to determine if the structures and processes actually achieve what was intended, as outcomes are compared against best practice. Evaluation measures can be chosen using the following criteria: significance, range, quality and feasibility (Byers and Brunell 1998). More specifically, Coster et al (2006) outline the following six factors that emerge as being predictive of their perceived impact: level of engagement, perceived levels of competence, perceived salary equity [inverse relationship], specialty, support from senior medical staff, and job tenure.

It is crucial that valid nursing and midwifery sensitive outcome measures be selected in any evaluation of specialist and advanced practice. Failing to do this may result in only limited evidence of the effectiveness of advanced practice. This is evident in an RCT comparing the follow-up care by nurses and by doctors of patients discharged with acute asthma, which reports no difference in the two groups (Nathan et al 2006). Closer examination reveals that the data collection was limited to measures of peak flow, quality of life and number of acute exacerbations, thereby missing central data such as patient satisfaction with the care provided. The importance of designing methods that draw attention to the distinctive focus of advanced practice is, therefore, essential (Kleinpell and Gawlinski 2005). However, Douglas et al (2003) warn that there is "inherent complexity in evaluation" of special nurse intervention because it is "often difficult to define nursing outcomes" (p.428). This latter point is also stressed by Bryant-Lukosius and DiCenso (2004) who argue that failure to draw attention to the distinctive nature of advanced practice "may result in missing improvements attributable to the APN role" (p.537).

The complexity of identifying the distinctive nature of advanced practice is, therefore, not to be underestimated. This is clearly illustrated by the myriad of outcome measures related to acute-care nurse practitioners, revealed by Kleinpell and Gawlinski (2005). These included: reduced length of stay, reduced healthcare costs, reduced readmission rates, increased adherence to best practice guidelines, improved medical management, reduced complications, reduced resource utilisation, increased continuity of care, increased patient access to care, increased patient satisfaction, increased patient education, increased education of patients' family, and increased staff education.

| 2.6 | Evaluating hidden aspects of the role |

Another important consideration in any evaluation of specialist or advanced practice is the frequency or intensity of patient interactions that, if not assessed, may result in specialist and advanced practice related outcomes not being revealed (Bryant-Lukosius and DiCenso 2004). For instance, positive outcomes are reported in an RCT examining advanced practitioner coordinated care of vulnerable elders with heart failure (McCauley et al 2006). This latter study is worth closer examination as it reveals that advanced practitioner interventions focused on three main areas: (i) patient and family or caregiver effectiveness; (ii) patient provider relationship; and (iii) management of co-morbid conditions and the improvement of overall health.

This provides further direction on how to address the need to describe interactions between advanced practitioners and their clients, as part of the process of advanced practice, as alluded to by Cunningham (2004). Moreover, McCauley et al (2006) report that advanced practitioner effectiveness "may be related to knowing their patients as individuals" (p. 306), suggesting the need to illuminate this often taken for granted aspect of advanced practice in any evaluation of such practice.

2.7	Evaluation model

The structure-process-outcome approach is adopted in most evaluations of advanced practice (Cunningham 2004). This method is, however, best set within the framework of an evaluation model of advanced practice. The development of an evaluation model of specialist and advanced practice is viewed as essential to this project and will address the criticisms of Sidani and Irvine (1999) in relation to the inconsistent findings in research evaluating the impact of the advanced practitioner. They attribute these to not using a conceptual framework to guide the identification of the specific nurse- and midwife-sensitive outcomes (Sidani and Irvine 1999).

A number of models to evaluate advanced practice are proposed in the literature (Stetler et al 1998, Byers and Brunell 1998, Sidani and Irvine 1999). Stetler et al (1998) developed their model in response to the implementation of a new service that involved advanced nursing practice. The evaluation addressed whether the main role expectations had been achieved; the influence of in-patient advanced nurse practitioner care; the visibility of the nursing component in the role, and factors influencing the role. The evaluation also included views of nurses, key stakeholders, patients and their families, which illustrates the importance of avoiding a one-dimensional perspective.

Similarly, in Byers and Brunell's (1998) model, the focus is on the value of the role, emphasising quality and cost. Akin to Stetler et al's (1998) work, multiple perspectives are obtained, including those of management and of the regulatory bodies. This further illustrates the importance of using a comprehensive framework in this project. Moreover, because this project will explore the effectiveness of both specialist and advanced nursing and midwifery practice, the adoption of a comprehensive model is critical.

The tension between the need to identify quantifiable outcome measures and the challenge of capturing the indeterminate, qualitative aspects of advanced practitioners (and by implication specialist practitioners) is documented (Gerrish et al 2007). What is less well documented is how to measure such indeterminacy. This project, therefore, uses the model proposed by Schulz et al (2002), which adopts a "broad inclusive approach" (p.590) to the outcome measures chosen to assess clinical significance, and which is concerned with the practical value of an intervention and whether or not it makes a real difference to patients (Gerrish et al 2007). The approach proposed by Schulz et al (2002) encompasses:

- symptomatology: "the extent to which individuals return to normal functioning or experience a change in symptoms"

- quality of life: "the extent to which interventions broadly improve an individual's quality of life"

- social significance: "the extent to which outcomes are important to society" (e.g. impact of intervention on service use)

- social validity: "the extent to which treatment goals, procedures and outcomes are acceptable as assessed by client or expert ratings of the interventions and their impact on participants' lives" (p.590).

The model proposed by Schulz et al (2002) is therefore most appropriate, because it addresses multiple outcomes related to clinical significance, which is a key consideration in this project. This model was identified by Gerrish et al (2007) as a possible framework for evaluating the impact of advanced practice roles. The value of this framework is that it can be used flexibly to identify reliable and clinically relevant outcomes from the perspective of both the client group and the practitioner.

2.8 | Conclusion

This introductory review of the literature highlights the importance of using a model that adopts a comprehensive approach to the evaluation of outcome measures in specialist and advanced practice, within a SPO framework. The most suitable model chosen for this project is that proposed by Schulz et al (2002), adapted by Gerrish et al (2007), which by nature of its "broad inclusive approach" (p.590) – addressing symptomatology, quality of life, social significance and social validity – is ideal to evaluate the clinical significance of specialist and advanced practice roles in Ireland.

CHAPTER 3
Methodology

<table>
<tr><td>**3.1**</td><td>Aim</td></tr>
</table>

The aim of this study is to produce a focused evaluation of the clinical services provided by clinical nurse and midwife specialists and advanced nurse and midwife practitioners in Ireland.

<table>
<tr><td>**3.2**</td><td>Objectives</td></tr>
</table>

- To review the literature on the evaluation of healthcare interventions offered by similar postholders internationally.

- To develop and validate a tool to determine outcomes for clinical services of specialists and advanced practitioners.

- To use the validated instrument to compare clinical outcomes in care environments with and without the clinical input of specialists and advanced practitioners as part of the care team.

- To examine the impact of the clinical specialists' and advanced practitioners' clinical interventions/care on service users' (i.e. patients or clients) experience of care.

- To explore service users' well-being and satisfaction with care received from approved clinical specialist and accredited advanced practitioner postholders.

- To explore the financial implications of clinical specialist and advanced practitioner posts for the Irish health services, in terms of efficiency and effectiveness.

- To provide an interim and final report, the latter of which clearly identifies clinical outcomes, service delivery and economic implications of clinical specialist and advanced practitioner posts in terms of efficiency and effectiveness of services.

<table>
<tr><td>**3.3**</td><td>Design</td></tr>
</table>

3.3.1. Introduction

A mixed-method, explanatory sequential design was used (Figure 3.1), in keeping with the aim of the study. An initial literature review and focus group interviews with key stakeholders led into the quantitative Phase 1 of data collection (Delphi and evaluative studies). This was followed by the Phase 2 case study involving a smaller sample, where the aim was to explore in greater depth the results generated from the quantitative studies. A third interpretive phase followed, that sought new information from policy makers and incorporated data from all phases.

Figure 3.1: Sequential Explanatory Design (adapted from Plano-Clarke & Creswell, 2008)
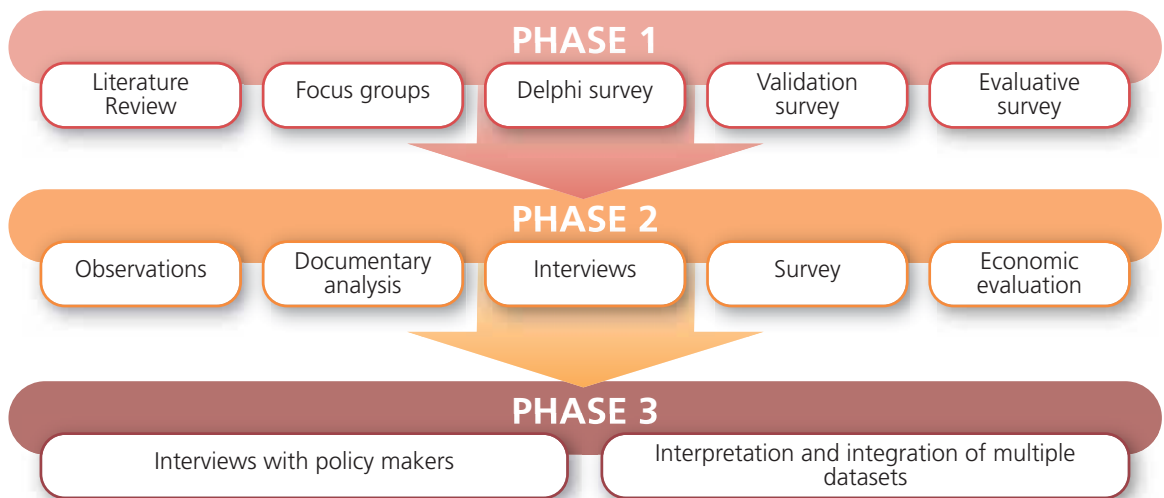
3.3.2. Phase I

Phase I of this focused evaluation consisted of three discrete work packages:

1. Phase I (part 1): Literature review and focus groups

2. Phase I (part 2): Delphi survey

3. Phase I (part 3): Validation survey and evaluative survey.

The literature review consisted of (i) a concept analysis of specialist and advanced practice (Chapter 4) and (ii) a systematic review of systematic reviews of the effects of healthcare interventions provided by specialist and advanced practice nurses and midwives (section 4.11).

3.3.2.1. Focus groups

Focus group and individual interviews were undertaken to inform the Delphi tool development. Focus groups are classified as: exploratory, clinical or phenomenological (Calder 1977). Focus group interviews are useful when evaluating healthcare services or when the aim is to learn about users'/providers' perceptions, feelings or thinking on an issue (Beyea and Nicoll 2000, Krueger and Casey 2000, Owens 2001, Halcomb et al 2007). Focus group interviews are also used to develop survey items (Jackson 1998, Cote-Arsenault and Morrison-Beedy 1999). The focus groups used in this study were exploratory in nature; the main aim was to generate data for further testing in the Delphi survey.

A focus group normally comprises between eight and 12 people (Krueger and Casey 2000, Stewart et al 2007). The distinction between focus groups and group interviews is the explicit use of the group interactions as research data (Kitzinger 1994, Morgan 1988, Freeman 2006). Analysis of the dialogue and group interaction provides information on strength of opinion, common experiences and shared concerns (Clarke 1999, Freeman 2006). Critical to the success of the group therefore is the interaction that occurs between participants (Morgan 1988, Kitzinger 1994, Clarke 1999, Krueger and Casey 2000, Owens 2001, Freeman 2006).

3.3.2.2. Delphi technique

The Delphi technique originated in the United States at the end of the 1940s, following investigation into the scientific use of expert opinion over individual opinion (Kaplan et al 1949, Helmer and Rescher 1959). Original studies aimed to obtain a reliable consensus of opinion of a group of experts by the use

of a series of intensive questionnaires interspersed with controlled opinion feedback (Linstone and Turoff 1975). Linstone and Turoff (1975, p. 24) consider it a method for structuring a group communication process that effectively allows a group of individuals as a whole to deal with a complex issue.

The technique has gained widespread use in nursing and healthcare research (Scott et al 2006). It has been used as a research methodology for determining priorities and alternative futures in medical, nursing and health services research (Kirk et al 1996, Campbell et al 2000, Twycross 2001, Ferguson et al 2005, Boote et al 2006). The principal use of the Delphi technique is to achieve consensus in areas where research is lacking (Powell 2003).

3.3.2.3. Key principles of the Delphi technique

The Delphi technique is a multistage process involving a series of sequential questionnaires or 'rounds', interspersed with controlled feedback (Linstone and Turoff 1975, Jones and Hunter 1995, Lynn et al 1998). The administration of a Delphi survey is an iterative process that consists of several rounds in which a panel of experts anonymously complete unstructured or structured questionnaires. Responses are summarised and fed back to the same panel in subsequent Delphi rounds; panellists then re-rate items in light of this feedback. This process continues until a group consensus is achieved (Hasson et al 2000). The attainment of consensus among a group of experts is central to the technique (Linstone and Turoff 1975).The number of rounds conducted depends on the priorities, the need to clarify issues and the degree of examination of areas of agreement and disagreement (Ziglio 1996, Landeta 2006).

The first round Delphi questionnaire can be relatively unstructured, seeking an open response. This allows participants/panellists relatively free scope to elaborate on the topic under investigation to identify issues for addressing in later rounds (Hennessy and Hicks 2003, Thorpe and Loo 2003, Wilson et al 2003, Lofmark and Thorell-Ekstrand 2004).

The second and subsequent rounds are more specific, with the questionnaires seeking quantification of earlier findings, usually through rating or ranking techniques. Rounds can be continued until consensus is reached or until indications suggest that no further consensus is likely (Jones et al 1992, Murphy et al 1998, Campbell and Cantrill 2001).

The inherent rounds of questionnaires in the structure of Delphi require the maintenance of participant interest and continued commitment to prevent participant fatigue and consequential attrition in response rate as the rounds progress. Strategies such as providing a clear outline of the commitment required (Wilson et al 2003), frequent reminders (Campbell and Cantrill 2001, Keeney et al 2006), and a quick turnaround time between rounds (Wilson et al 2003, Landeta 2006) have been documented as helpful in encouraging commitment and the continued participation of panellists.

3.3.2.4. Consensus building in the Delphi technique

Achieving consensus is central to the conduct of a Delphi study. Delphi rounds are analysed using a variety of descriptive statistics, usually relating to measures of central tendency (mean, median) and measures of variability (standard deviation, range, interquartile range). Measures of *central tendency* allow for a single measure of the group's consensus, whereas measures of *variability* (especially standard deviation) display the level of agreement that occurs around a mean score (McKenna 1994, Greatorex and Dexter 2000).

3.3.2.5. Validation and evaluative surveys

The Delphi survey was followed by a key stakeholder validation survey that explored stakeholder opinion on the relevance of outcomes identified. This was followed by an evaluative survey of CSs and APs, using the tool developed through the Delphi process (Chapter 6) to test its usefulness. At this stage, CSs/APs were also asked to contribute specialist specific outcomes so as to build a database of outcomes applicable to all areas.

3.3.3. Phase 2

3.3.3.1. Outline of case study

Phase 2 was a case study, consisting of (Figure 3.2):

- observation in clinical sites

- documentary analysis

- interviews with service users and/or family members/carers

- interviews with key stakeholders

- a survey of service users

- an economic evaluation.

The study was planned to be conducted in nine sites where APs or CSs worked (postholding sites), and nine matched sites where no specialist or advanced practice nurse or midwife was employed (non-postholding sites). Matching was based on service user characteristics and perceived clinical outcomes. Study tools were developed from the items identified in the Delphi Round 2 instrument.

Figure 3.2: Phase 2

3.3.3.2. Case study design

The case study, as one of several ways of doing social science research, can be defined as a research strategy and as an empirical inquiry, which investigates a phenomenon within its real life context (Yin 2003). Case study involves focusing on complex situations while understanding the processes in context (Keen and Packwood 1995), thus allowing constraints experienced by participants in daily work to be taken into account (Glen and Waddington 1998). This strategy can capture the holistic and meaningful characteristics of real life events and is useful if the context in which the phenomenon is occurring is not clear (Yin 1994, 1999, 2003), as was the situation in the present study. This approach is most appropriate when examining complex factors that require solutions (Stake 2000, Mariano 2001, Dooley 2002) and when examining nursing or midwifery practice, given the complex elements that influence care delivery (Hewitt-Taylor 2004). In particular, case study research is most appropriate when "a 'how' or 'why' question is being asked about a contemporary set of events over which the investigator has little or no control" (Yin 2003, p.9).

Stake (1995) emphasises that the type of case study that is appropriate depends on the purpose of the inquiry, and the instrumental case study is used to gain insight into, or illuminate, a particular issue. An instrumental case study approach (Stake 2000) was used in the SCAPE study, in order to describe accurately and as fully as possible how advanced and specialist practice contributes to clinical outcomes for specific service user groups. The case was the organisation or site where nurses or midwives worked – for example, ward, community or clinic.

3.3.3.3. Outline of data collected

Each case involved immersion of a research assistant within a study site with one to three postholders, and in a matched site without postholders, but with comparable services, for up to two weeks. The research assistants:

1. Conducted non-participant observation of care for particular service user groups over two, two-hour sessions (Appendix 6a and 6b)

2. Collected data from documentary data sources

3. Interviewed service users and/or family members/carers receiving care (Appendix 7e)

4. Interviewed key members of the clinical team working within the particular service area (Appendix 7a and 7b)

5. Surveyed a convenience sample of service users accessible through clinics or other mechanisms (Appendix 8).

The research assistant for the economic evaluation phase collected data for an economic evaluation of care given in both sites. In addition, a member of the research team interviewed the Director of Nursing or Midwifery in each participating site, using a semi-structured interview schedule (Appendix 7c and 7d).

3.3.3.4. Ethical issues

Ethical approval was granted by the Research Ethics Committee of the Faculty of Health Sciences in Trinity College Dublin. Directors of Nursing and Midwifery in all eligible sites were contacted to explore interest and support for the project before applications were submitted for approval to their regional or local ethics committees. Ethical approval was then granted by all local research ethics committees, where they existed. Information packs were posted to identified postholders, and their matched counterparts in all non-postholding sites, outlining the purpose of the study and the nature of participation, and enclosing an invitation to take part. Once ethical approval and consent for access had been received, a research assistant contacted the respondent directly to arrange a suitable time to observe practice.

3.3.4. Phase 3

3.3.4.1. Outline of interpretive phase

Phase 3 was the interpretive phase, which involved interviews with key policy makers to put the main findings in the context of the health services nationally, and to assess the level of acceptance of the roles and responsibilities of CSs and APs in Ireland. In the process, the findings from all main data sources were synthesised and interpreted as a whole.

3.4	Summary

A mixed-method, explanatory sequential design was used. An initial literature review and focus group interviews with key stakeholders led into the quantitative Phase 1 of data collection (Delphi and evaluative studies). This was followed by the Phase 2 case study, involving a smaller sample, where the aim was to explore the results generated from the quantitative studies in greater depth. A third, interpretive phase followed, that sought new information from policy makers. Data from all phases were then analysed and synthesised.

CHAPTER 4
Phase 1 (1): Literature review

<table>
<tr><td>**4.1**</td><td>Introduction</td></tr>
</table>

The nursing and midwifery professions in Ireland have undergone considerable change over the past two decades. In addition to reforms in education and research, the clinical role and responsibilities of nurses and midwives have changed almost beyond recognition in certain areas. The *Report of the Commission on Nursing (*Government of Ireland 1998) was the first catalyst, spearheading the introduction of clinical career pathways for nurses and midwives. The recommendation from the report for clinical career pathways from generalist nurse or midwife to clinical nurse specialist (CNS) or clinical midwife specialist (CMS), and on to advanced nurse practitioner or advanced midwife practitioner (ANP or AMP), is regarded as one of the "most far-reaching recommendations" of the report (O'Shea 2008, p.20). Following on from this report, the National Council for the Professional Development of Nursing and Midwifery was established to develop a clinical career pathway for nursing and midwifery (O'Shea 2008). The National Council has also been responsible for the introduction of important policy initiatives, including the promotion of educational programmes to support the career pathways of specialist and advanced practice (O'Shea 2008). As from June 2010, under the direction of the Statutory Instrument No. 3 of 2010 (DoHC 2010a), An Bord Altranais (the Irish Nursing Board) will now determine if a nurse or midwife meets the criteria for registration in the ANP or AMP division of the register held with An Bord. Continued advice and support is still provided to nurses and midwives pursuing specialist and advanced practice roles by the National Council.

The last decade has seen much reform in the Irish health service. The developments were heralded by the release of an ambitious health strategy by the Department of Health and Children (DoHC) in 2001: *Quality and Fairness: A Health System for You* (O'Shea 2008). The clinical nurse or midwife specialist role has developed out of identified service needs at local, regional and national levels and is thus in a prime position to support the national health policy as outlined in this document. Moreover, the development of advanced practice nursing and midwifery roles is considered central to the current health service reform (DoHC 2003a), and their development within the framework of the National Council has been recommended (DoHC 2001a). The focus outlined was on developing existing educational and training facilities to meet the needs of this group. The *Report of the National Task Force on Medical Staffing* (DoHC 2003b) recommended that, in keeping with the philosophy of the Commission on Nursing (Government of Ireland 1998), there needed to be exploration of how the development of the roles envisaged could be implemented nationally. The task force highlighted the potential for nurses and midwives to enhance quality patient care and patient outcomes further, in the context of a reduction in working hours of junior doctors (DoHC 2003b). This endorsement is also evident in an expansion of nursing roles, an increase in nurse- and midwife-led clinics, which require skills and competencies that reflect practice at an advanced level (NCNM 2003), and numerous national plans that include CS/AP roles as part of future development.

For example, the HSE National Cancer Forum (HSE 2006a) sets out its strategy for cancer control in Ireland with plans for providing multidisciplinary team care, including a large role for nurses. In particular, ANPs are key team members listed in the National Cancer Screening Service (NCSS) plan for a colorectal cancer screening programme (NCSS 2009). Similarly, the recent report on plans for the reconfiguration of acute hospital services in Cork and Kerry outlines the need for greater use of new extended scope roles and, lists numerous CS/AP roles as examples (Higgins 2010).

A preliminary step of this study was to explicate the meaning of advanced and specialist practice in Ireland and internationally. This chapter presents the findings of the literature review, structured around, first, a concept analysis of the meaning of advanced nursing and midwifery practice. The importance of undertaking a concept analysis is reflected in the difficulties associated with defining advanced practice. Secondly, a systematic review of systematic reviews of randomised trials measuring the effects of nurse- and midwife-led care was conducted and is presented in section 4.11.

4.2 The problem with terminology

Por (2008) warns: "Defining what advanced nursing practice is and what it might become remains problematic" (p.84). The main reason for this is the continuing confusion in terminology surrounding advanced nursing roles (Elsom et al 2006, Gardner et al 2007, Mantzoukas and Watkinson 2007). Also contributing to the problem is lack of firm clarification of the concept of advanced practice nursing (Furlong and Smith 2005). Moreover, the ambiguity around advanced practice in midwifery presents a distinct problem because of variations internationally on what are considered standard midwifery roles and advanced midwifery roles.

There is also confusion around use of the terms 'advancing nursing practice', 'advanced nursing practice' and 'advancing healthcare practice' (Por 2008), which are frequently but inaccurately used interchangeably in the literature. Although a distinction is often made between advanced practice nursing as an expanded role of direct clinical nursing, and advanced nursing practice as a more global development of expertise within the traditional role of nursing, this distinction is not internationally accepted (Schober and Affara 2006, Hamric 2009). Furthermore, advanced practice nurses themselves have highlighted the absence of a succinct definition of advanced practice (Lynch et al 2001). Gardner et al (2007) therefore calls for "a generic description of the core features of the practice of advanced nursing that is grounded in research and tested for validity and stability across diverse advanced practice nursing roles" (p. 383). A similar view is expressed by Donnelly (2003). However, because advanced practice roles are heterogeneous, there is difficulty in researching this topic (Gardner et al 2007). Moreover, the pursuit of cross-cultural comparison of advanced practice roles is considered questionable in view of the difference in these roles internationally (Offredy 2000).

The International Council of Nursing (ICN) defines an advanced practice nurse (APN) as "a registered nurse who has acquired the expert knowledge base, complex decision making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master's degree is recommended for entry level" (ICN 2002). However, a recent survey of 18 countries conducted by the International Nurse Practitioner/Advanced Practice Nursing Network (INP/APNN) of the ICN (Pulcini et al 2008) identified 14 different titles designating advanced practice roles and noted great variety in educational and practice requirements. In addition, although over 50 countries have or are developing the advanced practice role, Finland only graduated its first nurse practitioners in December 2006, while France and Belgium are focused on developing clinical nurse specialist roles (Sheer 2007).

Rodgers (1993) notes that inquiry directed toward resolving conceptual problems is a major step in continuing knowledge development. Inquiry that aims to establish consensus on a definition of advanced practice nursing will help to inform practice and research by facilitating outcome studies of the impact of advanced practice nursing on healthcare. In addition, consensus on APN definition, terminology, educational requirements, and regulatory approaches is integral to the implementation of the advanced practice nursing role internationally.

4.3	Method

4.3.1. Framework for analysis

Content analysis is a method used to examine the attributes or characteristics of a concept through a rigorous review process (Walker and Avant 1995). Although open to criticism, concept analysis is a useful method of clarifying concepts "influenced by the skill, knowledge, culture and understanding of the analyst and the framework being used" (Beckwith et al 2008, p.3). The central purpose of the concept analysis in the current study is to distinguish between the defining attributes of the concept of advanced-practice nursing and its irrelevant attributes, through refinement of the ambiguity found in numerous definitions and descriptions of the concept in various sources.

Rodgers' evolutionary method of concept analysis (1989) forms the framework for this analysis of advanced practice nursing within this review. Rodgers' model is based on the assumption that concept development is a fluid ongoing process, subject to change within contextual and temporal aspects. From this perspective, concept analysis is focused on significance, use, and application without imposing strict criteria or expectations on the analysis, as a means of identifying the 'state of the art' of advanced practice nursing (Rodgers 1993, p.77).

4.3.2. Setting and sample

Key phrases, 'advanced practice nursing' and 'advanced nursing practice' were used to search the literature. Additional terms used reflect the existing variation in nomenclature found in nursing: 'clinical nurse specialist', 'nurse practitioner', 'advanced nurse practitioner', 'advanced midwife practitioner', 'clinical midwife specialist', 'nurse consultant', 'midwife consultant', 'clinical nurse consultant', 'advanced clinical nurse, 'advancing midwifery practice', and 'nursing outcomes'. These were combined with the following countries: United Kingdom, United States, Canada, Australia, New Zealand, Ireland and Nordic States. The role of nurse anaesthetist was not used in this search due to its very specific and unique interpretation of advanced practice.

Data sources included Medline, CINAHL, Applied Social Sciences Index and Abstracts (ASSIA), Cochrane Library, Science Direct, SCOPUS, Web of Science, Dissertation Abstracts, and DARE as well as relevant nursing texts and professional organisation websites. All databases were searched with no time limit set. Studies were included if published in English and relevant to advanced practice nursing. Reference lists of each book or chapter were also examined for any relevant literature not identified through electronic databases.

4.4	Attributes of advanced practice

A rigorous review was conducted to identify the attributes or characteristics of advanced practice nursing most described in the literature. There is consensus that advanced practice is "beyond basic practice within the *clinical* domain" (Ketefian et al 2001, p.153), and can be distinguished from basic practice through specialisation, advancement and expansion (American Nurses Association 1996). Moreover, it is argued that "consistency in core characteristics is important for advanced practice nursing to occur" (Bryant-Lukosius et al 2004, p.520).

4.4.1. Core roles of advanced practice

4.4.1.1. Distinguishing between specialist and advanced practice roles

The many and varied advanced practice roles have resulted in research aiming to illuminate their core functions (e.g. Canam 2005, Carryer et al 2007), and efforts to delineate advanced practice roles (e.g. Glover et al 2006). These efforts suggest subtle differences in the attributes of various advanced practice roles. For instance, in Ireland, a distinction between the core concepts of advanced practice and clinical nurse or midwife specialist is made (Furlong and Smith 2005). This distinction was made possible due to the preliminary clarification provided by the *Report of the Commission of Nursing* (Government of Ireland 1998). Following this, immediate, intermediate and future pathways for CNS/CMS posts were outlined (NCNM 2008c). The core concepts of clinical practice, patient advocacy, education and training, research and audit, and consultation, are those outlined by the National Council for clinical nurse/midwife specialist practice in Ireland (NCNM 2008c). However, the National Council identifies four core concepts of advanced nurse practitioners and advanced midwife practitioners as: autonomy in clinical practice, expert practice, professional and clinical leadership, and research (NCNM 2008c). These roles reflect those required to respond to health service needs in the context of national strategic health developments (NCNM 2008b, d).

The five roles commonly associated with the CNS role internationally – educator, researcher, expert practitioner, consultant and leader (Kring 2008) – are also reflected in the four functions of the consultant nurse: expert practice; leadership and consultancy; education, training and staff development, and service development, research and evaluation (Guest et al 2004, Coster et al 2006). Such discussions further add to the difficulty in identifying the attributes of advanced practice. In addition, Ball (1999) argues that, while there is no doubt that the skills outlined above pertain to advanced nursing practice, it is not clear "what it is about these roles which means that they are being performed at an advanced level" (p. 66). Moreover, Patterson et al (2003) argue that current definitions of advanced practice do not always reveal the similarities in function that can exist between a general nurse, a nurse in specialised practice and an advanced nurse practitioner. Finally, in Australia, Chiarella et al (2008) conclude that more refinement and mapping of competencies is needed to delineate clearly different levels of generalist, advanced and specialist practice.

The literature abounds with discussions of the attributes of specialist and advanced practice nurses, including managing a caseload, information giving and flexibility in working practices (Clark et al 2002), providing holistic care and health promotion and engaging in research (Arslanian-Engoren et al 2005), engaging in complex reasoning and skills of analysis (Bourbonniere and Evans 2002), and undertaking comprehensive skills in patient assessment (Carryer et al 2007). In addition, advanced practice nurses are nurses who have an expert knowledge base, complex decision making skills and clinical competencies that allow for expanded practice (Sheer and Wong 2008).

Ackerman et al (1996) and Doersken (2010) use the Strong model of advanced practice, which proposes a framework for advanced practice. This model outlines the following five roles: direct comprehensive care; support systems; education; research and publication, and professional leadership. However, direct comprehensive care does not emphasise autonomy.

Spross and Lawson (2009) conclude that the common description of the four American APN roles of clinical nurse specialist (CNS), nurse practitioner (NP), clinical nurse midwife (CNM), and nurse anaesthetists (CRNA) provided in the landmark document, *Consensus Model for Advanced Practice Register Nurses* (APRN) *Regulation* (APRN Joint Dialogue Group 2008), validates that common areas exist across all APN roles (p. 44). In addition, this *Consensus Model*, which has been endorsed so far by most major US nursing organisations, proposes that APNs should meet the following criteria:

- hold a degree at an accredited graduate level in one of the four roles

- pass national certification in that role

- possess advanced clinical knowledge and skills

- build on competencies of RN skills and autonomy

- assume responsibility and accountability for practice

- demonstrate sufficient depth and breadth of clinical expertise

- be licensed in one of the four roles.

These recommendations are a major step towards establishing consistency in education and regulation of APNs in the US.

Manley's (1997) seminal work provided welcome clarity on the attributes of the advanced practitioner/consultant nurse role, and described it as "consultancy, underpinned by a strong nursing foundation, augmented by strong leadership and combined with the educator and research functions" (p.179). However, the recent work of Mantzoukas and Watkinson (2007) provides greater clarity on this discussion, through their identification of seven generic abilities of advanced nurse practitioners (Table 4.1). Spross and Lawson (2009) note that Mantzoukas and Watkinson's findings support the integrative model of advanced practice that Hamric enunciated in 1996, which also delineates seven core competencies and additionally identifies the primary criteria of advanced practice as graduate education and certification in a specialty with a focus on clinical practice. It is noteworthy that Mantzoukas and Watkinson (2007) omit the term 'expert' in their list; however, they do conclude that specialisation is viewed as an element of advanced practice.

Table 4.1: Advanced practice attributes	
7 generic abilities:	**7 core competencies:**
Use of knowledge in practice	Critical thinking and analytical skills
Clinical judgement and decision making skills	Professional leadership and clinical inquiry
Coaching and mentoring skills	Research skills
Changing practice	Direct clinical care
Collaboration	Coaching and guidance
Research	Ethical decision making
Consultation	Leadership

(Mantzoukas and Watkinson 2007)　　　　　　(Spross and Lawson 2009, p.59)

4.4.1.2. Clinical expertise

The issue of 'expertise' and how it relates to advanced practice requires closer examination. Designation of nurses in advanced practice as 'clinical experts' emerges in the literature (e.g. Arslanian-Engoren et al 2005), and advanced practice is synonymous with expertise. However, Por (2008, p. 85) argues that advanced nursing practice "is more than being an expert by experience in a speciality" and the nature of clinical expertise in advanced practice remains "elusive and unclear" (Donnelly 2003, p. 168). This view is also held by Callaghan (2008) who argues that "the quest for expertise in advanced nursing practice may be likened to the Holy Grail as a mysterious object of search and as the source of ultimate knowledge" (p. 206).

It is reported that nurse consultants with competence and experience are more successful in managing all parts of their role than those less experienced (Woodward et al 2005). In addition, Guest et al (2004) reports that consultants who were comprehensively engaged across all roles were those with higher confidence in their ability and longer service. Bourbonniere and Evans (2002) attribute APNs with demonstrating high levels of expertise in the assessment, diagnosis and treatment of complex health problems of individuals, groups, and communities. Maylor (2005) adds to this discussion and posits that the term 'expert' should not be used as a function of the Clinical Nurse Specialist or Nurse Consultant roles, as it suggests 'double meanings' (p. 468) since generic nurses are also described as technical experts. It is therefore possible to be an expert in advanced nursing practice without being an advanced practice nurse.

4.4.1.3. Leadership role

The theme of leadership emerges strongly in the view of Mantzoukas and Watkinson (2007). The importance of the leadership role for advanced practice nurses and midwives is also highlighted by Coster et al (2006) in their discussion of the role of consultant nurses, midwives and health visitors. They argue that team leadership is an essential aspect of the consultant role, and this leadership includes supervision of staff and "empowering staff by building their confidence and encouraging extension in their roles" (p. 354). Similarly, Carryer et al (2007) report that the three core components of the NP role in Australia and New Zealand are dynamic practice, professional efficacy and clinical leadership. The seven functions proposed by Mantzoukas and Watkinson (2007) are embedded in these three roles. Dynamic practice is "the application of high level clinical knowledge and skills in a wide range of contexts" (Carryer et al 2007, p. 1818). Professional efficacy is "enhanced by an extended range of autonomy that includes legislative privileges" (Carryer et al 2007, p. 1818-1819). Finally, Carryer et al (2007) outline that clinical leadership is "a readiness and an obligation to advocate for their client base and their profession at the systems level of health care" (p. 1819).

4.4.1.4. Autonomy

Another central attribute of advanced practice is that of autonomy, which is the shared connection between the many views of advanced practice in the literature (Mantzoukas and Watkinson 2007). Advanced practice is often discussed in the context of the autonomy it affords nurses through expanded and extended roles (Brown and Draye 2003, Daly and Carnwell 2003). Autonomy is also considered central to effective performance of advanced practice roles (Mac Lellan 2007, Srivastava et al 2008).

4.4.2. Role extension

Any dialogue on the attributes of advanced practice cannot occur without discussion related to role expansion and extension. Daly and Carnwell (2003) used the framework of role extension, role expansion and role development to provide clarity around the various advanced practice roles. Role extension is the inclusion of a role that was previously regarded as the role of another profession, and the relationship between NP roles and medicine falls into this category (Daly and Carnwell 2003). Indeed, NPs have reported that they have been accused of "no longer being nurses" (Brown and Draye 2003, p. 394).

Those favouring role extension for advanced practice nurses and midwives view advanced practice as "relating to the emergence of clinical posts at the nurse-medical interface where nurses take on the tasks that were previously considered to be the doctor's domain" (Por 2008, p. 86). However, fragmentation of nursing care is possible with role extension (Mantzoukas and Watkinson 2007). Moreover, the focus on role extension raises concerns that a medical, rather than a nursing, focus gains dominance in APN practice (Arslanian-Engoren et al 2005). An Bord Altranais has expressed its concerns about role extension based on certification. Role expansion was recommended "based on informed professional discretion

and guided by certain fundamental principles" (An Bord Altranais 2000, p. 28).

The issue of advanced practice nursing roles that replace or support physicians is discussed by Bryant-Lukosius et al (2004); they argue that, where the primary focus of advanced practice roles is not defined in relation to health needs, "the nursing components of the roles may become less valued and visible" (Bryant-Lukosius et al 2004, p. 524). However, Brown and Draye (2003) report NPs' frustration that others focus on the medical parts of the role rather than on "blending nursing and medicine" (p. 393). Furthermore, Plager and Conger (2007) identify the competing demands of medical functions in APN roles as constraints to implementing fully the nursing roles of research, leadership and education in the practice setting.

4.4.3. Role expansion

Role expansion evolves when additional skills and responsibilities are integrated into the specialist role in the context of the core elements of nursing practice, resulting in more autonomy (Daly and Carnwell 2003). It is viewed as central to advanced practice (Mac Lellan 2007). Role expansion may also include a change in the nurse's or midwife's scope of practice (An Bord Altranais 2000). Moreover, Por (2008) argues that role expansion "encompasses expert nursing practice which can be based on a specialist or generalist approach" (Por 2008, p.86).

The practice setting has also been implicated as a variable in the extent of role expansion. Stark (2006) notes that practice setting has a greater impact on the differences in APN roles than educational preparation. Furthermore, Srivastava et al (2008) report ambiguity in the scope of practice for APNs and specialist trained nurses in critical care settings in the UK.

4.4.4. Role development

It is difficult to differentiate role extension from role expansion. Incorporating the two is discussed by Daly and Carnwell (2003) in the context of role development. Use of the term 'role development' appears more appropriate in current discussions on advanced practice. It is argued that it is not the task that defines a discipline, but rather the philosophical approach guiding practice (Carryer et al 2007). This is borne out in the findings reported by Carryer et al (2007) where NPs in Australia and New Zealand express their role in the context of a nursing model of Nurse Practitioner practice. Most of the NPs interviewed (n=15) "made a clear distinction between their approach and attitude to practice and the incorporation of tasks previously outside the scope of nursing practice" (p.1824). In addition, it is important to emphasise that "the crucial factor in determining advanced nursing/midwifery practice…is the level of decision making and responsibility rather than the nature or the difficulty of the task undertaken by the practitioner" (NCNM 2008d, p. 7).

4.5	Model case

A model case represents the concept in the best of present understanding. Consistent with Rodgers' evolutionary method, a model case is identified rather than constructed so as to provide an example of the concept that demonstrates clearly its attributes, antecedents and consequences in a relevant context (Rodgers 1993, p. 87). Mantzoukas and Watkinson's (2007) seminal work reviewing advanced practice nursing best meets these criteria. The authors provide a carefully thought out analysis of the concept from multiple perspectives. They address the challenge of differentiating advanced practice nursing from

advanced nursing practice, describe core concepts, review outcome data and discuss implications for future practice within the context of the continually changing healthcare system worldwide. And, although conclusions reached may be controversial in nature, it is that very rigorous process of analysis that stimulates reflection and triggers more debate that contributes to better understanding of this concept within the nursing and midwifery professions. Mantzoukas and Watkinson (2007) provide a few answers but raise many more questions. Hamric et al (2009) cite this work repeatedly in the recent edition of their comprehensive text on advanced practice in the United States, further validating its impact on the topic. In accordance with this process, Mantzoukas and Watkinson (2007) set the stage for further research focusing on outcomes of advanced practice nursing and emphasise the need for continued refinement of the concept and clarification of sensitive advanced practice nursing indicators.

4.6	References of advanced practice

4.6.1. Variety of titles

The purpose of identifying the references of a concept is to clarify the range of events and circumstances over which the application of the concept is considered fitting (Rodgers 1989). Advanced practice nursing has been used as a global term identifying nurses who practise at a higher level than traditional nurses, and advanced practice roles are shaped by the context and country where they are accredited to practice (Sheer and Wong 2008).

Earlier studies focused on clinical nurse specialist roles. For instance, McGee et al (1996) identified the most common fields of care for UK CNSs to be in the specialties of diabetes, palliative care and continence care. This has broadened considerably over the years, with new ANP roles developing predominantly in acute-care settings (Bryant-Lukosius et al 2004). However, it is envisaged that advanced practice nursing roles will expand in greater numbers into ambulatory and community settings in the future (Bryant-Lukosius et al 2004). In addition, the CNS role is now being promoted in developing countries, which would facilitate expert care for clients with chronic disease such as HIV, AIDS, tuberculosis and malaria in a cost-effective manner (Mapanga and Mapanga 2008).

Many different titles are used internationally to describe advanced practice roles (Sheer and Wong 2008). These authors undertook a study to examine the development of advanced nursing practice in five continents and analysed data from 14 countries. Although Sheer and Wong identify 'case manager' as a legitimate role in the US, it must be clarified that only four APN roles have been officially designated by the American Nurses Association, including nurse practitioner, clinical nurse specialist, certified nurse anaesthetist, and nurse midwife. In addition, the scope of practice for nurse anaesthetists is considered different from other APNs, illustrated in the exclusion of them from a Delphi study to identify nurse-sensitive outcomes of advanced practice (Ingersoll et al 2000). Moreover, the CNS and NP roles are adopted across international settings, while the title of APN is adopted only in some countries. Furthermore, Coster et al (2006) point out that the clinical nurse consultant role in Australia appears more like the 'ward sister/charge nurse' or 'clinical nurse manager' in the UK, in view of the role's responsibility for a specific patient group.

The inclusion of 'nurse midwife' under the heading of advanced practice in the US is noteworthy. Discussions on midwifery roles in advanced practice are sparse in the literature, with only brief reference to midwifery specialist roles (e.g. O'Keefe 2004). In addition, roles in nurse midwifery, which developed in the first half of the 20th century, were only "added to the APN family" in specific countries (Ketefian

et al 2001, p.153). Interestingly, standard midwifery roles in the UK are differentiated from consultant midwife roles. A similar view is taken in Ireland, with the role of advanced midwife practitioner differentiated from the standard midwife role. However, Jones (2005, p.192), in the context of comparing midwifery roles in the US within a systematic review of 14 studies in the UK and US, argues that "standard UK midwifery roles would be regarded as advanced roles". Some clarity on this topic has been offered by the recent report from the UK, which distinguishes between specialist and advanced midwifery roles (Department of Health 2010). In this report, specialist midwifery roles "will normally be particular to a specific context, be it a client group, a skill set or an organisational concept" (Department of Health 2010, p. 38). Advanced midwifery practice is defined as roles "characterised by high levels of clinical skill, competence, and autonomous decision making when discharging the responsibilities of that role and, in common with other roles at this level, will normally be educated to masters degree level, underpinned by robust supervision and competence assessment" (Department of Health 2010, p. 39).

Other titles are also used to describe advanced practice roles. The title of 'advanced practice nursing' (APN) is an umbrella term used to encompass the specific roles of nurses who practise at a more advanced level than that of traditional nurses (Cole 2003, Bryant-Lukosius et al 2004, Sheer and Wong 2008). Other titles include advanced midwife practitioner (Begley et al 2007), nurse clinician (Bonsall and Cheater 2008), advanced practice nurses (Boyle 1995) and clinical nurse consultant (Elsom et al 2006). Adding further to this confusing array of titles and terms, Daly and Carnwell (2003) identify eight advanced roles: CNS, ANP, NP, Higher Level Practitioner (HLP), Nurse Consultant (NC), Specialist Practitioner, Nurse Therapist and Physician's Assistant. In addition, Duffin (2004, p. 7) referring to UK advanced practice 'categories', lists: "Some charge nurses, clinical nurse specialists, emergency nurse practitioners, advanced nurse practitioners and consultant nurses and midwives". Interestingly, in a study reported by Gardner et al (2007), NPs were excluded from the generic title of APN because the core of this role is diagnosis and treatment.

The titles used in one country may be equivalent to a different title used in another. For instance, the CNS role as it is envisaged in the US has notable similarities to the 'clinical nurse consultant' (CNC) role in Australia (Elsom et al 2006). In addition, the CNC role in Australia, in existence since the late 1980s, is similar to that of the role of 'advanced practitioner' in the UK (Vaughan et al 2005). These differences in titles have resulted in confusion over advanced practice roles internationally (Duffield et al 2009).

A recent ICN/NPN survey of 18 countries identified 14 different terms referenced as APNs (Pulcini et al 2008, 2010), illustrating that various roles and contexts apply to advanced practice internationally. For instance, in England, there is no common definition for the roles of CNSs/NPs (Cox and Ahluwalia 2000). However, in the US, the recent position statement by the APRN (APRN Joint Dialogue Group 2008) identifies four legitimate roles of APNs, NP, CNS, CNM and CRNA with preparation in one of six population foci: adult, geriatric, paediatric, family women's health or psychiatric/mental health. This landmark document further mandates that any APN must engage in direct clinical practice, which is defined as direct care. This definition excludes nurses in advanced nursing roles in administration, public health or education.

4.6.2. Hierarchy of titles

The literature also suggests that some roles fitting under the heading of advanced practice are at a more advanced level than others. In the UK, CNS, NP and CN roles are collectively referred to as 'specialist and advanced practice roles' (Jones 2005). However, it is also argued that Consultant Nurse/Consultant Midwife roles represent the highest levels of clinical practice (Booth et al 2006). Examination of these roles reveals that consultant posts in nursing, midwifery and health visiting in the UK were "expected to be senior to and more strategic than those of clinical nurse specialists and nurse practitioners…in much the same way as medical consultants operate in their profession" (Coster et al 2006, p. 353). Nevertheless,

Maylor (2005) argues that differentiating the CNS role from that of the Consultant Nurse is not possible because some have identical job descriptions. Bryant-Lukosius et al (2004) conclude that it is unclear as to "which roles truly reflect advanced practice" (p. 520).

4.6.3. Surrogate terms and related terms of advanced practice

Rodgers (1993) warns of the importance of distinguishing between surrogate terms and related concepts. Surrogate terms are means of expressing the concept with other similar words. Related concepts do not contain the critical attributes, but are similar and related to the main concept, and also add context to the concept of interest.

Only one surrogate term in relation to advanced practice was found in the literature. Por (2008) uses the term 'advancing nursing practice' in the context of discussions on expert nursing practice based on a specialist or generalist approach. Por (2008, p. 85) further clarifies that "advancing nursing practice encompasses advanced nursing practice". Internationally, many nurses agree that advanced nursing practice includes advanced practice nursing, but few clear distinctions have been put forth.

Multiple related terms appear in the literature and are categorised here under three areas, for clarity: specialty practice, administration/management, and academia/research (Table 4.2). Interestingly, many related terms are evident in the specialty of oncology nursing.

Table 4.2: Related terms for advanced practice		
Speciality practice	Administration/Management	Academia/Research
Specialist Nurse	Nurse-led	Clinical Research Nurse
Lead Cancer Nurse	Midwife-led	Lecturer-Practitioner
Advanced Clinical Nurse	Case Manager	Clinical Nurse Resource
Modern Matron		
Macmillan Nurse (Palliative care)		
Nursing Triage		

Earlier related terms evident in the literature are 'expert practitioner', 'advanced practitioner' and 'specialist practitioner' (Salussolia 1997). A related term used less frequently in the literature is 'specialist nurse' (Ormond-Walshe and Newham 2001). Another related term is 'lead cancer nurse', a relatively new role that developed in the UK to allow nursing at senior level to contribute to the planning and delivery of cancer services (Vaz and Small 2007). However, the career pathways for these posts remain ambiguous, with no clear structures to support them and no identification of the education and training needed to support the role (Vaz and Small 2007). The UK Macmillan nurse is also regarded as equivalent to the US advanced practice nurse in palliative care (Kuebler 2003), and with a role similar to that of a CNS (Clark et al 2002).

Also found in cancer care, as well as in other clinical specialties, is the title of 'clinical research nurse'. The research nurse or midwife is considered a key member of the research team and provides a unique contribution to clinical research in Ireland (NCNM 2008e). It is argued in the international literature that the 'clinical research nurse' title suitably falls under the heading of 'advanced practice' because advanced practice "is not defined by the title but by the level of skill to which it is performed" (Bird and Kirshbaum 2005, p.161). Raja-Jones (2002) discusses the role overlap between CNSs and Clinical Research Nurses in breast care, and the term 'advanced clinical nurse' is also used (Kirshbaum and Hempshall 2004). That being said, this role has been reviewed by the National Council (2008e) and found not to fit with the criteria for CNS or ANP posts.

Mantzoukas and Watkinson (2007) discuss the ANP role in relation to the terms 'nursing triage' and 'nurse-led'. Lathlean (2007) also refers to 'nurse registrars' (NRs) in emergency care in the UK, a role described as "an innovative approach to the development of consultant nurses" or "someone in training to become a consultant nurse" (p. 30). Lathlean (2007) also refers to the pioneering role of 'lecturer practitioner' in the context of expanding nursing roles.

Another related term is that of 'modern matron', which was introduced into the NHS in 2001, as part of the NHS plan to improve the quality of patient care. The 'modern matron' has strong leadership, with clear authority at ward/department level (Lloyd et al 2007), and this role resembles that of the unit based CNS in the US. Sheer and Wong (2008) include case manager as an advanced practice role in the USA. Johnston et al (2006) also refer to the 'clinical nurse resource', a new role designed to supplement vacant clinical nurse specialist positions in a US bone-marrow transplant unit. Finally, Lorensen et al (1998) discuss the role of the public health nurse in Nordic countries in the context of advanced practice.

Use of the term 'nurse-led' also arises when discussing terms related to advanced practice (Mantzoukas and Watkinson 2007). The term 'nurse-led' became evident in nursing literature in the 1980s, and in the 1990s there was a big increase in nurse-led clinics (Hatchett 2003). Nurse-led clinics are viewed by some as on a par with advanced practice (Loftus 2001, Hatchett 2003). However, a nurse-led service in chemotherapy administration has been reported to be viewed cautiously by both service users and health professionals on the basis of it being a "nurse-doctor substitution model" (Fitzsimmons et al 2005, p. 249).

Midwife-led care has been defined as care where the midwife is the lead professional in the planning and organisation of care during pregnancy and childbirth (Hatem et al 2008). Within midwife-led models of care, midwives have an autonomous role and fulfil the core competencies of advanced practice identified by Mantzoukas and Watkinson (2007) and thus can be regarded as practising at an advanced level.

4.6.4. CNS and NP roles

4.6.4.1. CNS roles

The two most common advanced practice roles are those of CNS and NP. However, it would appear that the CNS role is not as well articulated, especially in the US. The Clinical Nurse Specialist role developed before that of the NP role in both the US and Australia (Elsom et al 2006). Henderson (2004) argues that the CNS role was created to "improve the quality of care provided by the bedside nurse" (p. 39), implying an indirect patient role. The first CNS programme in the US was in 1954 and prepared students for psychiatric nursing (Cole 2003). However, it is argued that the CNS role is not as clearly defined as that of the other advanced practice roles (NP, CRNA and CNM) in the US (Berger et al 1996) and generates the most confusion, both within and outside the profession of nursing (Henderson 2004). Henderson (2004) points out the difficulty in determining the exact number of CNSs in the US "because a large number of them are working under different titles" (p. 38). In the UK, it is argued that the introduction of the Nurse Consultant role has resulted in the erosion of the position of the CNS at the top of the clinical ladder (Maylor 2005). Similarly, role ambiguity is evident in the CNS role in the UK, but it is also apparent in ANP roles (Jones 2005).

4.6.4.2. NP roles

The NP role was created in the US to improve access to primary care (Henderson 2004); the first US NP role in paediatric nursing was created in 1965 (Cole 2003). The numbers of NPs have risen considerably when compared with that of CNSs in the US. For instance, in 1991, the number of CNSs in oncology in the US was 1,405 compared to 183 NPs. However, by 2002, there were 1,342 Oncology CNSs and 1,270 Oncology NPs (Cunningham 2004). Moreover, figures released in 2005 reveal that there were 116,447

registered NPs in the US compared to 15,098 CNSs (Phillips 2006).

This proliferation of AP roles is due to the large number (58 million, or approximately 25%) of Americans who do not have health insurance coverage, which has forced many of them to access primary care services. In the US, only a quarter of graduates from medical school choose to take on residencies in the primary care area, so there are significant shortages of medical practitioners in these services. Nurse practitioners are qualified to provide primary care and have been employed in increasing numbers in the last decade (Sherwood et al 1997).

4.6.5. CNS and NP role distinction

Despite reported findings of both similarities and differences between CNS and NP roles (Read and Roberts-Davis 2000), much literature focuses on the differences and considers them two distinct roles (Murphy-Ende 2002, Patten 2007). In the US, nurse practitioners are synonymous with primary care, and CNSs with specialised acute care (Dunn 1997). Cole (2003) outlines that the NP role intersects with medicine, whereas the CNS role does not. Moreover, it is argued that clinical nurse specialists have a more respectable representation among nursing education elite, and that nurse practitioners are widely recognised as a more cost-effective alternative to physicians (Dunn 1997). Furthermore, the two roles are viewed as more different than alike, both philosophically and practically (Mick and Ackerman 2000).

CNSs and acute-care NPs describe their roles differently. Mick and Ackerman (2000) report that, among a group of CNSs and NPs (n=18), acute-care NPs placed higher importance on tasks related to comprehensive assessment, including conducting histories and physicals, diagnosing, and performing diagnostic procedures, whereas CNSs assigned greater importance to tasks related to education, research and leadership. This differentiation between the American CNS and NP role is also evident in accounts of oncology CNSs undertaking further education to allow them to practise as NPs (Jacobs and Kreamer 1997). This is also evident in New Zealand, where Geraghty (2002) describes CNSs working in the emergency department and planning to apply for NP status.

Nevertheless, some consider the CNS and NP roles as similar, and refer to both under the heading of APN (Kuebler 2003). King (2004) also refers to the 'blended advanced practice role', which blends the CNS and NP roles following Master's preparation for both. However, this classification can be confusing; for instance, Ormonde-Walshe and Newham (2001) discuss the difference between ANP and CNS roles as opposed to CNS and NP roles. The ANP role in Ireland appears to mirror a hybrid of the American NP role and the UK nurse clinician and nurse consultant roles (Dowling 2003).

4.6.6. Combining CNS and NP roles

Despite these debates on the differences between the two roles, for over two decades there have been discussions in the US about combining the clinical nurse specialist (CNS) and nurse practitioner (NP) roles under the title of Advanced Nurse Practitioners (Dunn 1997). Similar debates occurred in Australia (Elsom et al 2006). This suggested that blending of the two roles was prompted in part by the loss of many CNS positions as a cost-cutting measure combined with the subsequent growth of NP positions (LaSala et al 2007), but this blending has not yet occurred.

4.6.7. Threat to CNS role

Henderson (2004) reminds us that CNSs continue to seek recognition and advanced practice status in many US states. The decline in CNS posts may also be related to the indirect care role of the CNS. Clinical nurse specialists spend minimal time on direct patient care, whereas the principal focus of NP practice is on direct patient care, with a defined patient caseload (Woods 1997, Henderson 2004). However, the

importance of the CNS indirect role is evident in accounts discussed by Linck and Phillips (2005) where it was shown that a new CNS role helped staff to effectively manage disruptive patient behaviours and improve morale. Moreover, nurses report viewing the CNS as a nurse advocate and resource (Linck and Phillips 2005). Similarly, CNSs also consider their role as empowering generalist nurses through education and support (Ling 2005).

Progress has been made in clarifying the unique contributions of the CNS role in the last decade. Snyder et al (1999) completed a comprehensive analysis of the CNS role, identifying many clinical competencies, which was updated in 2006 (Lindeke et al 2006). Meanwhile, core competencies were formally articulated for the CNS role (National Association of Clinical Nurse Specialists 2004). In addition, the recent endorsement of the US APRN Consensus Model (APRN Joint Dialogue Group 2008) by major nursing organisations, including the National Association of Clinical Nurse Specialists, may bring more clarity and consistency to the CNS role and ensure standardisation in practice. In Ireland, the core competencies for clinical nurse/midwife specialist roles have been outlined clearly (NCNM 2008c), which adds clarity to the role.

| 4.7 | Antecedents of advanced practice |

4.7.1. International trends

The contribution of nurses and midwives in meeting health and development goals internationally is recognised as being essential (WHO 2008). Advanced practitioners face common challenges in a global community (Sheer 2001). However, international variation in advanced practice roles is clearly evident, with variability in legislation, titles, autonomy and educational preparation (Bryant-Lukosius et al 2004). On a macro level, advanced practice roles have evolved out of a multitude of factors, including the health needs of society, support for innovative healthcare delivery systems, governmental health policy and regulation, workforce supply and demand issues, nursing's support for new roles, advances in nurse education, and the development of a significant nursing research base (Styles 1996). Ketefian et al (2001) also propose that the development of advanced practice nursing roles evolved out of influences from the socio-political environment, society's healthcare needs, supply and demand of health workforce, governmental policy and support, intra/interprofessional collaboration, development of nursing education, and documentation of the effectiveness of the advanced role.

Three essential antecedents to advanced practice emerge from the literature, one external and two internal. The external antecedent is the changes in medical practice internationally. The internal antecedents are higher education and clinical expertise.

4.7.2. Changes in medical practice

The influence of changes in medical practice on advanced practice roles is evident. The shortage of physicians in the US during the 1960s and 1970s, as well as trends toward specialisation versus primary care, resulted in the development of NP posts (Quaal 1999). In addition, the reduction of doctors' hours internationally offered advanced practice nurses an opportunity to fill the gap (Olson and Chioffi 2005, Por 2008). Cost of medical care has had a significant impact, with nursing viewed in many studies as providing care of comparable quality, and more cost-effective, than that provided by physicians (Brooten et al 1986, Chang et al 1999). Finally, consumers demanded more choice and accessibility of medical care, which has challenged healthcare delivery systems to look again at alternatives to traditional medical

models of care (Hamric 2009). O'Shea (2008) describes the evolution of advanced practice nursing in Ireland and details, in addition to the absence of physicians in some areas, other influential changes in medical practice such as technological advances, the transfer of tasks from medicine to nursing, the expansion of healthcare coverage through community nursing, and the reorientation of healthcare systems to primary care.

4.7.3. Higher education

It is recommended internationally that nurses working at advanced practice level should hold a Master's degree (Sheer and Wong 2008). This appears to be the case generally, with nurses and midwives in Ireland practising as APs educated to at least the level of a Master's degree (Begley et al 2007), and also in Australia for the NP role (Lee and Fitzgerald 2008). All four APN roles in the US require Master's level preparation, with the more recent term 'graduate education' substituted to address the movement toward Doctorate in Nursing Practice (DNP) (American Association Colleges of Nursing (AACN) 2004).

In the UK however, concern has been raised in the past regarding the absence of universal standards for the educational requirements of CNSs/NPs (Cox and Ahluwalia 2000), and that training for nurses varied widely, from short courses delivered locally to postgraduate study (Daly and Carnwell 2003). Steps are now being taken to rectify this. A Nursing Task Group in the UK has proposed national competencies for those who wish to assume the titles of CNS or APN and these nurses would need a Master's or doctorate qualification, which would "bring the UK in line with countries such as Australia and the United States" (Duffin 2004, p. 7). Moreover, the Nursing and Midwifery Council (NMC) is currently proposing that nurses in the UK obtain a Master's degree before being afforded the title of advanced practitioner (Por 2008), and doctorate programmes are now offered for nurses assuming the title of 'nurse consultant' (Ellis 2006). The importance of education to at least Master's level was highlighted by Maylor (2005), who cites findings that nurses in consultant roles in the UK struggle if they have not undertaken education at Master's level, and were seen to be functioning at only CNS level. The International Council of Nurses (ICN) also recommends that a Master's degree be required at entry level to advanced practice roles (ICN 2002).

The picture is less clear with CNS roles. For instance, in New Zealand, the CNS role has no national certification and the role may differ from one district health area/hospital to another (Geraghty 2002). This further highlights the confusion over 'levels' that pertain within advanced practice roles.

4.7.4. Clinical expertise

Another antecedent of advanced practice roles is clinical expertise. Five years' clinical experience within a specialty is generally agreed internationally to consolidate specialist competencies in preparation for an advanced practice role (Norris and Melby 2006). Moreover, the concept of confidence features strongly in the way nurses learn for advanced practice roles (Currie 2008). However, in the US, there is no mandate for extensive clinical expertise as an admission criterion for the advanced practice role. Although several specialties may recommend one to two years' clinical practice prior to entering graduate programmes, there is variability in these requirements, with some nurses obtaining simultaneous RN and APN status (AACN 2009).

In Australia, nurses and midwives wishing to become NPs must have at least three years' postgraduate diploma experience in their specialty; seek employment as an NP/ANP candidate, and pursue a Master's degree (Lee and Fitzgerald 2008). Similarly, in Ireland, those wishing to become ANPs must have at least five years' experience in their specialty, and also pursue a Master's degree (NCNM 2008d). Some universities include an internship in their Master's programme, where the nurse practitioner candidate works with a suitably qualified mentor in achieving their learning objectives in practice (Lee and Fitzgerald 2008). This approach is similar to that of the role of 'clinical supervisor' adopted by some Irish universities

offering Master's programmes for advanced nurse and midwife practitioner candidates (Begley et al 2007).

In New Zealand, however, O'Connor (2008) questions if the NZ NP model is "flawed" or if the "competencies are too rigorous" (p.11). This follows current debates in that country on the small numbers in the NP post, and the rigorous process involved for nurses who wish to pursue an NP role. Nevertheless, the latest figures reveal that 88 NPs are now practising in New Zealand (the Nurse Practitioner website 2010). The ICN conducted a survey of 32 APs from 18 countries and found that all countries required 2-5 years' experience after registration, although not necessarily in the specialty, for all entrants into AP preparation programmes (Pulcini et al 2008).

| 4.8 | Consequences of advanced practice |

4.8.1. Challenges to providing evidence on advanced practice outcomes

It is argued that nurses working in advanced roles add value to the provision of healthcare services (Spross and Heaney 2000); the extent of the evidence supporting this assertion is, however, limited (Kleinpell 2002) as clinical care provided by advanced practice nurses is often "invisible" (Kleinpell 2007, p. 18). Cunningham (2004, p. 219) argues: "Articulating how, why, and for whom they [APNs] add value is critical to the future viability of the APN role and the delivery of quality healthcare services to the public."

The consequences of advanced practice can only be identified through research that measures its impact on patient/client care. This can be difficult as the role tends to have an indirect effect on patient outcomes (Daly and Carnwell 2003). The challenges in evaluating advanced practice outcomes include the use of multiple definitions for APNs and a lack of conceptual transparency regarding the role of the APN, which impede the ability to draw comparisons across investigations (Cunningham 2004). However, because of the careful regulation of specialist and advanced practice roles in Ireland, role clarity was not a problem in this project.

In the research already undertaken, it is evident that there is a need to describe the precise interventions of specialists and advanced practitioners clearly in order to understand the process and outcomes of such practice (Cunningham 2004). A variety of strategies for measuring such outcomes exist, with the choice of approach depending on the interventions provided.

4.8.2. Choosing the appropriate evaluation measures

The evaluation of outcomes helps determine if the structures and processes actually achieve what was intended, as outcomes are compared against best practice. Evaluation measures can be chosen using the following criteria: significance, range, quality, and feasibility (Byers and Brunell 1998). More specifically, Coster et al (2006) outline the following six factors that emerge as being predictive of their perceived impact: level of engagement, perceived levels of competence, perceived salary equity [inverse relationship], specialty, support from senior medical staff, and job tenure.

It is crucial that valid nursing- and midwifery-sensitive outcome measures be selected in any evaluation of specialist and advanced practice. Failing to do this may result in only limited evidence of the effectiveness of advanced practice. This is evident in a randomised controlled trial comparing the follow-up care by nurses and by doctors of patients discharged with acute asthma, which reports no difference

in the two groups (Nathan et al 2006). Closer examination reveals that the data collection was limited to measures of peak flow, quality of life and number of acute exacerbations, thereby missing central data such as patient satisfaction with the care provided, or health promotion aspects. The importance of designing methods that draw attention to the distinctive focus of advanced practice is, therefore, essential (Kleinpell and Gawlinski 2005). However, Douglas et al (2003) warn that there is "inherent complexity in evaluation" of special nurse intervention because it is "often difficult to define nursing outcomes" (p. 428). This latter point is also stressed by Bryant-Lukosius and DiCenso (2004) who argue that failure to draw attention to the distinctive nature of advanced practice "may result in missing improvements attributable to the APN role" (p. 537).

The complexity of identifying the distinctive nature of advanced practice is, therefore, not to be underestimated. This is clearly illustrated by the myriad of outcome measures related to acute care nurse practitioners, including: reduced length of stay, reduced healthcare costs, reduced readmission rates, increased adherence to best-practice guidelines, improved medical management, reduced complications, reduced resource utilisation, increased continuity of care, increased patient access to care, increased patient satisfaction, increased patient education, increased education of patients' family, and increased staff education (Kleinpell and Gawlinski 2005).

4.8.3. Evaluation models

As outlined earlier (section 2.7), a number of models to evaluate advanced practice are proposed in the literature (Byers and Brunell 1998, Stetler et al 1998, Sidani and Irvine 1999). The importance of avoiding a one-dimensional perspective in evaluation was emphasised. Moreover, the complexity of specialist and advanced practice necessitates the use of a comprehensive evaluation instrument that will truly capture all outcomes.

4.8.4. Outcome measures

All healthcare professionals struggle with measuring outcomes. This is not surprising given that care is provided in teams and outcomes are multidisciplinary in nature. In general, the conceptual model of outcome research has tended to focus on multidisciplinary outcomes that measure broad, generic health status such as service user satisfaction and general health (Behrenbeck et al 2005). While important, such outcomes are insensitive to the range of care provided by specialists and advanced practitioners. Identifying outcomes sensitive to such care is complex and challenging (Bryant-Lukosius and DiCenso 2004) due, in part, to their multidimensionality, whereby such outcomes are influenced by both structure and process factors (Byers and Brunell 1998). Nevertheless, using nursing- and midwifery-sensitive outcomes is vital if nurses and midwives are to demonstrate effectively that they make a critical, cost-effective contribution to the provision of healthcare (ICN 2008). Failure to identify these outcomes may, at best, lead to improvements in care attributable to advanced and specialist roles being missed, or, at worst, undermine the contribution of such roles to the provision of high-quality healthcare. For example, Burgess et al (1987), in a randomised controlled trial of cardiac rehabilitation, comparing advanced practice nurses' rehabilitation care with usual care, used outcome measures for distress, anxiety, depression and family support. Moreover, Small (1999), in an evaluation study of the role and scope of practice of Ireland's first emergency nurse practitioner, retrospectively reviewed patient profiles for injury types and time spent from triage to discharge. These illustrate the need to identify specific interventions that relate to specialties also.

4.8.5. Research evidence evaluating outcomes of advanced practice

4.8.5.1 The effectiveness of advanced practice

Considerable research has already been undertaken, both nationally and internationally, evaluating the effectiveness of advanced practice in the many nursing specialties. These studies cover such diverse areas as:

- emergency department (Small 1999, Timoney 2002)

- oncology (Ritz et al 2000)

- haematology (Taylor et al 1997)

- mental health (Reasor and Farrell 2005)

- neonatology (Woods 2006)

- HIV (Aiken et al 1993)

- paediatrics (Niemes et al 1992)

- gerontology (Evans et al 1997, Naylor et al 1999)

- primary care (Mundinger et al 2000a)

- heart failure (McCauley et al 2006)

- cardiac rehabilitation (Burgess et al 1987)

- cardiac surgery (Lombness 1994)

- critical care (Burns and Earven 2002, Fairley and Closs 2006).

In contrast, however, there has been only limited evaluation of advanced midwifery practice (Watson et al 2002, Alexander et al 2002) – understandably, as it is a smaller field of practice and fewer such posts exist.

In the Irish context, evaluation of the ANP role is in its infancy. Nevertheless, the positive impact of the role is revealed in, for instance, the areas of sexual health (Delamere 2000, 2003) and emergency department (Small 1999, Keenan 2002). Moreover, a preliminary evaluation of the advanced nurse practitioner role has revealed that ANPs consider the main benefit of their role is to service users, through the provision of continuity of care (NCNM 2005a).

A review of existing research examining advanced practice nursing outcomes may be viewed as belonging to five distinct categories:

- comparative studies between APNs and medical/other healthcare counterparts

- satisfaction with APN care studies

- studies describing APN skills and function

- categorisation of indicators of nursing outcomes studies

- those studies that focus on the 'value-added' contributions of the APN.

However, there continues to be a scarcity of studies that use outcome indicators that are sensitive to advanced nursing practice (Ingersoll et al 2000).

4.8.5.2 Comparing advanced practice nurses and medical/other healthcare counterparts

A review of the literature reveals the proliferation of studies where nurses in advanced practice roles are compared with doctors (e.g. Taylor et al 1997). Many early studies in the US used physician focused indicators to determine outcome indicators of the APN impact on healthcare outcomes (e.g. Brooten et al 1986). In addition, many international studies systematically examined satisfaction with APN care in comparison to medical care (Chang et al 1999, Horrocks et al 2002). For instance, McCorkle et al (2000) report that APN intervention provided to elderly patients with cancer on discharge resulted in a longer survival period for the experimental group when compared to the control group. Several have examined APN quality of care in comparison to that of other providers within specific settings (Sakr et al 1999, Kinnersley et al 2000). All concluded that patients were equally satisfied with APN care and in some aspects, such as documentation and health education, found it to be superior to medical care.

However, this approach is criticised by some (Hughes 2003), as it fails to explicate the complexity of care delivered by nurses in such roles, a task that has been acknowledged as being particularly difficult (Bryant-Lukosius and DiCenso 2004). This complexity of care is, in part, due to the fact that nurses often work as part of a collaborative team (Kleinpell and Gawlinski 2005), thus making it difficult to evaluate their individual contribution to patient/client care (Fairley and Closs 2006). This difficulty is strongly revealed in a report on the contribution of nurses in advanced practice roles in the UK (Gerrish et al 2007), where it is concluded that "the more complex the role, the harder it was to be clear about the APN's individual impact" (p. ix). Moreover, it is argued that comparing APN care delivery outcomes with physician practice "precludes the inclusion of measures that address behaviours more commonly associated with nurse-directed care delivery, for example, teaching, counselling and coordination of services" (Ingersoll et al 2000, p.1274). Nevertheless, Coster et al (2006) assert that comparisons between CNS or NP practice and the doctor's role are appropriate if the role is a "medical substitution role" (p. 355).

Laurant et al (2005) report on a systematic review of substitution of doctors by nurses in primary care in the Netherlands (excluding emergency department care). Their review evaluated the impact of doctor-nurse substitution on patient outcomes, process of care and resource use, including cost. Sixteen studies (out of 4,253 screened) met the study's inclusion criteria. The findings suggest that appropriately trained nurses can produce as high quality care as primary care doctors and can lead to good outcomes with regard to health for patients. However, saving in cost (salary difference between doctors and nurses) may not be a result because of the lower numbers of patients treated by nurses. In addition, the authors conclude that only one study reviewed was powered to assess equivalence of care, with many studies revealing methodological weaknesses. Finally, the studies reviewed included not only nurses with advanced practice titles (i.e. nurse practitioners, clinical nurse specialists and advanced practice nurses), but also practice nurses (Laurant et al 2005).

4.8.5.3. Satisfaction with APN roles

Many studies have used patient surveys to determine patient satisfaction with CNS practice (e.g. Mackintosh and Bowles 1997). Bryant and Graham (2002), using an adapted version of the Client Satisfaction Tool, reported high client satisfaction with the care provided by ANPs. However, Douglas et al (2003) conclude that the process of care (patient satisfaction, reduced anxiety, feeling in control and reducing uncertainty) "may not affect overall patient outcomes in terms of final health states after intervention, but may have had an important effect on health during an intervention and convalescence" (p. 428).

In the context of primary/community care, Bonsall and Cheater (2008) provide a comprehensive overview of the impact of advanced practice roles across a range of outcomes. They conclude that nurses working in advanced primary care roles provide safe and effective care and that patient satisfaction is generally

high. However, it is also reported that advanced primary care nursing roles can create intra- and inter-professional tensions.

4.8.5.4. APN skills and function

There has been much published on how nurses and midwives in advanced practice roles perceive their impact (e.g. Guest 2004 et al). In addition, systematic reviews related to the outcomes of nurses and midwives in advanced practice roles are now available. However, many report inconclusive findings on the outcomes of these roles. It would also appear that some advanced practice specialties have greater difficulty in illustrating their impact. For instance, Douglas et al (2003) assessed studies that measured economic outcomes in oncology and palliative CNS practice. They reported that CNS practice was less costly and more effective than other forms of care. However, the validity of this finding was questioned in view of the poor quality of research papers reviewed (Douglas et al 2003). Moreover, Forbes et al (2003), in a systematic review of the CNS in a multiple sclerosis (MS) role, reported insufficient evidence to conclude that the MS CNS makes a difference to care.

There is evidence to suggest that specialist continence nurses may help to alleviate incontinence among patients who have suffered a stroke (Thomas et al 2008). However, in the context of mental health, it is reported that nurse consultants have greater difficulty than those in other specialties in achieving improvements in practice (Woodward et al 2005, Coster et al 2006), and mental health consultants report the lowest major impact when compared to other nurse and midwife consultants (Coster et al 2006). Coster et al (2006) state that midwife consultants report a statistically more significant impact on improving client access to the service than mental health consultants. In addition, consultant posts that focus on a specific condition (e.g. diabetes or cancer) reported having a major impact on discharge procedures (Coster et al 2006). Moreover, condition specific consultants considered their role to have a major impact on follow-up care compared to mental health consultants (Coster et al 2006).

The difficulty in exposing the outcomes of advanced practice roles is also revealed by Cooper et al (2006), who undertook a systematic review of specialist home based nursing services for children with acute and chronic illnesses. While they report that the studies reviewed reveal improved satisfaction with home based care, the evidence does not provide definitive support for specialist home based nursing services in reducing access to hospital service or length of stay. The difficulty in demonstrating the effectiveness of advanced practice when nurse sensitive outcomes are not used is further illustrated by Griffiths et al (2007), who report that there is some evidence to support the conclusion that patients discharged from a nurse-led unit are better prepared for discharge. However, as inpatient stay was longer, they question if such a finding might be attributable to an increased length of inpatient stay (Griffiths et al 2007).

Similarly, Loveman et al (2003) report that, although the care from diabetes specialist nurses/nurse case managers may improve patients' diabetic control over short periods, evidence of effects over longer periods is not available. They also report no significant differences overall in hospital admissions or both hypoglycaemic and hyperglycaemic events. In addition, their review reports that patients' quality of life was not affected by input from a diabetes specialist nurse/nurse case manager. Likewise, Cruickshank et al (2008) conclude that there is limited evidence to support the view that interventions by breast care nurses assist in the short term with identification and management of psychosocial distress for women with breast cancer.

One systematic review, however, provides convincing evidence for midwife-led care. Hatem et al's review (2008) included 11 randomised trials (12,276 women) and reported that women who had midwife-led care, compared with models of medical-led care and shared care, were less likely to experience antenatal hospitalisation, the use of regional analgesia, episiotomies, and instrumental birth. Women who had midwife-led care were also more likely to experience no intrapartum analgesia/anaesthesia, spontaneous vaginal birth, to feel in control during labour and childbirth, to have a known midwife in attendance at

the birth, and to initiate breastfeeding. Trials included in this review used, in common with all good trials, 'intention to treat' analysis so that all outcomes were attributed back to the group to which a woman was randomised. If, for example, a woman was randomised to midwife-led care, was transferred to medical-led care during pregnancy and required a caesarean section, then the outcome of caesarean section was attributed back to the midwife-led group.

4.8.5.5. 'Value-added' contributions of advanced practice

Several researchers urge investigations of APN contributions that go beyond the comparative value outcomes of APNs. Others protest that this is near impossible due to the fact that measurement of quality of 'care' is challenging. Yet, it is imperative that the unique aspects of APN practice be articulated in measurable terms. Although few in number, several key studies have attempted to go beyond validation of the comparative value of APNs and have tried to illuminate the 'added value' that APNs bring to practice.

Mundinger et al (2000b) use the term 'added value' to describe the unique contribution that nurse practitioners bring by blending their nursing skills with medical knowledge. Similarly, Ryden et al (2000) propose that advanced practice nurse consultation in gerontological patient settings can help to provide a high level of guidance to other nursing home staff, using current scientific knowledge about clinical problems in addition to their nursing perspective.

Bourbonniere and Evans (2002) used the phrase 'contextual thinking' to qualify the high level analysis skills that advanced practice nurses use in synthesising complex data when formulating plans of care. These studies focusing on 'added value' may best capture the unique contributions of the APNs and, if consensus is reached, will inform the much needed outcome research to measure more discretely and more adequately the impact of APN on patient care.

4.8.5.6. Advanced practice sensitive indicators

In 1996 the American Nurses Association put forth a formal set of nursing indicators, which was followed by an extensive project to compile the comprehensive Nursing Outcomes Classification (Daly et al 1997). In 2001 the International Council of Nurses (2001) compiled an International Classification for Nursing Practice that inventoried indicators to be used to evaluate nursing care. However, these efforts focus more on generic nursing and do not differentiate indicators sensitive to advanced practice.

Leeper (2004) defines nurse sensitive outcomes as those that arise "partially or wholly" through nursing care (p. 346). Understanding which outcomes are "most sensitive to APN interventions is critical" (Cunningham 2004, p. 228). Several authors have outlined a variety of indicators that may be sensitive to nursing's contribution to healthcare, ranging from very specific, as in number of acquired respiratory infections, to more general outcomes, such as patient satisfaction. Allen and Fabri (2005) examined aged-care NPs in community practice in Australia and found positive effects on client satisfaction as well as support from the health team. However, these authors note that funding is vital to keep such roles functional.

Lang and Marek (1990) systematically detailed 13 indicators of outcomes of advanced practice nursing, ranging from concrete measures such as physiological/functional categories to more abstract concepts of well-being and nursing diagnosis resolution. Similarly, Hegyvary (1991) narrowed outcome indicators to four categories: clinical, functional, financial, and perceptual. Irvine et al (1998) identified six nursing indicators: complication prevention, clinical outcomes, knowledge, functional health, cost of care, and patient satisfaction.

Nies et al (1999) outline four categories of healthcare outcomes in the context of advanced practice nursing: clinical, financial, functional, and perceptual. They also argue that examining outcomes from a

nursing perspective is more holistic than from a medical model. Ingersoll et al (2000) discuss the variety of indicators used for measuring patient outcomes with APN practice, which range from four category indicators (as above) to 15. Ingersoll et al (2000) report that the 10 highest indicators recommended by APNs for use in measuring the effect of care delivery outcomes were: satisfaction with care delivery, symptom resolution/reduction, perception of being well cared for, compliance/adherence with treatment plan, knowledge of patients and families, trust of care provider, collaboration among care providers, frequency and type of procedures ordered, and quality of life. However, there was a low response rate in this Delphi study; of the 1,190 questionnaires mailed, only 174 (15%) were returned, mainly because of incorrect or outdated mailing addresses or because the recipient was not practising as an APN.

Resnick (2006) encourages APNs to participate in outcomes research to demonstrate their effectiveness in clinical practices, and thereby firmly establish a position in modern healthcare. The measurement of outcomes of ANP practice is a process that requires consideration of "what outcomes are most influenced by an ANP role or an area of ANP care" (Kleinpell 2007, p. 20). It is argued that the central prerequisite "for rigorous evaluation of effectiveness is a real comparison between two or more alternatives with reliable assessment of costs and outcomes" (Corner et al 2002, p. 275). The structure, process and outcome model initially articulated by Donabedian (1978) is argued to be a key aspect in the measurement of advanced practice nursing outcomes (Peglow et al 1992, Cunningham 2004), and is adopted in most evaluations of advanced practice (Cunningham 2004).

4.8.5.7. The SPO approach to capture unique contribution of advanced practitioners

The structure-process-outcome (SPO) approach attempts to capture the unique contribution that advanced practitioners make to care.

In the context of specialist and advanced nursing and midwifery practice, *structure* includes the components necessary to facilitate care delivery, and refers to characteristics of the practitioner (e.g. education, experience) and the practice setting (e.g. adequacy of resources, medical staff support).

Process refers to the care provided by the practitioner and the appropriateness of that care (e.g. client education, physical and psychosocial needs met), which aims to deliver personalised care for each patient within best-practice guidelines. This aspect of advanced practice is critical to understanding the impact of such practitioners (Cunningham 2004). Much research has been conducted on the process of what advanced practitioners do, but additional work is needed in order to describe comprehensively the "interactions and activities" that occur between advanced practitioners and the clients in their care (Cunningham 2004, p. 220).

Outcome refers to practitioner sensitive outcomes, which, according to Byers and Brunell (1998), are complex and involve interventions undertaken as a result of the knowledge the nurse has, including theoretical, practical and scientific knowledge. These include: "clinical outcomes, perceived outcomes, functional status outcomes" (p. 301), and the client's and family's satisfaction with the care received. Moreover, outcomes may be direct or indirect and the 'key informants' are often the practitioners themselves (Coster et al 2006). An important indirect outcome is the practitioners' impact on the implementation of evidence-based practice which, together with expertise of the clinician and clients' individual preferences, demonstrates best practice (Haynes et al 1996).

4.9 Discussion

This literature review reveals the complexity of advanced practice roles internationally and the difficulties in identifying the unique contribution to healthcare of advanced practitioners in nursing and midwifery. The unique contribution of advanced practitioners should be measured not only through identifiable clinical outcomes but also the difficult to measure added-value contributions that are unique to nurses and midwives working in advanced practice roles.

Added to the difficulties highlighted is opposition from organised medicine to the role internationally. In Sweden, Lindblad et al (2010) report some opposition from general practitioners (GPs) to the new role of ANP in primary care. In the US, this opposition is seen especially with regard to prescribing roles. Some doctors are reluctant to "accept that nurses should be allowed to undertake certain advanced skills" (Norris and Melby 2006, p. 260). Some resistance by doctors to the NP role also occurred in New Zealand, but the view more recently is that doctors have "mellowed" in their attitude to the NP role (O'Connor 2008, p. 13). In Northern Ireland, Griffin and Melby (2006) report GPs being less positive than emergency doctors and nurses towards the development of advanced practice roles in emergency nursing.

In most countries covered in this study, the opposition of the medical profession has been identified as one of the main barriers to the development of more advanced nursing roles. The main reasons for physician resistance may include: the potential for an overlap in the scope of practice between medical and nursing practitioners, with resulting loss of activities; the amount of autonomy and independence that advanced practice nurses may have; concerns about malpractice cases and their legal liability under teamwork arrangements, and concerns about the quality of the skills and expertise of advanced practice nurses (Delamaire and Lafortune 2010).

Nevertheless, the collaborative role of physicians in facilitating advanced practice is evident in a survey of advanced practice nurses working in oncology in the US, where 90% of respondents had "collaborative practice agreements with physicians" (Lynch et al 2001, p. 1525). Moreover, British CNSs report the importance of physician support to their role (Boyle 1997). However, this support can be from a position of "implied superiority" (Clark et al 2002, p. 381), a view also reported by Brown and Draye (2003).

Perron and Holmes (2006) argue that advanced practice offers nurses "membership in a nursing elite" (p. 28). However, such a comment may not be helpful to understanding the advanced practice role when confusion about the role remains. Spross and Lawson (2009) note four areas of conceptual confusion in the evolution of advanced practice, which have hindered its development. These include (p. 35) the lack of:

- well defined and consistently applied terms

- consideration of literature directly related to conceptualisation of advanced practice

- clarity regarding conceptualisations that differentiate between and among levels of practice

- differentiation between APN and medicine.

Another obstacle to advanced practice role development is the limited scope and depth of outcome research. Many studies are often directed towards cost containment (Corner et al 2002, Douglas et al 2003), patient satisfaction (Bryant and Graham 2002), or the comparative value of APN care, relative to that of physicians or other healthcare providers (Mundinger et al 2000b). Moreover, there are noticeably more studies carried out in acute care than community settings, perhaps due to the more intact nature of the population to be studied and the specificity of technical interventions.

Several studies identify the functions and skills of APNs, with evidence of considerable consensus in this area (Ingersoll et al 2000). However, of these only a select group examined the more abstract nature of advanced practice, such as Bourbonniere and Evans (2002). Isolating the added value of advanced practice nurses and midwives is essential. Plager and Conger (2007), in a secondary analysis of data from an outcomes study of APN graduates in the USA, identified a number of added-value nursing skills. These included: health education integral to care, disease prevention/health promotion, teaching/counselling /listening, coordination of care, community resource access, partnership building with patients/families, holistic care in a family social context, and bringing the added nursing ingredient to APN care. However, the nursing ingredient is not definitively defined. Few studies were found directed towards increasing understanding of the scientific basis for clinical practice and even fewer examine the complex relationship between outcomes and care. Nevertheless, there is evidence that nursing is beginning to outline those characteristics most reflective of advanced nursing care (Cunningham 2004). If consensus is reached in the global nursing community, this will better direct and inform future outcome research.

4.10 Summary of concept analysis

Although there are many different articulations of the advanced practice nursing role outlined in this review, it is clear that there is also much consensus that advanced nursing brings added value to practice. The challenge facing nursing and midwifery today is to provide the evidence that advanced practice nurses and midwives bring a unique aspect of care to the healthcare community.

Of all the advanced practice roles in nursing and midwifery, the role of CNS is the most unclear in the international literature. However, clarity with the CNS/CMS role is evident in Ireland, due to the clear guidelines and approval criteria laid down by the National Council (NCNM 2008b, c, d). The future of the CNS role internationally depends upon "a clear definition and delineation of the role" (Henderson 2004, p. 40). Their role is most at risk in the US; this is evident in the falling graduate numbers, where numbers graduating between 1996 and 2000 increased by only 12.9% as compared to a 45% increase in the number of NP graduates (Henderson 2004).

This issue is also evident in the UK, where Hill (2000) raises concerns about the proliferation of 'site-specific' cancer CNS which may result in a fragmented service to patients. However, the recent effort in the US to curb the proliferation of multiple narrow sub-specialisations in advanced practice roles is intended to regulate advanced practice more consistently and ensure public safety and provision of quality care (APRN Joint Dialogue Group 2008).

Wiedenbach (1963), in her seminal work, urged nurses to capture both the art and the science of high-level caring. In the ensuing years, the task has become more daunting due to the development of multileveled nursing practice. However, the literature continues to urge that the blended art and science of nursing not be left behind despite advances in nursing practice. We suggest, therefore, that the work of Ingersoll et al (2000) requires special mention. Ingersoll et al (2000) began to uncover the unique layer of advanced practice nursing when she identified two unusual indicators in her Delphi study of nurse sensitive outcomes. These two indicators, 'perception of being well cared for' and 'the sense of trust in the provider', may be the beginnings of deciphering the added-value that nursing provides in patient care.

Cunningham (2004) questions how "to measure, as Benner (1984) suggests, the exquisite skill in clinical judgment that comes from 'knowledge embedded in practice' which may be a deciding variable in APN care" (p. 228). Perhaps this is the *Holy Grail* referred to by Callaghan (2008). However, Bourbonniere and

Evans's (2002) work, which uses the term 'contextual thinking' to denote the APN's high level of data synthesis, reveals evidence to show that this quest may be achievable.

The tension between the need to identify quantifiable outcome measures and the challenge of capturing the indeterminate, qualitative aspects of advanced practitioners (and by implication specialist practitioners) is documented (Gerrish et al 2007). The SPO method of evaluation is best set within the framework of an evaluation model of advanced practice. The development of an evaluation model of specialist and advanced practice was viewed as essential to this project and addressed the criticisms of Sidani and Irvine (1999) in relation to the inconsistent findings in research evaluating the impact of the advanced practitioner, which they attribute to not using a conceptual framework to guide the identification of the specific nurse sensitive outcomes (Sidani and Irvine 1999).

The approach proposed by Schulz et al (2002) was identified by Gerrish et al (2007) as a possible framework for evaluating the impact of advanced practice roles. This model encompasses: (i) symptomatology (ii) quality of life (iii) social significance and (iv) social validity and therefore addresses the multiple outcomes related to clinical significance, which was a key consideration in this project. The value of this framework is that it can be used flexibly to identify reliable and clinically relevant outcomes from the perspective of both the client group and the practitioner.

In summary:

- Confusion surrounding the terminology used to describe specialist and advanced practice nursing and midwifery roles is evident internationally. However, clarity on these roles is evident in Ireland

- Nurse-led care is considered practice at a higher level, and nurses in these roles may be working in approved specialist or advanced practice roles. Midwife-led care is also regarded as a feature of advanced midwifery practice

- There is clarity internationally on the core roles distinguishing specialist and advanced practice in nursing. There is less clarity internationally on the core roles distinguishing specialist and advanced midwifery practice. However, a recent report in the UK (Department of Health 2010) has clearly distinguished between the two roles

- Role expansion and role development are the terms of choice to use when discussing advanced nursing and midwifery practice

- The CNS role in the US is under threat. There are now considerably more nurses in NP than in CNS roles. The decline in CNS posts may be related to the indirect care role of the CNS. US clinical nurse specialists spend minimal time on direct patient care, whereas the principal focus of NP practice in the US is on direct patient care, with a defined patient caseload

- The opposition of the medical profession has been identified as one of the main barriers to the development of more advanced nursing roles, although considerable support is noted from medical personnel who work with CSs/APs

- Three essential antecedents to advanced practice development have been identified, one external and two internal. The external antecedent is the changes in medical practice internationally. The internal antecedents are higher education and clinical expertise

- Identifying the outcomes of specialist and advanced practice is complex. Research evidence evaluating the outcomes of advanced practice can be grouped into:

  - The effectiveness of advanced practice roles

  - Comparing advanced practice nurses and midwives and medical/other healthcare counterparts

  - Satisfaction with advanced practice roles

  - Advanced practice skills and function

- 'Value-added' contributions of advanced practice

- Advanced practice sensitive indicators.

<table>
<tr><td>**4.11**</td><td>A systematic review and quality assessment of systematic reviews of nurse- and midwife-led interventions</td></tr>
</table>

4.11.1. Background

This systematic review was undertaken in the absence of a sufficient body of literature reporting specifically on randomised trials of specialist or advanced practice care. Nurse-led care requires skills and competencies that reflect practice at an advanced level (NCNM 2003, NCNM 2005b, Mac Lellan 2007). Midwife-led care has been defined as that where the midwife is the lead professional in the planning and organisation of care during pregnancy and childbirth (Hatem et al 2008). We consider therefore that nurse- and midwife-led care mirrors or at least overlaps substantially with advanced practice. Section 4.6.3 of this report further discusses the use of the terms nurse-led (Loftus 2001, Hatchett 2003, Mantzoukas and Watkinson 2007) and midwife-led care (Mantzoukas and Watkinson 2007) as related terms for, or encompassing, advanced practice.

There are a large number of randomised trials evaluating the effectiveness of various nurse- and midwife-led interventions. To inform clinician decisions, these trials have been systematically reviewed and published. However, there is now a substantial number of these systematic reviews and there is, therefore, a need for a comprehensive and systematic review of these reviews to bring together this body of evidence in one place, to guide future practice.

Nurse- and midwife-led interventions are targeted at different populations (e.g. adults, children) and conditions (e.g. cardiovascular disease, breast cancer). This overview of reviews synthesises the available evidence on the effectiveness of such interventions across different client groups and conditions. While this overview will be of interest to clinicians and client groups specifically identified in the review groupings (e.g. nurses caring for patients with cardiovascular disease), it holds strong relevance for policy makers making decisions about the organisation of healthcare delivery. This systematic review of systematic reviews will thus inform those who require an overview of the evidence as to the effectiveness of nurse- and midwife-led interventions.

4.11.2. Aim

To review systematically and quality assess systematic reviews of randomised trials of the effect of nurse- and midwife-led interventions on clinical outcomes and establish if such interventions are effective.

4.11.3. Methods

Methods for our review, including the research question and inclusion criteria, were established before the conduct of the review.

4.11.3.1. Criteria for considering reviews for inclusion

4.11.3.1.1. Types of reviews

Reviews were considered for inclusion in this overview if they used a systematic approach and included

randomised controlled trials (RCTs), controlled clinical trials (CCTs) and controlled before-and-after studies (CBAs) and interrupted time series (ITS). The design characteristics of RCTs, CCTs, CBAs and ITSs were based on criteria used in the Cochrane Effective Practice and Organisation of Care (EPOC) group guidelines (Cochrane Effective Practice and Organisation of Care Review Group 2010). To be classified as having used a systematic approach, reviews had to include a comprehensive search for, quality appraisal of and synthesis of existing research into a summary of the effectiveness of the nurse- or midwife-led intervention on clinical outcomes. Syntheses could include formal meta-analysis of aggregate data from individual studies or a narrative summary where meta-analysis was not performed.

4.11.3.1.2. Types of intervention

- Any healthcare intervention provided by nurses or midwives where the nurse or midwife is the lead professional responsible for the planning, organisation and delivery of care to a client or client group.

The review focused on nurse- and midwife-led care rather than specialist and advanced practice or practitioners. This decision was made due to the concept analysis undertaken at the outset of the study, which found that nurse-led clinics are viewed on a par with advanced practice (Loftus 2001, Hatchett 2003, Mantzoukas and Watkinson 2007), a view shared by the National Council (NCNM 2003, 2005b). Similarly, the term 'midwife-led' care, defined as where the midwife is the lead professional in the planning and organisation of care during pregnancy and childbirth (Hatem et al 2008), can reasonably be considered to equate with advanced practice. Please refer to sections 4.6.3 and 4.11.1 for further discussion on surrogate terms and related terms of advanced practice.

4.11.3.1.3. Types of participants

- Any person who is the primary recipient of a nurse- or midwife-led intervention.

4.11.3.1.4. Types of outcomes

- Measures of clinical outcome measured either objectively (e.g. mortality) or participant reported (e.g. quality of life), and healthcare costs.

4.11.3.2. Search methods for identification of reviews

A comprehensive search of the following databases was performed using database specific search strategies as required (see Appendix 2a):

Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effects (DARES), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline and ExcerptaMedica Database (EMBASE). We restricted searching to publications in English due to lack of translation resources.

4.11.3.3. Data collection and analysis

4.11.3.3.1. Selection of reviews

All citations identified from our search were downloaded into a reference management database (Endnote); duplicates were identified and removed, and the remaining references uploaded to an online application designed specifically for the screening and data extraction phases of a systematic review (DistillerSR, Evidence Partners, Ottawa, Canada). All citations were screened independently by two reviewers across three screening levels, using level specific forms, designed for the purpose, within DistillerSR. All forms were based on the inclusion criteria as appropriate. In level one, the title of each citation was screened. Citations not excluded at this level progressed to level II where title and abstracts,

where available, were screened. Citations not excluded at level two progressed to full text screening. If there was disagreement between reviewers for any citation at level one and level two, the citation progressed to level three (full text screening). Any disagreement or uncertainty at level three was resolved by discussion between both reviewers. A third reviewer was available to resolve disagreements, but this was not required.

4.11.3.3.2. Data extraction and management

Two reviewers extracted data from included reviews using data extraction forms. Disagreements were resolved through discussion. We did not seek additional information beyond that published in the review nor did we explore the full text of primary studies included in the systematic reviews included.

4.11.3.3.3. Assessment of methodological quality of included reviews

The methodological quality of the reviews summarised in this overview was assessed independently by two reviewers using the 'Assessment of Multiple Systematic Reviews' (AMSTAR) tool (Shea et al 2007). This tool rates the quality of reviews across 11 methodological criteria (Table 4.3). Each criterion has four response options: 'Yes' (meaning 'clearly done'), 'No' ('clearly not done'), 'Can't answer' ('unclear') and 'Not applicable' (see Appendix 2b). Reviews that meet all 11 criteria are considered to be of the highest quality. Psychometric testing demonstrates that AMSTAR has good agreement, reliability, construct validity, and feasibility (Shea et al 2009).

4.11.3.3.4. Data synthesis

Reviews addressing similar topics were, for the purpose of reporting, grouped together, and the data from each review within that group was synthesised narratively.

Table 4.3: AMSTAR criteria
1. Was an 'a priori' design provided?
2. Was there duplicate study selection and data extraction?
3. Was a comprehensive literature search performed?
4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?
5. Was a list of studies (included and excluded) provided?
6. Were the characteristics of the included studies provided?
7. Was the scientific quality of the included studies assessed and documented?
8. Was the scientific quality of the included studies used appropriately in formulating conclusions?
9. Were the methods used to combine the findings of studies appropriate?
10. Was the likelihood of publication bias assessed?
11. Were potential conflicts of interest stated?

4.11.4. Results – included and excluded reviews

4.11.4.1. Reviews excluded

Our search identified 818 unique citations (after removal of duplicates), which when screened resulted in 31 reviews. Two reviews reported on the same topic and included similar types of participants and interventions (Griffiths et al 2005, Griffiths et al 2007). To avoid over inflation of the evidence base for that topic, a decision was taken to exclude the earlier paper (Griffiths et al 2005) and retain the later paper (Griffiths et al 2007). One review (Schadewaldt and Schultz 2010) updated an earlier review (Page

et al 2005), so we excluded the earlier review. Four reviews (De Broe et al 2001, Smith et al 2004, Walsh and Downe 2004, Humphreys et al 2007) did not include RCT, CCT, CBA or ITS studies in the report of their findings and were excluded. Four reviews (Roberts and Mays 1997, Price 2001, Eicher et al 2006, Carter and Chochinov 2007) included RCTs and/or CCTs and/or CBAs and/or ITSs alongside other designs, but the findings of these designs were not explicitly presented separately from non control designs and these were also excluded. One review focused on determining the association between the complexity of a nurse-led intervention for heart failure patients and clinical outcomes rather than on the outcomes for the intervention overall (Phillips et al 2005) and was therefore excluded. The remaining 20 reviews were included in this overview (Brown and Grimes 1995, Meads et al 2001, Horrocks et al 2002, French et al 2003, Loveman et al 2003, Oakeshott et al 2003, Laurant et al 2005, Taylor et al 2005, Cooper et al 2006, Griffiths et al 2007, Kleinpell 2007, Latour et al 2007, Bradley and Lindsay 2008, Cruickshank et al 2008, Dierick-van Daele et al 2008, Hatem et al 2008, Lewis et al 2009, Wilson et al 2009, Clark et al 2010, Schadewaldt and Schultz 2010).

4.11.4.2. Description of included reviews

The 20 included reviews spanned the years 1995–2010 and were categorised by the team into five categories: (i) long-term conditions, (ii) breast cancer, (iii) midwifery, (iv) substitution and (v) cost. The majority of reviews were related to long term conditions and nurse-led interventions. Nine of the reviews were published in the Cochrane Database of Systematic Reviews (CDSR) (French et al 2003, Loveman et al 2003, Laurant et al 2005, Cooper et al 2006, Griffiths et al 2007, Kleinpell 2007, Bradley and Lindsay 2008, Cruickshank et al 2008, Hatem et al 2008), nine in journals (Brown and Grimes 1995, Horrocks et al 2002, Oakeshott et al 2003, Taylor et al 2005, Latour et al 2007, Dierick-van Daele et al 2008, Lewis et al 2009, Wilson et al 2009, Clark et al 2010), and two as stand alone reports (Meads et al 2001, Schadewaldt and Schultz 2010). Only two of the included reviews included data of relevance to midwife-led interventions (Brown and Grimes 1995, Hatem et al 2008) and the majority of reviews compared nurse- or midwife-led interventions with medical-led care. The characteristics of included reviews are given in detail in Table 4.4.

4.11.4.3. Methodological quality of included reviews

Included reviews varied substantially in methodological quality; AMSTAR scores ranged from 3 to 9 (mean 7.4, median 8), with 50% scoring 8 or more (Table 4.5).Overall, reviews performed best on the AMSTAR items 'Was a comprehensive literature search performed?', 'Was the scientific quality of the included studies assessed and documented?' and 'Were the characteristics of the included studies provided?', and worst on 'Was the likelihood of publication bias assessed?' and 'Were potential conflicts of interest stated?'

A SYSTEMATIC REVIEW AND QUALITY ASSESSMENT OF SYSTEMATIC REVIEWS OF NURSE- AND MIDWIFE-LED INTERVENTIONS

Table 4.4: Characteristics of included reviews

Author (year published)	Review aim(s)	Participants	Intervention	Comparisons	Review grouping
Bradley & Lindsay (2008)	To compare the effectiveness of any specialised or dedicated intervention for the care of adults with epilepsy to the effectiveness of usual care	Anyone with any diagnosis of new or recurrent epilepsy or non-epileptic seizure over 16 years of age	Any specialised or dedicated team or individual for the care of epilepsy patients, whether based: (a) in hospital (e.g. a specialist epilepsy clinic); (b) in the community (e.g. a dedicated team focusing on epilepsy treatment); (c) in general practice (e.g. a specialist epilepsy nurse); (d) elsewhere (e.g. social worker, the voluntary sector); (e) as a care network combining any of these elements	Usual care	Long term conditions Cost
Brown & Grimes (1995)	To review the effectiveness of nurse practitioners (NPs) and nurse midwives (NMs) compared with physicians in primary care on patient outcomes	Multiple populations	Nurse practitioner care Nurse midwife care	Physician care	Substitution
Clark et al (2010)	To review trials of nurse-led interventions for hypertension in primary care	Adults aged 18 or over with newly diagnosed or established hypertension	Interventions delivered by nurses, nurse prescribers, or nurse practitioners designed to improve blood pressure	Usual care	Long term conditions Cost
Cooper et al (2006)	To review specialist home based nursing services for children with acute and chronic illnesses	Children aged 0-18 with acute and/or chronic illnesses	Specialist home based nursing services provided to children with acute illnesses and/or chronic and complex conditions	Usual care	Long term conditions Cost
Cruickshank et al (2008)	To assess the effectiveness of individual interventions carried out by breast care nurses on quality of life outcomes for women with breast cancer	Women with a diagnosis of breast cancer	Care by breast care nurses (a registered nurse with a qualification or specialist knowledge in breast care)	Usual care	Breast cancer Cost
Dierick-van Daele et al (2008)	To identify economic evaluations of substitution between professionals, to assess the quality of the study methods applied and to value the results for decision making	Multiple populations	Nurse-led care Paramedic-led care	Medical-led care	Substitution Economic analysis
French et al (2003)	To determine the effectiveness of nurse-led care in the management of bronchiectasis	Adults and children with computer tomography defined bronchiectasis	All or part of care managed and/or delivered by a specialist nurse	Usual care General nurse care Doctor managed care In-patient hospital care	Long term conditions Cost

Table 4.4: (continued)

Author (year published)	Review aim(s)	Participants	Intervention	Comparisons	Review grouping
Griffiths et al (2007)	To determine whether nursing-led inpatient units are effective in preparing patients for discharge from hospital inpatient care	Adult patients assessed as eligible for care in a nurse-led unit	Nurse-managed care in a nurse-led unit	Inpatient medical-led care	Substitution Cost
Hatem et al (2008)	To compare midwife-led models of care with other models of care for childbearing women and their infants	Pregnant women	Midwife-led care	Medical-led care	Midwifery Cost
Horrocks et al (2002)	To assess the process, costs or outcomes of care provided by nurse practitioners compared with doctors, working in primary care as a first point of contact for any patient with undifferentiated health problems	Previously undiagnosed patients with undifferentiated health problems	Nurse-led care	Medical-led care	Substitution
Latour et al (2007)	To review the effectiveness of ambulatory nurse-led case management for complex patients in general healthcare	Ambulatory patients over 18 years of age with complex needs, e.g. patients with acute or chronic medical condition(s) and described other vulnerabilities, such as (psychiatric) comorbidity; frail elderly people; and patients with social problems, reduced functional status, or poor quality of life	Case management: assessment of the client's needs, development of a comprehensive service plan, arrangement of service delivery, monitoring and assessment of services, evaluation, and follow-up	Systematic review of 10 studies	Long term conditions
Laurant et al (2005)	To review the impact of doctor-nurse substitution in primary care on patient outcomes, process of care, and resource use, including cost	Patients presenting in primary care	Nurses working as a substitute for a primary care doctor	Medical-led care	Substitution Cost
Lewis et al (2009)	To review the effectiveness and cost-effectiveness of nurse-led follow up for patients with cancer	Patients with cancer	Nurse-led follow up	Physician-led follow up	Substitution Cost
Loveman et al (2003)	To assess the effects of diabetes specialist nurses/nurse case manager in diabetes on the metabolic control of patients with type 1 and type 2 diabetes mellitus	Patients with type 1 and type 2 diabetes mellitus	Diabetes specialist nurses/nurse case manager in diabetes	Usual care	Long term conditions
Meads et al (2001)	To review the relative clinical effectiveness and cost-effectiveness of specialist epilepsy nurses in inpatient, outpatient or GP care compared to usual care without a specialist epilepsy nurse	Anyone with any diagnosis of new or recurrent epilepsy except febrile convulsions	Specialist epilepsy nurses	Normal inpatient, outpatient or GP care without a specialist nurse	Long-term conditions Cost

Table 4.4: (continued)

Author (year published)	Review aim(s)	Participants	Intervention	Comparisons	Review grouping
Oakeshott et al (2003)	To review the effectiveness of nurse-led hypertension management in primary care	People with high blood pressure	Nurse-led clinics in UK general practices which included some evaluation of blood pressure	Usual care	Long term conditions
Schadewaldt & Schultz (2010)	To review the effectiveness of nurse-led cardiac clinics for adults with coronary heart disease (CHD)	Patients with CHD	Nurse-led cardiac clinics	Medical-led care	Long term conditions
Smith et al (2001)	To evaluate the effectiveness of outreach respiratory healthcare worker programmes for patients with chronic obstructive pulmonary disease (COPD)	Patients with COPD	Nurse-led respiratory care	Usual care	Long term conditions Cost
Taylor et al (2005)	To determine the effectiveness of innovations in management of chronic disease involving nurses for patients with COPD	Patients with COPD	Inpatient, outpatient, or community based interventions that were either nurse-led, nurse-coordinated, or largely delivered by nurses	Usual care	Long term conditions
Wilson et al (2009)	To determine the clinical effectiveness of emergency department nurse practitioners in the assessment, treatment and management of minor injuries in adults	Adults with minor injuries	Emergency nurse practitioner (nurse-led care)	Medical-led care	Substitution

Table 4.5: Methodological quality of included reviews – AMSTAR criteria

Author (year published)	AMSTAR scale criteria items											Total
	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	
Bradley & Lindsay (2008)	1	1	1[11]	0	1	1	1	1	1	0	0	8
Brown & Grimes (1995)	0	1	1	1	0	1	1	1	1	0	0	7
Clark et al (2010)	0	1	1	0	0	1	1	1	1	0	0	6
Cooper et al (2006)	1	1	1	1	1	1	1	1	1	0	0	9
Cruickshank et al (2008)	1	1	1	1	1	1	1	1	1	0	0	9
Dierick-van Daele et al (2008)	0	0	1	0	0	1	1	1	1	0	0	5
French et al (2003)	1	1	1	0	1	1	1	1	1	0	0	8
Griffiths et al (2007)	1	1	1	0	1	1	1	1	1	0	0	8
Hatem et al (2008)	1	1	1	1	1	1	1	1	1	0	0	9
Horrocks et al (2002)	1	1	1	0	0	1	1	1	1	0	0	7
Latour et al (2007)	0	1	1	0	0	1	1	1	1	1	0	7
Laurant et al (2005)	1	1	1	0	1	1	1	1	1	0	0	8
Lewis et al (2009)	1	1	1	1	0	1	1	1	1	0	0	8
Loveman et al (2003)	1	1	1	1	1	1	1	1	1	0	0	9
Meads et al (2001)	1	1	1	1	0	1	1	1	1	0	0	8
Oakeshott et al (2003)	0	0	1	0	0	1	1	0	0	0	0	3
Schadewaldt & Schultz (2010)	0	0	1	1	0	1	1	1	1	0	0	6
Smith et al (2001)	1	0	1	0	1	1	1	1	1	0	0	7
Taylor et al (2005)	1	1	1	1	0	1	1	1	1	0	0	8
Wilson et al (2009)	0	1	1	1	1	1	1	1	1	0	0	8

Scale item scoring: 0 – absent, can't answer or not applicable; 1 – present.
The AMSTAR criteria are (1) a priori design; (2) duplicate study selection and data extraction; (3) comprehensive literature search; (4) inclusive publication status; (5) included/excluded studies provided; (6) characteristics of included studies provided; (7) quality assessment of studies; (8) study quality used appropriately in formulating conclusions; (9) appropriate methods used to combine studies; (10) publication bias assessed; and (11) conflict of interest stated.

[11]Only one electronic database was searched – the Cochrane Central Register of Controlled Trials (CENTRAL). However, CENTRAL includes details of published articles taken from bibliographic databases (notably MEDLINE – 3/5ths of records cited – and EMBASE). It was, therefore, judged as having met this criterion.

4.11.4.4. Quality of evidence in included reviews

The use of different methods of assessment of methodological quality of the primary trials in the included reviews makes it difficult to assess overall quality consistently. Nevertheless, the quality of trials included in reviews was typically modest. Common reported methodological weaknesses included inadequate reporting of randomisation procedures (allocation concealment and sequence generation) and unclear completeness of follow-up.

4.11.5. Results – effect of interventions on long-term conditions

4.11.5.1. Effect of interventions

The main findings of the effects of nurse-led and midwife-led interventions in the included reviews are summarised within respective categories (detailed above).This section presents findings of reviews that compared nurse-led interventions with usual care or medical-led care, in the care of people with long-term conditions. Eleven reviews are included addressing epilepsy (Meads et al 2001, Bradley and Lindsay 2008), cardiovascular disease (Oakeshott et al 2003, Clark et al 2010, Schadewaldt and Schultz 2010), respiratory disease (French et al 2003, Taylor et al 2005, Kleinpell 2007), diabetes (Loveman et al 2003) and non-specific chronic disease categories (Cooper et al 2006, Latour et al 2007).

4.11.5.2. Epilepsy

There is no evidence that specialist epilepsy nurses improve seizure frequency or severity, and minimal evidence of an effect on quality of life (Meads et al 2001, Bradley and Lindsay 2008). There is evidence suggesting a reduction in depression, improved satisfaction with care (Meads et al 2001, Bradley and Lindsay 2008) and improved knowledge about epilepsy for people with newly diagnosed epilepsy after specialist epilepsy nurse intervention (Bradley and Lindsay 2008).

4.11.5.3. Cardiovascular disease

There is contradictory evidence on the effect of nurse-led interventions for hypertension in primary care. Clark et al (2010) found reductions in blood pressure with nurse-led interventions compared with usual care. In contrast, Oakeshott (2003, p. 469) found a lack of "robust evidence of the effectiveness of nurse-led hypertension management in primary care". However, Oakeshott's review received the lowest quality assessment score of all included reviews (Table 4.5) and there is insufficient detail within the review to judge the basis for this conclusion. On balance, it seems reasonable to conclude that there is evidence of benefit for nurse-led interventions in the management of hypertension in primary care. Nurse-led clinics for adult patients with coronary heart disease may improve quality of life and general health status measures, but have no appreciable effect on long term risk factor reduction (Schadewaldt and Schultz 2010).

4.11.5.4. Respiratory disease

Included reviews found no evidence of a benefit in overall mortality associated with long term nurse-led interventions for people with chronic obstructive pulmonary disease (COPD) (Taylor et al 2005, Kleinpell 2007). A significant reduction in mortality in less severely impaired patients was identified by Smith et al (2001) but this was based on a post-hoc sub-group analysis and should therefore be interpreted cautiously. Nurse-led interventions were found to have, at best, minimal measurable benefit in health related quality of life (Taylor et al 2005, Kleinpell 2007). While a reduction in emergency room attendances was found (Taylor et al 2005), there is minimal evidence of an effect on hospital admissions (Taylor et al 2005, Kleinpell 2007). Similar findings are evident in the review of nurse specialist care for bronchiectasis (French et al 2003). Here, there is no significant difference in clinical outcomes, including health related quality

of life, between nurse-led and doctor-led care, but nurse-led care was associated with a higher proportion of hospital admissions (French et al 2003).

4.11.5.5. Diabetes

Trials included in the one review in this sub-group are generally of low quality and suggest little benefit for diabetes specialist nurse/nurse case manager care other than short-term reduction in HbA1c, which was not present at 12 months.

4.11.5.6. Non-specific chronic disease

Post discharge nurse-led case management for patients with complex needs is associated with increased patient satisfaction but has no significant effect on frequency of emergency department visits or on functional status. There is conflicting evidence of benefit for nurse-led case management on frequency and length of stay of hospital readmissions and on quality of life (Latour et al 2007).

There is some evidence to suggest that specialist home based paediatric nursing services reduce hospital length of stay and improve satisfaction with care, reduce anxiety and improve the quality of life of children and their carers (Cooper et al 2006).

4.11.5.7. Breast cancer

One review (Cruickshank et al 2008) is included here. Supportive care by specialist breast care nurses to women with breast cancer is associated with a reduction in anxiety, depressive symptoms and distress and with an increase in adaptation to breast loss. However, there is no evidence of benefit on other outcomes, including satisfaction with care (Cruickshank et al 2008).

4.11.6. Results – midwifery

The one review that systematically reviewed the effectiveness of midwife-led models of care (Hatem et al 2008) found that women randomised to midwife-led models of care experienced reductions in regional analgesia/anaesthesia, instrumental vaginal births, episiotomies, antenatal hospitalisation, and fetal loss or neonatal death at less than 24 weeks. Women randomised to midwife-led models of care were more likely to not use any intrapartum analgesia/ anaesthesia, be attended at birth by a known midwife, have a spontaneous vaginal birth, initiate breastfeeding and have high perceptions of control during labour (Hatem et al 2008).

4.11.7. Results – substitution

Of the five reviews included in this category, three (Brown and Grimes 1995, Horrocks et al 2002, Laurant et al 2005) were in primary care (although Brown and Grimes also included nurse practitioners in internal medicine, and paediatrics and nurse-midwives in maternity care); one provided nurse-led follow up for patients with cancer (Lewis et al 2009), and one investigated the effectiveness of nurse-led inpatient units (Griffiths et al 2007). Nurses in primary care have similar clinical outcomes to doctor-led primary care but result in higher levels of patient satisfaction (Horrocks et al 2002, Laurant et al 2005) and compliance (medications, keeping appointments and implementing behavioural changes) (Brown and Grimes 1995). There is no evidence of a difference in survival, recurrence or psychological morbidity between nurse-led and physician-led follow-up for patients with cancer (Lewis et al 2009). There is conflicting evidence of benefit for nurse-led follow-up on patient satisfaction and quality of life measures (Lewis et al 2009). Patients discharged from nurse-led units had higher levels of independence and were less likely to need early readmission. Patients were also less likely to be discharged from the nurse-led unit to institutional care but this effect was only present in the short term (Griffiths et al 2007).

4.11.8. Results – cost

A number of reviews included cost as an outcome but not all found data in included trials to inform the outcome. In those that did include cost data, review conclusions extend from a cost saving for nurse- or midwife-led models of care (Meads et al 2001, Hatem et al 2008, Lewis et al 2009) through contradictory evidence (Griffiths et al 2007) and no difference in costs between nurse-led and medical-led interventions (Laurant et al 2005, Bradley and Lindsay 2008, Cruickshank et al 2008) to increased costs associated with nurse-led models of care (French et al 2003, Cooper et al 2006, Kleinpell 2007, Clark et al 2010). The majority of review authors comment on the paucity of high quality cost data across included trials.

4.11.9. Discussion

In summary, the evidence from the systematic reviews of randomised trials included here suggests that nurse-led interventions have a similar impact to usual care on the majority of clinical outcomes across various client groups and clinical conditions. However, psychological outcomes of satisfaction, anxiety and depressive symptoms are all improved with nurse-led care. In addition, midwife-led models of care were found to have significant benefit across physical and psychological outcomes. Importantly, there is no evidence of harm associated with nurse- or midwife-led interventions. There is conflicting evidence on the cost-effectiveness of nurse-led interventions, which is exacerbated by a lack of high quality economic data.

There was significant variability in the outcomes reported on which the effectiveness of nurse-led interventions was measured. This suggests a lack of agreement on core outcomes that should be reported when evaluating nurse-led interventions. It might also suggest that outcome measures chosen are not sensitive to the impact of the role of nurse-led interventions. Challenges in identifying outcomes sensitive to the role of nurses are recognised in the literature (Resnick 2006, Kleinpell 2007) although attempts to identify these are evident (Ingersoll et al 2000, Mundinger et al 2000b).

Reviews included ranged from those with minimal quality concerns to those about which significant concerns are warranted. Trials included in the reviews were generally not of high quality; many used methods that could have introduced bias (e.g. allocation concealment, publication bias not addressed).

We used explicit methods in searching, study selection, data collection, quality assessment and synthesis to minimise the potential of introducing bias. We excluded 11 reviews; some may regard these excluded reviews as providing important information on the impact of nurse- and midwife-led interventions. Nevertheless, we have been explicit about why these reviews were excluded. Of the 11 excluded reviews, eight did not include studies meeting our study design inclusion criteria, or did so in a format that we were unable to disaggregate from other study designs. Limiting included reviews to those that included studies of an RCT, CCT, CBA or ITS design, minimised threats to internal validity and maximised the likelihood that effects in either direction could be attributed to the intervention, in this case nurse- or midwife-led care.

4.12 | Conclusion

This chapter achieves the first objective of this study: to review the literature on the evaluation of healthcare interventions offered by similar postholders internationally.

Nurse-led interventions are at least as effective as medical-led interventions and are not associated with harm. However, evidence of benefit is predominantly limited to psychosocial outcomes and evidence of cost-effectiveness is contradictory. Midwife-led models of care are associated with improved clinical outcomes for women and their infants, are not associated with harm, and are associated with cost savings, compared with medical-led models of care. There is an urgent need to evaluate nurse-led interventions using nursing care sensitive outcomes and incorporating robust economic evaluations with the study designs.

The review of the literature and concept analysis of advanced practice presented here highlights the importance of using a model that adopts a comprehensive approach to the evaluation of outcome measures in specialist and advanced practice, within an SPO framework. The most suitable model, chosen for this project, was that proposed by Schulz et al (2002), adapted by Gerrish et al (2007), which by nature of its "broad inclusive approach" (p. 590), addressing symptomatology, quality of life, social significance and social validity, is ideal to evaluate the clinical significance of specialist and advanced practice roles in Ireland.

The systematic review of systematic reviews identified a set of outcomes that was used to inform the development of the Round 1 Delphi instruments. This initial set of outcomes can be found in Appendix 3.

CHAPTER 5
Phase 1 (2): Focus groups and interviews with key stakeholders

5.1	Introduction

A common use of focus group interviews is to develop survey items (Krueger and Casey 2000, Parahoo 2007), and the main aim of gathering focus group data in this study was to generate information for the survey work. Focus groups and interviews enabled the researchers to explore in-depth stakeholder perceptions of the outcomes of CS and AP roles and issues impacting on the achievement of these outcomes. This chapter describes how the focus groups were designed and conducted.

Seven focus groups with five different health professional groups were undertaken:

- Clinical Nurse and Midwife Specialists (n=2)

- Advanced Nurse Practitioners (n=1)

- Directors of Nursing or Midwifery and Medical Consultants (n=1)

- Assistant Directors of Nursing or Midwifery and Clinical Nurse or Midwifery Manager Grade 3s (n=1)

- Staff Nurses (n=2).

Individual interviews were conducted with some stakeholders when it was not possible for them to attend a focus group. In addition, one focus group was undertaken with service user advocates from mental health (n=4) and individual interviews (n=5) were undertaken with people who were experiencing mental health issues or chronic health problems (Table 5.1). There was a total of 63 attendees across stakeholder groups, focus groups and individual interviews.

5.2	Focus group interviews

Focus groups are classified as exploratory, clinical or phenomenological (Calder 1977). The focus groups used in this study were exploratory in nature; the main aim was to generate data for further testing in the Delphi survey. Using focus group interviews enabled the researchers to explore in-depth stakeholder perceptions of the outcomes of specialist and advanced practice, similarities and differences in outcomes related to these roles, and issues impacting on the achievement of these outcomes.

5.2.1. Recruitment methods

A purposeful, stratified sampling strategy was used to ensure representation of key stakeholders (CSs/APs, staff nurses, managers, consultants and service users) and a mix of experiences (nursing, midwifery, acute, community, urban and rural healthcare settings). Critical to the success of focus group interviewing is the interaction between participants (Morgan 1988, Kitzinger 1994, Clarke 1999, Krueger and Casey 2000, Owens 2001, Freeman 2006, Stewart et al 2007). For best results it is recommended that the group be reasonably homogeneous. Krueger and Casey (2000) contend that homogeneity is most likely to result in uninhibited discussion, thus generating data that may be otherwise unobtainable. Homogeneous groups also facilitate an analysis of differences between sub-groups (Krueger and Casey 2000); for example, differences in perspectives on roles between clinical nurse/midwife specialists and advanced nurse/midwife practitioners. To ensure homogeneity, separate focus groups were conducted with clinical nurse/midwife specialists and advanced nurse/midwife practitioners. Different levels of hierarchy within focus groups were avoided (Jackson 1998, Krueger and Casey 2000) by interviewing managers, staff

nurses and service users separately.

Lists were prepared for each stakeholder group. In the case of the CS group, the list was stratified to ensure that a range of nurses and midwives in different disciplines and specialist areas was invited. Participants were selected at random from other stakeholder lists. Participants were recruited in line with the following inclusion criteria:

Inclusion criteria: ANPs/AMPs

- completed Master's degree

- post approved

- accredited as an ANP/AMP

- candidate ANP/AMP

Inclusion criteria: CNSs/CMSs

- all disciplines/professions included; i.e. children, general, intellectual disability, psychiatric nursing and midwifery

Inclusion criteria: Experts

- hold senior management positions; i.e. Directors of Nursing or Midwifery (DoNs/DoMs), Assistant Directors of Nursing or Midwifery (ADoNs/ADoMs), Clinical Nurse or Midwife Manager 3 (CNM3/CMM3) and medical consultants

- have experience of working with APs and CSs.

Participants were invited to attend a focus group held in either the West or East of the country. Participants were initially contacted by letter and invited to attend a focus group. The letter detailed the study aim, the purpose of the focus group, the date, time and venue for the planned focus group. Invitations were issued to 40 CSs on the Western seaboard and 40 CSs on the Eastern seaboard plus 40 APs or AP candidates on the Western seaboard and 40 APs or AP candidates on the Eastern seaboard. A strategy of over recruitment was used because previous experience of conducting focus groups suggested that 8-12 participants would attend when 40 are invited. Stewart et al (2007) support the use of an over recruitment strategy to ensure adequate numbers.

Opinion as to the ideal size of focus groups varies widely across the literature; for example, Krueger and Casey (2000) recommend 5-10 participants and Stewart et al (2007) recommend 8-12 participants. However, focus groups with as few as two or as many as 20 participants have been reported in the literature (Peek and Fothergill 2009). Focus groups in this study ranged in size from four to 11 participants (see Table 5.1). Although the goal was to include 8-12 participants, participant availability determined their attendance. Individual interviews were also used to ensure that a wide range of opinion and experience was captured.

Table 5.1: Distribution of focus group participants			
Focus group/interviews	Location	Participants	Attendance
FG1	East	ANP/AMP	11
FG2	East	CNS/CMS	6
FG3	East	DoNs/Medical Consultants	3
FG4	West	CNS/CMS	6
FG did not run	West	ANP/AMP	replaced with individual interviews
FG5	West	ADoNs/CNM3s	6
FG6	West	Service User Advocates	4
FG7	East	Staff Nurse	8
FG8	West	Staff Nurse	5
Individual interviews	East and West	DoNs/DoMs	4
Individual interviews	East and West	Consultants	3
Individual interviews	West	ANPs	2
Individual interviews	East and West	Service Users	5
Total participants			63

5.2.2. Development of focus group interview schedule

A semi-structured interview schedule was developed from an analysis of the literature. The Schultz et al (2002) framework, in particular, informed question development. Questions were open-ended and progressed from the general to the more specific (Stewart et al 2007). An interview schedule was developed for each grouping (AP, CS, SN, ADoN/CNM3, DoN/consultants and service users) and addressed four key areas:

• key elements of the role (in general and specific to the individual role)

• perceived outcomes of the role (for service users, the institution/work setting and the wider health services)

• differences between the CS and AP roles

• policy issues.

5.2.3. Conduct of focus groups

Focus groups were conducted in a consistent manner, and each group were asked the same questions, in the same order. All interviews ended by asking participants if there was anything else they wanted to share, to give them scope to raise unanticipated issues. Ensuring that participants have opportunities to address wide ranging issues relevant to the topic is a characteristic of effective focus group interviewing (Merton et al 1990).

Careful attention was given to generating a non-threatening environment. Chairs were arranged in a semi-circle to create a feeling of intimacy and to allow all participants to have eye contact. Audio recorders were located as unobtrusively as possible. Interviews commenced with the facilitators introducing

themselves, welcoming participants and thanking them for attending. The aims and nature of the focus groups were explained and any questions about the study were answered at this point. Permission to audiotape the interview was confirmed and participants were assured that individual comments would not be identifiable in the final report. Participants were asked to introduce themselves, and briefly describe their role and where they worked. This question served as an ice-breaker and helped participants to relax. Tea or coffee was also provided. The facilitators clarified that their role was to ask questions and keep the discussion focused on the topic. Participants were asked to be frank and to avoid talking over one another.

Two members of the research team attended each focus group. One researcher acted as the facilitator, asked the questions, encouraged debate, clarified inconsistencies and explored the extent to which views expressed by a member were shared by the group. Throughout the interview the facilitator recorded key points on flipcharts, noting strength of opinion, common experiences and shared concerns. This approach enabled the group to prioritise what they perceived to be most important. The other researcher (assistant moderator) listened to participant perspectives, took notes on group dynamics, ensured that the recording equipment was on and working, and gathered participants' demographic details. Analysis of the dialogue and group interaction provides information on strength of opinion, common experiences and shared concerns (Clarke 1999, Freeman 2006). The assistant moderator interjected only to clarify meaning when there appeared to be discrepancies between participants' verbal responses and body language.

5.2.4. Data analysis

Interviews were transcribed verbatim. Data were analysed by group; for example, CSs, APs and service users. Data analysis was guided by the constant comparative technique (Corbin and Strauss 2008). Three of the research team were responsible for data analysis. To ensure consistency across the team, the three researchers were given the same two transcripts to code. The results were compared and any coding discrepancies discussed; a final coding framework was then agreed (Appendix 1b). Each researcher then coded one third of the transcripts. Atlas Ti was used as an electronic storage and coding system. Transcripts were coded using the coding framework to guide decisions. An analysis grid was developed to compare outcomes identified across stakeholder groups (Appendix 4). This was used to ensure that outcomes were comprehensively noted and also that any disparities between stakeholder groups could be identified. The findings in relation to outcomes are presented as a composite table below (Table 5.2).

Column 1 identifies the level of impact – i.e. at the level of the individual client/patient or staff or service/hospital/healthcare setting.

Column 2 provides working definitions of the key outcomes of the roles. These definitions are informed by the literature, in particular the work of Schultz et al (2002) and Gerrish et al (2007).

Column 3 lists the outcomes. Where outcomes relate to one role only, CS or AP, this is highlighted.

Table 5.2: Level, definitions used and outcomes of specialist and advanced practice

Level	Definitions	Outcome
Individual client/ patient	Symptomatology defined as: 1) Changes in other staff's behaviour and attitude 2) The actual symptoms of an illness/disease 3) Subjective appraisal of the symptoms of an illness/disease 4) Capacity to manage symptoms	Morbidity Mortality Increased knowledge of service users/family Promote self-management Adherence Earlier diagnosis and intervention Reduce exacerbations of condition Prevent complications Holistic assessment, identifying problems beyond those presented with Conduit to other services Promoting wellness (averting problems) Provide more timely care Patient preparedness for intervention
	Quality of life defined as ability to enjoy normal activities of life	Patient satisfaction Added value outcome: trust in practitioner, feeling known Promote self-efficacy/self-esteem Family support
Staff	Professional impact 1) Changes in other staff's behaviour and attitude 2) Change in culture of service provision	Increased knowledge and skill of other care providers Empowerment Development of services Promote positive attitudes Contribute to more competent staff
	Quality of working life 1) Enhancement of personal satisfaction experienced at work	Work satisfaction Retention (ANP only) Role model Provide career advice
Service/hospital/ healthcare setting	Social significance defined as: extent to which service provision matches service and societal goals	Waiting times; Throughput Readmission rates; Shorter length of stay Continuity of care/carer; Accessibility Contribute to policy development, guidelines, setting parameters; Reduced costs Increase community knowledge/support/advocacy groups Potential for service expansion e.g. nurse-led clinics Potential to work across hospital/community Contribution to strategic planning of services
	Social validity defined as: 1) Extent to which interventions address a problem/area verified as important by the individual/staff /institution/society 2) Extent to which interventions are valued by the individual/staff/institution/society	Research, and implement research evidence; Audit Make staff feel supported. Reduce criminality (CNS only) Promote health Perception of being well cared for Collaboration among care providers Communication across multidisciplinary team (MDT) Service user wishes are known and respected (advocacy) Reduce potential to de-skill junior staff (medical & nursing) Motivate staff; Provide expert clinical advice Practise leadership (ANP only) Provide evidence through audit Promote evidence-based practice

A total of 17 patient/client outcomes were identified, including patient satisfaction, morbidity, and promotion of self-management, and nine staff related outcomes, including increased knowledge, empowerment, retention and work satisfaction. There were 27 service/healthcare outcomes, including waiting times, continuity, research, leadership and collaboration. The findings account for outcomes from all stakeholder groups. While there were some differences across groups in relation to the extent that outcomes were achieved and the issues affecting role implementation, there was good consistency in relation to what the outcomes should be. Differences were identified in outcomes between CSs and APs, with confusion evident in some participants about the distinction between the two posts. This confusion was sometimes compounded by the fact that some APs had developed their role from an initial CS role and some CSs were currently developing their post into an AP role. Staff nurses and midwives (SN/Ms) had greatest difficulty distinguishing between the two roles. Concern was also raised in focus groups with managers about the potential of the CS role to de-skill staff nurses, as some participants reported that CSs could work in ways that limited staff development. Facilitators of focus groups with SN/Ms, therefore, included an additional question in relation to this. Participant SN/Ms in these groups were clear that de-skilling did not occur and, furthermore, suggested that the CS/AP educational function contributed to knowledge development of staff.

5.3	Summary

Eight focus groups and 14 individual interviews were undertaken with the assistance of 63 key stakeholders. The interviews addressed five key areas: elements of the specialist/advanced role, perception of outcomes, impact on services, differences between CS and AP outcomes, and policy issues. Outcomes were identified at the level of the individual practitioner, staff and the hospital/healthcare service. These outcomes were merged with the findings of the literature review to create the Round 1 Delphi tool.

CHAPTER 6
Phase 1 (3): Delphi and evaluative surveys

6.1	Introduction

Two Delphi surveys, one with clinical specialists and the other with advanced practitioners, were conducted separately to identify the outcomes that demonstrate the unique contribution of specialist and advanced practitioners. This in turn fed into the development of a minimum data set for everyday assessment of key outcomes identified in practice. Two parallel Delphi surveys were run through an online survey website, one for advanced practitioners and the other for clinical specialists. Following completion of the Delphi surveys, a validation survey was undertaken with key stakeholders. An evaluative survey was then conducted with nurses and midwives in specialist and advanced practice roles, to seek further confirmation of the perceptions of the practitioners of the impact of their roles.

6.2	Background and rationale for Delphi survey

The Delphi survey methodology was used as a means to assess the added value of specialist and advanced practice. Nursing and midwifery sensitive outcomes are a key reference point for added value. An outcomes based approach is highly appropriate for identifying the added value of specialist practice (Cunningham 2004), and the Delphi surveys were concerned with identifying which outcomes nurses and midwives in CS and AP roles claim for their levels of practice. Nursing (and midwifery) sensitive outcomes were taken to mean the consequence of the structure and process phases of the nursing process (Donabedian 1978, Peglow et al 1992) or of midwifery care. An outcome is articulated at a particular level of specificity, from highly specified (e.g. number of acquired respiratory infections) through to a more general level or domain (e.g. patient or client satisfaction).

Nursing and midwifery sensitive outcomes represent an important means to identify and specify the contribution made by specialist practitioners in nursing and midwifery, over and above that made by other professions and by patients and service users themselves. The Delphi consensus building methodology has proved useful in conducting exploratory work on outcomes identification in the past. It is used here to engage with nurses and midwives working in specialist and advanced practice roles in Ireland, to identify their perspective on the demonstrable benefits of their level of practice.

6.3	Aim

To identify, in the opinion of clinical nurse and midwife specialists and advanced nurse and midwife practitioners in Ireland, a core set of outcomes that distinguish and show the unique contribution of the work of clinical specialists and advanced practitioners that should be routinely recorded.

6.4	Methodology

6.4.1. Overview

The Delphi technique was used to achieve consensus on these outcomes. The Delphi method is acknowledged as useful for situations where a consensus is required from individuals to address a lack of agreement or incomplete state of knowledge (Delbecq et al 1975, Linstone and Turoff 1975, Hasson et al 2000, Hanafin 2005, Keeney et al 2006). The methodology comprises multiple stages of questionnaire design, distribution and analysis. These 'rounds' feature feedback to participants on previous responses, designed to inform the development of a consensus of opinion among a group of experts (Linstone and Turoff 1975, Gordon and Pease 2006, Vernon 2009). Delphi studies commonly consist of three rounds (Hasson et al 2000, Hanafin and Brooks 2005), but the number depends on the priorities, the need to clarify issues and work done prior to the initial survey round (Landeta 2006).

This Delphi survey of CSs/APs consisted of three rounds and was run through an online survey website. In the first round a structured form was presented, rather than using an open ended process of labelling potential outcomes. In subsequent rounds, the participants received feedback on group ratings of the previous round in a revised questionnaire, and were asked to rerate the items. Items that had achieved consensus in Round 2 were not included in the Round 3 survey form so that participants could focus fully on considering whether or not remaining items merited inclusion in the list of core outcomes.

6.4.2. Participants included

Nurses and midwives currently employed in CS/AP roles were invited by the National Council on behalf of the researchers to participate in the development of an instrument capable of capturing the evaluation indicators relevant to specific specialist and advanced practice roles, as identified by the specialists/advanced practitioners themselves. All those who returned contact address details and indicated their willingness to participate were contacted again. Email addresses were used to send an invitation and survey website URL to 620 such CS and 47 such AP prospective participants.

The vast majority of CS respondents to the Round 1 survey were female, with 9% male. Most worked full-time (69%, n=194). Participants were asked to indicate all academic qualifications held; 71% held a higher diploma or postgraduate diploma (n=201), while 44% held a degree (n=123) and 22% (n=62) held a Master's degree. General nursing was by far the largest single group of CSs, with only mental health nurses also comprising more than 10% of the sample. The majority worked in an acute hospital setting (57%, n=162). Certain areas of specialist practice were represented more than others, including Community Mental Health (n=21), General Practice (n=18), Infection Control (n=15), Diabetes Nursing (n=14), and Cardiac Rehabilitation (n=12) (Table 6.1).

Table 6.1: Characteristics of CS participants in Round 1 (n=282)

VARIABLE	N	%
Geographical spread		
Mid-Western	27	9.6
North-Eastern	18	6.5
Eastern	109	38.7
Midland	21	7.4
Southern	46	16.3
Western	25	8.8
North-Western	19	6.7
South-Eastern	17	6.0
Age group		
25-34	36	12.8
35-44	118	41.8
45-54	111	39.3
55+	17	6.1
Place of work		
Acute hospital	162	57.4
Community care	55	19.5
Combination of both	19	6.8
Other	46	16.3
Current work setting		
General nursing	119	42.2
Paediatric nursing	21	7.4
Mental health	49	17.3
Intellectual disability	20	7.1
Midwifery	14	5.0
Other	59	21.0

The vast majority of AP respondents to the survey were female, with 11% male. Most worked full-time (83%, n=25). Participants were asked to indicate all academic qualifications held; 40% had a higher diploma/postgraduate diploma (n=12), while 47% held a degree (n=14) and all (100%, n=30) held a Master's degree or higher. Table 6.2 identifies further demographic information on respondents to Round 1. General nursing was the largest group, followed by paediatric nurses, comprising more than 13% of the sample. The majority worked in an acute hospital setting only (77%, n=23). The mean years of work experience since first registration was 19.5 (SD 6.4). On average participants reported having worked in their specialist area for 13.6 years (SD 5.1). Certain areas of advanced practice were represented more than others, including Emergency (n=8), Paediatrics and Neonates (n=3) and Palliative Care (n=3).

Table 6.2: Characteristics of participants in AP Delphi survey (n=30)

VARIABLE	N	%
Geographical spread		
Mid-Western	0	0.0
North-Eastern	3	10.0
Eastern	19	63.3
Midland	2	6.7
Southern	3	10.0
Western	2	6.7
North-Western	1	3.3
South-Eastern	0	0.0
Age group		
25-34	3	10.0
35-44	14	46.7
45-54	11	36.6
55+	2	6.7
Place of work		
Acute hospital	23	76.6
Community care	2	6.7
Combination of both	2	6.7
Other	3	10.0
Current work setting		
General nursing	23	76.6
Paediatric nursing	4	13.4
Mental health	0	0.0
Intellectual disability	0	0.0
Midwifery	0	0.0
Public health	0	0.0
Other	3	10.0

6.4.3. Round 1 – instrument development and testing

An outcome was defined as a state, behaviour or belief that can be affected as a result of nursing/midwifery care (Johnson et al 2000). Survey items for this study were designed as mid-level outcomes with applicability to varied practice settings. The items in Round 1 were derived from three sources (concept analysis, systematic review of the literature, and qualitative interviews with stakeholder groups). Item construction was also informed by a critical review of nursing classifications and minimum data sets (MacNeela et al 2006). Participants were asked to use a 1-7 rating scale to rate each item's importance as a marker of specialist practice (1: low importance, 7: highest importance possible).

The Delphi survey was divided into three sections, as grouping items in a meaningful manner facilitates

ease of completion (Cox 1996). A total of 93 items were devised for the Round 1 questionnaire, assigned to one of three categories that represented (a) client/patient status (48 items), (b) nurses, midwives or other health professionals (25 items), and (c) healthcare services (20 items). Each item was described through a concise label and short exemplars. For instance, the outcome on personal independence (personal beliefs) was labelled and described through examples that included patients'/clients' beliefs about recovery, self-efficacy, and institutionalisation. Family/carer quality of life was illustrated by examples on the degree of carer strain experienced and impact of the illness on family well-being. The outcome on the achievement of new clinical initiatives was exemplified by two illustrations: implementation of new wound dressing, introduction of a new assessment procedure.

Expert validation of content and process was used to address validity. A panel of five individuals with extensive experience in nursing and midwifery research and clinical specialist nursing was convened. Panel members were asked whether the draft survey items were valid, understandable and practical. Following revisions in item wording and presentation, a pilot study was carried out with the purpose of testing the Round 1 questionnaire for any ambiguity in statements, overall clarity, and clarity in relation to the instructions (Fig. 6.1).

6.4.4. Pilot study

Thirty CSs randomly selected from the database of clinical specialists in Ireland were invited to take part in the pilot phase of questionnaire development, of which 14 agreed. Three of these participants were also invited to take part in cognitive interviews (Fig. 6.1). Cognitive interviewing incorporates cognitive psychology and survey methodology to explore the potential of question presentation and wording for eliciting response error (Dillman 2000, Drennan 2003). The aim of cognitive interviewing is to understand how respondents perceive and interpret questions, thereby identifying inconsistencies or potential misunderstandings of question wording or the rating procedure. Due to the small pool of available APs, it was decided to pilot the questionnaires among individuals who had completed Master's preparation courses for APs but who were not yet in accredited posts. Eighteen such individuals were invited to participate in the pilot phase of the questionnaire. They were given details of the study and informed that the purpose of their participation was to evaluate the instrument to be used, which 11 agreed to do (Fig. 6.1).

Pilot testing for Round 2 and 3 was also carried out, focused on gaining initial feedback on the clarity and ease of understanding of instructions and the central task involved in the survey. Individuals who had participated in piloting Round 1 also piloted subsequent rounds. Their data were not included in the final analysis.

Figure 6.1: Summary of Round 1 Delphi survey piloting
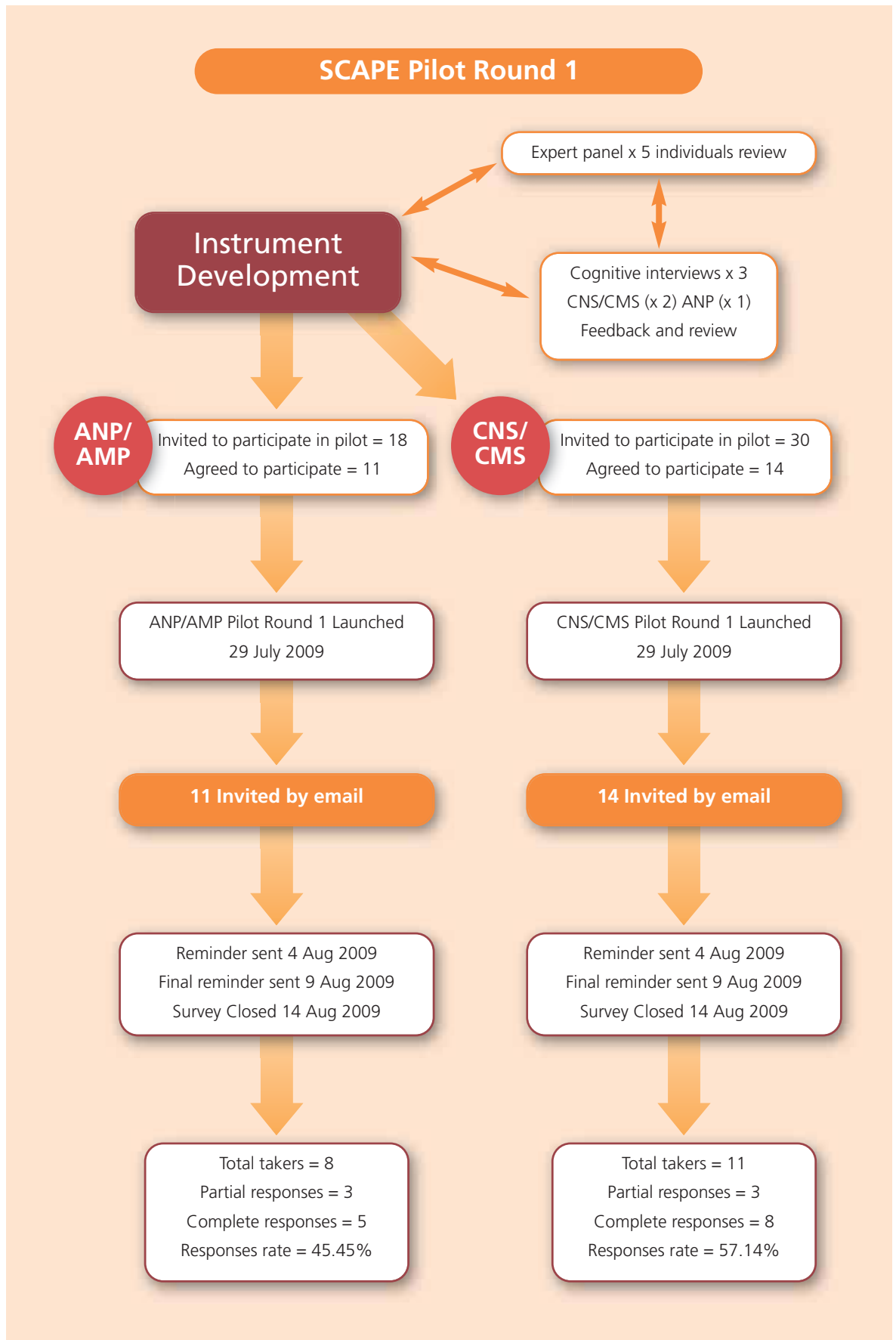
6.4.5. Consensus

The meaning of consensus needs careful consideration in any Delphi survey, and should be addressed prior to the inquiry to decrease the likelihood that bias would lead to the inclusion or exclusion of marginal choices (Powell 2003, Ferguson et al 2005, Keeney et al 2006). Each item in Round 1 was rated on importance for the clinical specialist role generally and to the participants' current personal work role specifically. All the items presented in Round 1 were re-presented in Round 2 to assess stability of responses across rounds (Boote et al 2006) and to allow participants the opportunity to reconsider their position in light of feedback from the group rating. Items in subsequent rounds were rated for agreement as to whether each should be included in a set of core outcomes for specialist practice.

The predetermined threshold chosen for consensus was a 25th percentile score of 6.00 or more (on the scale from 1.00 to 7.00). This meant 75% of participants giving an agreement rating of 6.00 or more in Round 2. If consensus was reached on an item in Round 2, participants were not asked to rerate it in Round 3. The final survey round was used to focus attention on items that had not achieved consensus, and to ask the panel members if any should in fact be retained.

6.5	Data collection

6.5.1. Sampling frames

Both Round 1 Delphi surveys were launched on August 20th 2009, with data collection continuing until October 9th 2009. This period was longer than intended as responses were slow to come in. The initial CS sampling frame of 670 was reduced by several factors (13 invalid email addresses, 6 no longer working as a CS, 28 chose to opt out, and 3 had technical difficulties with internet access), resulting in a final sampling frame of 620 prospective respondents. Information on response rate is set out in Figure 6.2.

Figure 6.2: Response rates for the Clinical Nurse/Midwife Specialist – Round 1, 2 and 3 Delphi survey

CNS/CMS SCAPE

Round 1	Round 2	Round 3
Launched 20 Aug 2009 Closed 6 Oct 2009	Launched 6 Nov 2009 Closed 14 Dec 2009	Launched 5 Feb 2010 Closed 14 Mar 2010
Invited 620	Invited 282	Invited 215
Responded 282	Responded 215	Responded 202
Response Rate 45.9%	**Response Rate 76%**	**Response Rate 94%**

Overall attrition 28%
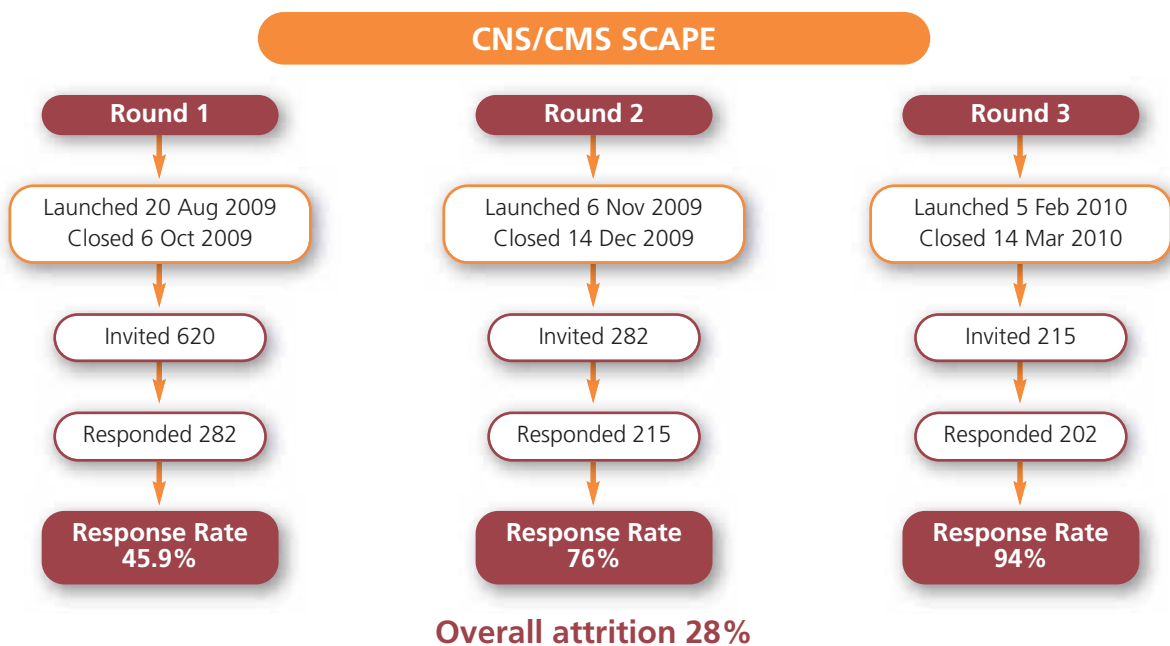
The sampling frame for the AP Delphi survey was 47 prospective participants and information on response rate is set out in Figure 6.3.

Figure 6.3: Response rates for the Advanced Nurse/Midwife Practitioner – Round 1, 2 and 3 Delphi survey

ANP/AMP SCAPE

Round 1	Round 2	Round 3
Launched 20 Aug 2009 Closed 6 Oct 2009	Launched 6 Nov 2009 Closed 14 Dec 2009	Launched 5 Feb 2010 Closed 14 Mar 2010
Invited 47	Invited 30	Invited 28
Responded 30	Responded 28	Responded 27
Response Rate 63.8%	Response Rate 93.3%	Response Rate 96%

Overall attrition 10%
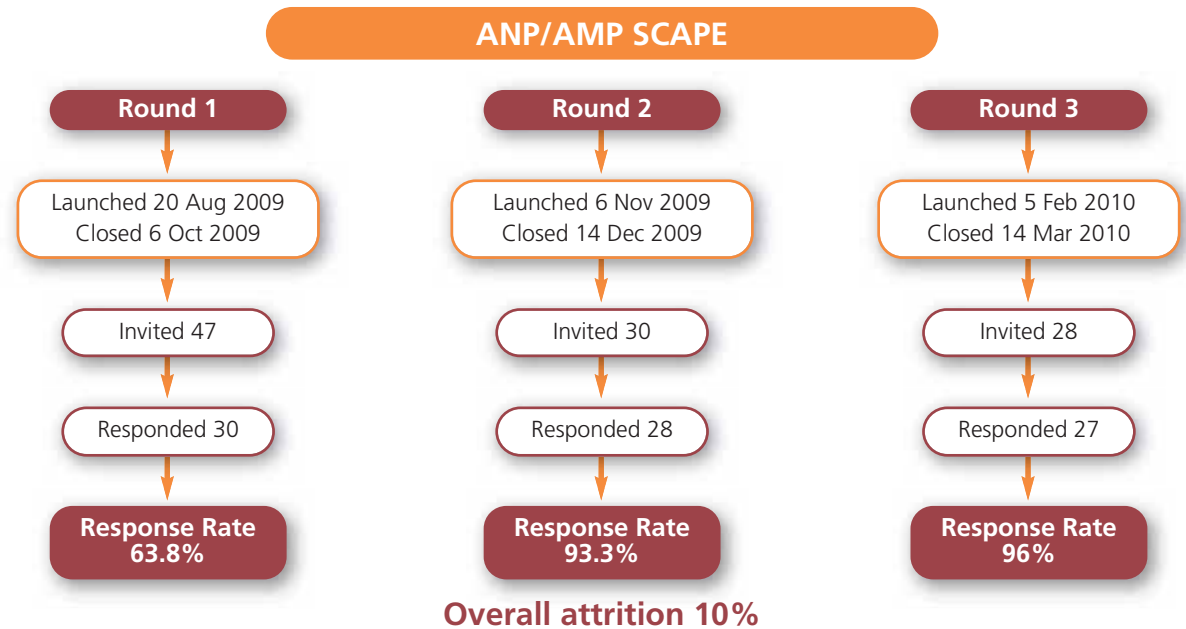
6.5.2. Maximising the response rate

The Delphi process requires a continued commitment from participants over successive rounds, using a slightly modified questionnaire each time. It is of utmost importance that the participants engage and maintain involvement throughout the process (Hasson et al 2000, Kennedy 2004, Hanafin 2005), to ensure active involvement and reduce the attrition of respondents as much as possible in all rounds (McKenna 1994, Campbell and Cantrill 2001). Participants were given information on the process at the beginning of the survey so they could make an informed choice about taking part. They were encouraged to think about the emerging findings by being given feedback on their own personal responses after each round, and feedback on group ratings of previous rounds. Feedback and suggestions for new items were additionally sought from the participants.

Round 1 focused on initial evaluation of items to identify points of emerging convergence and divergence between the participants. To facilitate this exploration of item relevance, respondents were asked to rate each item in terms of importance to the specialist role, and to the individual's current job role. This served to discriminate between general, normative expectations for the role and the way in which the role is actually enacted in practice. Round 2 and Round 3 ratings focused on obtaining ratings of agreement that items should be included in a set of core outcomes for specialist practice in nursing and midwifery. See Figure 6.4 for a summary of the process for the rounds.

The response rate following two reminders and an extension of the deadline to September 25th, 2009 was reviewed. Over 70 CS participants had partially completed the survey, so the survey was held open to October 9th 2009 to give partial completers an opportunity to finalise their responses. A number of reminder emails and personal contacts were made, supported by the National Council. The activities undertaken to maximise response rate resulted in a final completion total for the Round 1 CS survey of 282, representing a response rate of 46% (n=282) (see Figure 6.2). The final response rate for the Round 1 AP group was 64% (n=30) (see Figure 6.3).

The online survey appeared to have been relatively easy to navigate and complete, despite the large number of individual ratings requested. The average completion time for Round 1 was approximately half an hour; the Round 2 survey was streamlined so that it required less time for completion.

Figure 6.4: Summary of Round 1, 2 and 3 process
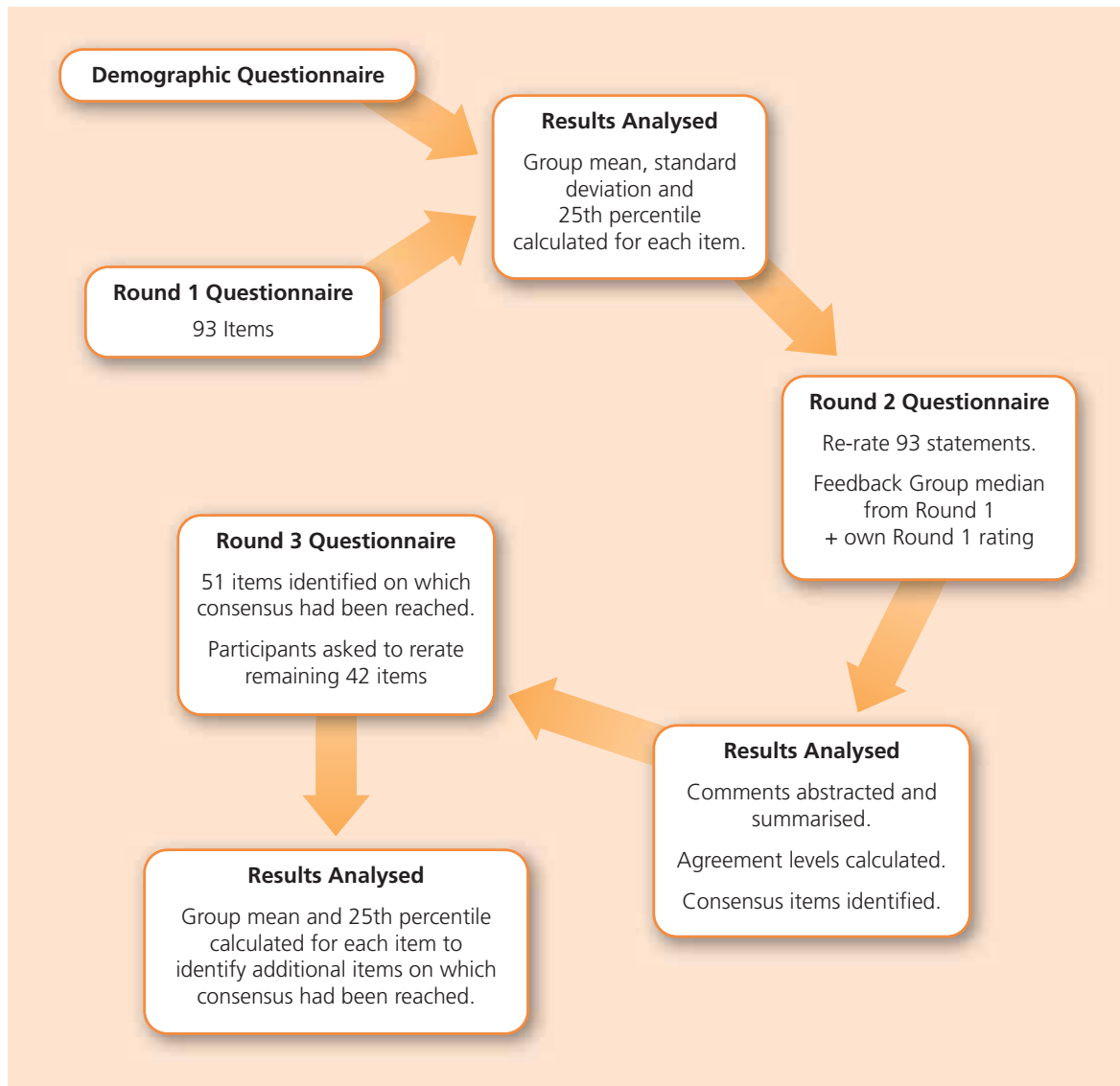
All participants who responded to Round 1 were sent Round 2. From the 282 questionnaires dispatched to CSs in Round 2, 76% were completed (n=215). From the 30 questionnaires sent to APs in Round 2, 93.3% were completed (n=28). The 215 CS participants who completed Round 2 were sent Round 3, with a response rate achieved of 94% (n=202). The 28 APs who completed Round 2 were sent Round 3, with a response rate of 96% (n=27).

| 6.6 | Results of CS survey – Section 1: Individual patient/client outcomes |

6.6.1. Introduction

The findings of the Delphi survey are set out according to three sections, concerning individual client/patient outcomes, outcomes for nurses, midwives and other healthcare professionals, and outcomes for healthcare services and settings. A total of 47 items achieved consensus in Round 2 or Round 3 (see section 6.32 for a listing of the minimum data set, and Appendix 11 for the toolkit for evaluating clinical specialist roles, which includes this dataset). The majority of these items came from Section 1, and the lowest proportion of consensus items came from Section 3.

The individual level outcomes that achieved consensus demonstrated a trend toward psychosocial status and the healthcare system. Indicators of personal autonomy received mixed support. While certain outcomes representing the physical domain also met the criteria for consensus, most physically oriented items were rejected, especially those that referred to activities of daily living.

6.6.2. Consensus items

A total of 29 items achieved consensus due to having a 25th percentile of 6.00 or more (see Table 6.3). The items referred to a range of outcomes concerned with direct care of patients, clients and their families. Items that reflect distinct personal states can be grouped in a bio-psycho-social scheme. The physical domain is reflected in items referring to quality of life (physical), symptom management, and physical comfort, while the psychosocial domain was indicated through items on quality of life (psychological), self-esteem, anxiety, mood, personal independence beliefs, and quality of life (social).

Everyday interpersonal and social states were not well represented, except for family knowledge. This item was less concerned with family functioning than how the family relates to an illness. Similarly, the socially oriented consensus items were associated with the person as a patient. Some of these items related to interpersonal care (communication, therapeutic relationship, personal preferences respected, shared decision making and patient satisfaction with interpersonal care). Others described beliefs, preparation and actions linked to treatment (patient satisfaction with information, patient knowledge, preparation of the patient, adherence, health promotion beliefs). The remaining items were outcomes that positioned the person in the healthcare system of assessment, safety and intervention (patient safety, appropriateness of interventions, access to care, maintenance of safe environment, appropriateness of referral, appropriateness of medications, appropriateness of assessment, and relapse).

The items achieved consistently high support across the three ratings made in Rounds 1 and 2. No item achieved a 25th percentile of 7.00 in Round 2, but two were rated at this level in Round 1 (therapeutic relationship, patient safety). Even so, these items were among the five most endorsed items in Round 2, with the others referring to communication, patient satisfaction with information, and quality of life (psychological).

In terms of the less consistently endorsed Section 1 items that achieved consensus, a small number received a 25th percentile score of 5.00 in Round 1. Two ratings were made of each item in Round 1, referring to the relevance of the item to the respondent's perception of the professional role of the clinical specialist overall (professional role), and to the relevance of the item to the respondent's perception of their own current role personally (personal role).

Certain items received somewhat different ratings in these two dimensions. Self-esteem and adherence outcome items scored lower on relevance to the specialist role in Round 1 compared with personal

relevance ratings. Five items had a lower rating on personal relevance than on relevance to the specialist role, largely focused on healthcare outcomes (maintenance of safe environment, preparation for treatment, physical comfort, and appropriateness of assessment). Family knowledge, personal independence beliefs, and quality of life (social) had a score of 5.00 on both Round 1 ratings, and were among the lowest rated consensus items in Round 2.

6.6.3. Non-consensus items

A total of 22 items in Section 1 did not achieve consensus (Table 6.4). Half referred to outcomes in the physical domain (pain, physical self-care, sleep and rest, a good death, fatigue, mobility, breathing, elimination, mortality, washing and dressing, body temperature). No items were specifically psychological, although sleep, fatigue and several other items have an experiential character. Several items referred to social and interpersonal outcomes (personal independence in society, family adjustment, family quality of life, quality of life (environment), objective indicators of personal independence). Items on well-being across domains and sexuality were broadly bio-psycho-social in meaning. Four items that did not achieve consensus were in relation to healthcare states (realistic expectations, patient understanding of CS role, patient complications, appropriateness of healthcare episode).

Table 6.3: Section 1 ratings for items that achieved consensus among CS participants in Round 2 (R2), including 25th percentile figures for each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores		
			R1 Professional Role	R1 Personal Role	R2
Communication	6.63 (.64)	7.00	6.00	6.00	6.00
Therapeutic relationship	6.61 (.74)	7.00	7.00	7.00	6.00
Patient safety	6.60 (.78)	7.00	7.00	7.00	6.00
Patient satisfaction with information	6.50 (.72)	7.00	6.00	6.00	6.00
QoL psychological	6.49 (.75)	7.00	6.00	6.00	6.00
Personal preferences respected	6.47 (.67)	7.00	6.00	6.00	6.00
Shared decision making	6.46 (.70)	7.00	6.00	6.00	6.00
The person's knowledge	6.44 (.73)	7.00	6.00	6.00	6.00
QoL physical	6.44 (.78)	7.00	6.00	6.00	6.00
Symptom management	6.37 (.86)	7.00	6.00	7.00	6.00
Patient satisfaction with interpersonal care	6.34 (.76)	6.00	6.00	6.00	6.00
Appropriateness of interventions	6.31 (.78)	6.00	6.00	6.00	6.00
Self-esteem	6.31 (.75)	6.00	5.00	6.00	6.00
Access to care	6.27 (.88)	6.00	6.00	6.00	6.00
Anxiety	6.26 (.86)	6.00	6.00	6.00	6.00
Adherence	6.24 (.91)	6.00	5.00	6.00	6.00
Maintenance of safe environment	6.21 (.91)	6.00	6.00	5.00	6.00
Preparation for treatment	6.18 (1.05)	6.00	6.00	5.00	6.00
Appropriateness of referral	6.17 (.83)	6.00	6.00	6.00	6.00
Appropriateness of medication regime	6.16 (1.04)	6.00	6.00	6.00	6.00
Physical comfort	6.16 (1.00)	6.00	6.00	5.00	6.00
Mood	6.15 (.95)	6.00	6.00	6.00	6.00
Family knowledge	6.09 (.97)	6.00	5.00	5.00	6.00
Appropriateness of assessment	6.07 (.88)	6.00	6.00	5.00	6.00
Relapse	6.05 (.97)	6.00	6.00	6.00	6.00
Personal independence beliefs	6.04 (.92)	6.00	5.00	5.00	6.00
QoL social	6.01 (.94)	6.00	5.00	5.00	6.00
Health promotion beliefs	6.05 (1.01)	6.00	n/a	n/a	6.00
Patient satisfaction with technical care	5.97 (.93)	6.00	6.00	6.00	6.00

Rating of these items was consistent through all three rounds. Pain received a 25th percentile score of 6.00 on two of the three ratings made in Round 1 and 2. It was seen as particularly relevant to the specialist role but less relevant to the personal role. The item on patient complications also received this rating in Round 1. While consensus items generally received 25th percentile scores of 6.00, those Section 1 items that did not achieve consensus were clearly differentiated by consistent 25th percentile scores of 5.00 or lower. The item on family adjustment received a high rating (mean score: 5.96), but got a 25th percentile score of 5.00 throughout the four ratings from Round 1 to 3. A number of items with a relatively low mean score received a 25th percentile rating of 3.00 or 4.00. Washing and dressing received a 25th percentile score of 4.00 on relevance to the specialist role, 3.00 on relevance to personal role, and scores of 5.00 on Round 2 and 3. Particularly low scores were associated with ratings of personal relevance (e.g. body temperature, sexuality; elimination received a 25th percentile score of 3.00).

While a significant number of Section 1 items did not achieve consensus, they had high levels of endorsement overall. The lowest median score was above 5.00. Section 1 items received the highest ratings compared with the other two sections, and a relatively high proportion received consensus ratings.

Table 6.4: Section 1 items that did not attain consensus among CS participants over three rounds, including 25th percentile figures for each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores			
			R1 Professional Role	R1 Personal Role	R2	R3
Pain	6.07 (1.05)	6.00	6.00	5.00	5.00	5.00
Realistic expectations	5.97 (.98)	6.00	n/a	n/a	5.00	5.00
Personal independence in society	5.96 (.97)	6.00	5.00	5.00	5.00	5.00
Family adjustment	5.96 (.95)	6.00	5.00	5.00	5.00	5.00
Patient understanding of CS role	5.92 (.91)	6.00	5.00	5.00	5.00	5.00
QoL environment	5.92 (1.06)	6.00	5.00	5.00	5.00	5.00
Well-being across domains	5.89 (.91)	6.00	5.00	5.00	5.00	5.00
Physical self-care capacity	5.88 (.96)	6.00	5.00	5.00	5.00	5.00
Family QoL	5.85 (.97)	6.00	5.00	5.00	5.00	5.00
Patient complications	5.83 (.99)	6.00	6.00	5.00	5.00	5.00
Sleep and rest	5.80 (.99)	6.00	5.00	5.00	5.00	5.00
A good death	5.75 (1.46)	6.00	n/a	n/a	5.00	5.00
Appropriateness of healthcare episode	5.69 (1.01)	6.00	5.00	5.00	5.00	5.00
Fatigue	5.66 (1.00)	6.00	5.00	5.00	5.00	5.00
Mobility	5.51 (1.21)	6.00	5.00	4.00	5.00	5.00
Breathing	5.48 (1.38)	6.00	5.00	4.00	5.00	5.00
Elimination	5.45 (1.40)	6.00	4.00	3.00	5.00	5.00
Mortality	5.39 (1.31)	6.00	5.00	4.00	5.00	4.00
Sexuality	5.34 (1.27)	5.00	4.00	3.00	5.00	5.00
Washing and dressing	5.18 (1.33)	5.00	4.00	3.00	5.00	5.00
Body temperature	5.13 (1.36)	5.00	4.00	3.00	4.00	4.00
Personal independence	5.12 (1.17)	5.00	5.00	4.00	4.00	4.00

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<tr><td>**6.7**</td><td>Results of CS survey – Section 2: Outcomes for nurses, midwives and other healthcare professionals</td></tr>
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6.7.1. Consensus items

A total of 12 Section 2 items achieved consensus in Round 2 (Table 6.5). The majority concerned knowledge and attitudes of nurses, peers, other professionals and patients/clients. These outcomes referred to understanding, attitudes, knowledge and education. Two outcomes related to the research role associated with specialist work, and the remaining three describe clinical effectiveness (use of clinical guidelines, clinical leadership of other nurses, new clinical initiatives). The items presented in Table 6.5 can be interpreted as reflecting the role of CS respondents as empowering other nurses and midwives; for example, in the item on attitudes to practice development.

Ratings of Section 2 core outcomes were not as consistently high as Section 1 outcomes that achieved core status. Several had mean scores below 6.00, and there were relatively few items with a mean rating above 6.30. Ratings of personal relevance of these items were comparatively low, with 25th percentile ratings of 5.00 reported for most items on the Round 1 personal relevance rating. This reflected a tendency for somewhat higher endorsement of these items as particularly relevant to the specialist role generally. Two knowledge related items had a 25th percentile score of 5.00 in Round 1, moving to consensus status in Round 2.

Table 6.5: Section 2 items that achieved consensus among CS participants in Round 2, including 25th percentile figures in each round

			25th Percentile Scores		
	R2 Mean Scores (SD)	R2 Median Scores	R1 Professional Role	R1 Personal Role	R2
Use of clinical guidelines	6.39 (.75)	6.00	6.00	5.00	6.00
Integration of research in clinical practice	6.33 (.80)	6.00	6.00	6.00	6.00
Other nurses' and midwives' understanding of CS role	6.33 (.78)	6.00	6.00	5.00	6.00
Achievement of new education intervention: specialist peers	6.23 (.75)	6.00	6.00	5.00	6.00
Research awareness in clinical practice	6.16 (.89)	6.00	6.00	5.00	6.00
Clinical leadership of nurses/midwives	6.13 (.84)	6.00	6.00	5.00	6.00
Achievement of new educational intervention: other nurses/midwives	6.11 (.86)	6.00	6.00	5.00	6.00
Achievement of new educational intervention: patients and service users	6.09 (.84)	6.00	6.00	6.00	6.00
Achievement of new clinical initiatives	6.06 (.90)	6.00	6.00	5.00	6.00
Attitudes to practice development among nurses/midwives	5.99 (.93)	6.00	6.00	5.00	6.00
Other nurses' and midwives' knowledge levels	5.96 (.87)	6.00	5.00	5.00	6.00
Other professionals' knowledge levels	5.94 (.89)	6.00	5.00	5.00	6.00

6.7.2. Non-consensus items

A total of 13 Section 2 outcomes did not achieve consensus in Round 3 (see Table 6.6). These items included further knowledge and attitude outcomes, especially in relation to how nurses perceive clinical practice. None of the items concerning skills achieved consensus status. Research activity was not rated as a core outcome of specialist practice, although awareness of and integration of research findings did achieve consensus. Another feature of outcomes in this section was the rejection of generic organisational outcomes (empowerment of nurses, nurses' work satisfaction, organising team or service, staff retention).

Rejected Section 2 items received somewhat less support than equivalent items rejected in Section 1. This can be observed in median scores, with half the rejected Section 2 items achieving a median rating of 5.00, compared with four out of 28 Section 1 items that did not achieve consensus. A 25th percentile rating of 4.00 was given for most items in Round 1, with ratings of personal relevance particularly low. Scores were somewhat higher in Round 2, with a 25th percentile score of 5.00 for most items. Several more items received a 25th percentile of 4.00 in Round 3.

Table 6.6: Section 2 items that did not attain consensus among CS participants, including 25th percentile figures in each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores			
			R1 Professional Role	R1 Personal Role	R2	R3
Other nurses' or midwives' satisfaction with their clinical role	5.91 (.92)	6.00	4.00	4.00	5.00	5.00
Other nurses' or midwives' attitudes to their work	5.90 (.93)	6.00	5.00	5.00	5.00	5.00
Other professionals' attitudes to their work	5.77 (1.04)	6.00	5.00	5.00	5.00	5.00
Nursing/midwifery skill level	5.61 (.97)	6.00	5.00	5.00	5.00	5.00
Research activity in clinical practice	5.56 (1.00)	6.00	5.00	4.00	5.00	5.00
Empowerment experienced by other nurses or midwives	5.47 (1.06)	6.00	4.00	4.00	5.00	5.00
Nursing/midwifery student knowledge levels	5.36 (1.01)	5.00	5.00	4.00	5.00	5.00
New arrangements in organising team/ service	5.26 (1.11)	5.00	4.00	4.00	5.00	4.00
Other professionals' skills	5.26 (1.07)	5.00	5.00	4.00	5.00	4.00
Nursing/midwifery student skill levels	5.14 (.99)	5.00	5.00	4.00	5.00	4.00
Staff retention	5.11 (1.32)	5.00	4.00	3.00	4.00	4.00
Other nurses' and midwives' work satisfaction	5.10 (1.24)	5.00	4.00	4.00	4.00	4.00
Other nurses' and midwives' perceptions of career possibilities	4.94 (1.19)	5.00	4.00	3.00	4.00	4.00

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Results of CS survey – Section 3: Outcomes for healthcare services and settings

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6.8.1. Consensus items

Six Section 3 items achieved consensus as core outcomes (Table 6.7). Two referred to multidisciplinary team functioning (communication, team performance), and four to quality of care (best practice in service delivery at local, regional and national levels, continuity of care, and openness to innovation). These items received particularly high levels of endorsement, reflected in a mean score of 6.30 or above for five of these items and a median score of 7.00 for the three most endorsed items in this section. Ratings on these Section 3 items were consistently high. The 25th percentile score was 6.00 for all but two ratings, on personal relevance of outcomes concerning openness to innovation and best practice in service delivery, regionally and nationally.

Table 6.7: Section 3 items that attained consensus among CS participants in Round 2, including 25th percentile figures in each round

			25th Percentile Scores		
	R2 Mean Scores (SD)	R2 Median Scores	R1 Professional Role	R1 Personal Role	R2
Multidisciplinary work: communication	6.52 (.75)	7.00	6.00	6.00	6.00
Multidisciplinary work: team performance	6.47 (.75)	7.00	6.00	6.00	6.00
Best practice in service delivery locally	6.40 (.85)	7.00	6.00	6.00	6.00
Continuity of care	6.30 (.81)	6.00	6.00	6.00	6.00
Best practice in service delivery regionally or nationally	6.29 (.84)	6.00	6.00	5.00	6.00
Openness to innovation in the healthcare unit	6.07 (.86)	6.00	6.00	5.00	6.00

6.8.2. Non-consensus items

The remaining 13 Section 3 items did not achieve consensus (see Table 6.8). These differed from the outcomes that achieved consensus, being specific and relatively measurable indicators of health service efficiency. The rejected items included outcomes specifying direct costs – for example, of medication prescriptions or referrals – and numerical indicators of organisational performance (e.g. number of admissions, treatments and procedures). Two other items related to duration of time (waiting times, length of stay). Waiting times came closest to consensus, with a mean score of 5.85, but the remainder of rejected Section 3 outcomes had a mean score of less than 5.00. This group of items were distinctive in receiving the lowest level of endorsement within the survey as a whole.

The pattern of 25th percentile ratings across the three rounds indicated a consistent tendency of comparatively low ratings. Round 1 25th percentile scores were generally higher on the rating of relevance to the professional role. For instance, in rating number of medication prescriptions as an outcome, the 25th percentile for relevance to the professional role was 4.00, compared with a 25th percentile of 2.00 for personal relevance. These items received more endorsement in general, professional terms than when

the current work role was being considered. Round 2 25th percentile scores were generally 4.00 and remained consistent in Round 3. While lower than ratings of outcomes in other sections, a 25th percentile score of 4.00 indicates that only 25% of participants disagreed with inclusion of the item as a core outcome of the CS role.

Table 6.8: Section 3 items that did not attain consensus among CS participants, including 25th percentile figures in each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores			
			R1 Professional Role	R1 Personal Role	R2	R3
Waiting times	5.85 (.99)	6.00	5.00	5.00	5.00	4.00
Length of stay	4.94 (1.17)	5.00	4.00	3.00	4.00	4.00
Number of referrals	4.93 (1.09)	5.00	4.00	3.00	4.00	4.00
Healthcare unit output	4.92 (1.11)	5.00	4.00	4.00	4.00	4.00
Number of assessments	4.81 (1.29)	5.00	4.00	3.00	4.00	4.00
Number of admissions	4.80 (1.20)	5.00	4.00	3.00	4.00	4.00
Number of medication prescriptions	4.73 (1.21)	5.00	4.00	2.00	4.00	4.00
Number of primary care consultations	4.72 (1.17)	5.00	4.00	3.00	4.00	4.00
Number of treatments and procedures	4.68 (1.26)	5.00	4.00	2.00	4.00	4.00
Direct costs: medication	4.56 (1.23)	5.00	4.00	3.00	4.00	4.00
Direct costs: treatments and procedures	4.53 (1.24)	4.00	4.00	3.00	4.00	4.00
Direct costs: assessments	4.45 (1.24)	4.00	4.00	3.00	4.00	4.00
Direct costs: referrals	4.40 (1.16)	4.00	3.00	2.75	4.00	4.00

| 6.9 | Differences between specialties and practice settings – CS survey |

6.9.1. Exploring the consensus

The CS participants were drawn from diverse specialties in nursing and from midwifery settings. The range of specialist practice domains included in the study calls for an examination of the meaning of 'core outcome' status, as aggregating participants from different settings and specialties might obscure important differences of opinion between the groups. Items that did not achieve consensus typically had a larger variance in ratings. This can be partly explained by the restriction in variance arising from the highly skewed data that comprise consensus outcomes. Alternatively, it might indicate a polarity in the views of particular sub-groups.

Table 6.9 describes five items that achieved consensus in Section 1, presented by participant sub-group. The sub-groups refer to the largest single groups recorded, in general nursing, mental health nursing, paediatric nursing, intellectual disability nursing, midwifery, services for older people, and practice nursing. Mean scores are identified for the sub-groups to discriminate their status further as having a 25th percentile score of 6.00 or more in Round 2. Therapeutic relationship and client safety received the highest endorsements in Section 1, and consensus was achieved within all sub-groups. Rating patterns for the item on mood were more variable across groups. The mean rating given by most sub-groups was 6.00 or above, but the item achieved consensus among only two. These were the largest numerically, contributing to its core status overall in Round 2. More sub-groups attributed core status to the item on appropriateness of assessment, although the largest group, general nursing, did not. The item on physical comfort was strongly endorsed by most sub-groups, with only mental health nurses giving a mean rating less than 6.00.

Table 6.9: Mean ratings (and standard deviations) of illustrative items from Section 1 that attained consensus among CS participants in Round 2, classified by participant work group

	Therapeutic relationship	Client safety	Mood	Appropriateness of assessment	Physical comfort
General nursing	6.63 (.87)	6.63 (.81)	6.02 (.95)	6.00 (1.00)	6.15 (1.00)
Paediatrics	6.58 (.51)	**6.75 (.45)**	*5.58 (1.17)*	6.08 (.67)	6.17 (.83)
Mental health	**6.72 (.51)**	6.46 (.79)	**6.64 (.49)**	*6.00 (.73)*	*5.77 (1.04)*
Intellectual disability	**6.79 (.42)**	6.71 (.61)	6.07 (.73)	**6.36 (.93)**	**6.64 (.84)**
Midwifery	6.63 (.74)	6.63 (.52)	**6.75 (.46)**	6.00 (.93)	6.50 (.76)
Oncology	*6.36 (.81)*	*6.36 (1.03)*	6.09 (1.04)	6.27 (1.01)	**6.81 (.40)**
Older people	6.63 (.52)	**6.75 (.46)**	*5.88 (1.36)*	**6.63 (.52)**	6.50 (.53)
Practice nursing	*6.56 (.73)*	6.56 (.53)	6.11 (.78)	*5.78 (.83)*	*6.00 (.50)*

Bold: one of top two sub-group mean scores. *Italics:* one of lowest two mean scores. Underlined: sub-group 25th percentile meets criteria for consensus.

Table 6.10 illustrates consensus outcomes from Sections 2 and 3. Similar ratings were made of two Section 2 outcomes, for research awareness and attitudes to practice development among other nurses and midwives. In each case, consensus was achieved among five sub-groups. The Section 3 item, continuity of care, was highly endorsed by all but one sub-group. These patterns within and between sub-groups broadly support the validity of the consensus seeking exercise across practice settings. Status as a 'core outcome' was generally reflected in consensus among most of the disciplines and specialties. There were exceptions to this, demonstrated by the item on mood, which benefited from support among the two largest sub-groups in the sample.

	Research awareness in clinical practice	Attitude to practice development among nurses	Continuity of care
General nursing	**6.28 (.87)**	5.96 (.98)	6.31 (.90)
Paediatrics	6.08 (.67)	*5.17 (1.03)*	*5.92 (.79)*
Mental health	*5.92 (1.01)*	6.00 (.83)	6.33 (.67)
Intellectual disability	6.14 (.77)	6.21 (.70)	**6.50 (.65)**
Midwifery	**6.50 (.76)**	**6.50 (.53)**	6.38 (.74)
Oncology	*5.82 (.87)*	*5.91 (.83)*	*6.18 (.75)*
Older people	6.25 (1.16)	**6.50 (.53)**	**6.63 (.52)**
Practice nursing	6.22 (.97)	6.11 (.93)	6.22 (.97)

Table 6.10: Mean ratings (and standard deviations) of illustrative items from Sections 2 and 3, that attained consensus among CS participants in Round 2, classified by participant work group

Bold: one of top two sub-group mean scores. *Italics:* one of lowest two mean scores. <u>Underlined:</u> sub-group 25th percentile meets criteria for consensus.

6.9.2. Exploring non-consensus

The identification of core outcomes by aggregating responses across disciplines and specialties is further explored in Table 6.11, which describes four Section 1 items that did not attain consensus status. Family adjustment had a score indicating consensus among nurses working in intellectual disability and paediatric settings. It achieved a mean score of more than 6.00 among five sub-groups, but received relatively low scores from the two largest sub-groups, drawn from general and mental health nursing. Mean ratings of this item were lower across the groups in Round 3, reflected in core status among only one group.

Pain was highly rated by several groups, receiving a consensus rating from four groups, including general nurses. Ratings among nurses in oncology and services for older people identified very strongly with this item, but mental health nurses did not rate it particularly highly. Rated again in Round 3 as it had not achieved consensus status overall, support for its inclusion was somewhat weaker. It received a consensus rating from three groups, with oncology nurses in particular maintaining their support for its inclusion.

The item on washing and dressing was one of a number of Section 1 outcomes linked to activities of daily living, most of which received relatively weak support as outcomes of specialist practice. Nurses working in services for older people identified washing and dressing as a core outcome, but this was the only

group that attributed core status. Support for its inclusion remained broadly consistent between Round 2 and Round 3.

The last item in Table 6.11 refers to 'a good death', an outcome that was proposed by respondents in Round 1. There was considerable variation between the sub-groups in ratings of this item. The mean rating in Round 3 ranged from 6.86 for midwives and 6.75 for nurses working with older people, through to 5.53 and 5.62 for nurses working in mental health and general practice, respectively. This pattern of scores shows the participants clearly discriminated between items. A good death was less relevant to nurses in certain areas due to the nature of their work with patients and clients. In contrast, mortality is more familiar in oncology and gerontology settings, and was clearly very relevant. For midwives, still birth and miscarriage give meaning to mortality and death. This illustration of disciplinary differences highlights the impact of aggregation of scores for items with an inherently domain specific character.

Table 6.11: Examples of Section 1 outcomes that did not attain consensus among CS participants in Round 3, by participant work group

	Family adjustment		Pain		Washing and dressing		A good death	
	R2	R3	R2	R3	R2	R3	R2	R3
General nursing	5.89 (.94)	5.58 (1.05)	6.13 (1.01)	5.87 (1.23)	5.13 (1.28)	5.19 (1.13)	5.84 (1.37)	5.92 (1.17)
Paediatrics	6.17 (.83)	5.54 (.82)	6.00 (1.04)	5.36 (1.69)	4.67 (1.43)	4.73 (1.62)	5.00 (1.95)	6.00 (1.00)
Mental health	5.79 (.93)	5.63 (1.05)	5.54 (1.21)	5.05 (1.33)	5.03 (1.39)	5.13 (1.32)	5.13 (1.45)	5.53 (1.43)
Intellectual disability	6.43 (.51)	5.77 (1.30)	6.29 (.91)	5.46 (2.07)	5.36 (1.21)	5.77 (1.17)	6.14 (1.29)	6.15 (1.14)
Midwifery	6.13 (1.13)	6.00 (.82)	6.00 (.76)	6.57 (.53)	5.63 (1.06)	5.86 (.90)	6.13 (1.36)	6.86 (.37)
Oncology	6.18 (1.40)	6.00 (1.00)	6.73 (.90)	6.64 (.67)	5.45 (1.04)	5.00 (.78)	6.64 (.81)	6.36 (.92)
Older people	6.38 (.92)	6.00 (1.69)	6.88 (.35)	6.12 (2.10)	6.50 (.93)	6.38 (1.06)	6.50 (1.07)	6.75 (.71)
Practice nursing	5.78 (.67)	5.50 (.53)	6.22 (.83)	5.88 (.83)	5.11 (.60)	5.00 (.76)	5.89 (1.17)	5.62 (1.41)

Bold: one of top two sub-group mean scores. *Italics:* one of lowest two mean scores. Underlined: sub-group 25th percentile meets criteria for consensus.

Table 6.12 illustrates the rejection of a Section 2 outcome, research activity in clinical practice. While research awareness and integration with clinical practice were identified as core outcomes of specialist practice, research activity was not. Thus, the participants discriminated within the research role of specialist practice, separating 'supporting care based on research evidence', but not 'responsible for carrying out original research'. Apart from two sub-groups, there was comparatively little support for inclusion of this item as a core outcome. Ratings for this item increased slightly among most sub-groups from Round 2 to 3, although nurses working with older people no longer endorsed it for core status.

Table 6.12: Examples of Section 2 and 3 outcomes that did not attain consensus among CS participants in Round 3, by participant work group

	Research activity in clinical practice		Direct-care costs: treatments and procedures	
	R2	R3	R2	R3
General nursing	5.63 (.97)	5.53 (1.11)	4.57 (1.11)	4.68 (1.26)
Paediatrics	5.67 (1.07)	**5.91 (.70)**	4.50 (1.00)	*4.00 (1.61)*
Mental health	*5.33 (1.11)*	*5.37 (1.02)*	*4.21 (1.49)*	*4.34 (1.56)*
Intellectual disability	*5.21 (1.05)*	*5.30 (1.11)*	4.43 (.94)	4.53 (1.20)
Midwifery	**6.13 (.99)**	**6.14 (.90)**	**4.88 (1.46)**	**5.71 (1.11)**
Oncology	5.45 (.69)	5.45 (1.29)	*4.27 (1.49)*	4.50 (1.65)
Older people	<u>**6.38 (.74)**</u>	5.63 (1.30)	**4.75 (1.16)**	4.63 (1.50)
Practice nursing	5.33 (.71)	5.50 (.92)	4.44 (.88)	**4.75 (.89)**

Bold: one of top two sub-group mean scores. *Italics*: one of lowest two mean scores. <u>Underlined</u>: sub-group 25th percentile meets criteria for consensus.

Ratings of the item on direct-care costs (treatments and procedures) were considerably lower than for items in Section 1 and Section 2. It was one of a number of items that were specific in terms of measurability and resource allocation. The mean scores for this item were consistently low across sub-groups in the sample. Ratings remained broadly consistent throughout all three rounds, and indicate a clear delineation in the responsibility that specialist nurses and midwives were prepared to accept for provision of health care.

6.10 Discussion – CS survey

6.10.1. Overview

A total of 47 items achieved the consensus criteria for inclusion as core outcomes. Of the three clusters of outcomes presented, individual and personal outcomes experienced by patients and service users were predominant, highlighting the impact of specialist practice on direct patient care. Personal and clinical status were the key outcomes in this category alongside outcomes relevant to patients' healthcare treatment.

Twice as many outcomes were identified from this category compared to the next most featured – outcomes for nurses, midwives and other professionals. This second category of outcomes introduced the impact of specialist nurses and midwives on the clinical environment. These outcomes referred to knowledge and attitudes of other nurses, peers, other professions and patients, along with research-based initiatives and indicators of good practice and development. The third category of outcomes on healthcare services and settings highlighted quality of care in the work group and organisation.

A total of 48 items did not achieve consensus, and revealed important distinctions made in each category of outcomes. While the greatest proportion of outcomes to achieve consensus came from the section on outcomes for healthcare, the largest number of items not to achieve consensus came from the same category. Many of these 22 outcomes referred to activities of daily living, illustrating a tendency to

prioritise psychosocial items over outcomes from the physical domain.

Non-consensus items from the section on nurses, midwives and others featured further knowledge and attitude outcomes, but were distinctive in including skills, research activity, and generic organisational indicators such as staff retention. Organisational outcomes that were rejected outnumbered those that achieved consensus. While nurses and midwives accepted outcomes related to quality of care, they did not accept those related to specific measures of cost and number of healthcare activities carried out. This set of items were the most clearly rejected outcomes.

While more items were rejected than achieved consensus, all the items included in the list received general acceptance. Scores were lowest for organisational items, but mean scores for even these items indicated more agreement than disagreement with their inclusion as core outcomes. The criterion for consensus adopted meant that 75% of participants had to rate their agreement at 6.00 or 7.00, ensuring that the most highly endorsed outcomes were identified.

The members of the Delphi consensus panel shared the key characteristic of working as a clinical nurse or midwife specialist, but worked across a number of clinical specialties. A breakdown of findings by discipline of nursing and midwifery revealed important differences that helped to shape the final choice of consensus outcomes. The ratings made by the two largest groups, drawn from general and mental health nursing, had a disproportionate impact on the pattern of ratings as a whole. The relatively low rating for the outcome of pain by mental health nurses helped to ensure that this item was not included as a core item. Yet, for most of the core outcomes identified, a majority of the sub-groups were also in consensus. The importance of some items for particular areas should be noted as highlighting a special category of outcomes that should be promoted in those areas.

6.10.2. Specialist specific outcomes

The items that achieved core status helped to establish a resource of specialist sensitive outcomes. Whereas nursing sensitive outcomes arise "partially or wholly influenced by nursing care" (Leeper 2004, p. 346), the outcomes identified are those for which specialist nurses and midwives took particular responsibility. The outcomes identified relate quite well to some of the classes of outcomes proposed by Irvine et al (1998) for nursing care generally, such as clinical outcomes, knowledge, and patient satisfaction. However, the outcomes compare less well to other classes identified by Irvine et al (1998) such as functional health and cost of care, which were largely rejected as core outcomes of specialist care.

Ingersoll et al's (2000) Delphi survey of nurses working in a CNS role in the US offers a relatively close comparison to the findings of this Delphi study. Most of the key indicators identified by Ingersoll et al (2000) were matched here, such as satisfaction, symptom reduction, knowledge, trust, quality of life and collaboration among care providers. A key difference was the rejection in the current study of frequency and type of procedures ordered, which could be explained by several reasons such as differences in job roles or the relatively low response rate of 15% in Ingersoll et al's study.

The distinctive contribution of specialist nurses in this study also matches that identified by Plager and Conger (2007) in a study of advanced practice nurse (APN) graduates in the US. The added value identified in that study included skills such as prevention, health promotion, teaching, counselling and coordination of care. There was less support for other key domains in Plager and Conger (2007), such as community resource access or working in the family context. This was reflected in the rejection of several family and community outcomes.

6.10.3. From identification to measurement and routine use of specialist specific outcomes

Compared with the role confusion experienced in many other countries (Henderson 2004), the clinical specialist role in Ireland functions within clear national frameworks and standards from the National Council. Of note is the significant clinical care component of clinical specialists in Ireland, which contrasts with specialist roles elsewhere and in particular in the US, where the literature shows that clinical specialists have limited client contact.

The minimum data set of outcomes for specialist practice map relatively well to the core domains of specialist practice laid out by the National Council. These encompass the clinical domain, patient advocacy, education and training, research and audit, and consultation (NCNM 2008c). It is within these domains that the added value of the specialist role must be found (Cunningham 2004). This outlook on the outcomes of the specialist role is one that is patient focused and concerned with setting conditions for high quality care. Consistent with a clinical specification, the role was not associated with managerial resource distribution or planning.

Nevertheless, there is a risk in selecting outcomes of the job role that are not readily or clearly measurable, as they might inadvertently contribute to the invisibility of specialist nurses' contribution to care (Bryant-Lukosius et al 2004). The demonstrability of the outcomes is a significant issue in the absence of a standardised information system or supportive organisational tradition in Ireland. The identification of core outcomes represents an initial step that is necessary prior to any implementation of a routine outcomes monitoring system.

Assessment of the outcomes on an everyday basis would require selection of a measurement tool or key indicators for each one (Sermeus et al 2008). A number of challenges arise in establishing such a system. Conceivably, an outcome such as patient safety could be measured by monitoring near misses and particular forms of avoidable incidents. This might involve extra workload through measuring events that previously went unrecorded, while also making use of existing documentary sources. Measurement of patient satisfaction could occur through standardised questionnaires, but this in itself requires an implementation process. Outcomes such as respect for personal preferences are less well supported with measurement tools. Standardised measures of mood and anxiety are available, and used in some areas of specialist practice, but require specific training for administration and interpretation. Items referring to outcomes pertinent to healthcare delivery need further definition in operational terms, using data from the healthcare system. For instance, continuity of care requires definition and specification of outcome levels (e.g. continuity not achieved, partly achieved, fully achieved).

The generation of standardised outcomes data stands as a separate issue from the purposes of data collection and the processes of data management (MacNeela et al 2006). Outcomes data are open to interpretation from different perspectives depending on the needs of users, such as clinicians, managers and planners. Access to a data set built up over time, for any purpose, requires that a systematic approach be taken to outcome monitoring, based on a fully implemented protocol for data collection and quality control (Sermeus and Delesie 1994, Bjorvell et al 2002).

The development of minimum datasets and other multi-purpose data collection and retrieval systems has taken place in many areas in nursing (Werley and Lang 1988, Clark and Lang 1992, Goossen et al 2001, Junttilla et al 2002, MacNeela et al 2006, Sermeus et al 2008, Morris et al 2010). The task involved in adoption of such systems for routine use is considerable. Concepts such as mood and self-esteem are already used at an everyday level by specialist practitioners and other healthcare workers, but usually at an implicit level. The outcomes that were accepted can be made objective in the sense required for quality monitoring systems, but, as many are already used in their subjective sense, the prioritisation of monitoring and data recording is seldom sufficient to elicit change. Thus, the specialist contribution to

care might continue to be regarded as "soft" and "invisible" (Kleinpell 2007, p. 18).

An outcome, such as achievement of a supportive therapeutic relationship, is difficult to capture. This is particularly pertinent in a discipline such as mental health nursing, which is more oriented toward subjective psychosocial outcomes (Woodward et al 2005, Coster et al 2006, Thomas et al 2008). In responding to this, it is important to bear in mind that the same outcome might have different meanings across disciplines and specialties of nursing. The meaning of relapse might have a core meaning (e.g. an upsurge in symptoms), but would be represented very differently in oncology and mental health nursing. Likewise, threats to patient safety or the nature of the therapeutic relationship have a domain specific meaning. A specialist nurse working in a medical setting will have different expectations for a 'good' relationship compared with a nurse working in long-term care for older people. Much of the domain specific knowledge concerning core outcomes could be developed through uses of different forms of research evidence. There are also examples of developmental work to establish a working knowledge of a previously subjective concept (e.g. Crandall and Getchell-Reiter 1993).

The need to specify further many of the outcomes for specialist areas highlights the mid-level nature of the items constructed for the survey. This was a necessary feature of item development, resulting in the core meaning of the item being given on the survey form, illustrated through several examples. While participants were able to identify with items that have generic applicability, such as adherence, such items lack full specification within particular practice settings. Adherence is likely to have a different meaning in mental health services compared with midwifery, for instance. Another consequence of surveying practitioners across settings is that domain specific items, such as 'a good death', are unlikely to achieve core status due to relatively limited applicability in some practice settings.

6.10.4. Implications

This phase of the study served to explore the meaning of outcomes in specialist practice in nursing and midwifery. This work serves a useful function concerning the classification of specialist specific outcomes in Ireland. The findings are broadly consistent with previous studies of the specialist role, highlighting the relevance of the outcomes identified to specialist practice internationally (Ingersoll et al 2000, Moorhead et al 2004).

Having established the relevance of a coherent classification of specialist specific outcomes, a number of issues arise when considering the implementation of outcomes monitoring on a routine basis. The mid-level perspective on outcomes taken in the Delphi consensus building exercise entails that further setting-specific work is required to contextualise the meaning of the outcomes. It is also advisable that outcome indicators identified as particularly relevant in particular settings are made available in those settings. While consensus was not achieved across settings, a consensus for several items was achieved within sub-groups of specialist practitioners (see Appendix 5a and 5b).

Identification and specification of outcomes is one facet of a system for promoting quality of care. Considerable work is required to develop a routine outcomes monitoring system that produces high-quality data. Further to this, the functions and purposes of outcome data must be embedded in healthcare systems to justify collection of these data. Once collected, information on nursing care can be used for multiple purposes, such as support for clinical effectiveness, improvement of patient experience, and the efficient use of resources (Goossen et al 2000). Typically, the introduction of more formalised approaches to recording healthcare encounters a culture of resistance (Godin 2004). Collaboration and engagement of managers, planners, clinicians and service users is required to make a success of routine outcomes monitoring.

6.10.5. Conclusion

Specialists described a contribution that was different to that made by other nurses and midwives and by other professions. The outcomes identified in this study can be triangulated with several other sources, including the core competencies identified at a national level and studies of specialist practice internationally. The picture that emerges is broadly consistent with national policy and international studies, in being focused on clinical, psychosocial and healthcare outcomes. This part of the study helps to reduce ambiguity concerning the added value of specialist practice. Despite the consensus that emerged in the study as to the distinctive, added contribution made by clinical specialists, there is no standardised means to measure, record or compare it.

6.11	Results of AP survey – Section 1: Individual patient/client outcomes

6.11.1. Introduction

The findings of the Delphi survey are set out according to the three sections, concerning: individual client/patient outcomes; outcomes for nurses, midwives and other healthcare professionals, and outcomes for healthcare services and settings. A total of 51 items achieved consensus in Round 2 or Round 3 (see 6.34 for a listing of the minimum data set, and Appendix 11 for the toolkit for evaluating advance-practice roles, which includes this dataset).The majority of these items came from Section 1, and the lowest proportion of consensus items came from Section 3.

6.11.2. Section 1 consensus items

The 27 Section 1 items on client/patient outcomes that achieved consensus ratings in Round 2 typically had a mean score above 6.00 and median score of 7.00. A few items, referring to patient/client safety, satisfaction with information and physical quality of life, achieved a 25th percentile score of 7.00 on most or all of the ratings made. The 10 most strongly endorsed Section 1 items cover several facets of patient-focused outcomes, spread across physical, psychosocial and organisational domains. Two Section 1 items on the Round 3 survey achieved consensus ratings (family knowledge and personal independence in society), bringing the total from Section 1 to 29.

The outcomes that were endorsed at consensus level in Section 1 comprise the largest set across the three sections of the Delphi study. They can be classified into five conceptually coherent groups:

- patient engagement (indicators of person-centred care such as communication, therapeutic relationship, respect for personal preferences, shared decision making, and family/carer adjustment)

- satisfaction and comprehension (items on satisfaction with information, interpersonal and technical care, on patient knowledge and preparedness)

- quality of life (QoL) (well-being and QoL in three domains: physical, psychological, and family/carer)

- physical health status (symptom management, pain, physical comfort, physical self-care)

- healthcare provision and patient safety (items on access to care and appropriateness of healthcare episodes; referral, assessment, medication, and interventions; and items on safety; maintenance of safe environment, and adherence).

Table 6.13: Section 1 ratings for items that achieved consensus in Round 2 among AP participants, including 25th percentile figures for each round					
			25th Percentile Scores		
	R2 Mean Scores (SD)	R2 Median Scores	R1 Professional Role	R1 Personal Role	R2
Patient/client safety	6.79 (.42)	7.00	7.00	7.00	7.00
QoL – physical	6.79 (.42)	7.00	7.00	7.00	7.00
Patient/client satisfaction with information	6.77 (.50)	7.00	7.00	6.75	7.00
Communication	6.71 (.46)	7.00	6.00	6.00	6.00
The person's knowledge	6.68 (.48)	7.00	6.00	6.75	6.00
Symptom management	6.68 (.48)	7.00	6.00	6.75	6.00
Therapeutic relationship	6.68 (.51)	7.00	6.00	7.00	6.00
Appropriateness of referral	6.68 (.48)	7.00	6.00	7.00	6.00
Personal preferences respected	6.62 (.49)	7.00	6.00	6.00	6.00
Appropriateness of assessments	6.61 (.50)	7.00	6.00	6.00	6.00
Appropriateness of medication regime	6.57 (.50)	7.00	6.00	6.00	6.00
Pain	6.54 (.74)	7.00	6.00	6.50	6.00
Appropriateness of initiating/ending healthcare episodes	6.50 (.58)	7.00	6.00	6.00	6.00
Shared decision making	6.46 (.58)	6.50	6.00	7.00	6.00
Physical comfort	6.43 (.80)	7.00	6.00	6.00	6.00
Appropriateness of interventions	6.43 (.57)	6.00	6.00	6.75	6.00
QoL – psychological	6.40 (.85)	7.00	6.00	6.00	6.00
Preparedness for treatment	6.36 (.56)	6.00	6.00	5.00	6.00
Adherence	6.35 (.65)	6.00	5.50	6.00	6.00
Patient satisfaction with interpersonal care	6.32 (.55)	6.00	6.00	6.00	6.00
Access to care	6.32 (.67)	6.00	6.00	6.00	6.00
Maintenance of safe environment	6.32 (.72)	6.00	6.00	5.00	6.00
Well-being	6.29 (.60)	6.00	6.00	6.00	6.00
Patient satisfaction with technical care	6.21 (.50)	6.00	6.00	6.00	6.00
Family/carer QoL	6.00 (.77)	6.00	6.00	5.00	6.00
Family/carer adjustment	6.00 (.61)	6.00	6.00	5.00	6.00
Physical self-care	5.93 (.72)	6.00	5.00	5.00	6.00

6.11.3. Section 1 non-consensus items

The remaining 20 Section 1 items were rejected. Round 3 ratings of the items followed a similar pattern to Round 2. While not meeting the 25th percentile criterion for consensus, these items did achieve general acknowledgement as having some relevance. Even the least endorsed items had mean ratings above 5.00, although physically oriented items such as expression of sexuality and washing and dressing received 25th percentile scores of 4.00 and below.

Items receiving the least support related to aspects of physical activities of daily living, such as fatigue, breathing and elimination. Psychological states such as mood and anxiety did not achieve consensus

either. Only one of the personal independence items (independence in society) achieved consensus. Several items that could be considered indicators of a well supported construct failed to gain sufficient support. Environmental quality of life was the only QoL item that did not achieve consensus. Despite its linkage to patient knowledge, understanding of the advanced practice role did not gain consensus level ratings on any of the indicators across the survey rounds.

Ratings of the two Round 1 indicators indicated a high degree of consistency among those items that achieved consensus in Round 2. Marginal differences were noted in the 25th percentile ratings of importance to items both professionally and personally. Higher ratings of personal relevance were made for items such as therapeutic relationship, shared decision making, and appropriateness of referral and of interventions.

A somewhat different pattern can be seen among items that did not achieve consensus in Round 3. Discrepancies in Round 1 25th percentile ratings for relevance to the professional and personal roles were noted for these items. Differences tended to reflect greater ratings of professional relevance. This was most marked for the item on mortality. It was seen as highly important to the professional role, but much less so in the participants' personal practice.

Table 6.14: Section 1 items that did not attain consensus over three rounds among AP participants, including 25th percentile figures for each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores			
			R1 Professional Role	R1 Personal Role	R2	R3
Patient/client complications	6.00 (.82)	6.00	6.00	5.00	5.25	5.00
Mobility	5.96 (.88)	6.00	5.00	6.00	5.25	5.00
Anxiety	5.89 (.88)	6.00	6.00	5.00	5.00	5.00
Family knowledge	5.82 (.82)	6.00	5.00	4.75	5.00	6.00
Personal independence in society	5.75 (.75)	6.00	5.00	5.00	5.00	6.00
Self-esteem	5.75 (.84)	6.00	5.00	4.50	5.00	5.00
Personal independence, objective	5.73 (.94)	6.00	5.00	5.00	5.00	5.00
Relapse	5.71 (.86)	6.00	5.00	5.00	5.00	5.00
Patient understanding of role	5.68 (.82)	6.00	5.00	5.00	5.00	5.00
QoL – environment	5.68 (.72)	6.00	6.00	5.00	5.00	5.00
Personal independence – beliefs	5.64 (.91)	6.00	5.00	5.00	5.00	5.00
Sleep and rest	5.54 (1.17)	6.00	5.00	4.00	4.25	5.00
Mortality	5.50 (1.45)	6.00	6.00	3.00	5.00	5.00
Mood	5.50 (1.07)	6.00	6.00	4.50	5.00	5.00
Elimination	5.46 (1.10)	5.50	4.00	3.00	5.00	5.00
Breathing	5.39 (1.10)	5.50	4.00	3.75	5.00	5.00
Fatigue	5.25 (1.75)	5.00	5.00	4.00	4.00	5.00
Expression of sexuality	5.25 (1.40)	5.50	4.00	2.00	4.00	5.00
Body temperature	5.21 (1.40)	5.00	4.00	3.00	4.25	4.00
Washing and dressing	5.18 (1.28)	5.00	4.00	4.00	5.00	5.00

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6.12	Results of AP survey – Section 2: Outcomes for nurses, midwives and other healthcare professionals

6.12.1. Section 2 consensus items

A total of 15 Section 2 items achieved consensus in Round 2. The level of endorsement for these was high, although somewhat lower than for equivalent Section 1 items. Median scores of 6.00 were more common, and six of the consensus Section 2 items had mean scores of 6.00 or less. No item had a 25th percentile rating of 7.00; the six most endorsed items had 25th percentile ratings of 6.00 across all indicators, in Round 1 and Round 2. Compared with Section 1 consensus items, more 25th percentiles of 5.00 were recorded in Round 1.

Section 2 items that achieved consensus can be classified into three categories, concerning research, practice development, and other nurses/midwives and health professionals. The three items concerning research were rated at consensus levels, outlining an impact in terms of research activity, awareness and integration of research with clinical practice. Two distinct forms of practice development can be identified:

- the practice development culture, which was implicated in outcomes concerning clinical leadership, use of clinical guidelines, attitudes to practice development, and other nurses' and midwives' understanding of the AP role

- the cluster of items concerning achievement of a new initiative (e.g. educational interventions for peers, patients and other nurses).

Table 6.15: Section 2 items that achieved consensus in Round 2, among AP participants, including 25th percentile figures in each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores		
			R1 Professional Role	R1 Personal Role	R2
Integration of research in clinical practice	6.64 (.56)	7.00	6.00	6.00	6.00
Clinical leadership of nurses	6.64 (.49)	7.00	6.00	6.00	6.00
Using clinical guidelines	6.50 (.51)	6.50	6.00	6.00	6.00
Research awareness in clinical practice	6.50 (.58)	7.00	6.00	6.00	6.00
Achievement of new clinical initiatives	6.46 (.51)	6.00	6.00	6.00	6.00
Achievement of new educational intervention – peers	6.36 (.56)	6.00	6.00	6.00	6.00
Nurses' satisfaction with clinical role	6.29 (.71)	6.00	5.75	5.75	6.00
Nurses' understanding of AP role	6.18 (.82)	6.00	5.75	5.75	6.00
Research activity level in clinical practice	6.14 (.80)	6.00	6.00	5.00	6.00
Other nurses/midwives' attitudes to their work	6.00 (.77)	6.00	6.00	5.75	6.00
Achievement of new educational intervention – patient/service user	5.96 (.58)	6.00	6.00	6.00	6.00
Achievement of new educational intervention – staff nurse/midwife	5.96 (.58)	6.00	5.75	5.00	6.00
Other professionals' knowledge level	5.93 (.72)	6.00	5.00	5.00	6.00
Attitude to practice development among nurses	5.93 (.60)	6.00	5.00	6.00	6.00
Other nurses' knowledge levels	5.86 (.65)	6.00	5.00	5.00	6.00

The third set of Section 2 outcomes includes a range of the outcomes experienced by other professionals, including nurses and midwives. Three important outcomes related to nursing work were identified (professional knowledge, satisfaction with clinical role, attitudes to work) along with other professionals' knowledge.

6.12.2. Section 2 non-consensus items

The 10 Section 2 items that failed to achieve consensus can be classified into two broad groups. One group refers to aspects of other professionals' work and attitudes that AP participants were not prepared to take responsibility for.

These included both items on nursing students (skills, knowledge), nurses/midwives' skills and other professionals' skills and attitudes. Several items such as those on students had relative variance in ratings, indicating a more varied range of attitudes. Compared with items from the same domain that attained consensus, APs were relatively open to outcomes concerning other nurses/midwives, with some exceptions. In contrast, they were clear in delineating less responsibility for other professionals and students.

The second group of non-consensus Section 2 items ranged across general organisational indicators, such as other nurses'/midwives' empowerment, perceptions of career possibilities, staff retention, work satisfaction, and new arrangements in organising teams. The Delphi survey found that APs identified an impact of advanced practice care on research and clinical efficacy, and certain facets of other workers' development, including knowledge and attitudes. Other items that did not achieve consensus nonetheless achieved high ratings. This acknowledges the importance of organisational outcomes such as skills and work satisfaction.

None of the 10 Section 2 items presented in Round 3 for rating achieved consensus. Round 3 scores were similar to those in Round 2, but some items showed increased support over the survey rounds. For example, the item on other nurses' work satisfaction received a 25th percentile rating of 4.00 on both professional and personal importance, and a similar rating in Round 2. This score increased to 5.00 in Round 3. Despite not achieving consensus, those items that received the greatest level of endorsement in Round 3 had mean scores comparable to the weakest examples of Section 1 consensus items. Nevertheless, Round 3 items such as other professionals' skills and nurse empowerment did not receive a 25th percentile rating of 6.00 on any of the four ratings made across the three survey rounds.

Unlike Section 1 items that did not achieve consensus, many of which received higher ratings of professional relevance, non-consensus Section 2 items received broadly consistent ratings across the two Round 1 ratings of importance both professionally and personally.

Table 6.16: Section 2 items that did not attain consensus among AP participants, including 25th percentile figures in each round

	R2 Mean Scores (SD)	R2 Median Scores	25th Percentile Scores			
			R1 Professional Role	R1 Personal Role	R2	R3
Other professionals' skills	5.89 (.79)	6.00	5.00	5.00	5.00	5.00
Empowerment experienced by other nurses	5.89 (.83)	6.00	5.00	5.00	5.00	5.00
Other nurses or midwives' skills	5.68 (.77)	6.00	5.00	5.00	5.00	5.00
Nursing student knowledge level	5.57 (1.17)	6.00	5.00	4.00	5.00	5.00
Other professionals' attitudes to their work	5.57 (.88)	5.50	5.00	5.00	5.00	5.00
Other nurses' perceptions of career possibilities	5.29 (.76)	5.00	4.00	5.00	5.00	5.00
New arrangements in organising team	5.18 (.98)	5.00	4.75	4.00	4.25	5.00
Staff retention	5.18 (.98)	5.00	4.00	4.00	5.00	5.00
Other nurses' work satisfaction	5.00 (.72)	5.00	4.00	4.00	4.25	5.00
Nursing student skill levels	4.89 (1.29)	5.00	4.00	4.00	4.00	4.00

6.13 Results of AP survey – Section 3: Outcomes for healthcare services and settings

6.13.1. Section 3 consensus items

Seven Section 3 outcomes achieved consensus ratings. The mean and median scores in Round 2 indicate a strong level of support. Four had a median score of 7.00. Ratings were highly consistent in Round 1 and Round 2, with nearly all showing 25th percentile scores of 6.00. Two of these related to multidisciplinary performance (team performance, communication); three were generic indicators of organisational performance (continuity of care, openness to innovation, waiting times), and two referred to best practice (at local, regional or national levels). The outcomes endorsed at consensus level continue the clinical focus on patient and service users' experience of healthcare. The organisational outcomes identified in Section 3, such as continuity of care, relate closely to the patient experience.

Table 6.17: Section 3 items that attained consensus in Round 2, among AP participants, including 25th percentile figures in each round

			25th Percentile Scores		
	R2 Mean Scores (SD)	R2 Median Scores	R1 Professional Role	R1 Personal Role	R2
Best practice in service delivery – local	6.70 (.54)	7.00	6.00	6.00	6.00
Best practice in service delivery – regional or national	6.56 (.58)	7.00	6.00	6.00	6.00
Continuity of care	6.52 (.64)	7.00	6.00	6.00	6.00
Multidisciplinary team performance	6.52 (.58)	7.00	6.00	6.00	6.00
Multidisciplinary work – communication	6.48 (.58)	6.00	6.00	6.50	6.00
Openness to innovation	6.41 (.57)	6.00	6.00	6.00	6.00
Waiting times	6.19 (.74)	6.00	6.00	6.00	6.00

6.13.2. Section 3 non-consensus items

A total of 12 Section 3 items did not achieve consensus and were supported to a similar extent as rejected items in other sections. Thus, all received moderate support. Even in the case of an item receiving relatively weak support, such as the outcome concerning direct costs for treatments and procedures, 75% of respondents agreed or strongly agreed that it was important in considering the impact of the AP role. The Section 3 non-consensus items ranged across a number of objective indicators of unit and organisational performance. Four items concerned direct costs – for assessment, treatments, procedures, referrals and medication. Six outcomes referred to healthcare interventions and actions (referrals, treatments and procedures, assessments, admissions, medication prescriptions, primary care consultations). The two remaining outcomes were the most strongly endorsed and most weakly endorsed items in Section 3. Healthcare unit output approached consensus most closely, with a mean rating of 5.74, while length of stay had a mean rating of 5.11. Some items, such as the outcome on the number of primary care consultations, had a relatively high level of variation in ratings.

Round 1 ratings indicated that several non-consensus Section 3 outcomes were considered more relevant to the professional than the personal role. This was most pronounced in respect of the item on number of admissions, which received a 25th percentile score of 6.00 for professional relevance and 4.00 on

personal relevance. Other outcomes, such as several of the direct costs items, had a more modest difference between professional and personal relevance ratings.

Table 6.18: Section 3 items that did not attain consensus, among AP participants, including 25th percentile figures in each round						
			25th Percentile Scores			
	R2 Mean Scores (SD)	R2 Median Scores	R1 Professional Role	R1 Personal Role	R2	R3
Healthcare unit output	5.74 (.94)	6.00	5.00	5.00	5.00	5.00
Direct costs: assessments	5.64 (.87)	6.00	5.00	4.00	5.00	5.00
Number of referrals	5.57 (1.01)	6.00	5.00	4.50	5.00	5.00
Number of treatments and procedures	5.57 (.92)	6.00	5.00	5.00	5.00	5.00
Number of assessments	5.52 (.98)	6.00	5.00	5.00	5.00	5.00
Direct costs: treatments and procedures	5.48 (.94)	6.00	5.00	4.00	5.00	4.00
Direct costs: referrals	5.22 (.89)	5.00	5.00	4.00	5.00	5.00
Number of admissions	5.22 (1.01)	5.00	6.00	4.00	5.00	5.00
Direct costs: medication	5.18 (.91)	5.00	4.75	4.00	5.00	5.00
Number of medication prescriptions	5.11 (.91)	5.00	5.00	5.00	4.00	5.00
Number of primary care consultations	5.11 (1.3)	5.00	4.00	4.00	4.00	5.00
Length of stay	5.11 (1.1)	5.00	5.50	4.00	4.00	5.00

6.14 Differences between specialties and practice settings – AP survey

6.14.1. Exploring Section 1 consensus

Some variations were noted in the consensus regarding the physical self-care outcome (Table 6.19). Nurses working in an emergency department setting consistently rated it as a core outcome. APs working in diabetes care gave this item a 25th percentile score of 6.00 in Round 3. The remaining groups did not give the item a score that matched the consensus criterion. In contrast, the therapeutic relationship outcome received consensus ratings, with APs working in oncology the only sub-group not rating it at consensus levels. Similarly, physical QoL received consistently high ratings. Consensus ratings were given by all sub-groups in Round 2 and comparable ratings were made in the two Round 1 ratings of this item.

Table 6.19: Examples of Section 1 items that achieved consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Physical self-care			Therapeutic relationship			Physical QoL		
	R1 Professional Role	R1 Personal Role	R2	R1 Professional Role	R1 Personal Role	R2	R1 Professional Role	R1 Personal Role	R2
ED (n=11)	6.18 (.99)	6.09 (.94)	6.33 (.50)	7.00 (.00)	6.91 (.30)	6.78 (.44)	6.73 (.65)	6.82 (.41)	6.67 (.50)
*25th PS**	*6.00*	*6.00*	*6.00*	*7.00*	*7.00*	*6.50*	*7.00*	*7.00*	*6.00*
Medical specialties (n=5)	5.40 (1.52)	6.00 (1.23)	5.60 (.89)	6.60 (.55)	6.60 (.55)	6.80 (.45)	6.80 (.45)	6.80 (.45)	7.00 (.00)
25th PS	*4.00*	*5.00*	*5.00*	*6.00*	*6.00*	*6.50*	*6.50*	*6.50*	*7.00*
Oncology (n=6)	5.50 (.55)	5.50 (.55)	6.50 (.84)	6.83 (.41)	7.00 (.00)	6.33 (.82)	6.83 (.41)	7.00 (.00)	6.83 (.41)
25th PS	*5.00*	*5.00*	*5.50*	*6.75*	*7.00*	*5.75*	*6.75*	*7.00*	*6.75*
Diabetes (n=3)	4.67 (.58)	5.67 (1.16)	6.00 (.00)	6.33 (1.16)	6.67 (.58)	7.00 (.00)	6.67 (.58)	7.00 (.00)	7.00 (.00)
25th PS	*4.00*	*5.00*	*6.00*	*5.00*	*6.00*	*7.00*	*6.00*	*7.00*	*7.00*
Primary care (n=2)	5.00 (1.41)	5.50 (2.12)	5.50 (.71)	7.00 (.00)	7.00 (.00)	7.00 (.00)	6.50 (.71)	6.50 (.71)	6.50 (.71)
25th PS	*4.00*	*4.00*	*5.00*	*7.00*	*7.00*	*7.00*	*6.00*	*6.00*	*6.00*

*25th PS = 25th percentile score

Table 6.20: Examples of Section 1 items that did not achieve consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Mood				Washing and dressing			
	R1 Professional Role	R1 Personal Role	R2	R3	R1 Professional Role	R1 Personal Role	R2	R3
ED (n=11)	6.18 (.87)	4.73 (.91)	5.33 (1.23)	5.11 (1.36)	5.82 (1.33)	4.91 (1.22)	5.56 (1.24)	5.00 (1.23)
*25th PS**	*6.00*	*4.00*	*4.50*	*4.00*	*4.00*	*4.00*	*5.00*	*4.00*
Medical specialties (n=5)	6.20 (.84)	6.60 (.55)	5.60 (1.52)	5.60 (.89)	4.80 (1.64)	4.20 (1.10)	4.20 (2.17)	4.80 (1.30)
25th PS	*5.50*	*6.00*	*4.00*	*5.00*	*3.50*	*3.50*	*2.50*	*3.50*
Oncology (n=6)	6.50 (.84)	6.67 (.82)	6.00 (.89)	6.00 (.71)	5.67 (1.03)	5.33 (.82)	5.50 (.55)	5.60 (.89)
25th PS	*5.75*	*6.50*	*5.00*	*5.50*	*4.75*	*4.75*	*5.00*	*5.00*
Diabetes (n=3)	4.67 (3.22)	4.33 (3.06)	5.67 (.58)	6.00 (1.00)	4.00 (3.00)	4.00 (3.00)	4.67 (.58)	5.67 (.58)
25th PS	*1.00*	*1.00*	*5.00*	*5.00*	*1.00*	*1.00*	*4.00*	*5.00*
Primary care (n=2)	6.00 (1.41)	7.00 (.00)	5.50 (.71)	5.50 (.71)	5.00 (.00)	6.00 (1.41)	6.00 (.00)	6.50 (.71)
25th PS	*5.00*	*7.00*	*5.00*	*5.00*	*5.00*	*5.00*	*6.00*	*6.00*

*25th PS = 25th percentile score

Two Section 1 items that did not achieve consensus are presented in Table 6.20. Given that the AP sub-groups are quite small (e.g. two APs in the primary care sub-group), relatively high levels of variability might be expected across rounds. There was some evidence of inconsistency in ratings of the item on mood, with 25th percentile ratings by the diabetes sub-group varying between 1.00 and 5.00. Overall, few examples of consensus level ratings were made of this outcome. Ratings made by APs working in emergency departments declined in Round 3 to a 25th percentile rating of 4.00. Ratings made of the outcome on washing and dressing were more consistent. The primary care APs gave a 25th percentile rating of 6.00 in Round 2 and Round 3, but these ratings were generally 3.50-5.00 across sub-groups.

6.14.2. Exploring Section 2 consensus

Examples of Section 2 outcome items that achieved consensus among APs are presented in Table 6.21, broken down by sub-group. Research awareness received consistently high ratings, with the diabetes AP nurses giving somewhat lower ratings. Two items on new educational interventions are presented in Table 6.21. The item on educational interventions with other nurses achieved consensus within two sub-groups (emergency department, primary care), while the others did not. A similar pattern was noted in ratings of the educational interventions outcome concerning patients/service users, whereby consensus ratings were given by nurses working in emergency departments and in primary care. The 25th percentile rating made by the other groups was 5.00.

Table 6.21: Examples of Section 2 items that achieved consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Research awareness			New ed. intervention: Staff nurses			New ed. intervention: Patients		
	R1 Professional Role	R1 Personal Role	R2	R1 Professional Role	R1 Personal Role	R2	R1 Professional Role	R1 Personal Role	R2
ED (n=11)	6.73 (.47)	6.45 (.69)	6.33 (.71)	6.55 (.52)	6.45 (.69)	6.44 (.53)	6.45 (.52)	6.36 (.67)	6.44 (.53)
25th PS*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Medical specialties (n=5)	6.60 (.89)	6.60 (.89)	6.60 (.55)	6.00 (1.23)	6.20 (1.30)	5.60 (.55)	5.40 (.89)	5.20 (.84)	5.60 (.55)
25th PS	6.00	6.00	6.00	5.00	5.00	5.00	4.50	4.50	5.00
Oncology (n=6)	6.33 (.52)	6.50 (.84)	6.50 (.55)	5.67 (.52)	5.50 (1.76)	5.67 (.52)	5.50 (.84)	5.83 (.75)	5.67 (.52)
25th PS	6.00	5.75	6.00	5.00	5.00	5.00	4.75	5.00	5.00
Diabetes (n=3)	6.00 (1.00)	5.67 (1.16)	6.67 (.58)	5.67 (1.53)	5.33 (1.53)	5.67 (.58)	5.33 (2.08)	5.67 (1.53)	5.67 (.58)
25th PS	5.00	5.00	6.00	4.00	4.00	5.00	3.00	4.00	5.00
Primary care (n=2)	6.50 (.71)	6.50 (.71)	6.00 (.00)	5.50 (2.12)	6.50 (.71)	6.00 (.00)	5.50 (2.12)	6.00 (1.41)	6.00 (.00)
25th PS	6.00	6.00	6.00	4.00	6.00	6.00	4.00	5.00	6.00

*25th PS = 25th percentile score

Table 6.22 presents two examples of Section 2 items that did not achieve consensus. Empowerment of other nurses as an outcome received high levels of support from the diabetes AP nurses, meeting the criterion level for consensus. Mean ratings by oncology AP nurses came close to consensus levels, but ratings by APs working in medical specialty settings were considerably lower, and 25th percentile scores made by these nurses in Round 1 were particularly low. Outcomes related to nursing students were not supported in the Delphi survey.

Table 6.22 includes the example of nursing student knowledge levels. Some relatively high ratings were made in Round 1 of this item, such as a mean score of 6.36 (and 25th percentile score of 6.00) by nurses working in emergency departments on the rating of professional (but not personal) importance. Ratings by some of the sub-groups were lower in Round 2 when indicating agreement with the status of the item as representing a core outcome, and ratings in Round 3 were consistent with this evaluation of the impact of advanced practice on nursing student knowledge.

Table 6.22: Examples of Section 2 items that did not achieve consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Other nurses' empowerment				Nursing student knowledge			
	R1 Professional Role	R1 Personal Role	R2	R3	R1 Professional Role	R1 Personal Role	R2	R3
ED (n=11)	6.18 (.88)	5.73 (1.01)	6.33 (.50)	5.78 (.97)	6.36 (.81)	6.18 (1.08)	6.00 (.71)	5.44 (1.13)
25th PS*	5.00	5.00	6.00	5.00	6.00	5.00	5.50	5.00
Medical specialties (n=5)	4.60 (2.07)	4.40 (2.30)	5.20 (1.10)	5.00 (.71)	5.40 (1.82)	5.00 (1.87)	5.20 (.84)	5.00 (1.87)
25th PS	2.50	2.00	4.50	4.50	3.50	3.50	4.50	3.50
Oncology (n=6)	4.83 (.99)	5.17 (1.17)	5.83 (.98)	6.00 (.71)	6.00 (.89)	5.00 (2.28)	4.83 (2.04)	5.80 (1.10)
25th PS	4.50	4.50	5.00	5.50	5.00	3.25	4.00	5.00
Diabetes (n=3)	5.67 (1.53)	5.33 (2.08)	5.67 (.58)	6.33 (.58)	6.33 (.58)	6.33 (.58)	6.00 (1.00)	6.00 (1.00)
25th PS	4.00	3.00	5.00	6.00	6.00	6.00	5.00	5.00
Primary care (n=2)	4.50 (.71)	3.50 (2.12)	5.50 (.71)	5.50 (.71)	5.50 (2.12)	6.00 (1.41)	5.50 (.71)	5.50 (.71)
25th PS	4.00	2.00	5.00	5.00	4.00	5.00	5.00	5.00

25th PS = 25th percentile score

6.14.3. Exploring Section 3 consensus

Two of the 7 Section 3 items that achieved consensus are presented in Table 6.23. The first of these, continuity of care, received consistently high levels of support in Round 1. These ratings remained high among APs working in oncology, emergency departments, and diabetes care settings. Ratings by APs working in medical specialties and primary care were somewhat lower in Round 2 than in Round 1. The 25th percentile ratings by the sub-groups generally met the consensus level, with the exception of medical specialty and primary care APs.

The outcome of waiting times received similar ratings. When consensus criteria are applied to the participant sub-groups, APs working in medical specialties, oncology, and primary care settings did not regard waiting times as a core outcome, while APs in emergency departments and diabetes care did give it a consensus rating. Round 1 ratings indicated a relatively high level of support, with similar ratings made of professional and personal relevance.

Three items from Section 3 that did not achieve consensus are presented in Table 6.24. While the numbers

of participants in each sub-group are quite small, there were notable differences between the sub-groups, with a 25th percentile of 3.00 among primary care respondents, standing in contrast to the 25th percentile score of 6.00 in the diabetes care sub-group. The largest sub-group, referring to nurses working in an emergency department setting, had a mean score and 25th percentile rating that was some way from the level of support required for consensus status. Similarly, the medical specialty and oncology sub-groups each gave mean ratings of 5.60. Several Round 1 ratings of professional relevance were considerably higher than ratings made of personal relevance.

Table 6.23: Examples of Section 3 items that achieved consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Continuity of care			Waiting times		
	R1 Professional Role	R1 Personal Role	R2	R1 Professional Role	R1 Personal Role	R2
ED (n=11)	6.45 (.69)	6.00 (1.27)	6.78 (.44)	6.18 (1.08)	6.64 (.81)	6.44 (.73)
*25th PS**	*6.00*	*5.00*	*6.50*	*5.00*	*7.00*	*6.00*
Medical specialties (n=5)	6.60 (.55)	6.80 (.45)	6.00 (.71)	6.60 (.55)	6.00 (1.23)	6.20 (.84)
25th PS	*6.00*	*6.50*	*5.50*	*6.00*	*5.00*	*5.50*
Oncology (n=6)	5.67 (1.03)	6.00 (1.10)	6.67 (.52)	6.50 (.55)	6.50 (.55)	6.33 (.82)
25th PS	*4.75*	*5.50*	*6.00*	*6.00*	*6.00*	*5.75*
Diabetes (n=3)	6.67 (.58)	6.33 (.58)	6.67 (.58)	6.00 (1.00)	6.00 (1.00)	6.00 (.00)
25th PS	*6.00*	*6.00*	*6.00*	*5.00*	*5.00*	*6.00*
Primary care (n=2)	6.50 (.71)	6.50 (.71)	6.00 (1.41)	7.00 (.00)	7.00 (.00)	5.00 (.00)
25th PS	*6.00*	*6.00*	*5.00*	*7.00*	*7.00*	*5.00*

*25th PS = 25th percentile score

Items on direct costs and number of procedures were not well supported overall. Taking the example of the number of assessments, scores were relatively low across the sub-groups. Ratings of professional relevance to the AP role tended to be somewhat higher than ratings of personal relevance. The primary care sub-group was the only group that gave ratings compatible with core outcome status, although this did not extend into Round 3. However, ratings in Round 2 and Round 3 were comparable with Round 1 ratings for most of the sub-groups. The final example in Table 6.24 refers to an example of an outcome concerning direct care costs. While 25th percentile ratings of 5.00 were made in Round 1 by several sub-groups, APs in just one group (diabetes care) gave a 25th percentile rating of 5.00 in Round 3. Mean scores were comparatively low on this outcome, compared with the other items included in the survey.

Table 6.24: Examples of Section 3 items that did not achieve consensus, by AP sub-group (mean, standard deviation, and 25th percentile score)

	Healthcare unit output			
	R1 Professional Role	R1 Personal Role	R2	R3
ED (n=11)	5.55 (1.64)	5.82 (1.60)	5.89 (.78)	5.33 (1.41)
25th percentile score	*4.00*	*5.00*	*5.00*	*4.00*
Medical specialties (n=5)	6.40 (.55)	6.00 (1.73)	5.40 (.89)	5.60 (1.14)
25th percentile score	*6.00*	*4.50*	*4.50*	*4.50*
Oncology (n=6)	5.33 (1.53)	5.67 (.58)	5.50 (1.05)	5.60 (1.14)
25th percentile score	*4.00*	*4.00*	*4.75*	*4.50*
Diabetes (n=3)	5.33 (1.53)	4.67 (.58)	6.00 (1.00)	6.67 (.58)
25th percentile score	*4.00*	*4.00*	*5.00*	*6.00*
Primary care (n=2)	6.00 (1.41)	4.50 (3.54)	4.50 (.71)	4.50 (2.12)
25th percentile score	*5.00*	*2.00*	*4.00*	*3.00*

	Number of assessment procedures			
	R1 Professional Role	R1 Personal Role	R2	R3
ED (n=11)	5.64 (1.80)	5.55 (1.44)	5.67 (1.00)	4.89 (.78)
25th percentile score	*5.00*	*4.00*	*4.00*	*4.00*
Medical specialties (n=5)	5.20 (1.30)	4.80 (1.64)	5.20 (.84)	5.40 (1.14)
25th percentile score	*4.00*	*3.50*	*4.50*	*4.50*
Oncology (n=6)	5.50 (1.38)	5.17 (1.47)	5.50 (.84)	5.40 (1.67)
25th percentile score	*4.50*	*3.75*	*4.75*	*4.00*
Diabetes (n=3)	4.33 (.58)	4.33 (.58)	5.67 (.58)	6.00 (1.00)
25th percentile score	*4.00*	*4.00*	*5.00*	*5.00*
Primary care (n=2)	7.00 (.00)	7.00 (.00)	5.50 (.71)	5.00 (1.41)
25th percentile score	*7.00*	*7.00*	*5.00*	*4.00*

	Direct-care costs: treatments and procedures			
	R1 Professional Role	R1 Personal Role	R2	R3
ED (n=11)	5.73 (1.35)	5.09 (1.64)	5.78 (.97)	5.44 (1.13)
25th percentile score	*5.00*	*4.00*	*5.00*	*4.00*
Medical specialties (n=5)	5.60 (1.14)	4.80 (1.92)	4.80 (.84)	5.20 (1.64)
25th percentile score	*4.50*	*3.00*	*4.00*	*4.00*
Oncology (n=6)	5.50 (1.05)	5.67 (1.21)	5.67 (1.03)	5.40 (1.14)
25th percentile score	*4.75*	*4.75*	*4.75*	*4.50*
Diabetes (n=3)	5.00 (1.00)	5.00 (1.00)	5.67 (.58)	6.00 (1.00)
25th percentile score	*4.00*	*4.00*	*5.00*	*5.00*
Primary care (n=2)	5.50 (.71)	5.50 (.71)	5.00 (.00)	4.50 (2.12)
25th percentile score	*5.00*	*5.00*	*5.00*	*3.00*

<table>
<tr><td>**6.15**</td><td>Discussion – AP survey</td></tr>
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6.15.1. Results of the Delphi survey of advanced practitioners

A total of 51 outcomes achieved consensus: 29 in Section 1, 15 in Section 2 and seven in Section 3. The remaining 50 items did not meet the criterion for consensus: 20 items in Section 1, 10 in Section 2, and 12 in Section 3. The findings place consensus outcomes of advanced practice most strongly in the clinical domain. Respondents were also specifically asked to identify particular aspects of clinical practice; yet a considerable number of Section 1 items were not accepted as core outcomes of advanced practice.

The respondents also had a strong sense of working in organisations and with other professionals. Outcomes concerning practice development and research-based practice were strongly represented in Sections 2 and 3. The respondents identified an impact on knowledge and attitudes, especially in relation to other nurses and midwives.

At the same time, a distinction was made with outcomes in other domains. Outcomes directly related to resourcing and costs were not seen as an impact of advanced practice. The items received significant support; generally positive ratings were made of nearly all the outcomes in the survey. Yet the criterion for consensus adopted in the survey – 75% of respondents rating an item at 6.00 or 7.00 – provided a means to prioritise certain indicators as the best indicators of the impact of advanced practice. The APs in the survey were less concerned with costs than with the quality of care delivered to patients and service users.

An analysis of Section 1 items shows a focus on personal outcomes in relation to patient engagement, satisfaction and comprehension, quality of life, physical health status, healthcare provision and patient safety. This represents a comprehensive clinical perspective that encompasses the quality of care provided, and well-being across all three bio-psycho-social domains. There was a corresponding lack of support for items concerning basic and functional physical status (e.g. elimination, mobility).

Participants were given feedback through Round 2 and Round 3 on the findings emerging from the survey. Ratings of items that did not achieve consensus were relatively stable across the three rounds. In some cases, professional relevance was rated more highly than personal relevance in Round 1. Apart from this, shifts in scores across rounds were relatively minimal, indicating a decision to continue with initial ratings despite feedback about which items were not achieving consensus.

Several reasons can be suggested to explain why some items did not achieve consensus. For instance, to take the example of the outcome on mobility, it may be that survey respondents considered this to be relevant to the advanced practice role, but not distinctively so. For instance, other nurses and health professionals might also have an effect on mobility. Non-consensus ratings might also arise because an outcome is felt to be outside the impact of advanced practice. Number of admissions may not have featured as a core outcome because of a lack of input by CSs/APs into decision making concerning admissions, or because doctors were perceived as ultimately responsible for an admission. The same point can be made in relation to other objective indicators of direct costs, resource use and health unit activity.

6.15.2. Comparison of specialist and advanced practitioner Delphi surveys

There was considerable overlap between the consensus outcomes identified by advanced and specialist practitioners. For instance, in Section 1, communication was the most endorsed item in the CS survey, with a mean rating of 6.63. The same outcome was the fourth most endorsed item in the AP survey, with a

mean rating of 6.71. Likewise, client/patient safety appeared as among the most endorsed outcomes (mean score for CS group 6.60; mean score for AP group 6.79). This pattern extended to the other most endorsed outcomes that appeared in Section 1, such as therapeutic relationship, client/patient satisfaction with information, symptom management, and physical QoL.

This comparability was notable in Section 2 as well, which dealt with outcomes experienced by nurses and midwives. Use of clinical guidelines appeared as the most endorsed outcome in the CS survey (mean score 6.39) and the third most endorsed item in the AP survey (mean score 6.50). Integration of research in clinical practice had the second highest mean score in the CS survey (mean score 6.33), and the highest mean score in the AP survey (mean score 6.64). It can be argued that there was a higher emphasis on leadership and research in the AP responses. While outcomes on clinical leadership and research awareness in clinical practice were highly endorsed by CS respondents, the level of endorsement was somewhat greater among APs. Similarly, achievement of new clinical initiatives had a mean rating of 6.46 among APs in Round 3 responses, while the same outcome received a mean rating of 6.06 among CSs. The CS respondents did evaluate it as a good indicator of their impact on health care, but to a somewhat lesser extent than APs.

Turning to Section 3, both surveys resulted in acceptance of similar lists. The mean ratings made by APs of these items were somewhat higher than was the case among respondents to the CS survey; best practice in local service delivery received a mean score of 6.70 from APs and 6.40 from CSs. Nevertheless, the only difference between the content of the outcomes achieving consensus was the outcome on waiting times, which was endorsed by AP but not CS respondents. Thus, specific items regarding best practice, multidisciplinary team performance, openness to innovation and continuity of care appeared in each Delphi survey independently.

It should be noted that the demographic composition of the nurses and midwives taking part in each survey differed in important respects. For instance, no mental health nurses appeared in the AP survey, while they were among the largest disciplinary groupings in the CS Delphi survey. Midwives were a small sub-group of clinical specialists, but were not represented at all in the AP survey. Many of the marginal differences between the two surveys are plausibly accounted for by these differences and by the larger variability to be expected in the AP sub-groups, which were notably smaller than the CS equivalents. The non appearance of pain as an outcome on the CS list can be attributed to the effect of having a substantial number of mental health nurses taking part in the survey.

Overall, considering the differences in composition between the practitioners taking part in the two Delphi surveys, a remarkably high level of consistency in outcomes can be found. Each survey returned a list of approximately 50 outcomes that were identified as revealing the added value and impact of specialist and advanced practice, and there was a very high degree of overlap between these lists. It is also notable that the exploration of differences within each survey revealed important variation among nurses and midwives working in particular specialties and settings.

6.16	Validation survey

Other health professional groups were surveyed to evaluate their perceptions of the relevance of the outcomes identified in the Delphi study in measuring key distinctive contributions to patient/client outcomes made by APs and CSs. It was hoped to obtain participants' feedback on the set of outcomes endorsed in the Delphi survey.

Representative bodies of medical consultants, nurse and midwife managers, general managers, occupational therapists, speech and language therapists, and physiotherapists were approached and provided with details of the study. Contact details of group members from these groups were obtained. A separate survey was created for speech and language therapy and physiotherapy groups as their representative bodies would not release contact details of members; however, they agreed to forward to their members details of the study and the survey website URL, where their members could log on and complete the questionnaire on-line. Seventy-five potential participants from each of the other four groups were randomly chosen and sent details of the study and an online survey questionnaire, and invited to participate in the survey.

In total, 299 questionnaires were sent. Participants were given two weeks to complete the questionnaire. Reminders were sent midway through this time, just before survey closure, to encourage responses. The survey closing date was extended by a week to facilitate participants who had experienced difficulty in completing the survey in the given timeframe. A total of 23.1% (n=69) of the questionnaires were returned completed; a further 7% (n=21) were partially completed but not included in the analysis, while another 0.3% (n=1) of participants opted out and requested no further contact.

The average time taken to complete the survey was 14 minutes. Three questionnaires were completed on the website for the speech and language therapy and physiotherapy groups. Their representative bodies had issued a reminder to potential participants midway through the allocated timeframe for completion.

A total of 33% of participants (n=23) were male and 67% (n=46) female. The majority of participants worked full-time (97.1% n=67). Most worked in an acute hospital setting (58% n=40), with 7.2% (n=5) working in community care and 14.5% (n=10) in a combination of both. Over 20% of participants (20.3% n=14) worked outside these settings, in the following areas: Nursing and Midwifery Planning and Development Units (NMPDUs) (n=6), Centre for Nurse Education (n=3), Corporate HSE (n=4) and Rehabilitation and Long-Stay Care (n=1).

A total of 33% of participants (n=23) were medical consultants, 33% were nurse managers (n=23) and a further 7% (n=5) were midwife managers. Thirteen percent (n=9) were from the occupational therapy group and 8.7% (n=6) were healthcare managers. Three participants were from the speech and language therapy group. Physiotherapists were not represented.

Certain areas of practice were represented more than others, for example: Emergency Medicine/Care (n=8), Paediatrics and Neonates (n=7), Anaesthetics (n=3), Elderly Care (n=6), Education and Training (n=5), Planning and Development (n=7). The majority of participants (75.3% n=52) had worked in their current area of practice for over nine years; and over 36% (36.2% n=25) reported more than 20 years' experience in their current field.

Over 34% held a higher diploma/postgraduate diploma (34.5% n=24), while 60.9% held a degree (n=42) and 53.6% (n=37) held a Master's degree. Eight participants (11.6%) held a PhD; 12 held MDs and others (n=16) held a variety of fellowships such as FRCP, FRCOS, FCEM, MRCS, FRCPI, FRCPath, FRCOG, MFFLM, MIOG.

Participants were asked to indicate how often they worked with advanced nurse or midwife practitioners. Twelve participants (17.4%) worked with APs on a daily basis. A further 7.2% (n=5) worked with them a few times a week, while 13% (n=9) worked with them a few times a month. An additional 20% (20.3% n=14) worked with APs a few times a year, but 42% (n=29) rarely, if ever, worked with APs.

Participants were also asked to indicate how often they worked with CSs. Twenty-eight participants (40.1%) worked with CSs on a daily basis. A further 17.4% (n=12) worked with them a few times a week, while 13% (n=9) worked with them a few times a month. An additional 11.6% (n=8) worked with CSs a few times a year, and 17.4% (n=12) reported rarely if ever working with CSs.

Table 6.25 identifies demographic information concerning the participants in the survey.

Table 6.25: Characteristics of participants in other health professional evaluative survey (n=69)		
VARIABLE	N	%
Geographical spread		
Mid-Western	3	4.3
North-Eastern	4	5.8
Eastern	23	33.3
Midland	5	7.3
Southern	9	13.0
Western	12	17.4
North-Western	8	11.6
South-Eastern	5	7.3
Age group		
25-34	5	7.3
35-44	13	18.8
45-54	34	49.3
55+	17	24.6
Place of work		
Acute hospital	40	58.0
Community care	5	7.2
Combination of both	10	14.5
Other	14	20.3
Professional group affiliation		
Consultant (Medical/Surgical/Other)	23	33.3
Healthcare General Manager	6	8.7
Nurse Manager	23	33.3
Midwife Manager	5	7.3
Occupational Therapist	9	13.0
Physiotherapist	0	0.0
Speech and Language Therapist	3	4.4
Current work setting		
Hospital Administration	9	13.0
Medicine/Surgery	22	31.9
Nursing	16	23.2
Occupational Therapy	9	13.0
Midwifery	1	1.5
Speech & Language Therapist	3	4.4
Physiotherapist	0	0.0
Other	9	13.0

Questionnaire development

The questionnaire contained the items that were endorsed in the Delphi survey as core to AP and CS practice. It was divided into sections representing outcomes focused on (a) client/patient status, (b) nurses, midwives or other health professionals, and (c) healthcare services. Each item was labelled and a short example given, for example: family/carer quality of life (e.g. degree of carer strain, impact of illness on family well-being).

Participants were asked to rate each item on two dimensions, in terms of their level of agreement that it belonged in a set of key outcomes for evaluating the impact of the role of (a) clinical nurse/midwife specialists and (b) advanced nurse/midwife practitioners. Participants were given the opportunity to add any outcomes that they felt were important to the clinical specialist and advanced practitioner roles but which had not been included.

Findings: Section 1: Individual client/patient outcomes

Of the 27 outcomes in Section 1, 15 received a 25th percentile rating of 6.00 or more on both the CS and the AP role; this meant that 75% or over of respondents rated the item as belonging to a set of key outcomes for the CS and AP role.

There were 12 outcomes that did not achieve a rating of 6.00 on the 25th percentile (see Table 6.26). Five of the items reflected distinct personal states and included items on QoL (psychological), self-esteem, anxiety, mood, and QoL (social). An item on family knowledge, which concerned how the family relates to an illness, was also not perceived as being core to either CS or AP roles. Of the six remaining items that were not rated as 'core' to either the CS or AP roles, two described beliefs and actions linked to treatment (adherence, personal independence – personal belief). Another of the items that did not achieve consensus related to interpersonal care (patient satisfaction with interpersonal care). The remaining items were outcomes that positioned the person in the healthcare system (access to care, relapse). All of the items, however, received a 25th percentile rating of 5.00 or over, and all had a mean of over 5.50; therefore they were considered strong contenders for key outcomes and all were rated as 6.00 or over on the 50th percentile. One outcome – QoL (physical) – was rated as key to the AP but not the CS role.

Section 2: Outcomes for nurses, midwives and other health professionals

All outcomes in this section received a 25th percentile rating of 6.00 or over, indicating that 75% of participants rated all outcomes in this section as belonging in a set of key outcomes of CS and AP practice.

Section 3: Outcomes for healthcare services and settings

The majority of items in this section were strongly endorsed as belonging in a set of key outcomes for CS and AP practice, and received a 25th percentile rating of 6.00 or more. One item – best practice in clinical service delivery: regionally or nationally – did not reach a score of 6.00 for the CS role, but was considered key for APs.

Across all sections, many of the outcomes were rated similarly for CS and AP, but APs received a higher mean average on most outcomes. Some participants commented that, although they had often rated outcomes similarly for CS and AP, they believed that the depth of knowledge and the scope of practice are distinct for each category. They suggested that they would rate the AP as having more in-depth knowledge, as being more research focused, and as supporting not only nursing staff but also junior doctors and others in the multidisciplinary team. Some participants suggested that APs should regularly publish as an outcome of their role.

Table 6.26: Section 1 items that did not attain a 25th percentile rating of 6 or over from other health professionals

	Role	Mean	Std. Deviation	25th percentile
Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	CS	6.10	1.27	5.00
	AP	6.07	1.39	5.00
Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	CS	5.79	1.63	5.00
	AP	5.90	1.55	5.00
Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	CS	5.86	1.46	5.00
	AP	5.86	1.46	5.00
Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	CS	5.93	1.37	5.00
	AP	5.89	1.43	5.00
Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	CS	5.79	1.55	5.00
	AP	5.92	1.47	5.00
QoL – psychological (psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)	CS	5.84	1.41	5.00
	AP	5.85	1.41	5.00
Self-esteem (e.g. person's opinion of self, body image, positive/negative self-beliefs)	CS	5.63	1.55	5.00
	AP	5.62	1.56	5.00
Mood (e.g. postnatal depression, feeling down, depression)	CS	5.68	1.55	5.00
	AP	5.69	1.57	5.00
Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	CS	5.69	1.49	5.00
	AP	5.76	1.51	5.00
QoL – social (social well-being inclusive of relationships with social network, friends and family)	CS	5.62	1.49	5.00
	AP	5.65	1.45	5.00
Maintenance of safe environment (e.g. avoiding risks in the clinical environment to patient/client and others, safe home environment)	CS	6.09	1.43	5.00
	AP	6.10	1.42	5.00
Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment)	CS	5.94	1.37	5.00
	AP	5.97	1.38	5.00

Frequency of contact with CSs and APs had an influence on the rating of key outcomes (Table 6.27). Those participants who reported working 'rarely, if ever' with either CSs or APs consistently rated outcomes lower than those participants who reported working 'on a daily basis' with them.

For example: those who rarely worked with CSs gave a 25th percentile rating of 4.25 (mean 5.58: SD 1.98) for the outcome 'relapse', while colleagues who regularly worked with them gave it a 25th percentile rating of 6.00 (mean 6.29: SD 0.761). Similarly, those who rarely worked with CSs gave a 25th percentile rating of 4.00 (mean 5.08: SD 1.78) for the outcome QoL (social), while colleagues who regularly worked with them gave it a 25th percentile rating of 6.00 (mean 6.17: SD 0.98).

Table 6.27: Section 1 items compared between those who 'hardly ever' worked with CSs/APs and those who worked with them 'on a daily basis'

	Role	HARDLY EVER			DAILY BASIS		
		Mean	Std. Deviation	25th Percentile	Mean	Std. Deviation	25th Percentile
Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	CS	5.92	1.78	5.00	6.14	.90	5.00
	AP	5.92	1.78	5.00	6.14	.90	6.00
Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	CS	5.33	1.78	5.00	6.43	.79	6.00
	AP	5.42	1.83	5.00	6.57	.79	6.00
Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	CS	5.83	1.75	5.00	5.86	1.22	5.00
	AP	5.83	1.75	5.00	5.86	1.22	5.00
Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	CS	5.42	1.83	4.25	6.29	.76	6.00
	AP	5.50	1.88	4.25	6.14	.90	6.00
Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	CS	5.58	1.98	4.25	6.29	.76	6.00
	AP	5.67	1.92	5.00	6.14	.90	6.00
QoL – psychological (psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)	CS	5.33	1.87	4.25	6.17	.98	6.00
	AP	5.33	1.87	4.25	6.33	.82	6.00
Self-esteem (e.g. person's opinion of self, body image, positive/ negative self-beliefs)	CS	5.08	1.98	3.25	6.17	.98	5.00
	AP	5.08	1.98	3.25	6.17	.98	6.00
Mood (e.g. postnatal depression, feeling down, depression)	CS	5.25	1.86	4.25	6.33	.82	6.00
	AP	5.25	1.86	4.25	6.33	.82	5.75
Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	CS	5.50	1.93	4.25	6.17	.98	5.00
	AP	5.50	1.93	4.25	6.33	.82	6.00
QoL – social (social well-being inclusive of relationships with social network, friends and family)	CS	5.08	1.78	4.00	6.17	.98	6.00
	AP	5.17	1.59	4.00	6.17	.98	5.00
Maintenance of safe environment (e.g. avoiding risks in clinical environment to patient/client and others, safe home environment)	CS	5.92	1.73	5.25	6.17	.98	6.00
	AP	5.92	1.73	5.25	6.17	.98	6.00
Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment)	CS	5.42	1.73	5.00	6.00	1.10	5.00
	AP	5.42	1.73	5.00	6.00	1.10	5.00

The professional group to which the participant belonged also had an influence on the rating of key outcomes (Table 6.28). The medical consultant group consistently rated most outcomes lower than any other group. Nurse/midwife managers generally rated outcomes higher than either healthcare managers or medical consultants. Ratings of nurse/midwife managers and the occupational therapy group were most comparable.

Table 6.28: Ratings of items that did not receive consensus across the health professionals groups					
		Medical/Surgical Consultants	Health Services Manager	Nurse/Midwife Manager	Occupational Therapist
		25th Percentile	25th Percentile	25th Percentile	25th Percentile
Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	CS	5.00	5.00	6.00	5.75
	AP	5.00	5.00	6.00	5.00
Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	CS	4.50	5.25	5.00	6.00
	AP	5.00	5.25	5.00	5.00
Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	CS	4.00	5.00	5.75	5.75
	AP	4.00	5.00	5.75	5.75
Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	CS	5.00	5.75	5.00	6.00
	AP	5.00	6.50	5.00	6.00
Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	CS	4.50	5.50	5.00	5.50
	AP	5.00	5.75	5.75	6.00
QoL – psychological (psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)	CS	5.00	5.75	5.25	6.00
	AP	5.00	5.75	6.00	4.50
Self-esteem (e.g. person's opinion of self, body image, positive/negative self-beliefs)	CS	4.00	4.75	4.25	4.00
	AP	4.00	4.75	4.25	5.00
Mood (e.g. postnatal depression, feeling down, depression)	CS	4.00	4.50	5.00	4.50
	AP	4.00	4.50	5.00	5.00
Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	CS	4.00	5.25	5.25	5.00
	AP	4.00	5.25	6.00	5.00
QoL – social (social well-being inclusive of relationships with social network, friends and family)	CS	4.00	4.75	5.00	5.00
	AP	4.00	4.75	5.00	4.50
Maintenance of safe environment (e.g. avoiding risks in clinical environment to patient/client and others, safe home environment)	CS	5.00	5.00	6.00	5.00
	AP	5.00	5.00	6.00	5.50
Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment)	CS	5.00	5.75	6.00	4.50
	AP	5.00	5.75	6.00	5.00

Several participants commented that they felt all the outcomes were core to both roles. While some outcomes were suggested for inclusion, none met the criterion of being suggested by two or more participants before it would be considered for inclusion. Some of the suggested outcomes (e.g. availability of information on available services and entitlements, patient safety, liaison and coordination with other healthcare professionals) mirrored those in the original list of outcomes in Round 1 and 2 of the Delphi survey, but participants in that study had failed to reach consensus on their inclusion in a list of core outcomes.

| 6.17 | Evaluation tools |

6.17.1. Clinical specialist evaluation tool

The 47-item 'clinical specialist' core data set of outcomes identified in the Delphi process can be used by clinical specialists to evaluate the generic components of their service. This 'clinical specialist evaluation tool' is contained in Appendix 11 along with other tools used in this study, which specialists might find useful in evaluating aspects of their role and the service they provide. Items relevant to specific specialist roles, which specialists might find useful to supplement the 'clinical specialist evaluation tool', are contained in Appendix 5a.

6.17.2. Advanced practitioner evaluation tool

The 51-item 'advanced practice' core data set of outcomes identified in the Delphi process can be used by advanced practitioners to evaluate the generic components of their service. This 'advanced practitioner evaluation tool' is contained in Appendix 11 along with other tools used in this study, which advanced practitioners might find useful in evaluating aspects of their role and the service they provide. Items relevant to specific advanced practice roles, which advanced practitioners might find useful to supplement the 'advanced practitioner evaluation tool', are contained in Appendix 5b.

| 6.18 | Evaluation survey |

An evaluation survey was undertaken to identify the extent to which clinical specialists and advanced practitioners perceived each outcome made a distinctive contribution to specialist or advanced practice.

6.18.1. Methods

6.18.1.1. Design

We chose to conduct the survey online because this (i) optimised the potential for higher participation due to potential participants' familiarity with online survey participation from the Delphi rounds (ii) optimised data collection efficiencies, particularly in regard to efficient use of time, and (iii) provided a relatively low-cost structure. The survey was conducted using the online survey software application SurveyMethods (http://www.surveymethods.com/).

6.18.1.2. Participants

Participation was sought from clinical nurse and midwife specialists and advanced nurse and midwife practitioners. We sent an email inviting participation in this survey to CSs and APs who had previously indicated their willingness to consider participating in the Delphi phase of the study. The invitation email informed potential participants of the purpose of the study and invited those who wished to participate to access the survey by clicking on a URL hyperlink within the email. Invited participants were requested to return the questionnaire within two weeks. Two reminders were sent during the study, to those who had not responded and to those who had partially completed. Several requests were received to extend the timeframe as some participants were experiencing difficulty in completing the survey within the given time due to workload and annual leave. The survey was extended by a further two weeks and a further two email reminders were sent during that time.

6.18.1.3. Instrumentation

Instrument

Two pilot instruments were developed initially; one for clinical specialists and one for advanced practitioners. Each pilot instrument contained the relevant minimum data set of outcomes for CSs and APs developed in the Delphi survey (see Table 6.32 and 6.34 for a listing of the respective minimum data sets). The pilot testing carried out throughout the Delphi survey demonstrated the need to present wording concerning the study purpose and survey instructions in a user-friendly manner. This led us to introduce the evaluative survey as a study to assess which outcomes best distinguish the work of clinical specialists and advanced practitioners from the contribution made by other professionals. In line with this, we adopted the phrasing 'distinctive contribution' when describing the particular impact of specialist and advanced practice in the evaluative survey. Thus, participants in this evaluative survey indicated what they perceived to be the level of importance of each outcome's distinctive contribution to specialist or advanced practice, by rating the level of importance on a seven point rating scale (1: low importance, 7: highest importance possible).

The survey instrument sought demographic information from participants (age, gender, area of practice, clinical experience, academic and professional qualifications) and asked participants to identify outcomes not captured in the minimum data set but which were specific to their individual role.

Clinical specialist instrument

The clinical specialist instrument included the 47-item core data set identified in the Delphi process (see Table 6.32). Items were categorised into one of three categories: (i) client/patient outcomes (29 items), (ii) outcomes for nurses, midwives or other health professionals (12), and (iii) outcomes for healthcare services (6). Each category was further subdivided into clusters reflecting the broad meaning of items in that cluster (Table 6.29).

Table 6.29: Clinical specialist core data set structure	
Client/patient outcomes (29 items)	Communication, satisfaction and appropriateness (14 items)
	Physical status and adherence (6 items)
	Psychosocial status (5 items)
	Safety and preparation (4 items)
Outcomes for nurses, midwives or other health professionals (12 items)	Research, guidelines and education (6 items)
	Knowledge and leadership (6 items)
Outcomes for healthcare services (6 items)	Multidisciplinary team care and best practice (6 items)

Advanced practitioner instrument

The advanced practitioner instrument included the 51-item core data set identified in the Delphi process (see Table 6.34). Items were categorised into one of three categories: (i) client/patient outcomes (29 items), (ii) outcomes for nurses, midwives or other health professionals (15), and (iii) outcomes for healthcare services (7). Each category was further subdivided into clusters reflecting the broad meaning of items in that cluster (Table 6.30).

Table 6.30: Advanced practitioner core data set structure	
Client/patient outcomes (29 items)	Communication, satisfaction and appropriateness (16 items) Physical status and adherence (5 items) Psychosocial status (4 items) Safety and preparation (4 items)
Outcomes for nurses, midwives or other health professionals (15 items)	Research, guidelines and education (7 items) Knowledge and leadership (8 items)
Outcomes for healthcare services (7 items)	Multidisciplinary team care and best practice (7 items)

Items in both clinical specialists' and advanced practitioners' instruments were labelled and illustrative explanations given. For example, 'Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)' and 'Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc. are appropriate)'. At the end of each section participants were given the opportunity to include outcomes specific to their setting (e.g. a clinical specialist in diabetes may feel that good blood glucose control or HbA1c levels was an important outcome specific to their role). Participants were also given the opportunity to add comments on the questionnaire itself.

6.18.1.4. Pilot

The clinical specialist instrument was piloted to check ease of understanding, clarity of instructions and question ambiguity; 10 clinical specialists were selected randomly from the study sample. A response rate of 70% (n=7) was achieved. No difficulties were highlighted by participants although one indicated that the questionnaire was too long. Average completion time was 17 minutes. Given the relatively small population of advanced practitioners, we chose not to dilute this population further by piloting the instrument within this cohort. Further, given the structure of the instrument, we felt it likely that findings from the CS pilot could reasonably be assumed to be relevant to APs.

6.18.2. Results

Results are presented separately for the CS and AP surveys. The level of importance attributed to each outcome by participants is given as a mean value and the 95% confidence interval (CI) of the mean is chosen as the measure of variability, due to it having a more intuitive interpretation than the more common standard deviation. The 95% CI gives an indication of how much uncertainty there is in our estimate of the true mean value. The narrower the CI, the more precise the mean estimate.

6.18.2.1. Clinical specialists

The invitation email containing the survey URL hyperlink was sent to 602 potential CS participants. The survey was completed fully by 43.4% (n=261) specialists. A further 6% (n=37) partially completed the questionnaire and 3.8% (n=23) opted out and requested no further contact.

The majority of respondents to the survey worked in the Eastern area of the country (38.7% n=102), were female (91.6% n=239), worked full-time (70.5% n=184) and were in the 35-54 age range (84.3% n=220). Over 60% (n=157) held a higher diploma or postgraduate diploma, while 37.5% (n=98) held an undergraduate degree and 24.5% (n=64) held a Master's degree. The majority of participants worked in general nursing (42.9% n=112); mental health, intellectual disability, paediatric, public health and midwifery were also represented (Table 6.31).

The majority of participants worked in an acute hospital setting (55.6%, n=145), with 18% (n=47) working in community care and 11.5% (n=30) working in a combination of both. Certain areas of specialist practice were represented more than others, including community mental health (7% n=19), diabetes nursing (6% n=15), general practice (5% n=13), infection control (4% n=11), palliative care (4% n=11), cardiac rehabilitation (4% n=11), palliative home care (4% n=10) and respiratory care (4% n=10).

Table 6.31: Characteristics of clinical specialists (n=261)

VARIABLE	N	%
Geographical area		
Mid-Western	26	9.6
North-Eastern	18	6.5
Eastern	102	38.7
Midland	17	7.4
Southern	42	16.3
Western	29	8.8
North-Western	11	6.7
South-Eastern	16	6.0
Age group		
25-34	21	8.0
35-44	115	44.1
45-54	105	40.2
55+	20	7.7
Place of work		
Acute hospital	145	55.6
Community care	47	18.0
Combination of both	30	11.5
Other	39	14.9
Current work setting*		
General nursing	112	42.9
Paediatric nursing	15	5.8
Mental health	45	17.3
Intellectual disability	21	8.0
Midwifery	16	6.1
Public health	3	1.2
Other	62	23.8

*participants asked to indicate all that apply

Patient/client outcomes

All outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)' achieved the highest rating (mean 6.64: 95% CI 6.53 to 6.75) while 'Patient/client satisfaction with technical aspects of care (e.g. patient/client

evaluation of service delivery)' received the lowest rating (mean 5.82: 95% CI 5.67 to 5.97) (Table 6.32).

Outcomes for nurses, midwives or other health professionals

All outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)' achieved the highest rating (mean 6.45: 95% CI 6.34 to 6.56) while 'Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)' received the lowest rating (mean 5.95: 95% CI 5.81 to 6.09) (Table 6.32).

Outcomes for healthcare services

As in the previous two sections, all outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)' achieved the highest rating (mean 6.57: 95% CI 6.47 to 6.67), while 'Continuity of care (e.g. consistency in patient/client interactions with same staff member)' achieved the lowest rating (mean 6.31: 95% CI 6.19 to 6.43) (Table 6.32).

Outcomes specific to clinical specialist roles

The evaluative survey also asked clinical specialists to identify outcomes specific to their own individual role. This resulted in 290 outcomes across 48 clinical specialist roles being collected. These are presented in Appendix 5a.

Table 6.32: Clinical specialists' mean rating of outcomes

Core outcome item	Mean	95% confidence interval for mean
Client/patient outcomes		
1. Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)	6.64	6.53 to 6.75
2. Communication (e.g. person's non-verbal/verbal skills, expression of preferences)	6.63	6.52 to 6.73
3. Patient/client satisfaction with information (e.g. satisfaction with professional advice)	6.46	6.34 to 6.58
4. Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation)	6.46	6.34 to 6.58
5. Shared decision making (e.g. patient/client involvement in decision making, involvement of family)	6.44	6.33 to 6.55
6. Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)	6.40	6.29 to 6.52
7. Person's knowledge (e.g. possessing relevant information, understanding of medical condition/treatment, making sense of personal experience)	6.40	6.28 to 6.51
8. Patient/client safety – potentially avoidable adverse events (e.g. misdiagnosis, medication errors, inappropriate treatment)	6.40	6.27 to 6.53
9. Preparedness for treatment (e.g. patient/client expectations for surgery, awareness of treatment side-effects)	6.36	6.23 to 6.49
10. Quality of life – psychological (e.g. psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)	6.33	6.21 to 6.44
11. Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	6.31	6.19 to 6.43
12. Quality of life – physical (e.g. physical well-being inclusive of pain, mobility, physical comfort)	6.29	6.16 to 6.42
13. Appropriateness of interventions (e.g. degree to which medical/nursing/midwifery procedures, interventions and treatments are appropriate)	6.25	6.12 to 6.37
14. Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment)	6.22	6.09 to 6.35
15. Maintenance of safe environment (e.g. avoiding risks in the clinical environment to patient/client and others, safe home environment)	6.20	6.06 to 6.35
16. Physical comfort (e.g. nausea, physical discomfort, being settled)	6.19	6.04 to 6.33
17. Appropriateness of medication regime (e.g. degree to which dosage, type, etc of medications is appropriate)	6.19	6.04 to 6.33
18. Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	6.19	6.04 to 6.33
19. Mood (e.g. postnatal depression, feeling down, depression)	6.16	6.01 to 6.31
20. Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	6.15	6.01 to 6.29
21. Self-esteem (e.g. person's opinion of self, body image, positive/negative self beliefs)	6.15	6.02 to 6.29
22. Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	6.15	6.02 to 6.28
23. Quality of life – social (e.g. social well-being inclusive of relationships with social network, friends and family)	6.14	6.00 to 6.28
24. Health promotion beliefs (e.g. beliefs about healthy lifestyle, acceptance of behaviour change advice, self directed on health promotion needs)	6.12	5.99 to 6.26
25. Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	6.11	5.97 to 6.25
26. Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc are appropriate)	6.06	5.91 to 6.20

Table 6.32: (continued)

Core outcome item	Mean	95% confidence interval for mean
Client/patient outcomes (continued)		
27. Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc takes place)	6.05	5.91 to 6.19
28. Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	5.94	5.79 to 6.09
29. Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)	5.82	5.67 to 5.97
Outcomes for nurses, midwives or other health professionals		
30. Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)	6.45	6.34 to 6.56
31. Utilisation of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to evidence-based guidelines)	6.41	6.30 to 6.53
32. Nursing/midwifery staff understanding of clinical specialist role (e.g. knowledge about specialist role, integration of specialist role in unit)	6.36	6.25 to 6.47
33. Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition)	6.34	6.23 to 6.45
34. Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)	6.33	6.21 to 6.45
35. Achievement of new educational intervention – patient/service user (e.g. information leaflets on condition, education on self monitoring condition)	6.33	6.22 to 6.45
36. Research awareness in clinical practice (e.g. knowledge of research process in your unit, team or ward)	6.31	6.20 to 6.43
37. Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment)	6.30	6.19 to 6.42
38. Achievement of new clinical initiatives (e.g. implementation of new wound dressing, new assessment procedure)	6.26	6.14 to 6.38
39. Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development)	6.26	6.14 to 6.38
40. Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience)	6.02	5.88 to 6.15
41. Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)	5.95	5.81 to 6.09
Outcomes for healthcare services		
42. Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)	6.57	6.47 to 6.67
43. Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)	6.52	6.42 to 6.63
44. Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines)	6.44	6.33 to 6.56
45. Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based care guidelines)	6.35	6.23 to 6.47
46. Continuity of care (e.g. consistency in patient/client interactions with same staff member)	6.31	6.19 to 6.43
47. Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in unit/team)	6.31	6.19 to 6.43

6.18.2.2. Advanced practitioners

The invitation email containing the survey URL hyperlink was sent to 48 potential AP participants. The survey was completed fully by 56.3% (n=27) APs. A further 2.1% (n=1) opted out and requested no further contact.

The majority of participants were from the Eastern area of the country (70.4% n=19), were female (88.9% n=24), were in the 35-54 age group (88.9 n=24) and worked full-time (92.6% n=25) (Table 6.33). Over 55% (n=15) held a higher diploma/postgraduate diploma, while 51.8% (n=14) held a Bachelor's degree

and all (100% n = 27) held a Master's degree or higher. The majority of participants worked in general nursing (74.1% n=20) and in an acute hospital setting (77.8% n=21), with 3.7% (n=1) working in community care and 7.4% (n=2) working in a combination of both. A total of 11% (n=3) of participants worked outside these settings, identified as primary care areas. The mean years of work experience since first registration was 19.5 (SD 6.4). Participants reported having worked in their specialist area for an average of 13.6 years (SD 5.1). Certain areas of advanced practice were represented more than others, including emergency department (29.6% n=8), paediatrics and neonates (11% n=3) and palliative care (11% n=3) (Table 6.33).

Patient/client outcomes

All outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)' achieved the highest rating (mean 6.88: 95% CI 6.75 to 7.02) while 'Quality of life – social (social well-being inclusive of relationships with social network, friends and family)' received the lowest rating (mean 5.96: 95% CI 5.57 to 6.35) (Table 6.34).

Table 6.33: Characteristics of advanced practitioners (n=27)

VARIABLE	N	%
Geographical spread		
Mid-Western	0	0.0
North-Eastern	2	7.4
Eastern	19	70.2
Midland	1	3.8
Southern	2	7.4
Western	2	7.4
North-Western	1	3.8
South-Eastern	0	0.0
Age group		
25-34	1	3.8
35-44	13	48.1
45-54	11	40.7
55+	2	7.4
Place of work		
Acute hospital	21	77.8
Community care	1	3.7
Combination of both	2	7.4
Other	3	11.1
Current work setting		
General nursing	20	74.1
Paediatric nursing	4	14.8
Mental health	0	0.0
Intellectual disability	0	0.0
Midwifery	0	0.0
Public health	0	0.0
Other	3	11.1

Outcomes for nurses, midwives or other health professionals

As in the previous two sections, all outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)' achieved the highest rating (mean 6.64: 95% CI 6.43 to 6.88) while 'Other nurses' or midwives' attitudes to their work (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights)' received the lowest rating (mean 5.93: 95% CI 5.39 to 6.46) (Table 6.34).

Table 6.34: Advanced practitioners' mean rating of outcomes (mean and 95% confidence interval for mean)

Core outcome item	Mean	95% confidence interval for mean
Client/patient outcomes		
1. Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)	6.88	6.75 to 7.02
2. Communication (e.g. person's non-verbal/verbal skills, expression of preferences)	6.85	6.70 to 6.99
3. Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation)	6.73	6.52 to 6.95
4. Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc are appropriate)	6.65	6.43 to 6.88
5. Patient/client satisfaction with information (e.g. satisfaction with professional advice)	6.62	6.36 to 6.87
6. Pain (e.g. severity, frequency, pain relief)	6.62	6.36 to 6.87
7. Appropriateness of medication regime (e.g. degree to which dosage, type, etc of medications is appropriate)	6.62	6.36 to 6.87
8. Patient/client safety – potentially avoidable adverse events (e.g. misdiagnosis, medication errors, inappropriate treatment)	6.62	6.31 to 6.92
9. Quality of life – physical (e.g. physical well-being inclusive of pain, mobility, physical comfort)	6.58	6.34 to 6.81
10. Physical comfort (e.g. nausea, physical discomfort, being settled)	6.58	6.34 to 6.81
11. Preparedness for treatment (e.g. patient/client expectations for surgery, awareness of treatment side-effects)	6.58	6.34 to 6.81
12. Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)	6.54	6.28 to 6.80
13. Appropriateness of interventions (e.g. degree to which medical/nursing/midwifery procedures, interventions and treatments are appropriate)	6.54	6.28 to 6.80
14. Maintenance of safe environment (e.g. avoiding risks in the clinical environment to patient/client and others, safe home environment)	6.54	6.25 to 6.82
15. Appropriateness of initiating/ending healthcare episodes (e.g. degree to which appropriate admission, discharge, etc takes place)	6.54	6.21 to 6.87
16. Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	6.50	6.21 to 6.79
17. Shared decision making (e.g. patient/client involvement in decision making, involvement of family)	6.46	6.20 to 6.72
18. Person's knowledge (e.g. possessing relevant information, person's understanding of medical condition/treatment, making sense of personal experience)	6.42	6.01 to 6.84
19. Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc takes place)	6.42	6.14 to 6.71
20. Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	6.38	6.13 to 6.64
21. Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)	6.35	6.00 to 6.69
22. Well-being across different domains (e.g. person's functioning across bio- psychosocial domains, person's needs in multiple areas of functioning)	6.23	5.92 to 6.54
23. Physical self-care capacity (e.g. ability to manage general needs or illness specific needs)	6.23	5.92 to 6.54
24. Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	6.23	5.90 to 6.56

Table 6.34: (continued)

Core outcome item	Mean	95% confidence interval for mean
Client/patient outcomes (continued)		
25. Quality of life – psychological (e.g. psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)	6.23	5.88 to 6.58
26. Anxiety (e.g. worry, stress reactions, restlessness and agitation)	6.23	5.85 to 6.61
27. Family/carer adjustment (e.g. family ability to support patient's/client's physical needs, acceptance of illness)	6.00	5.64 to 6.36
28. Family/carer quality of life (e.g. degree of carer strain, impact of illness on family well-being)	5.96	5.61 to 6.31
29. Quality of life – social (e.g. social well-being inclusive of relationships with social network, friends and family)	5.96	5.57 to 6.35
Outcomes for nurses, midwives or other health professionals		
30. Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)	6.65	6.43 to 6.88
31. Research awareness in clinical practice (e.g. knowledge of research process in unit, team or ward)	6.58	6.32 to 6.84
32. Nursing/midwifery staff understanding of AP role (e.g. knowledge about AP role, integration of AP role in unit)	6.50	6.21 to 6.79
33. Utilisation of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to evidence-based guidelines)	6.46	6.15 to 6.77
34. Research activity level in clinical practice (e.g. involvement of unit in research, research collaboration with other units, developing a research project)	6.31	6.03 to 6.58
35. Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)	6.31	6.01 to 6.60
36. Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role)	6.31	5.99 to 6.63
37. Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)	6.30	5.99 to 6.60
38. Achievement of new educational intervention – patient/service user (e.g. information leaflets on condition, education on self-monitoring condition)	6.27	5.98 to 6.56
39. Achievement of new clinical initiatives (e.g. implementation of new wound dressing, new assessment procedure)	6.27	5.96 to 6.58
40. Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development)	6.27	5.96 to 6.58
41. Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition)	6.23	5.88 to 6.58
42. Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment)	6.19	5.81 to 6.57
43. Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience)	6.15	5.86 to 6.43
44. Other nurses' or midwives' attitudes to their work (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights)	5.93	5.39 to 6.46
Outcomes for healthcare services		
45. Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)	6.69	6.50 to 6.88
46. Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines)	6.65	6.38 to 6.93
47. Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)	6.62	6.38 to 6.85
48. Continuity of care (e.g. consistency in patient/client interactions with same staff member)	6.46	6.15 to 6.77
49. Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based care guidelines)	6.46	6.18 to 6.75
50. Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in unit/team)	6.38	6.10 to 6.67
51. Waiting times (e.g. prompt appointments, waiting times for triage)	6.15	5.70 to 6.61

Outcomes for healthcare services

All outcomes in this section achieved high mean ratings, with narrow 95% CIs. The outcome 'Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)' achieved the highest rating (mean 6.69: 95% CI 6.50 to 6.88) while 'Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)' received the lowest rating (mean 6.38: 95% CI 6.10 to 6.67) (Table 6.34).

Outcomes specific to advanced practitioner roles

The evaluative survey also asked advanced practitioners to identify outcomes specific to their own individual role. This resulted in 29 outcomes across six advanced practitioner roles being collected. These are presented in Appendix 5b.

6.18.3. Discussion

Clinical specialists and advanced practitioners perceive their role as having an important impact on outcomes experienced by service users and other health professionals and on outcomes for healthcare services. That all outcomes in both evaluative surveys achieved high mean ratings with narrow confidence intervals confirms the importance of and provides evidence of validity for the core outcome data sets.

The earlier, systematic review of nurse- and midwife-led interventions found that nurse-led interventions have a similar impact on clinical outcomes to usual care, across various client groups and clinical conditions, with the exception of psychological outcomes of satisfaction, anxiety and depressive symptoms, all of which are improved for nurse-led care. In contrast, midwife-led models of care were found to have significant benefit across physical and psychological outcomes and there is some evidence of cost savings. These findings appear to contrast with those of this evaluative survey where clinical specialists and advanced practitioners perceived their role as impacting on all outcomes in their respective data sets. However, it is likely that the outcomes contained in the core data sets are sensitive to clinical specialist and advanced practitioner roles (because they were developed iteratively with these postholders) and that these outcomes are not well represented in trials included in the earlier systematic review.

Evidence for the importance of using appropriately sensitive outcomes is reflected in the earlier systematic review's finding that midwife-led models of care have significant benefit across physical and psychological outcomes and there is some evidence of cost savings. Key here is that the midwife-led care review (Hatem et al 2008) included in our systematic review of reviews, used a core data set of outcomes for evaluating models of maternity care in considering what outcomes would be included in the review (Devane et al 2007). Consideration of the core outcome data sets in future reviews and trials will help ensure that outcomes considered are sensitive to the roles of nurses and midwives practising at a higher level.

The outcomes identified by clinical specialists and advanced practitioners as specific to their own individual role will help the development of an organic toolkit for evaluating these roles in the future. It is anticipated that postholders will be able to use the relevant core data set and populate it with items specific to their role, where data are available. It is hoped that the instrument will continue to grow to accommodate the needs of the CSs and APs and will provide a robust instrument for the effective evaluation of their roles, using nurse and midwife role sensitive outcomes.

6.19 Summary

This chapter achieved the second objective of the SCAPE study by developing and validating a tool to determine outcomes for clinical services of specialists and advanced practitioners (section 1.2.2). The tool was developed through a three round Delphi study and then tested in two ways: through a validation survey with key stakeholders and an evaluative survey of CSs and APs.

Delphi survey

Round 1 of the Delphi survey had a response rate for the CS survey of 45% (n=282) and for the AP group of 64% (n=30). Round 2's response rate for the CS survey was 76% (n=215) and for the AP group was 93% (n=28). The response rate for the final (Round 3) survey was 94% (n=202) for the CS group and 96% (n=27) for the APs. Results showed that 47 outcomes in the CS survey and 51 outcomes in the AP survey reached consensus.

The validation survey

The other health professionals' evaluative survey had a response rate of 22% (n=66). Participants endorsed the majority of the outcomes as core in measuring key distinctive contributions to patient/client outcomes made by CSs and APs.

The evaluative survey

The CS evaluative survey had a response rate of 43.4% (n=261) and the AP survey had a response rate of 56.3% (n=27). CSs and APs perceive their role as having an important impact on outcomes experienced by service users and other health professionals, and on outcomes for healthcare services.

CHAPTER 7
Phase 2: Case study

7.1 Introduction

Within this chapter an overview of the application of methodology for the case study is provided. It includes information on access to study sites, planned sampling methods, the pilot study, data collected through observations, interviews, quantitative service user surveys, and data analysis. It also presents overviews of the numbers achieved within each of these aspects of the study.

7.2 Overview of methodology and access

Phase 2 was a case study, consisting of (i) observation in clinical sites, (ii) documentary analysis, (iii) interviews with service users and/or family members/carers, (iv) interviews with key stakeholders, (v) a survey of service users, and (vi) an economic evaluation. The study was planned to be conducted in nine sites where 2-3 APs or CSs worked (postholding sites), and nine matched sites where no specialist nurse or midwife was employed in the comparable clinical area (non-postholding sites).

Directors of Nursing and Midwifery (DoNs/DoMs) in all eligible sites were contacted to explore interest and support for the project. Following ethical approval from the sites, information packs were posted to identified postholders and their matched counterparts in all non-postholding sites, outlining the purpose of the study and the nature of participation, and enclosing an invitation to take part. Once consent was received, a research assistant contacted the respondent directly to arrange a suitable time to observe practice.

7.3 Population and sample

7.3.1. Sampling method

Purposive sampling was used to select multiple cases, which allowed for contrasts to be made regarding outcomes in healthcare settings with and without the clinical input of specialist and advanced nurse or midwife practitioners. When selecting the cases, information oriented sampling, as opposed to random sampling, was used to ensure that the professions, disciplines, specialties and sites with geographical heterogeneity were included.

7.3.2. Case study population

The study population in postholding sites included the following:

1. All approved clinical specialists or accredited advanced practitioners by the National Council and at least one year in post

2. Service users and family members/carers with experience of receiving care from a clinical specialist or advanced practitioner, and who were fluent in English

3. Members of the clinical team with direct contact with clinical specialists or advanced practitioners

4. The Director of Nursing or Midwifery.

The study population in non-postholding sites included:

1. Members of the clinical team providing care for a matched service user group

2. Service users and family members/carers with experience of receiving care from this clinical team, and who were fluent in English

3. The Director of Nursing or Midwifery.

7.3.3. Case study sample

Evidence for the case study was drawn from 23 areas with postholders and 23 areas without postholders, which were matched for the purpose of contrasting process and outcomes (Table 7.1). Some postholding areas were contained within a hospital or health service provider that also had one or more non-postholding areas for other specialties where no CS/AP was in place. When DoNs/DoMs were interviewed in these health service provider sites, they were asked questions from both postholder and non-postholder interview schedules (i.e. two interviews combined) and quotes were attributed to whichever stance they were speaking from at that time.

Table 7.1: Case study sample

Discipline/profession	Areas with postholders	Areas without postholders
General nursing	9	9
Midwifery	3	3
Intellectual disability nursing	2	2
Mental health nursing	5	5
Children's nursing	2	2
Community health	2	2
Total	23	23

Study areas were selected to take account of the professions, disciplines, hospital/community mix, urban/rural diversity, and variety in the service provided by the postholder, and to maximise the opportunity to source matched sites. Some unique cases were also included as the particular information generated informed the overall evaluation (Table 7.2). As can be seen in Table 7.2, no ANPs in intellectual disability nursing were included, as there were none in post, and no AMPs were included as there were no postholders in the country who fit the inclusion criterion of 'at least one year in post'.

Table 7.2: Number and specialty of ANPs and CNSs/CMSs included

Discipline/profession	ANPs	CNSs/CMSs
General nursing: 3 ANPs, 6 CNSs	Emergency department, sexual health, endoscopy	Stroke care, pulmonary outreach, heart failure, anti-coagulation therapy, pain management, colposcopy
Midwifery: 0 AMPs, 3 CMSs		Prenatal screening, diabetes care, infectious diseases
Intellectual disability nursing: 0 ANPs, 2CNSs		Challenging behaviour, early intervention
Mental health nursing:1 ANP, 4 CNSs	Child and adolescent mental health	Family therapy, cognitive behaviour therapy, psychotic disorders, addictions
Children's nursing:1 ANP, 1 CNS	Emergency department	Ear, nose and throat care
Public health:1 ANP, 1 CNS	Practice nursing	Care of the elderly
Total	6	17

In the postholding areas, 23 CSs/APs were observed, and 21 clinical team members who worked with one or more of them, 20 service users/family members/carers and eight DoNs/DoMs were interviewed. In addition, 154 service users were surveyed. Within matched areas, data were collected through observation of 23 clinicians providing a service in similar care pathways to those of the matched postholding area. Twenty clinical team members, 21 service users/family members/carer and 10 DoNs/DoMs were interviewed. In addition 125 service users were surveyed. A further five DoNs/DoMs were interviewed both as a DoN/DoM of a postholding area and a non-postholding area, resulting in 23 DoNs/DoMs interviewed for a total of 28 interviews (Table 7.3).

Table 7.3: Distribution of data sources from postholding and matched sites

Data collection method	Postholding sites (n=13)	Matched sites (n=15)	Total
Observation	23 postholders	23 services	46
Interviews (clinical team members)	21	20	41
Interviews with service users	20	21	41
Interviews (DoN or DoM)	8 (plus 5 postholding and matched)	10 (plus 5 postholding and matched)	28
Survey of service users	154	125	279

Documents in the form of nursing or midwifery documentation and policy documents were also included in Phase 2 of the study. Theoretical sampling of relevant site records such as clinical audit data, patient/client satisfaction surveys, and policies and guidelines was conducted.

7.3.4. Study tools

Semi-structured interview schedules (Appendices 7a - 7e), used when interviewing the clinical team members, service users and family members/carers, and DoNs/DoMs in each site, the observation tools (Appendix 6a and 6b), and the questionnaire for service users (Appendix 8) were developed from the

Delphi Round 2 instrument. Due to the need for multiple reminders to increase the response rate, the results of Delphi Round 3 were not available at the time that the case study needed to start. Items that were 'highly endorsed' or 'strongly endorsed' during Round 1 of the Delphi study, and were included in Round 2, were thus documented as items to guide data collection in the case study. These were separated into data amenable for collection by survey, observation, documentary evidence or interview with the various participants. Where possible, and especially with the 'highly endorsed' items, data were allocated to be collected by two or more methods. The questionnaire, observation (key behaviour and pen pictures) and interview schedules were then drawn up, subjected to peer review among the team, CS/AP and international advisors, and modified accordingly.

7.3.5. Pilot study

A pilot study was conducted in November 2009 in two sites, one with a CNS in general nursing and one with a CMS in lactation. The instruments of observation, service user survey questionnaire, and clinician and service user interview schedules were piloted. Amendments were made to the core observation instrument (Appendix 6b) and a new 'pen picture' tool was devised to contextualise the specialist and advanced practitioners' roles (Appendix 6a). Alterations were made to the service user questionnaire for CMS sites, to provide a more applied midwifery focus, i.e. to focus on health in certain questions rather than illness. The clinician and service user interview instruments (Appendix 7a, 7b, 7e) were unchanged.

7.4	Data collection

7.4.1. Overview

Data collection for the main study commenced in November 2009 and continued until July 2010. Each case involved immersion of a research assistant within a study site with one to three postholders, and in a matched site without postholders, but with comparable services, for up to two weeks. During this time the research assistant:

1. Conducted non-participant observation of care for particular service user groups over two, two hour sessions

2. Collected data from documentary data sources to substantiate activities observed occurring, or claimed by the observee (e.g. audits, education leaflets, CS/AP diaries, teaching plans, publications)

3. Interviewed service users, and/or family member/carers receiving care

4. Interviewed key members of the clinical team working in the particular service area

5. Surveyed a convenience sample of service users accessible through clinics or other mechanisms.

The research assistant for the economic evaluation phase collected data for an economic evaluation of care given in postholding and non-postholding sites. In addition, a member of the research team interviewed the DoN/DoM in each participating site, using a semi-structured interview schedule (Appendix 7c and 7d).

7.4.2. Observation of postholders or clinicians

Observational data allows one to identify what is happening in a given context, who is involved, and

when and where things are occurring (Jorgensen 1989). Hammersley and Atkinson (1995) suggest that there is no single theoretical typology of participation; rather the role of the researcher in field research varies between complete observer (non-participation) and complete participant. In reality, the extent of participation in any study is dictated by the nature of the setting and the research question (Mays and Pope 1995). In the current study, non-participant observation of specialist nurses and midwives and advanced nurse practitioners working in the healthcare setting was undertaken. Observation of the comparable clinician working in the matched service was also undertaken. Matching was based on service user characteristics and perceived clinical outcomes.

The practitioner was shadowed for at least two, two hour sessions over one week, as they delivered care and interacted with service users and other staff. During this week, the practice observed was evaluated against the generic minimum data sets (for advanced and specialist practice) and relevant SPO criteria, specific to the role, as identified from Delphi Phase 1 (Round 2). A short 'key behaviours' record sheet was used to record the presence or absence of certain key tasks and behaviours while care giving, such as communication skills and safe practice behaviours (Appendix 6b). In addition, 'pen pictures' (fieldnotes) were recorded by the research assistants, describing the context in which care was delivered. This included identification of relevant structures available to support the postholder, the care pathways followed by the service user, and any relevant local policies (Appendix 6a). These observation fieldnotes recorded by the trained research assistants can be regarded as factual and, with the perceptual data collected from interviews, present a fuller picture of the topic under study.

Additional documentary data sources relevant to the service – such as individual practitioner's schedules/diaries, job descriptions, guidelines relating to the area, evidence of research and audit activities were also used as available. These data are 'hard evidence', in that they were factual documents and records recorded prior to the study taking place, and were available in archives and registers in the various services. The information was gathered systematically by four research assistants who collected an immense amount of data in both postholding and non-postholding sites. The evidence was constantly referred back to during the analysis and write up phases to seek corroboration of salient points brought out in interviews or observation.

7.4.3. Interviews with service users

Interviews were held with service users from five areas: midwifery (n=6), children's (n=4), general (n=18), community (n=4), and mental health nursing (n=9). All interviews were conducted in a quiet location and were digitally recorded. The interview schedule contained open questions focused on five areas of care: communication, relationships, continuity of care and access to care, satisfaction with care, and any difference in care given by postholders (Appendix 7e). Questions were phrased to elicit both positive and negative experiences (e.g. What was good about your care and what was not so good about your care?) Service users were given the opportunity to add further information at the conclusion of the interview. Questions were phrased in simple words for children, to facilitate understanding. The interview durations ranged from 10 to 25 minutes.

7.4.4. Interviews with clinicians working with APs/CSs or in the non-postholding teams

Interviews were held with clinicians from six areas: midwifery (n=4), children's (n=3), general (n=18), community (n=4), mental health (n=8) and intellectual disability nursing (n=4). All interviews were conducted in a quiet location and were digitally recorded. The interview schedule used with health professionals (n=41) contained open questions structured on five areas of care: co-workers' understanding of CS/AP role, care pathways, teamwork and communication, best practice in service delivery, and research

awareness (Appendix 7a and 7b). In relation to care pathways, questions were asked about the appropriateness of aspects of care that included: assessment and diagnosis, interventions, referral/liaison, and initiating/ending healthcare episodes. Questions were phrased to elicit both positive and negative experiences. Clinicians were given the opportunity to add further information at the conclusion of the interview. The interview durations ranged from 10 to 45 minutes.

7.4.5. Interviews with Directors of Nursing and Directors of Midwifery

Twenty eight interviews were held with 23 Directors of Nursing or Midwifery, eight in postholding sites, 10 in non-postholding, and the remaining five in sites that had both postholding and non-postholding services (i.e. two interviews conducted at the same time with the DoN/DoM, one from each stance). Interviewees came from six areas: midwifery (n=3), children's (n=2), general (n=7), community (n=2), intellectual disability (n=3) and mental health nursing (n=6). All interviews were conducted in a quiet location and were digitally recorded. The interview schedule contained open questions structured on five areas of care: CS/AP role, teamwork and communication, best practice in service delivery, research awareness, staff education and support (Appendix 7c and 7d). Participants were given the opportunity to add further information at the conclusion of the interview. The interview durations ranged from 27 to 45 minutes.

7.4.6. Service user surveys

A sample of service users were invited to participate in the quantitative survey. The survey instrument consisted of a range of questions broadly covering six sections (A to F), relating to clinical practice identified through Round 2 of the Delphi study as important. Topics covered included: communication with the clinician, waiting times, service user confidence in the clinician and the process, service user level of satisfaction, service user demographic profile and finally an overall question on the service users' impression of the care they received from their clinician.

The survey instrument (Appendix 8) was administered to patients/clients attending a range of services. The survey tool was adapted for use by clients attending intellectual disability services but the content remained the same. Additional questions were added to the survey instrument for those attending endoscopy and colposcopy services.

Service users from 41 study areas participated, in line with the study protocol procedures and the relevant ethical approval within each setting. A total of 279 surveys – 154 in postholding and 125 in non-postholding areas were completed by service users in their own time and either returned to the study office by post or, in a sealed envelope, to the researcher on site. Upon receipt at Trinity College, the survey forms were checked and entered into an SPSS database (version 16). The data were checked for accuracy and completeness prior to any analysis.

The study areas that did not generate completed surveys from service users were: one of the general-nursing areas (due to late ethical approval, near the end of study completion, allowing no time for survey completion), one of the children's nursing areas (due to late ethical approval, near the end of study completion), and three of the intellectual disability areas (due to the client base having severe and profound intellectual disabilities, or the clinician involved having no clinical remit).

7.4.7. Discipline specific challenges in sampling and data collection

7.4.7.1. Introduction

Some challenges in recruitment, sampling and data collection were experienced during the case study. As these challenges differed depending on the area involved, they are presented under the heading of their respective discipline or profession. No difficulties were experienced in the area of children's nursing.

7.4.7.2. Mental health

Each case was to involve the immersion of a research assistant (RA) within two mental health sites with two or three postholders, and in matched sites without postholders, but with comparable services, for up to two weeks. Initially it was proposed to collect data from two postholding mental health sites; however, in order to include an ANP in mental health, three mental health services with postholders were involved. Consequently, three matched sites without postholders were also recruited.

In selecting the postholders within mental health, it was agreed with the Project Steering Committee at the outset not to include community mental health CNSs, as finding a matched site without a postholder would be impossible. Within mental health, one ANP and nine CNSs were contacted about the study, as well as a number of other clinicians to whom the RA was directed but who did not fulfil the criteria. In total, one ANP (child and adolescent) and four CNSs (family therapy, cognitive-behaviour therapy, psychotic disorders, and addictions) were successfully recruited.

In order to conduct non-participant observation of care provided by the clinician for their particular client groups, the clinicians first obtained verbal consent from clients, stressing that it was the clinician who was being observed and not the client. There were a number of occasions when the RA was not allowed to observe and the wishes of clients were respected in this regard. This had the effect of a more prolonged period in the research site being needed in order to complete the observation time required.

Nine service users were interviewed: two were children accompanied by their mothers, both from the child and adolescent services. In total, eight co-clinicians were interviewed in the mental health strand: consultant psychiatrists (2), psychiatric registrars (2), social worker (1), ADoN (1) and CNMs (2). Surveys were distributed to a convenience sample of service users attending the services. Because of the lengthy consultations with individual clients, it was only possible for the RA to distribute a small number of surveys personally. Hence, a number of surveys were left, in packs and with verbal instructions to the clinicians, for later distribution. In addition, a member of the research team interviewed six Directors or Acting Directors of Nursing, one in each of the six clinical sites.

7.4.7.3. Midwifery

The majority of 'matches' between midwifery sites appeared to be reasonably similar. However, when contrasting the postholding and matched services for diabetes in pregnancy, cognisance needs to be taken of the differing location of services. The CMS in diabetes in pregnancy worked in a free standing maternity unit and the consultant endocrinologist visited the site on a weekly basis. It was apparent, from interviewing the consultant endocrinologist with whom the CMS worked, that the consultant relied considerably on the CMS, increasing the autonomous nature of her practice. She was trusted to make a lot of decisions and the consultant, who was not an obstetrician, relied on her midwifery experience for all pregnancy related matters.

In contrast, in the matched site the midwife worked in a maternity unit integrated within an acute general hospital. This meant that both obstetric and endocrinology teams were located on site. The site also has a centre for diabetes care, and the midwife was based in the centre with the nursing team that provides care in the general hospital. Given this significant contextual difference, it is difficult to contrast this

service and that provided by the CMS as women in the matched site attend the centre for diabetes care from pre-pregnancy up to and beyond the birth.

7.4.7.4. General nursing

Selecting matched study sites in general nursing was problematic. Using the National Council database at the start of study, there was a total of 1,171 CNSs in general nursing, including 180 different types. Because general nursing is the largest nursing discipline, the majority of hospitals/services had CNSs, so the problem was to find study sites that did not have a CNS. Therefore, CNSs in important areas such as wound management, infection control, palliative care etc were not included because there were no comparable study sites without a CNS in that specialty.

Similarly, the numbers and range of ANPs is increasing rapidly in general nursing, and so it was difficult to find matched sites for ANPs in popular areas such as emergency care. For this reason, some matched sites were chosen, as already explained, that had been included as postholder sites for other CSs/APs, but did not have a CS/AP in the relevant matched area.

7.4.7.5. Intellectual disability nursing

At the time of sampling, there were no advanced nurse practitioners working in intellectual disability nursing, so only clinical nurse specialists could be recruited. The three specialist areas of challenging behaviour, early intervention and community care were chosen based on the numbers of CNSs working in each specialty as per the statistics provided by the National Council. These three specialties represented the three most populous clinical nurse specialties in intellectual disability nursing. Two intellectual disability services were sampled from all services listed on the Inclusion Ireland register, with a bias for geographical spread of the overall study sample. The principal inclusion criterion for the postholding service was that it had approved CNSs working in approved posts in each of the three specialties. The principal inclusion criterion of the non-postholding site was that it had each of the three specialties, but no CNSs working in them. It was, unfortunately, not possible to obtain a non-postholding site with all three specialties, so two sites had to be chosen, one with challenging behaviour and community services and the other with early intervention services.

Following recruitment of the CNSs in the postholding site, it soon became clear that one of the specialists (CNS Community Care) was no longer in post, but was instead working with parents in the community. This was significantly different to the post that she had been in and had been matched for, but it was agreed that she would be interviewed as no other sites were available around the country. The CNS in challenging behaviour was in post but, as the recipients of the service had significant intellectual disabilities and behavioural problems, this CNS did not consider it appropriate for the survey questionnaires to be distributed to them. Nor was it considered that these questionnaires could be distributed among the immediate carers as they were not relatives but colleagues of the CNS and would be potentially biased in their responses.

Further difficulties arose in relation to the non-postholding sites in all areas except challenging behaviour. The absence of a CNS in community care in the postholding site negated the inclusion of community care in the matched site. A particular problem arose with early intervention as the individual who was working in this specialist area in the non-postholding site had no clinical remit, but was, rather, an administrator for the service. Furthermore, it was apparent that the two early intervention sites were very different and, therefore, not comparable. The absence of a clinical remit resulted in no client questionnaires being administered here either.

These problems offer an important insight into the difficulties of the clinical nurse specialist concept in intellectual disability services. Unlike in acute care services, where care is largely similar in each acute care hospital, this is not the case in ID services. It was noted during the recruitment and data collection stages

of this study that there are significant differences in specialist services and also in the scope and role of CNSs working in such specialist areas. Allied to this is the ongoing movement of service away from a medical model towards one rooted in a more social approach. The concept of specialisms and specialists may become increasingly alien as that model takes root.

7.5	Data analysis

7.5.1. Introduction

The case study aspect of this study involved focusing on the complex situations that occur in practice, while taking the context of the situation into account. A case study approach (Stake 2000) was used in order that the organisation or institution where nurses and midwives work could be explored. This strategy permitted the team to capture the essence of how postholders were operating in the clinical area in a real-life situation, and to contrast this with usual practice for specific service user groups in matched non-postholding sites. Given the range of data sources and large volume of data obtained, a model with the relevant structure, process and outcome criteria specific to the role of advanced and specialist practice was developed, based on the Round 2 instrument from the Delphi study.

7.5.2. Qualitative data analysis

A framework developed by Bryant-Lukosius et al (2009) to evaluate the role of APs, known as the Logic Model, informed the development of the framework of analysis of the qualitative data generated within the case study. The model is a tree-like structure that begins with identifying the main goal of the post, and this is elaborated upon through the specific job description developed in order to achieve that goal. The postholder's practice is evaluated under four main core categories: clinical practice, clinical leadership, professional leadership, and research. In this study, the team then derived sub-categories that represented the activities undertaken by the postholder in each of the core categories based on the Round 2 instrument from the Delphi study.

For example, in the category of clinical practice, examples of autonomous practice were sought and described; in the category of research, examples of leading nursing and midwifery research were recorded, and so forth. However, as the activities are examples of the outputs of postholders and it is likely that this will vary across the health service, the team also followed the logic model and took account of the situation in which the postholder was working and the input (resources) required if he/she was to carry out his/her role to maximum effect. An example in terms of clinical practice would be that, if the activity of the postholder related to the development of a therapeutic relationship, a private space/office might be required for that particular encounter; if the activity related to research and implementation of evidence-based practice, then access to guidelines, databases and the internet must be available.

To ensure the validity, robustness and comprehensiveness of the framework, and of the coding levels within it, four external experts were requested to pilot it. They each took a sample of data and analysed it, using the framework to verify if the coding matrix was appropriate and to evaluate if the attributes in the matrix were identified in the data. This was found to be the case. In addition, the experts added to the attributes within the four first level codes, based on their sample analysis. Minor additions to the activities were made after this process, confirming the suitability of the framework for the analysis.

All narrative data (interview transcripts, fieldnotes and synopsis of documentary evidence) from the case

study were managed and analysed using the computer assisted, qualitative data analysis software NVivo Version 8 (QSR International 2009). Once all data were coded within the framework, queries were run within NVivo to contrast the findings for each of the four first level codes between postholding and non-postholding sites, in order to explore the impact of postholders on practice and service delivery. All data were analysed taking cognisance of the context in which care was delivered, and the factors that facilitate or impede practitioners in the field.

The number and source of all documentary evidence collected from the sites was collated and synopsised. This is presented in Chapter 8, in table form. Although data are presented there numerically in terms of quantity, the narrative exemplars were analysed, and presented, in the qualitative findings.

7.5.3. Quantitative data analysis

Prior to the analysis of the data, an audit of the quality of data entry was undertaken. An initial preliminary review of the database revealed a systematic error in the coding among the questions on waiting times, B1.1 to B5.2. As a result all data from these questions were checked against the original survey forms and corrected in the database, and the formal audit was then undertaken. This audit used the statistical package SPSS to randomly select approximately 10% of all cases. This provided a random sample of 29 client surveys. All variables excluding the B variables above were then checked for data entry accuracy against the original client survey forms. A total of 29 clients by 57 variables or 1,653 data points were checked. Four errors were found within these 1,653 data points, giving a very low data entry error rate of 4/1653=0.00242, or two errors per 1,000 data points entered. This low data entry error rate found in the audit allows us to present with confidence the results described in the tables contained in this report.

Descriptive and exploratory statistics were prepared to analyse data from the service users' survey. Most of the data were categorical and Chi squared tests were used to test for independence between the categorical outcome variable and the nature of the service user site (CNS/CMS/ANP combined postholding site vs. non-postholding matched site). Fisher's exact test was used as appropriate when two or more expected values in the cross-tabulation tables were estimated to be five or less. All results are presented in the tables. Independent t-tests or one-way analysis of variance were used to compare mean waiting times. Details of all results are provided in Chapter 8, in conjunction with the qualitative findings. Responses from five service users attending endoscopy or colposcopy services were too small in number for separate analysis. The data from the quantitative 'tick box' (key behaviours) (Appendix 6b) were analysed using descriptive statistics. Results are presented in Chapter 8.

| 7.6 | Economic evaluation |

7.6.1. Introduction

There is some limited international evidence on the financial implications of employing specialist nurses and midwives, some of which has been summarised by the OECD (Buchan and Calman 2005). That review reported mixed results; nurse-led services can vary between cost-neutral, lower cost, or higher cost depending on the context. Currently, little is known about the cost-effectiveness of CSs/APs in the Irish context. To address this, an economic analysis was conducted to ascertain some of the financial implications of employing CSs/APs in the Irish setting.

There are three possible outcomes of this analysis. Evidence may be found that employing CSs/APs

increases or decreases activity-adjusted staffing costs, or may lead to no change in costs. The services using CSs/APs will be cost-effective if clinical benefits are demonstrated and costs are lower or no higher than for services that do not use such specialists. Even if costs are higher for services with CSs/APs, there are circumstances in which this may be cost-effective if the clinical benefits are very large and can justify the higher costs.

CSs/APs are paid more than staff nurses and midwives; hence an increase in activity-adjusted costs is a plausible outcome. On the other hand, CSs/APs may work in a more efficient manner than staff nurses and midwives due to their additional training. A greater workload could be accomplished by CSs/APs in either of two ways. First, where each nurse or midwife conducts the same variety of tasks with similar patients, but these are performed at a faster, more efficient rate by the CS/AP. Second, CSs/APs may take on advanced roles beyond the remit of staff nurses or midwives, thus freeing up the time of medical personnel to deal with more complicated tasks and achieving a more cost-effective allocation of tasks.

This analysis compares staffing costs, the key driver of variable costs, in postholding and matched non-postholding sites (services with and without CSs/APs respectively). Staffing costs are linked with workload to gauge the activity-adjusted staffing costs, and statistical analysis is used to assess the overall impact of CSs/APs on staffing costs.

7.6.2. Data required

The data requirements for this aspect of the study were: (i) staff costs (see Table 10.1) and (ii) activity levels for the matched service pairs. Unfortunately, ethical approval to collect financial data from one midwifery site was not forthcoming. As this site had both postholders and non-postholding services, it was required for contrasting purposes with the other two sites, so none of the midwifery specialists could be included in the economic analysis.

Initially attempts were made to collect data from the finance units of individual hospitals and services. However, comparable financial data were lacking, and nationally available standardised data on patient throughput was unavailable for outpatients. As a result, this method of data collection was not feasible for this study. As an alternative, a diary was sent to each individual service to capture data on staffing inputs and workload. Points of contact in each site were requested to complete the diaries for the period of one week to represent the typical workload, including time contributed by each staff member. Where possible, costs and activity data were gathered for the entire team of which the CS/AP was a member. However, certain CNSs in mental health nursing (cognitive behaviour therapy, family therapy) receive referrals from a number of multidisciplinary teams and general practitioners rather than being part of a single definable multidisciplinary team. For this reason it was not feasible to gauge the knock on impact of the CNS on a multidisciplinary team, and the analysis was instead conducted by comparing the CNS with matched non-specialist nurses (see Table 10.1).

Workload was represented by the number of consultations for each of the outpatient services (Table 10.1) and in terms of bed days used for the community geriatric services. For intellectual disability services, workload was represented by the number of clients residing in the service for challenging behaviour, and by the number of clients enrolled with the service for early intervention[12]. A case-mix classification system is not in operation in Ireland for outpatient or intellectual disability services, which comprise eight out of the 10 services included in this analysis; hence patient/client throughput could not be adjusted for case-mix for these services. Similarly, the community geriatric services included in this study do not report to the national case-mix system, thus throughput could not be adjusted for case-mix. The analysis was conducted on the assumption that case-mix was sufficiently alike in the postholding and non-postholding

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[12]Clients are visited in family homes or pre-schools. The services are not clinic or appointment based and therefore this method was appropriate for this service.

sites to enable a valid comparison.

Staffing costs were calculated by combining the number of hours worked by each grade of staff with the relevant salary scale (HSE 2010c, INMO 2010). Additional costs that fall on the health service (Pay Related Social Insurance) were taken into consideration, as well as weekly working hours and annual leave entitlements.

7.6.3. Difficulties encountered

A number of matched services were deemed to be insufficiently comparable for a valid economic analysis to be conducted. These are listed in Table 7.4 below, alongside the reasons that valid comparisons were not possible for the economic analysis. Complete data of a satisfactory standard were obtained for 10 of the remaining 15 services. Five services were unable to provide a satisfactory level of data in either the postholding or non-postholding sites: emergency department (paediatric), stroke care, pain management, endoscopy and family therapy.

Table 7.4: Services that were not a valid comparison for economic analysis	
Service	Reason not a valid comparison
Heart failure	Insufficient patient/client throughput in matched site, leading to unreliability of data
Paediatric ear, nose and throat	Insufficient patient/client throughput in matched site, leading to unreliability of data
Respiratory care	Matched hospital: respiratory nurse service is in the process of being established and most registrars are generic general medicine, therefore insufficient respiratory patients to provide reliable data
Intellectual disability community care	Intervention service: mostly home visits to families Matched service, mostly community housing with nursing support
Child and adolescent mental health	CNS matched with ANP
Psychosis CNS	Matched with a rehabilitation service

7.6.4. Economic analysis

The most common statistical test of the difference between two matched samples is the paired Student's t-test. However, this relies on the assumption that samples are drawn from normally distributed populations, or that the sample size is sufficiently large to allow appeal to the Central Limit Theorem (Hinkle et al 2003). A non-parametric alternative that does not impose any distribution on the data and is appropriate for smaller sample sizes is the Wilcoxon signed-rank test (or the Wilcoxon matched-pairs test). It is a common test in designs that use matched pairs (Hinkle et al 2003).

The Wilcoxon signed-rank test is based on the principle that, if the intervention (in this case introducing CSs/APs) does not have an effect, then not only should any differences between pairs be equally distributed either side of zero, but also the distances from zero should be the same on either side. The test was conducted twice, with the difference in costs between postholding and matched non-postholding pairs specified in terms of both a relative and an absolute difference.

The Wilcoxon signed-rank test assumes the following (BMJ 2010):

- the paired differences are independent

- the differences come from a symmetrical distribution

The null hypothesis is one of no difference in activity-adjusted costs between the postholding and non-postholding services matched pairs:

$$H_0: \ X_i = Y_i$$

where X_i represents the non-postholding arm and Y_i the postholding arm.

The test is then implemented by, first, arranging the available data in a table (see Chapter 10). The test statistic, W_+, is given by the sum of all of the positive values in the Signed Rank column. The test statistic, W_-, is given by the sum of all of the negative values in the Signed Rank column. The statistical significance of the lowest test statistic is then compared to the corresponding critical value from the Wilcoxon Table to determine whether the null hypothesis should be accepted or rejected (see results, Chapter 10).

7.7	Conclusion

Following ethical approval, this complex, mixed-method case study commenced in December 2008 and was completed within a two-year period. Data were gathered from observation of 23 CSs/APs and 23 clinicians in matched services, 41 clinical team members, 41 service users/family members/carers and 23 Directors of Nursing or Midwifery in 28 interviews. In addition, 279 service users were surveyed. Economic analysis was conducted in 10 matched sites.

CHAPTER 8
Phase 2: Case study findings (1)

8.1	Introduction

8.1.1. Themes identified

The four core concepts identified as forming part of the role of Advanced Nurse and Midwife Practitioners by the National Council (NCNM 2008b, d) are: autonomy in clinical practice, expert practice, professional and clinical leadership, and research. Similar concepts explain the role of the Clinical Nurse or Midwife Specialist at a different level: clinical focus (involving direct and indirect care), patient/client advocate, education and training, audit and research, and consultant (i.e. conducting inter- and intra-disciplinary consultations) (NCNM 2008c).

The analysis of qualitative data in this study revealed four themes: clinical practice, clinical leadership, professional leadership, and research. These themes equate well with those identified by the National Council; clinical practice includes the concepts delineated above of autonomy in clinical practice, expert practice, clinical focus, patient/client advocate, and consultant. Education and training was visible in the theme of clinical leadership. In this study, the greatest amount of data, not surprisingly, concerned the clinical practice component of the CS and AP roles. Interviews with service users, in particular, focused strongly on the clinical role of the specialist providing their care, ignoring many other known functions of these personnel. The results of the service user questionnaire also are concerned, in the main, with clinical care giving. The whole of this chapter is thus devoted to presenting the qualitative and quantitative findings relating to clinical practice. Chapter nine covers the remaining three themes. In keeping with the approach of mixed-method research, the qualitative findings and quantitative results are integrated; the qualitative findings are presented first for each section, followed by the quantitative results.

The findings and results presented in these chapters answer objectives 2-5 of the SCAPE study (section 3.2):

- To develop and validate a tool to determine outcomes for clinical services of specialists and advanced practitioners

- To use the validated instrument to compare clinical outcomes in care environments with and without the clinical input of specialists and advanced practitioners as part of the care team

- To examine the impact of the specialists' and advanced practitioners' clinical interventions/care on service users' (i.e. patients/clients) experience of care

- To explore service users' well-being and satisfaction with care received from approved clinical specialist and accredited advanced practitioner postholders.

8.1.2. Introduction to qualitative findings

A total of 105 participants were involved in interviews across 25 sites – 52 in postholding and 53 in non-postholding sites. Included in these numbers were 41 clinicians, 23 Directors of Nursing or Directors of Midwifery, and 41 service users. In addition, fieldnotes and documentary evidence recorded by the research assistants during the observation sessions in all 46 areas were included in analysis, and narrative exemplars from these data are presented with the qualitative findings. The number and source of all documentary evidence collected from the sites was collated and synopsised. This is presented in Table 9.1 in Chapter Nine, as the majority of documents related to the leadership and research roles of CSs/APs. However, data relating to their clinical practice role is included in section 8.2.2.4. It can be seen from Table 9.1 that the amount of evidence differs considerably between postholding and non-postholding sites.

In addition to recording narrative records of evidence observed in the sites, researchers completed a scoresheet of key behaviours such as good communication skills, safety aspects, use of research evidence, and education of patients/clients, in both postholding and non-postholding sites. At the end of both two hour observation sessions, an overall assessment of the frequency of each behaviour was noted. Differences were seen between the sites (Table 8.1) and these are presented in the relevant sections.

In presenting the findings, all exemplars from the interview transcripts are anonymised as necessary. All references to the gender of the CS/AP were changed to 'she' and 'her', to preserve the anonymity of the fewer male participants. Each exemplar is annotated at the foot by an explanatory phrase in brackets that denotes the person speaking (non-medical clinician, doctor, DoN, DoM, service user, relative), whether the site was postholding or non-postholding, and whether the practitioner in situ was a CS/AP or a clinician matched with a CS/AP. Fieldnotes are presented in standard type, exemplars from interview transcripts in italics, and documentary evidence in bullet points.

8.1.3. Introduction to quantitative results

A total of 279 service users responded to the survey. These service users were recruited across 41 study areas, 55.2% (n=154) from postholding and 44.8% (n=125) from matched non-postholding sites. Service users were equally distributed over both genders (females 57% in postholding and 53% in non-postholding sites) and the majority (30% in postholding and 25% in non-postholding sites) were in the 28 to 37 age group (Appendix 10, Table 1). There was no difference in the distribution of respondent age groups between the postholding and non-postholding sites. The nationality of 85% of those in postholding sites and 91% in non-postholding sites was Irish (Appendix 10, Table 2). Full details of the service users' detailed responses and how they differed between postholding and non-postholding sites are provided in Tables 8.1 to 8.16.

8.2	Theme 1 – Clinical practice

Clinical practice was explicated through description of two main activities: case management and service provision.

8.2.1. Case management

Data analysed showed many examples of case management by CSs and APs. The areas where postholders appeared to differ from non-postholders were in assessment and diagnosis, and referral. These two categories also included the related areas of managing the care pathway, multidisciplinary teamwork, record keeping and administration. The findings are presented, first, under the two main headings, with the other, smaller, categories subsumed within them, followed by a section outlining the main outcomes seen as a result of the postholders' case management skills.

8.2.1.1. Assessment and diagnosis

The assessment and diagnosis of clients' needs was a key part of the postholders' role. Assessment was seen as thorough because of in-depth knowledge of, and good relationship with, the patients/clients and the use of available resources.

> *Oh yes, because the nurse would know the patient quite well. On a more person-to-person level. They would have an idea regarding the patient, sometimes some patients could be*

> *worrying for nothing and if you know them for a while on a personal basis, it helps a lot. It doesn't mean that they would be ignored but at least in terms of prioritising should they be seen quickly in the clinic or not. (Doctor, postholder site, CNS)*

Thorough assessments enabled successful treatment or appropriate referral, and a reduction in hospitalisation and unnecessary tests for clients.

> *[Name] would have a role in identifying people who are experiencing anxiety and depression following their [health problem] and their carers experiencing depression. Even by early identification and treatment of depression following [health problem], that impacts hugely on people's ability to return home. (Doctor, postholder site, CNS)*

> *There's another area where the ANP service is of benefit…that's the criterion base indication for x-rays…particularly of ankle and knee injuries, are much more closely adhered to by the ANP than by our junior doctors…the ANPs actually do the training for those type of injury assessments with the junior doctors in order to inform them of how to reduce unnecessary x-rays in those areas and how to actually care for the individual injury as well. (Doctor, postholder site, ANP)*

When clients required referral, APs were noted for their skill in ensuring quick action by communicating with relevant professionals and/or by ordering relevant tests and investigations.

> *So, for instance, we had a case two weeks ago of a chap in his seventies who was referred for investigation of anaemia. At diagnosis at [test] he had a tumour. So, [ANP] immediately got the surgeon who happened to be on the floor to come have a look at it and then contacted the…nurse specialist to arrange all the outpatient CT scans…exactly what you would expect someone to do in a responsible position automatically it was all done…she would liaise across all the specialties at different levels, nursing and medical. Certainly within the department…would be seen as a very senior person. (Doctor, postholder site, ANP)*

The coordination and liaising between professionals within the service was seen as making a strong contribution to patient/client care and well-being.

> *A lot of the respites would be support for carers, but an awful lot of our respites are clinically, there's a clinical base to it as well and she [ANP] coordinates all that. She does all the pre-admission, assistance for respite and continuing care, all of the continuing care needs with the placement system and the fair deal system now…then into respite, she would liaise with the staff and, you know, say she needs this, she needs that, she needs the other. (DoN, postholder site, ANP)*

The postholders' assessment of clients' needs and associated educational needs was noted frequently in the observations of their clinical practice. For example:

> A 14-year-old child attended the ED following sustaining a scalp laceration and head injury. He was assessed by the ANP and referred for an x-ray to rule out the presence of a foreign body. Following analysis of the x-ray, which confirmed no foreign body was present, the ANP glued the wound, informing the child and mother of her actions at each stage in the treatment. The ANP undertook head injury assessments and observations. The ANP gave information verbally and in writing to the child and mother about wound care and observations post head injury. (Fieldnote observation, postholder site, ANP)

The summaries of observations below illustrate the range of care provided by APs for clinical practice, and demonstrate holistic assessment. Where the AP was a Registered Nurse Prescriber, observations and documentary evidence included prescribing relevant medication.

ANP used several assessment tools – Wong Baker face scale, pain ladder, FLACC Scale (pain), Glasgow Coma Scale, Lund and Browder Chart, Modified Parkland Formula. Scope of practice guidelines re ANP minor injuries (paediatrics) developed by her in conjunction with consultants and benchmarked against international and national guidelines. Saw 5 clients per each 2 hour observation seen. Each client's pain levels checked at beginning of consultation and analgesia given promptly as required. (Fieldnote observation, postholder site, ANP)

Clients who have [health problem] are reviewed by the ANP as per good practice guidelines… Initially, the ANP discussed at length the client's current self-assessment of their status, any changes in lifestyle, exacerbating and relieving factors, symptom management and their medication management. The client's holistic assessment included [tests] and review of [medication] technique. The current [environmental] factor…was problematic for the client; the ANP detailed possible strategies for self-management, referring to current evidence to support her recommendations. (Fieldnote observation, postholder site, ANP)

In the non-postholder sites, it was evident that assessment was also taking place; however, there was less emphasis on knowing the service user as a person, and more healthcare professionals appeared to be involved in the assessment process. In some instances, this appeared to result in delays in treatment commencement:

Well, as regards their mobility, depending on the kind of a [health problem] they had…it might be just the speech that's affected. If they were a [health problem] you would have to wait until the physio assesses to see if they could actually be able to weight bear… As regards swallow assessment, depending again how good the patient is. Usually you'd have to wait for speech and language to decide whether they could have anything to eat or drink or whatever. What else have we? Sometimes on arrival to the ward they might have a catheter in situ. Again, we see what they were like beforehand and very fast we try to get that catheter out again. It's amazing with…a bit of training how we can get them back to be continent again with toileting and that. (CNM3, non-postholder site, matched CNS)

We don't have a CNS in [health problem]. In that case it would be dealt with by the most appropriate member of the team. Most likely...the consultant and the community [specialty] nurse. If the person required hospitalisation it would be dealt with by…the medical team with nurses on the ward and they would be treated and discharged to respective community services as soon as possible. We do have…an area where people have additional [type of therapy]…relaxation treatment or whatever…They have education sessions on their illness, on the recognition of symptoms, recognising relapse, on the importance of medication. (DoN, non-postholder site, matched CNS)

The caseload of non-postholders in matched sites was also different, with variance in both types of activities performed and numbers of clients seen.

Nurses' roles in ED vary.

Triage Nurses – there are 3 nurses in Triage whose role involves the review of patients, assessing them and categorising their complaint according to severity 1–4 (5) – Using the AustralAsian system. There are 3 of them…who refer to each other – it is a 24 hour system.

Emergency Department nurses…Register patients on boards, take observations, conduct nursing care – washing, toileting etc., carry out orders by medical team – give prescribed medication – oral, intramuscular, IVs, vaccinations, do dressings and Plaster of Paris and bandaging, organise ordered tests – x-ray, bloods, or organise referrals – physiotherapists, other medical teams, give advice – care of dressing, plaster of paris, facilitate transfer to wards, other hospitals. (Field note observation, non-postholder site)

8.2.1.2. Referral

Linked to assessment was the role postholders had in relation to referral, similar to the 'consultant' concept mentioned by the National Council in relation to the CS role (NCNM 2008c). Referral activities were mentioned frequently – both taking referrals directly and referral to other professionals such as the consultant, other members in the multidisciplinary team, community services, other hospitals, and general practitioners.

> They [CNS] will liaise with other members of the team. If they feel that a client needs to be looked at from another area, they would propose that… They work very closely with the psychiatrist, myself as well, but they would have all the assessments done, all the interventions done. (CNM3, postholder site, CNS)

In addition, considerable observation fieldnote evidence demonstrated frequent referrals:

> The ANP liaised with referral to physiotherapy, orthopaedics, plastic surgeons. Doctor referred client to her for her opinion and during observation the ANP made referrals to GP, Orthopaedic Registrar, and Plastic Surgeons. (Fieldnote observation, postholder site, ANP)

> The ANP has the autonomy to refer clients to other healthcare professionals. During the observation periods the ANP referred one client to the counsellor, one to the health advisor, one client to the consultant in Infectious Diseases. She also liaised with the laboratory personnel requesting various tests on samples she had taken. (Fieldnote observation, postholder site, ANP)

> The CNS…refers to PHN and community GPs. She also refers to the medical team, audiologists and physiotherapists. (Fieldnote observation, postholder site, CNS)

> The CMS onward referral/discharge process: refers for glucose challenge test (GCT)/glucose tolerance test (GTT), dietician, discharges clients, other members of multidisciplinary team – psychosexual counsellor, psychiatric services, clinical specialist counsellor, bereavement counsellor etc. (Fieldnote observation, postholder site, CMS)

> The CNS refers clients…to speech and language therapists, occupational therapists, dieticians and other CNSs if she feels this is required. (Fieldnote observation, postholder site, CNS)

Taking referrals directly appeared to be a key aspect of the AP role rather than the CS's role and it was one that had to be negotiated and approved with other members of the multidisciplinary team and referral agencies.

> The ANP can refer to any nurse specialist in secondary care as she requires. She has the autonomy to refer to all health professionals within primary care which include occupational therapists, dietician, podiatrist as per the guideline criteria as illustrated within Document 3: 11-19. She in turn receives referrals from many sources including self referral. (Fieldnote observation, postholder site, ANP)

Taking referrals directly was not always seen as an aspect of the CS's role.

> The CNS obviously would not be taking direct referrals…the ANP takes referrals, when they triage and do assessments, they actually make the decision and say, "This case requires a [health professional]. This case requires a CNS. This case requires childcare. This case requires a [specialty doctor]." So, they as a nurse are making that decision. They don't make it solely alone. Obviously for best practice they have to consult and it wouldn't be wise not to, but they do make the decisions and I don't know of any cases really where they were second guessed or told, "No, that's not right."…It's worked extremely well. (DoN, postholder site, ANP)

In non-postholding sites, it was evident that referral was also taking place.

The consultant demonstrates a full referral portfolio which includes a large range of health professionals including physiotherapists, pulmonary laboratory technicians, microbiologists, GPs, and dieticians. (Fieldnote observation, non-postholder site, ANP)

However, from comments made by participants, there appeared to be more referrals initiated by the consultants, and there was mention of some inappropriate referrals.

Well, when the patient is admitted again at our report we'll decide they need physio, they need OT…we will suggest these referrals should be done. We'll get the team and say 'this patient needs physio' or 'needs OT' or whatever. So we ensure those referrals are made to the appropriate team. (CNM3, non-postholder site, matched CNS)

There's no real waiting list in the service here, which is a good thing to have. The amount of referrals used to be, I suppose, quite a lot…the appropriateness of some of the referrals would be quite questionable. We'd get referrals for behavioural problems, which wouldn't necessarily have any mental health [issue]. (Doctor, non-postholder site, matched ANP)

8.2.2. Outcomes of case management

In the view of the majority of those interviewed (clinicians, Directors of Nursing or Midwifery, service users), and as shown by findings from the observation fieldnotes, postholders differed from non-postholders by having more impact on the following five outcomes: readmission rates, collaborative decision making, continuity of care, waiting lists/waiting times, and workload management. In addition, mention was made by some participants of other areas where outcomes could be improved, including accessibility, length of stay, complaints, safety of care, and teamwork. Data from the five major outcomes are reported here.

8.2.2.1. Readmission rates

Postholders were seen as reducing readmission rates by different actions – for example, linking with GPs in their area to advise on interventions in mental health, and identifying when clients needed admission before they deteriorated.

It [an audit] indicated where they [CNS] are involved in the management of a client, they might have an earlier admission before the symptoms deteriorate. Their stay is shorter and they would have less admissions. (Assistant DoN, postholder site, CNS)

These views were supported by documented fieldnotes from the observational data.

Speaking to one of the nurses in CCU, she stated that there was no such service prior to the CNS taking on the role. Prior to the CNS, [symptom] was a common reason for a person [with cardiac problem] being an emergency admission to CCU… These admissions have now dramatically reduced. (Fieldnote observation, postholder site, CNS)

Fieldnotes also confirmed the workload of many postholders within their specialty, and the number of service users processed was substantial.

50,000 per year in ED (in the summer about 40-45% and winter 30-35% Minor Injuries, which come within ANP Scope of Practice) – average 15-20 clients seen per day by ANP. Average 125 per day but increasing – if she sees 20 of these = 1/6th (cognisance re fact she works only 12 of these 24 hours) but data not correlated formally to date. '1st day' – 150 total clients seen in department, '2nd day' – 167 clients seen, '3rd day' – 138 clients seen. (Fieldnote observation, postholder site, ANP)

She can scope on average 10 clients per day (busy 12-17 per day). She sees her role as providing

a service. Can be conveyor belt-like, as busy and she does not like this but there is a large volume of clients who require scoping. Takes average 10 minutes for oesophagogastro-duodenoscopy (OGD) and 20-30mins for straightforward colonoscopy – time also for pre-procedure prep and after for re-setting up room. (Fieldnote observation, postholder, ANP)

Clients observed during 2 hours: all administered conscious sedation by ANP:

1 colonoscopy – 30 minutes – biopsies taken

1 OGD – 20 minutes – hiatus hernia diagnosed

1 colonoscopy – 20 minutes - nothing abnormal detected

1 banding oesophageal varices x1 under consultant supervision – 20 minutes

1 colonoscopy – 45 minutes – difficult procedure and various techniques initiated by ANP – polypectomy x1 retrieved for histology. (Fieldnote observation, postholder, ANP)

These statistics were, however, comparable in the matched non-postholding site, although, as noted previously, the scope of practice of the matched clinicians differed.

Most cases seen in ED as per nature of the service are unplanned but there are also a number of review cases [review of cases seen in ED but that require follow-up]. Approximately 61,500 patients are seen per year with up to 240 per day. (Fieldnote observation, non-postholder site, matched ANP)

In the non-postholder sites, there was no mention of any impact on readmission rates. One site mentioned the problems with having no dedicated CNS in a particular unit.

This was originally set up as care of the elderly…it was meant to be for assessing patients as well, that they could come in on a booked basis and be assessed here, but again with…the shortage of beds…we don't actually have any beds for patients who come in as booked admission for assessment. It now means the patients that are a bit iller come to ED and is then transferred. Whereas a lot of that could be avoided if the patient could come in and be seen while they're good really. (CNM3, non-postholder site, matched ANP)

8.2.2.2. Collaborative decision making

Although postholders had a lot of autonomy in referral and treatment, there was evidence of collaborative decision making among the multidisciplinary team, both from interviews and observation fieldnotes.

There was another patient who had a query tendon injury where the patient required exploration. Unusually, there was some resistance from the registrar who was on at the time, so she [ANP] sought my input on that. It was very, very appropriate because the mistake would have been to have failed to push the care forward for that patient. I haven't had any experiences where I felt that involvement with further consultation or the direction for the patient was inappropriate. (Doctor, postholder site, ANP)

Oh, she's [CNS] excellent. She provides a lot of nurse-led services and she's pretty much making decisions and advising on the care of our [specialty] patients. Knowing they always have full support from myself and that everything, any questions and she'd contact myself and I'd be available to help her with her decision making. (Doctor, postholder site, CNS)

A patient with co-morbidity including dementia attended the ANP for a percutaneous endoscopic gastrostomy (PEG) insertion. The ANP, following detailed review of the medical notes, sought discussion with the consultant and expressed her concerns re the appropriateness of the procedure on clinical grounds. The consultant who prescribed the procedure then

reviewed the case with the family and the procedure was cancelled on the basis of inappropriateness. (Fieldnote observation, postholder site, ANP)

In the 'key behaviours' scoresheet, 96% of postholders (n=22) always involved clients in decision making, compared with 67% (n=14) of observed clinicians in the non-postholding sites, while 96% (n=22) liaised with key stakeholders compared with 71% (n=15) of non-postholders (Table 8.1).

In the non-postholding sites, the level of collaborative decision making was certainly not as evident as in postholding sites. There was, however, evidence in fieldnotes and documents of communication and examples of good team working in all the disciplines.

> The CNM2 coordinates the MDT meeting which is held monthly. She arranges the meeting and communicates to the MDT members. She, in negotiation with consultants, decides which cases are to be reviewed for discussion. She provides the list of cases and provides a colour photocopy detailing each case with photographs. She liaises with the Consultant Pathologist prior to the meeting. During the meeting 4 cases were discussed, case presented by the Consultant and slides magnified onto a screen for examination. They demonstrated a cohesive MDT approach which addressed important issues of patient safety with regards the Quest procedures and reporting. A plan to address these concerns was to be actioned with the National Cancer Screening Service. (Fieldnote observation, non-postholder site, matched ANP)

> The consultant demonstrates the practice of shared decision making with other members of the multidisciplinary team. During the ward consultations he discussed the client's condition and management with the relevant nursing staff. He is involved in multi-site and multi-professional case conferencing with regard to complex client cases. During observation he spoke directly with the Consultant Microbiologist seeking his input into the medication management of a client in his care. (Fieldnote observation, non-postholder site, matched CNS)

The main distinction between the postholders and non-postholders is that the team working appeared to be consultant-led rather than nurse- or midwife-led.

> The SM [Staff Midwife with responsibility for caring for all women with diabetes in pregnancy] and the Consultant Endocrinologist were involved in the decision making processes with the clients. A client education session took place with a client who was a Type 1 diabetic for a number of years and this was her first pregnancy. She had been self managing her insulin and had not been recording her blood glucose levels. The doctor explained the relevance of good glycaemic control and importance of blood glucose monitoring and the frequency required. The SM explained the importance of site rotation and signs of hypoglycaemia in pregnancy. They jointly discussed dose adjustment and forward planning and lifestyle factors. Full underpinning rationale was given for advice and the client was involved in all decisions. (Fieldnote observation, non-postholder site, matched CMS)

In addition, in non-postholding sites, there appeared to be more references to following guidelines whereas in ANP sites there were more references to undertaking autonomous, client centred care.

> *For example, blood sugars…those are done in the first 48 hours and if they are within the normal range, they can be discontinued. The same then with neuro obs…for the first 48 hours they're carried out and if everything is okay they can be discontinued, but we have it all in the care pathway, so regardless of who is going to mind that patient it's all there to follow. (CNM3, non-postholder site, matched ANP)*

8.2.2.3. Continuity of care and carer

The key point denoting this category was that the postholder was there continuously while the junior

Table 8.1: Frequency of key communication, liaison, safety, application of research, and health promotion behaviours in postholding and non-postholding sites

Postholding (n=23)

Behaviours	Always		Frequently		Sometimes		Never		n/a	
	n	%	n	%	n	%	n	%	n	%
Listening skills	22	**96**	0	0	1	4	0	0	0	0
Feedback	22	**96**	1	4	0	0	0	0	0	0
Involves client in decision making	22	**96**	1	4	0	0	0	0	0	0
Information giving	21	**91**	2	9	0	0	0	0	0	0
Using open questions	22	**96**	1	4	0	0	0	0	0	0
Liaison with other key stakeholders	22	**96**	1	4	0	0	0	0	0	0
Hand washing	14	**61**	5	22	1	4	0	0	3	13
Using gloves	9	**39**	2	9	0	0	0	0	12	52
Correct use of equipment	12	**53**	1	4	1	4	0	0	9	39
Refers to research	6	26	16	**70**	1	4	0	0	0	0
Health promotion	15	**65**	5	22	2	9	0	0	1	4
Education provided	14	**61**	5	22	2	9	1	4	1	4

Non-postholding (n=21)

Behaviours	Always		Frequently		Sometimes		Never		n/a	
	n	%	n	%	n	%	n	%	n	%
Listening skills	14	**67**	6	28	1	5	0	0	0	0
Feedback	17	**81**	3	14	1	5	0	0	0	0
Involves client in decision making	14	**67**	3	14	4	19	0	0	0	0
Information giving	17	**81**	1	5	3	14	0	0	0	0
Using open questions	17	**81**	2	9.5	2	9.5	0	0	0	0
Liaison with other key stakeholders	15	**71**	4	19	2	10	0	0	0	0
Hand washing	8	38	9	**43**	4	19	0	0	0	0
Using gloves	5	24	6	**28**	0	0	0	0	10	48
Correct use of equipment	9	**43**	1	5	0	0	0	0	11	52
Refers to research	3	14	16	**76**	1	5	1	5	0	0
Health promotion	4	19	11	**52**	6	29	0	0	0	0
Education provided	5	24	11	**52**	4	19	1	5	0	0

n/a = not applicable

doctors and registrars who were fulfilling the same role were usually in an area for a specific length of time. Postholders were able to acquire knowledge of clients/patients over a long period and to provide continuity of care, which is essential and highly valued by clients.

There's continuity of care when one person in the unit has seen the follow-up patients in that time frame. If the registrars are there, sometimes they are only there six months, so they are seeing a patient one time, then it's a new registrar again as happens in other hospitals, so you really need to have an accredited person who is taking on a lead role in a nursing unit. (CNM2, postholder site, ANP)

I think that one of the reasons is that as a nurse practitioner, she [ANP] sees the patient and does the full screen. Then whatever problem they have she will do the health advice as well and the [prevention] whereas they see a doctor and he'll do the screen and have the next patient in, basically. They might refer them on to a health advisor or social worker. The ANP is all those people in one. The doctor is just a doctor. No disrespect. I think that's why the patients were happier with the ANP because they got all the information and all the advice and all the care and all the treatment, because she's also a prescriber. She was able to prescribe and give them medication. It was just a one-stop-shop. (Nurse, postholder site, ANP)

There were numerous comments from service users in postholder sites on how they appreciated the continuity of care provided by ANPs and CNSs, and how they valued the fact that their 'story' was known and did not have to be repeated constantly.

She was our main link up there really. You know, like anything regarding the [procedure]. [Name] was a specialised person at it and in fairness like, she done everything for us and she was, even the nurses in the ward, she was the main contact for them as well. (Service user, postholder site, ANP)

It's very helpful because…you know her and she knows your history and all that. Yes, we have a very good relationship. (Service user, postholder site, ANP)

…when they're doing a procedure say, or a test, that they might know something that happened two years earlier. (Service user, postholder site, CNS)

It would be very good, because she would know me. She would know my story and it was definitely very helpful. (Service user, postholder site, CMS)

The importance of continuity and establishing a trusting relationship was very clear, particularly for mental health service users, as illustrated by this comment:

There was one time [Name] couldn't make it and they got a replacement in and I didn't like that, because it was like starting all over again…like starting from scratch again. Starting again with a new counsellor. I wouldn't...I probably would scrap the whole lot if it was changed. (Service user, postholder site, CNS)

These views were also substantiated by fieldnotes. Knowing the CNS/ANP contributed, in some areas, to service users' increased attendance at clinic appointments, and to more holistic care.

The CNS has experienced 2-3% DNA [Did Not Attend] rates compared to considerably higher in the traditional model where clients tend to DNA more (up to 30%) where there are a number of different doctor clinicians on each visit…Able to maintain more continuity of care. (Fieldnote observation, postholder site, CNS)

…a gentleman expressed that he was finding difficulty sleeping, she spent time with him discussing his distress. He disclosed to her his inner feelings regarding his GP. The CNS acknowledged his upset and together they spoke about his family, possible change of GP and

methods to help with sleeplessness. This discussion was possible because the CNS had a good holistic awareness of the gentleman's social circumstances and emotional fragility. (Fieldnote observation, postholder site, CNS)

Clinician roles are made easier by postholders providing the continuity of care and knowing clients personally.

My role is made infinitely more easy because [CMS Name] is there…things won't slip through the net because she's keeping a close eye and…because she has been in this role for much longer than I have, the patients know her. A woman who had a baby four years ago will…contact her the minute she has a positive pregnancy test, which is really important [as]…antenatal care for this group of patients has a massive impact on how the baby turns out, so the earlier they are linked in, the better. (Consultant, postholder site, CMS)

In the non-postholding sites, there was less evidence of continuity of care, although some was noted. For example, there were some comments from service users in non-postholder sites on how they found it difficult to keep repeating information to different nurses, and how they found the lack of continuity stressful.

Nothing was done that night… She was on a trolley. She was put on a drip. And basically she was left there basically. If she got sick it was cleaned up…the nurses just checked on her every so often…made sure that she was still with us. And that was it. No doctor came near her from the initial doctor to have a look at her…well into the following afternoon…neither myself nor my brother were made aware when she was moved… She was put into a single room the first time in [WARD] and then another time she was moved to…[WARD]. Every time she moved back onto [WARD] she was in a different bed and a different location on the ward…quite disorientating for her…she found it upsetting enough. (Relative, non-postholder site, matched ANP)

There were comments from healthcare professionals also about how the lack of a dedicated CNS created difficulties with maintaining continuity of care.

…if somebody had a problem when they go home, you know, where do they ring? There is no CNS…if people are referring patients from [PLACE]…there is no CNS to contact here and so they would contact [Name]…or [Name] down there, but…[Name] is not on in the afternoon, [Name] doesn't work full-time… I feel we lose out on that. (CNM 3, non-postholder site, matched CNS).

One example of continuity of care in a non-postholding site was noted in the observation period:

Continuity of care is achievable as she is the only clinician dealing with the [specialist] aspect with the individual client, but she wonders if this will be the case when she goes off on maternity leave…the presence of the MDT structure assists with…seamless delivery as anyone can pick up an urgent referral, discuss and feedback matters within the team. (Fieldnote observation, non-postholder site, matched CNS)

8.2.2.4. Waiting lists and waiting times

The screening role of postholders was said to reduce waiting times and ensure faster throughput of patients or clients.

They take on their own patient caseload. That reduces waiting times…and waiting lists. They increase workload as well, as in you have a lot larger clinics. If we didn't have the accredited nurse [procedure], there's no way we would be anywhere near what we are. If you look at the statistics of how many [procedures] are done by nurses compared to doctors, it's startling. Most

of the work, the majority, is done by the nurse [procedure]. (CNM3, postholder site, CNS)

This opinion was substantiated by evidence from numerous observation fieldnote and documentary records.

Waiting times for minor injuries is reduced by her work and she continually audits her caseloads as illustrated in Documents 9-10. This is illustrated during observation when one client was seen straight after attending triage; one client was triaged and cared for by ANP and only waited 5-10 minutes in the ED to be seen. (Fieldnote observation, postholder site, ANP)

A client with a lower limb injury under the care of the ANP took only 20 minutes from assessment, x-ray, diagnosis and treatment to discharge. There are specific guidelines governing the time limits for triage and treatments dependent upon which point the client is triaged on by the Manchester Scale. (Fieldnote observation, postholder site, ANP)

Throughout all the observations it was obvious that the CNS provides speedy access to care for each client. The CNS devised clear timelines for each objective to be achieved and arranged regular feedback meetings to ensure that each client's plan was working for them. The CNS met with a client who had been experiencing difficulty with [health issue] two hours after the client had rung and asked to see the CNS. She stayed after hours to facilitate this. Equally, the emergency referrals that the researcher observed had been arranged around other previous appointments in order to facilitate speedy access to the CNS for these crisis cases. (Fieldnote observation, postholder site, CNS)

It is clear from the above data that the APs' autonomy (and, in some cases, that of CSs also) enabled them to progress clients through their care more swiftly. The documented audits conducted in the adult ED site demonstrated written evidence of waiting times having been reduced since ANPs were introduced (Table 9.1). No such evidence was available in the matched site. In colposcopy services, there was documentary evidence of waiting lists being reduced in postholding sites and waiting times being reduced in non-postholding services. This was said to be as a result of requirements from the national cancer screening programmes initiatives.

Postholders manage clients alongside doctors, which, in the view of participants, ensures that large clinics can be progressed quickly.

A lot of [specialty] attendees can be dealt with very quickly... Our ANP has been a very efficient use of resources...[she] can treat these conditions and bypass being seen by the doctor at all, so that has helped hugely...the total number of patients that she saw in 2009 was 1,692. (DoN, postholder site, ANP)

Looking at the nuts and bolts of processing patients, this person's workload is phenomenal... heretofore, in the absence of an ANP, the consultant or the registrars would have to review the patients, whether it be for the scopes...for review of patients in the [specialty] clinic, and now patients are processed much, much faster. (DoN, postholder site, ANP)

These views were supported by evidence from fieldnotes, showing high workloads, and documents recording patient/client throughput or procedures carried out. Being efficient could have its drawbacks, as in the case of one CNS who had patients redirected when medical colleagues learned of her fast throughput:

Waiting times have varied recently – in the last few months 'zero' waiting time, then her medical colleagues heard that was the case; then got loads of referrals now the waiting time is 4 mths though it has, in the past, been 11 mths but at that stage she must stop taking referrals. States that she does have a bit of a conscience about having an enormous waiting list. Thought about assessing and sorting into who's 'urgent' and 'non-urgent' but found this impossible as

everyone seemed urgent and she couldn't simply give self help literature and send off. She feels there has to be a more efficient way than having clients on a waiting list. (Fieldnote observation, postholder site, CNS)

By contrast, in non-postholding sites, some comments were made about the length of waiting times, and about trying to reduce waiting lists and experiencing frustration:

If they come in the daytime, if we know there's [a patient with health issue] down there we'll do our utmost to get a patient out regardless of how we get them out. In the night time if they come in, they may be in casualty all night on a trolley, which isn't good enough. So, again, I'm relying on the consultant that's coming if we can get him... It has to be the right patient in the right bed... Just change this culture. We've tried it. We've had meetings. It just hasn't, it might have improved to a certain extent but not as much as we'd like. (CNM3, non-postholder site, ANP)

I've two clinics a week. I've ten a month. Well, I could have 14 a month so that would reduce the actual numbers seen in each clinic, which gives the patient more time, gives you more time, less delays...a lot better for everybody. (CNM2, non-postholder site, CNS)

8.2.2.5. Workload management

Postholders in different specialties were seen by colleagues, particularly doctors, as contributing significantly to the workload management.

The only real thing is how critical her role is. To facilitate the transfer of care and information between the doctors and to the patients and to the other specialties... It's an extremely important role. We couldn't do without her now and I wouldn't even like to try. If anything we need another person of similar capacity and ability because it's probably too busy for her. (Consultant, postholder site, CMS)

They have an essential role to play and we need way more nurse specialists. There's such a shortage of them. If you could just get more support, more nurses getting trained in these areas, and funding for them. It is just so badly needed. (Doctor, postholder site, CNS)

These views on the amount of work undertaken by postholders were substantiated by fieldnotes.

33 clients seen by CNS (total number seen at full 3 hour clinic = 68 – staff nurse in attendance for 90 minutes and admin assistant for 60 minutes), 2 bleeps, 2 phone calls, 1 query in person by family member, liaison with CNS [similar health issue] x 3 occasions (Fieldnote observation, postholder site, CNS)

The CNS facilitates a consultant-led clinic in OPD one afternoon per week and sees 15-20 per clinic, undertaking a nursing assessment and review of [treatment] technique as appropriate. She facilitates sessions weekly on the rehabilitation programme. She runs a nurse-led clinic with on average 5 clients per clinic weekly, sees clients on the wards daily; sees 2-3 clients in clinic daily. She teaches and supports on the [health issue] eight week programme for two hours per week – one on education and one on exercise. She undertakes administration duties on a Friday. She undertakes clinical assessments and liaises with the MDT. (Fieldnote observation, postholder site, CNS)

Postholders were observed to have a significant impact on how patients/clients are managed in different settings. Their contributions were seen to help in reducing waiting times, unnecessary delays, and admission rates.

The CNS demonstrates autonomy in her role in that she undertakes the planning of her work-

load independently as she has supernumerary status. She can plan her schedule of teachings, administration, and respite care management as appropriate. (Fieldnote observation, postholder site, CNS)

The ANP has an appointment system to workload manage her nurse-led clinics. However clients are seen immediately if urgent, as illustrated in the schedule (Document 1). Due to the autonomy to refer, the ANP promotes seamless care between services within the PCCC and hospital based services. (Fieldnote observation, postholder site, ANP)

The CNS maintains her own caseload appointment system and can see clients as their need presents. This can mean the client can be facilitated to be seen the same day and if admission is required the CNS can liaise with her nursing and medical colleagues. If the consultant's input is required the CNS can liaise with him directly. (Fieldnote observation, postholder site, CNS)

It was apparent that, due to the autonomy and decision making ability of the CS/AP, clients could be cared for swiftly and efficiently, thus increasing the daily throughput. It was noted as a matter of importance that, when the postholder was on leave, the impact of the workload on other members of the team was considerable. Numerous examples were provided where CSs/APs managed a caseload and the perception was that they ensured smoother transition of patients/clients through the healthcare system.

For me it would mean much more responsibility and pressure because having [ANP Name] here is like a huge buffer in that she's so independent, she's so expert, she's so reliable. She's technically excellent. She has that extra knack that you can't teach...when she's here you know that things are going to run right and everything is running as it should. When she's not here, you feel the pressure coming on...everything comes to you. (Doctor, postholder site, ANP)

We are fortunate because the particular Clinical Midwife Specialist that we have...can make a lot of decisions which spreads the load from my point of view as well... She, for instance, can assess the results from the screening of people with [health problem] to see if they need [treatment] or if they need further admission for further investigation or assessment...that's a new thing and she also adjusts [drug] doses...she has a prescribing qualification so she is a prescribing nurse as well... They are very expert and I think we'd be lost without them. (Consultant, postholder, CMS)

By contrast, in the non-postholding sites, a number of comments were made about the lack of support to manage the workload efficiently and have sufficient time for patients/service users.

I was the general dogsbody because I had to do all of the clerical work – all of it. And it was very difficult at times. Very time consuming...very risky because you can make mistakes... I had to do all the appointments, all that kind of stuff, so... Yeah, you see, I suppose going like this actually if I had an [ANP] I would get an extra clinic so therefore it reduces the pressure on the actual clinic so you have more time to spend with patients. (CNM2, non-postholder site, matched ANP)

I feel that because of the pressure of the list being so busy and the pressure of time and of the fact that we don't have enough staff, we don't actually get involved with the patients. They are beginning to be a number. (CNM2, non-postholder site, matched CNS)

The perception is that postholders bring cohesion to the workload because they act as the interface between all of the disciplines for the patient/client. They also can manage most aspects of care, which leads to less disruption for patient/client care. As one service user explained:

I think because she's a nurse. I think nurses are more hands-on. When I went to see the orthopaedic people yesterday, they removed the splint that he had put on, to look at my finger.

> *Then I had to leave their office and go to a different office and queue up again to be seen by the plaster nurse to have the splint put back on. The ANP did all of that herself, which saves time. (Service user, postholder site, ANP)*

The European Working Time Directive (which reduced many doctors' working hours) has impacted on the service and led to medical staff being more reliant on postholders to help with managing workload.

> *Since the European Working Time Directive was fully implemented here for medicine, it's had a huge impact on how the service is delivered...we've lost 100 hours of medical time per week. (CNM3, postholder site, CNS)*

> *The European Working Time Directive has led to a lack of junior staff and really the nurse specialist is helping to offset the clinical load by being part of the team. Really it's a great role that way. (Doctor, postholder site, CNS)*

In the non-postholding sites, there were several references to doctors experiencing difficulties with managing large workloads, which could impact on workload management and waiting lists. This fieldnote is one example supporting these views:

> *The Consultant works full time. He runs a weekly OPD clinic with his Registrar and SHO. He sees a large volume of clients during this session. He receives all new referrals which he triages and allocates their level of urgency. Referral sources include General Practitioners and medical colleagues requiring specialist input. Currently there is a long waiting time for his clinic for routine referrals. (Fieldnote observation, non-postholder site, matched CNS)*

One DoN raised some concern that staff may not get involved in providing specialist care because they become reliant on the postholders. This, it was suggested, could lead to some staff relinquishing responsibility, or becoming de-skilled, if care is not taken, and this could be problematic when postholders were on leave or absent.

> *I have the height of respect for them and what they do as clinicians, but...in some respects we find people stand back and say 'not my role, that's the job of the CNS'. In the past people were more willing to participate in stuff that is now specialist. It has created an atmosphere of disempowering some people. (DoN, postholder site, CNS)*

However, in the focus groups conducted prior to the Delphi study, participant staff nurses and midwives were asked specifically about their views on this issue. They were clear that de-skilling did not occur and, furthermore, they suggested that the CS/AP educational function contributed to the knowledge and development of staff (5.2.4).

8.2.2.6. Support required for postholders

Some clinicians pointed out that the postholders manage very large clinical workloads and outpatient clinics, which tends to leave them with less time for meal breaks, and for research, education and audit. They recommended better administrative support for postholders.

> *She probably could do with support. She covers almost every clinic. Even though she still does research and audit and all of her other different responsibilities, she could probably do with clerical support and she could probably do with dropping a few clinics and giving more time to her research. She does a lot of stuff at home, which is not ideal. (Nurse, postholder site, ANP)*

> *She pulls all the charts for her clinics, which is not a CNS's role. Very time consuming. There's valuable hours there she could use for audit, research or staff education instead. Sometimes then I suppose the perception, if you look at it from the clinical ward side, the easy way out for them is to contact the CNS. (CNM3, postholder site, CNS)*

Non-postholders were also undertaking inordinate amounts of administrative work and it was implied that they could benefit from support in this regard.

> The CNM has some administration support but is required to check and sign all letters ensuring safety re length of time until next seen. This system was established to address the number of women who were DNA. The CNM follows up on all DNAs with a phone call. The CNM also sends the GP a letter detailing the procedure +/- treatments that have been undertaken for their clients at the colposcopy clinic. (Fieldnote observation, non-postholder site, matched CNS)

It was suggested that postholders need protected time for conduct of research, like other professionals.

> *I think there is an awful lot CNSs could do in the area of research...it's such a busy unit. We never get time to sit down and say we're going to put this in writing now...you'd really want to put a day away...like speech therapists, they have a day or an afternoon totally for their paperwork. Unfortunately if the alarm goes here, someone is having an outburst and the CNSs have to run. (CNM3, postholder site, CNS).*

8.2.3. Quantitative results on case management from service users' survey

8.2.3.1. Introduction

The above findings from the interviews and observations with clinicians, DoNs/DoMs and service users on the postholders' role in case management revealed that the following activities were central to the success of these roles:

- *assessment*

- *diagnosis and referral, which contributed towards collaborative decision making and continuity of care*

- *reduced readmission rates, waiting lists and waiting times*

- *more effective workload management.*

Results from the quantitative analysis of service user surveys supported these findings. To assist in the clarity of presentation, all statistically significant results are in bold in the text.

8.2.3.2. Assessment and diagnosis

In terms of assessment and diagnosis, question A12, in Table 8.2, revealed **a significant difference between postholders and non-postholders, with a higher proportion of postholders 'completely' explaining why service users needed specific tests and assessments (66% vs. 50%, p=0.041)**. Further analysis revealed a significant difference between types of postholder also, with **92% of those attending a CMS agreeing 'yes, completely' to this question, compared with 77% of those attending an ANP, 51% attending a CNS and 50% of those at a non-postholding site (Fisher=24.933, p<0.001).**

8.2.3.3. Referral, collaborative decision making and continuity of care

The issues of referral, collaborative decision making and continuity of care were covered by questions B6, B7 and B8 relating to: all members of the care team knowing their story, care delivered in a planned and coordinated manner (i.e. they were told what would happen, everyone seemed to work as a team, the clinician was sure of what needed to be done or sought advice), and wishes and needs were taken into account when care was planned. For these questions, no statistically significant difference was seen in the responses made regarding care given by postholders and non-postholders (Table 8.3).

8.2.3.4. Waiting lists

Responses to questions RB1 to RB5 (Table 8.4) looked at issues surrounding waiting lists and waiting times. Service users waited different lengths of time to access their first appointment in postholding and non-postholding services, from an average of 18.75 days in ANP services to 39.69 days in CNS services. While it can be seen from Table 8.4 that mean times appeared to vary, an independent t-test analysis did not reveal any statistically significant differences in the mean waiting times *between* postholding and non-postholding sites. A one-way analysis of variance was used to compare the mean waiting times for the first appointment for CNS, CMS and ANP services *within* the postholding sites. This analysis did not reveal a statistically significant difference (Fisher's exact=1.44, df=2,86, p=0.242).

Table 8.2: Responses from service users to questions on information/assessment by type of clinical postholder setting										
Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
A11. Did the clinician tell you about danger signals regarding your illness or treatment to watch for after you went home? *χ²=15.484, df=3, **p=0.001**										
Yes, completely	60.5	46	73.1	19	63.8	30	63.8	95	44.0	51
Yes, to some extent	13.2	10	7.7	2	4.3	2	9.4	14	21.6	25
No	6.6	5	0.0	0	6.4	3	5.4	8	12.9	15
I didn't need to be told about danger signals	19.7	15	19.2	5	25.5	12	21.5	32	21.6	25
A12. Did the clinician explain why you needed specific tests, assessments, X-rays or monitoring (T, A, X, M) etc? *χ²=8.281, df=3, **p=0.041**										
Yes, completely	50.6	39	92.3	24	76.6	36	66.0	99	50.4	58
Yes, to some extent	20.8	16	7.7	2	2.1	1	12.7	19	20.0	23
No	3.9	3	0.0	0	0.0	0	2.0	3	6.1	7
I didn't have any (T,A,X,M)	24.7	19	0.0	0	21.3	10	19.3	29	23.5	27
A13. Were tests, assessments, X-rays or monitoring results clearly explained by the clinician? *Fisher's exact=6.982, p=0.133										
Yes, definitely	52.6	40	92.3	24	68.1	32	64.4	96	50.0	57
Yes, to some extent	13.2	10	7.7	2	8.5	4	10.7	16	20.2	23
No	9.2	7	0.0	0	0.0	0	4.7	7	5.3	6
I didn't have (T,A,X,M)	22.4	17	0.0	0	19.1	9	17.4	26	21.9	25
My results are not available yet	2.6	2	0.0	0	4.3	2	2.7	4	2.6	3

8.2.3.5. Waiting times

The number of minutes service users waited to be seen on their last visit (question RB2) was compared using an independent t-test between postholding and non-postholding sites. Due to the large standard deviations the difference seen between sites was not statistically significant. A one-way analysis of variance was used to compare the **mean minutes waited *within* the postholding sites. This difference within sites was found to be significant (Fisher's exact=4.82, df=2,56, p=0.012); shorter times were observed within the CNS sites (Table 8.4).**

Similarly, the number of hours clients waited for investigations (RB3) showed no difference between postholding sites (248 hours, SD 784 hours) compared with non-postholding sites (79 hours, SD 367

hours) due to the large standard deviations. To ascertain if there were any differences within the postholding sites, a one-way analysis of variance was conducted on mean times waited within the CNS, CMS and ANP sites. This also was not significant (Fisher's exact=0.64, df=2,66, p=0.530) (Table 8.4).

Table 8.3: Responses from service users to questions on care and communication by type of clinical postholder setting									
Profession	CNS		CMS		ANP		All postholders*		Non-postholders*
	%	n	%	n	%	n	%	n	%	n
B6. All members of my care team knew me and my story *Fisher's exact=4.616, p=0.205*										
Strongly agree	42.7	32	57.7	15	32.6	15	42.2	62	43.6	48
Agree	45.3	34	34.6	9	58.7	27	47.6	70	45.5	50
Disagree	10.7	8	7.7	2	8.7	4	9.5	14	6.4	7
Strongly disagree	1.3	1	0.0	0	0.0	0	0.7	1	4.5	5
B7. My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the clinician was sure of what needed to be done to help me or sought advice as necessary) *χ^2=1.491, df=3, p=0.475*										
Strongly agree	56.6	43	73.1	19	68.1	32	63.1	94	58.7	64
Agree	35.5	27	26.9	7	31.9	15	32.9	49	33.9	37
Disagree	7.9	6	0.0	0	0.0	0	4.0	6	7.3	8
Strongly disagree	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
B8. My wishes and needs were taken into account when my ongoing care treatment/management was planned. *Fisher's exact=2.424, p=0.490*										
Strongly agree	65.3	49	61.5	16	66.0	31	64.9	96	57.4	62
Agree	26.7	20	38.5	10	31.9	15	30.4	45	37.0	40
Disagree	6.7	5	0.0	0	2.1	1	4.1	6	5.6	6
Strongly disagree	1.3	1	0.0	0	0.0	0	0.7	1	0.0	0

The number of hours waiting for treatment appeared similar in both sites but did vary considerably between the postholding sites, from an average of 505 hours in CNS services to one hour in CMS services. The large mean observed in CNS services was due mainly to four of the clients waiting 2-6 months. A one-way analysis of variance was used to compare the mean hours waited for treatment *within* the postholding sites. This analysis revealed a result approaching significance (Fisher's exact=2.54, df=2,52, p=0.089). The difference in the mean hours waiting for treatment within the sites can be seen in Table 8.4 in question RB4.

It is obvious from this that the CNSs had patients/clients attending for scheduled visits, some of whom were on a long waiting list, whereas the CMSs and APs were caring for more acute or emergency patients and clients. If the four patients waiting for CNS scheduled visits for 2-6 months are excluded, the new mean for the CNS category is 55.23 hours (SD=119.60). There is still no difference seen between the three postholding groups (Fisher's exact=2.19, df=2,48, p=0.123); the CNS mean waiting time still appears longer than the mean for CMS (1.18 hours, SD=0.83) and AP (11.95 hours, SD=41.63). In general, it would appear that CNSs are running more scheduled services than either CMSs or APs; the level of autonomy in the AP and CMS services may be facilitating swifter throughput than in non-postholding sites, where average waiting time for treatment is 239 hours (SD=582).

The mean number of days waiting for results was similar between postholding and non-postholding sites. A one-way analysis of variance was used to compare the mean days waited for test results *within* the

Profession	CNS		CMS		ANP		All postholders		Non-postholders	
Mean and Standard Deviation (SD)	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RB1 I waited the following number of days to get my first appointment to this service *(t=-1.087, df=131, p=0.279) **Fisher's exact=1.44, df=2,86, p=0.242).										
	39.69	53.07	37.87	63.33	18.75	40.09	32.63	52.63	25.71	23.69
RB2 I waited the following number of minutes to be seen on my last visit *(t=-1.498, df=110, p=0.137) **(Fisher's exact=4.82, df=2,56, p=0.012)**										
	45.83	36.35	60.79	79.96	106.88	78.81	67.20	65.82	49.58	57.82
RB3 I waited on average the following number of hours to have investigations such as blood tests, assessments, X-rays or monitoring *(t=1.357, df=56.763, p=0.180) **(Fisher's exact=0.64, df=2,66, p=0.530).										
	65.19	135.22	25.71	76.26	153.09	664.54	78.65	367.33	248.19	783.54
RB4 I waited on average the following number of hours for treatment *(t=-0.20, df=93, p=0.984) **(Fisher's exact=2.54, df=2,52, p=0.089)										
	504.58	1178.29	1.18	0.83	11.95	41.63	242.29	840.29	239.14	582.19
RB5 I waited on average the following number of days to get results of tests *(t=0.330, df=121, p=0.742) **(Fisher's exact=0.71, df=2,71, p=0.495)										
	12.15	19.04	8.96	9.97	7.20	11.06	10.10	15.39	10.98	12.61

Table 8.4: Responses from service users to questions on waiting times by type of clinical postholder setting

* Between postholding and non-postholding sites
** Within postholding sites

postholding sites. This analysis did not reveal a statistically significant difference in the mean days waited for results from CNS (mean 12 days) CMS (mean 9 days) and ANP (mean 7 days) services (Fisher's exact=0.71, df=2,71, p=0.495).

8.2.3.6. Reduced readmission rates and more effective workload management

Responses to D8: 'I was with the clinician for the following amount of time', dealt with workload management and showed that 44% of those attending a CS/AP were seen in 15 minutes or less, compared with 55% of those who attended a clinician in a non-postholding site. Conversely, 33% of those attending a CS/AP were seen in 31 minutes or longer, compared with 14% of those who attended a clinician in a non-postholding site – a significant result (p=0.034) (Table 8.5).

A chi-squared analysis of the responses of service users between the non-postholding sites and the postholding sites combined, to question D8:'I was with the clinician for the following amount of time', revealed a statistically significant difference $(\chi^2$**=12.08, df=5, p=0.034)**. While the majority of service users within both the non-postholding (31%, n=35) and postholding (23%, n=34) sites said they spent between 16 and 30 minutes with the clinician, **greater proportions of service users within postholding sites said they spent 31 to 60 minutes (18% vs. 9%), or more than 60 minutes (15% vs. 5.4%) with the clinician.**

A chi-squared analysis of the categorical responses *within* the postholding sites, comparing the responses of CNS, CMS and ANP service users to **question D8, 'I was with the clinician for the following amount of time', revealed a statistically significant difference $(\chi^2$=25.02, df=10, p=0.005);** given the sample sizes, a Fisher's exact analysis would have been more appropriate, but this could not be computed. Analysis revealed that **the majority of CMS service users (35%, n=9) spent over 60 minutes with the CMS as opposed to 11% (n=8) among CNS service users and 11% (n=5) among ANP service users (Table 8.5).**

8.2.3.7. Conclusion

In summary, the quantitative analysis of the service user surveys revealed that both non-postholders and postholders were providing a satisfactory service but, in the areas detailed above, analysis revealed that postholders were, in the views of the service users, providing a significantly better service in some respects. Full details on all results for CNS, CMS, ANP and CNS/CMS/ANP postholder results combined (all postholders) and compared with non-postholders are provided in Tables 8.1 to 8.16.

Table 8.5: Responses from service users to questions on time with the clinician by type of clinical postholder setting									
Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
D7 I was given sufficient time to discuss my problems with the clinician *Fisher's exact=9.086, **p=0.025**										
Yes, definitely	76.6	59	84.6	22	93.6	44	83.3	125	69.0	80
Yes, to some extent	11.7	9	15.4	4	2.1	1	9.3	14	19.8	23
No	2.6	2	0.0	0	0.0	0	1.3	2	4.3	5
I didn't need time to discuss	9.1	7	0.0	0	4.3	2	6.0	9	6.9	8
D8 I was with the clinician for the following amount of time *χ^2=12.077, df=5, **p=0.034**										
0-5 minutes	9.3	7	11.5	3	0.0	0	6.8	10	7.1	8
6-10 minutes	17.3	13	11.5	3	13.0	6	15.0	22	17.9	20
11-15 minutes	24.0	18	11.5	3	26.1	12	22.4	33	29.5	33
16-30 minutes	14.7	11	26.9	7	34.8	16	23.1	34	31.3	35
31-60 minutes	24.0	18	3.8	1	15.2	7	17.7	26	8.9	10
Over 60 minutes	10.7	8	34.6	9	10.9	5	15.0	22	5.4	6
Not applicable	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
D9 I feel the clinician supports me to manage my own condition *Fisher's exact=9.383, **p=0.015**										
Yes, definitely	72.7	56	80.8	21	80.4	37	76.5	114	64.0	73
Yes, to some extent	15.6	12	7.7	2	0.0	0	9.4	14	21.9	25
No	2.6	2	0.0	0	0.0	0	1.3	2	0.0	0
I didn't need support	9.1	7	11.5	3	19.6	9	12.8	19	14.0	16

8.2.4. Service provision

Qualitative data analysed showed numerous examples of service provision by CSs and APs. The areas where postholders were identified as having more of an impact when contrasted with non-postholders were: developing therapeutic communication; health promotion: education of service user and family; and physical and psychosocial interventions. Of these, developing therapeutic communication was the most evident. The findings are presented under these headings, followed by a section outlining the main outcomes seen as a result of the postholders' service provision.

8.2.4.1. Developing therapeutic communication

There were numerous references to the fact that postholders develop good relationships with

patients/clients, and their carers, because they give people time, listen to concerns and show empathy.

> *Some consultant staff, I don't mean to question what they do, but I suppose, it's the personal touch that is applied...the nurse can carry out the procedure the same way a consultant would do, but it's the empathy they would have with the patient and it's the whole communication thing. (DoN, postholder site, ANP)*

This was substantiated by the fieldnotes in study sites.

> The CNS facilitates the nurse-led clinic for review of [health issue]. During observation of 45 minutes the CNS reviewed 3 patients. Patient no 1: The CNS took a detailed history, examined [body part] and obtained a swab for microscopic culture and sensitivity. The carer was informed regarding the infection and was involved in the decision making processes. The patient was reviewed by the doctor at the CNS's request and commenced on oral antibiotics with the full understanding of the carer. (Fieldnote observation, postholder site, CNS)

> She [CNS] views the therapeutic relationship as being of paramount importance and will meet clients where they want, e.g. in a coffee shop, to work on the relationship. Having contact with clients and relatives is viewed as a positive...they have the time to build up a rapport and they get back so much from the clients and their stories. (Fieldnote observation, postholder site, CNS)

These skills were noted by other clinicians working with postholders and, in some comments, by service users who expressed appreciation of their expertise.

> *She has an ability...to empathise with the patient very well and to achieve a level of trust and communication that perhaps a woman can do better with than a man and can often obtain sensitive information that may not be available to us that is important in trying to deliver care to that woman. It might be quite important information that is central to difficulties with compliance and can relate and inform the person. (Consultant, postholder site, CMS)*

> *Well, I'm quite a quiet person. I wouldn't have very much to say. She's very, very good at talking; explaining things, going through things, asking me questions. All that kind of thing, you know. (Service user, postholder site, CNS)*

By contrast, in the non-postholding sites, there were no comments in interviews in relation to developing therapeutic communication. This is not to say it does not happen, but perhaps there was less emphasis on the notion of communication as 'therapeutic' and knowing the service user as an individual. Results from the 'key behaviours' scoresheet showed that 96% of postholders (n=22) always used good listening skills, gave feedback and used open questions compared with 67% (n=14), 81% (n=17) and 81% (n=17) of observed clinicians in the non-postholding sites (Table 8.1).

8.2.4.2. Health promotion: education of service user and family

Postholders played a significant role in providing information, support and education of service users. Service users could contact postholders on a range of matters such as: advice re new symptoms, issues of concern, and to clarify doctor's communication.

> *They are invaluable...number one for the patient really as an advocate and educator... She does an awful lot of patient education and carer education, so whether she's with a patient in the clinic or she's seeing her inpatients, she will also see a relative or somebody. (CNM3, postholder site, CNS)*

The documentary evidence showed 63 resources had been developed in 16 sites by CSs/APs, specifically for their services and in addition to HSE leaflets, compared with staff in 16 non-postholding sites providing HSE leaflets but no additional material tailored expressly for their clients (Table 9.1). Observation fieldnotes

also showed the postholders' health promotion activities.

> The ANP gave relevant leaflets on how to care at home, when and who to contact as appropriate (Document 6). She advised one [patient] about need for an operation the next morning for nail bed injury, demonstrating autonomous practice. She gave full advice on fasting, where and when to come to hospital and what to expect. She checked they understood and gave the opportunity to discuss any concerns. (Fieldnote observation, postholder site, ANP)

> A large component of the ANP's work involves health education and health promotion activities. For example, one client with [health issue] has recently attended her for smoking cessation advice. Her review involved medication review and a long discussion surrounding his emotional feelings. She provided positive support and encouragement and arranged a follow on appointment to maintain a positive input. (Fieldnote observation, postholder site, ANP)

Postholders' health promotional activities were not limited to providing educational materials and discussion. They also engaged in practical teaching activities that focused on increasing the service users' knowledge.

> *We looked at my x-rays together and she pointed out this, that and the other. I wouldn't be very professional with looking at x-rays but she obviously is. Because it's a hairline fracture on my thumb and she picked up on that. It could have been missed very easily and she did show it to me and explain it to me and she did follow through with practical advice [on what to do] if you have a fractured thumb, dietary intake and rest treatment, elevating the limb. She went through all of that. (Service user, postholder site, ANP)*

Examples were provided of postholders organising and running patient/client education programmes on management of diseases, encouraging self-care and setting up self-help groups.

> *They...keep people out of hospital...it's all prevention...we can have marital problems, booze problems...also, we would have relative groups. They [CNS and ANP] would attend and give information sessions. We have...information booklets for patients...and they would be involved in developing these. (DoN, postholder site, ANP/CNS)*

> *...when patients feel that they have had a good experience, in that they [AP] have more of a focus on holistic care than many of the junior doctors, maybe, so aspects of care including risk reduction and advice in terms of self care are much more expertly delivered by a group that's focused in that area. (Consultant, postholder site, ANP)*

> *She would be part of that service in the whole education part of it and putting the education programmes in place. The 6-8 week programme for education. Families need huge support. (DoN, postholder site, CNS)*

Fieldnote observations, including documentary evidence, substantiated these comments.

> The CNS is prolific in the development of documentation which she has devised, compiled and produced to a professional standard since she took up her CNS post in 2005 (Documents 3-17, 27.1-27.14). Her booklet 'A Guide to Caring for [health issue]' is detailed and comprehensive and she fully compiled this booklet including arranging the photography and publishing. She has developed numerous care pathways and care guidelines specific to her client group which are used both within the hospital by staff and within the community by carers and parents. She alongside the [similar health issue] CNS developed 14 patient information booklets on general [health issue] conditions and care management which are displayed within the clinical rooms (Documentary evidence 27.1-27.14). (Fieldnote observation, postholder site, ANP)

Results of the 'key behaviours' scoresheet showed that higher percentages of postholders also appeared

'always' to give information (91%, n=21 v 81%, n=17), health promotion advice (65%, n=15 v 19%, n=4) and education (61%, n=14 v 24%, n=5) (Table 8.1). Postholders were also perceived as teaching other members of the multidisciplinary team how to educate service users in techniques for taking medications and disease patterns.

> *Education of patients on techniques of taking inhalers. Educating the junior doctors, a lot of...the junior doctors coming through the service, they're not having any unique respiratory experience and so she would educate the clinicians and educate other paramedical staff as well as the patients on the diseases as well as on the management of them. (Doctor, postholder site, CNS)*

The educative and health promotion role of postholders was repeatedly confirmed in the observational data.

> The CNS is regarded by the doctors as the patient educator prior to commencement of [medication] therapy e.g. the consultant referred a patient to the CNS for education, and to decide upon the patient's suitability for commencement on [medication] therapy. The consultant specifically requested that the CNS give her input regarding suitability of the patient for such therapy, following instruction, prior to starting treatment. (Fieldnote observation, postholder site, CNS)

> A client who sustained an ankle injury...was given a full detailed physical examination, x-rayed, diagnosed with a small avulsion fracture from the tip of the lateral malleolus, and shown her x-ray on the computer in the consulting room. She was given crutches and shown how to use and observed using them safely. She was fully advised regarding her management plan of RICE (rest, ice, compression, elevation) and detailed exercises that should be done after specified periods of time. The ANP gave written leaflets and demonstrated practically how to do the exercises. She was given the required advice regarding work and a social welfare cert was given. Lifestyle was discussed as she was involved with physical work and has small children. The ANP advised her with cognisance taken of all these factors. This was a holistic episode of care provided by the ANP. (Fieldnote observation, postholder site, ANP)

> Admissions have now dramatically reduced as a result of her educating the patients and families on medication...on importance of daily weighing...increased patients' ability to recognise the symptoms of [healthcare problem] before it is becoming a critical issue. And most important, is giving them easy phone-in access to her for advice when having problems. (Fieldnote observation, postholder site, CNS)

In the non-postholder sites, it was evident that information exchange and education was also taking place; however, there was more emphasis on information sharing rather than specific education and health promotion.

> *[Talking about improvements required] I suppose more time for the patient before they come. To have an assessment clinic so when they come they know what's ahead of them, that they are not faced with something totally unknown. Even a nurse receptionist...she admits them and discharges them, so you have that continuity of care. Give them more information, yeah. Give them information when they are being discharged as well... Sometimes you just do a procedure and that's it. (CNM2, non-postholder site, matched ANP)*

8.2.4.3. Physical and psychosocial interventions

Participants made numerous references as to how postholders used physical interventions to improve care for service users, and these data were supported by fieldnotes:

A client attended the ANP nurse-led clinic for review of his [drug] therapy. The ANP has developed a 'near patient testing system' within the practice. The client attends and has a small peripheral blood sample taken which is placed onto a test strip, inserted into the hand held machine which displays the client's [test] recording within a short period of time (minute). The ANP discussed the reading with the client and reviewed all medications including [drug]...dose adjustment...required. (Fieldnote observation, postholder site, ANP)

The CNS was called to perform the first [procedure] on day 6 on a [patient]; it is policy that the CNS undertakes the first [procedure] post-operatively as she possesses the specialist knowledge and skills in this area of care at a higher level than a staff nurse. (Fieldnote observation, postholder site, CNS)

The ANP performed an assisted and neighbour strapping dressing (GP referral). An in-growing toe-nail was assessed, antibiotics prescribed and referral made to surgeons. A patient with a scalp laceration and head injury was seen, an x-ray was ordered to rule out presence of a foreign body, the wound was glued, head injury observations were taken. During this time one student nurse was present and was taught. Two doctors were assisted with queries – one on decision to x-ray and one regarding treatment for scald. (Fieldnote observation, postholder site, ANP)

The way in which physical interventions were conducted differed between postholding and non-postholding sites in that the 'key behaviours' scoresheet showed differences in activities involved in the provision of physical interventions. These included adequate hand washing 'always' occurring between every patient/client contact for 61% (n=14) in postholding and 38% (n=9) in non-postholding sites, 'always' using gloves, 39% (n=9) versus 24% (n=5) and 'always' using equipment correctly, 53% (n=12) versus 43% (n=9) (Table 8.1).

Positive physical intervention initiatives included the establishment of advanced or specialist nurse- or midwife-led clinics:

One of the initiatives that the CMS introduced over the last year...was our patients [did not have a dedicated clinic] and because of the busyness sometimes people weren't coming for their booking visit until 16 or 18 weeks which is probably a little late if it's someone you want to start on medication...she [CMS] introduced the early booking clinics...that are emphasised in the literature. I'm still there but she does the booking stuff...sometimes I don't see them at all...she makes sure they're linked in with the appropriate services...based on best practice. (Consultant, postholder site, CMS)

It was perceived that postholders also used psychosocial interventions to good effect in their care of patients and clients.

I think she's a very switched on person and she's very good at knowing when to say nothing... I mean, I really like her very much and I completely trust her. Absolutely. I think she's excellent actually. I really, really do... I have seen at different times in my life different kinds of, therapists, if you like. I think she's probably the best person I've seen. (Service user, postholder site, CNS)

The fact that you're talking to someone who's well trained, who knows all there is to know and about the difficulties, you don't feel judged. Just to put an example...one of the nurses asked me if I was on drugs... I could see how her mind was working. She saw infection and thought drugs so obviously that's a total judgement...whereas with [CMS's name] you don't have that. (Service user, postholder site, CMS)

These clients' views were supported by fieldnotes taken during the observation periods, many of which showed evidence of holistic care.

One client was very anxious and the CMS spent a long time discussing her anxieties and

provided emotional support through the use of open questioning... One woman who attended for [test]...demonstrated verbally how she positively valued the CMS in her care. The CMS demonstrates high level listening skills, communicates freely and with sensitivity with all clients. Effective counselling skills observed to which the women responded appropriately. (Fieldnote observation, postholder site, CMS)

The ANP demonstrated clinical decision making – for example – a client's finger tip injury needed plastics operation; the ANP decided not to refer them for surgery today, but to come back in the morning fasting and better prepared for the operation – physically, psychologically and practically. (Fieldnote observation, postholder site, ANP)

By contrast, within the non-postholding sites, although physical and psychosocial interventions did occur, there was less evidence of holistic care compared to in postholding sites.

We don't have...while the girls are working very well and all that, they don't have the time to be the expert and their main focus isn't the [specialty] clinic. They have a wider remit for [task] in the hospital as a whole, so we have deficits, I feel, in patient education, in research, in policy and pathway information...forging links with primary care. (CNM3, non-postholder site, matched CNS)

8.2.5. Outcomes of service provision

In the view of the majority of those interviewed (clinicians, Directors of Nursing or Midwifery, service users), and in the opinion of researchers as a result of a number of observations and documented fieldnotes, postholders were identified as differing clearly from non-postholders in the following three outcomes: service user satisfaction with a good relationship, improved health knowledge of service users and carers, and health outcomes.

8.2.5.1. Service user satisfaction with a good relationship

Patients and clients appreciated a good relationship with postholders, which led to feelings of trust in their capabilities and trust that they themselves would be seen as persons first and foremost.

She's obviously great at her job. She's a great person. She's very human without being patronising...you're confident in her knowledge and even whatever she's suggesting to do for tests, I trust her because I know that she doesn't have some hidden agenda. She really just has my best interests at heart. I think that [Name] is the greatest asset, in terms of my experience, that this hospital has, because if I hadn't met [Name] I wouldn't have gone to any big professor or anything like that for whatever they can offer because I wouldn't have trusted any of it. (Service user, postholder site, CMS)

It was the personal touch and the feeling that the postholder was accessible that many service users appreciated. This was noted by other clinicians also.

It is open. We can ring her at any time. She is our first point of contact for anything. We ring her before we even ring the GP. We find that she knows us and what is best for us to do. When we left the hospital she encouraged us to follow up on the phone if we had any issues. She gives the best advice as she knows us the best so we rely completely on her. I don't know what I would do if she was gone. I am not sure I could handle it. (Service user, postholder site, CNS)

Sometimes people will ring her two or three years after having a baby with some particular health issue or whatever. Having a baby is such an enormously emotive part of our lives that we all sort of tend to look back fondly back on the pregnant stage and going for visits and that kind of thing. I think patients develop a very close bond with her. (Doctor, postholder site, CMS)

Good relationships appeared to encourage clients to engage with the service, with resultant overall satisfaction with care received.

> *Well, she would see a lot of patients who would pose quite challenging to us...people with an alcohol or addiction disorder would often be a very difficult specific cohort to engage. They often are more chaotic and hard to follow up. They would develop a good therapeutic relationship with [Name] and so would be more engaged with the service. So that would be, you know, a big difference that she would provide to our service. (Doctor, postholder site, CNS)*

Such good relationships were noted and recorded in fieldnote observations also.

> The CNS adopts an empathic and humanistic approach in her dealings with individuals. Her easy way of communication showed a connection and an understanding with the clients' situation at that time. She views the service as about normalising their experience of mental ill health. She has been involved with service user satisfaction surveys in an effort to ensure the highest standard of care provision on an individualised basis. (Fieldnote observation, postholder site, CNS)

> The atmosphere during the clinic was friendly with all patients greeting the CNS fondly and most by name. She also knew them by name and their histories. She also knew by name many of the family members who accompanied the clients. They were very open at communicating any changes to them since last visit and the CNS asked each patient how they were. The patients seemed to know the clinic routine and process for results well. (Fieldnote observation, postholder site, CNS)

In the non-postholder sites, it was evident from service users that they generally encountered kind staff; however, there appeared to be less emphasis on having a therapeutic relationship with a key person.

> *I find them comfortable to talk to. I can relate to them and that. They are very nice. You know? I think that's mostly important when you're a patient. Now, I'm so used to going to different hospitals between Dublin and that and I find if there's someone horrible I can't say it to them. I get so nervous, but here they're lovely. Very understanding. (Service user, non-postholder site, matched CNS)*

A service user in a non-postholding site reported developing close relationships with healthcare professionals, but such comments were rare and may have been influenced by the fact that it was a community care setting.

> *Extremely comfortable. [Name] is definitely, you know, she's very like a friend. Now I don't know [Name] away from here at all, but she would remember things about you, about your family. So, it's definitely a very homely, family kind of vibe in the service. (Service user, non-postholder site, matched CNS)*

In non-postholding sites, some service users and relatives reported negative experiences accessing information and help. Focused searching of the data failed to find similar evidence in postholding areas.

> *I was asking everyone. [laughs] Basically, it was the nurses mainly...and they were avoiding me even because I happened to be sitting in her room...and I was just going out to...the nurses' station going, look I need to know what's going on. Can you contact the doctor for me? And they were like, 'we have, we have'... And even the day that I did meet the doctor... I was told come in in the morning...and I came in at 9.00 or 9.30...and I didn't see the doctor until 5.30 that evening. And I had stayed all day in the hospital, waiting. They will only come when they're good and ready. (Relative, non-postholder site, matched ANP)*

8.2.5.2. Improved health knowledge of service users and carers

Postholders were perceived to contribute towards improving the health knowledge of service users, which resulted in improved health also.

> *I listened to her advice and it was that that really saved me. I thought I could return to normal after the first [health problem] but I couldn't. Now I know... I started going to bed in the afternoon to rest. I began to take my medications as now I understood them. I also use oxygen...Since paying attention I have less episodes of being hospitalised, use less medicine. For example, I have radically reduced the amount of times I take antibiotics and I have less fluid in my lungs. I feel so much better. (Service user, postholder site, CNS)*

Service users appreciated postholders who could explain the procedures and investigations in clear, understandable language. As one carer explained:

> *She was very clear about what was being done and why it was being done... She was very knowledgeable in what she was doing...she didn't speak over our heads... She brought it down to ground level and explained it in layman's terms...at the start she gave us all the information we needed, a booklet and before [Name] had the tracheostomy...she sat down with us one day and told us exactly what is involved, which was a bit of a shock to us really but she let us have a think about it and met us the next morning again and let it soak in...which was good, you know (Service user, postholder site, CNS)*

> *When the ANP called in the doctor I was delighted I was getting extra care, and the doctor was very good and she had a look or whatever, but the doctor would tend to go, 'get this test and that test' and say the shortened version of something. I was going, "What's that for? What did she say?" Whereas when the ANP was speaking to me...the ANP would say, "We're going to do this test and this is..." She'd give you the full name. "And that is to…and this is what will happen." So there was no panic. You were completely in the loop the whole way... I had all the information. I had quite a lot of power in the situation, which is important. You don't get so much if she wasn't there. (Service user, postholder site, ANP)*

These views were supported by observation fieldnotes:

> The [patient and carer] were obviously involved in all decisions and this was true for all consults. The centrality of communication was very evident while the ANP was careful to couch terms in a language understood by the [patient and carer]. (Fieldnote observation, postholder site, ANP)

Increasing the knowledge and understanding of service users and carers was a key component of health education, promotion and prevention. Examples from the fieldnotes illustrate this clearly.

> A client attended the clinic and was seen by ANP for [health problem]. A full and detailed discussion regarding treatment options and [specialty] health promotion was identified. The client asked a number of questions which were answered fully by the ANP. The treatment was preformed and full post treatment advice was given verbally and in written form. Medications were given to the client and possible side effects, treatment regime and usage were given. The client commented that she felt confident in the advice she had been given and would follow through on it. (Fieldnote observation, postholder site, ANP)

> The CNS had arranged for a translator to attend one clinic as the [carer] had very poor English. This greatly helped the [carer] become at ease with the diagnosis and answer any questions they had. The CNS gave lots of information and asked the translator to also compile the written information in the appropriate language and to pass on after the assessment. In the MDT meeting the CNS emphasised throughout that [patients and carers] must be given information by all therapists/team members on maintaining any programmes at home. (Fieldnote

observation, postholder site, CNS)

In the non-postholding sites, there were numerous comments about the need for clinical nurse specialists to help improve the health knowledge of service users.

I feel the main areas would be better informed patients, as in more education...it's not to say that the patients aren't being treated well...they are, but...the whole research...the whole education thing, networking I suppose with other centres as well...if we had a CNS in the hospital...part of that person's role would be...developing policies and...on occasions...people are discharged from the ward with a...book...and nothing written in it and turn up to [specialty] clinic...with no education whatsoever. So if they are lucky there may be a pharmacist at ward level...who will give some education and sometimes the nurses if they have time...[and the] standard HSE information booklets. (CNM3, non-postholder site, matched CNS)

8.2.5.3. Health outcomes

In the opinion of many participants, postholders influenced health outcomes for service users in the following ways: enhanced compliance with treatments, reduced readmissions, prompt treatment, improved health, and reduction in problems worsening.

...when she took over the care of the [patients] you could see an immediate change in the control of [health problem], and it changed the whole...philosophy of what the patients did for themselves. So they were taking ownership...of the care of their [health problem] and they were much more pro-active and understanding what they needed to do and not coming in a distressed acute [illness state]...within a year acute [illness] disappeared. (Doctor, postholder site, ANP)

The postholders played an important role in delivering interventions early so that service users received prompt and personalised care.

They [CNSs] play a very important role...and make life very easy for the [cardiac problem] clinician...these patients would have the clinical nurses' phone numbers and they could literally phone them at any time during the weekdays and give them advice over the phone or if there was any concern they could be seen, even before their due appointment...it actually prevents these patients deteriorating...and they are caught early and dealt with and treated quite promptly. They get medical attention at the right time. (Doctor, postholder site, CNS)

Service users in receipt of health promotion advice reported improved health, reduced attendance at healthcare centres and greater confidence to self-care. As one service user explained:

We ring her any time we need to and we also have regular appointments. Even if we are at other clinics...we call in to say hello. We look out for her when we go for our appointments and hope it is she that is there as she knows us best and we know her best so we are more comfortable with her. She gives us confidence to manage which is very important to us. I was initially attending 2 to 3 times a week but now I have 6 month appointments and that will show you how I have improved...because I do what I am advised, I take the advice seriously and it has made things so much better...and now I keep out of hospital. I have not been in, in over a year. (Service user, postholder site, CNS)

The education and health promotion role of postholders was viewed as contributing to the maintenance of quality standards of care and serving as a role model for nursing and medical staff. In intellectual disability services, in particular, it was noted that the CNS impacted on broader outcomes related to quality of life for clients and families.

The outcomes for them are different to someone with an acute medical condition, or a chronic

medical condition for that matter. Their outcomes are more about quality of life, access to service, improvement in health, support for the family... It could be keeping that family together. It could be bringing them through a period of mourning or grief because they have a child with a disability. It could be any number of things if you were to open it up, immeasurable. (Doctor, postholder site, CNS)

By contrast, in the non-postholding sites, there was less emphasis on health outcomes, but service users appeared satisfied with the level of service generally.

Fabulous. Absolutely fabulous. I couldn't fault them. Even, just even the way of chatting to you before the birth of the twins. I found that, oh my goodness, not enough could be done for me. I had everybody coming into me, every consultant and you know, through to the counsellor popping in every single day. (Service user, non-postholder site, matched CMS)

From interviews with healthcare professionals in non-postholding sites, there was little evidence of their perception of their influence on health outcomes and more comments in relation to lack of time.

...they have spoken to me so they know me then when they come and that's very good. But, you know, I don't get the chance to do it constantly all the time. Most of the time I'm doing it but there's the odd week I just don't get time to do it because...when you get them on the phone it can take half an hour. (CNM2, non-postholder site, matched ANP)

8.2.6. Quantitative results on service provision from service users' survey

8.2.6.1. Introduction

The findings from the interviews and observations with clinicians and service users on the postholders' role in service provision revealed that the following activities were central to the service users' positive experience and overall satisfaction with care received:

- *developing therapeutic communication*

- *health promotion: education of service user and family*

- *provision of physical and psychosocial interventions.*

These activities were seen as contributing towards the following outcomes:

- *service user satisfaction with the relationship*

- *improved health knowledge of service users and carers*

- *improved health outcomes, including prompt and personalised treatment, enhanced compliance with treatments, reduced readmissions, improved health, reduction in problems worsening.*

To assist in the clarity of presentation, all statistically significant results are in bold in the text.

8.2.6.2. Developing therapeutic communication

The results from the quantitative survey of service users clearly supported some of the qualitative findings. No statistically significant difference was seen in the responses provided concerning care given by postholders and non-postholders in answer to questions A1, A2, A3, A5, A6, which related to: getting answers they could understand, receiving conflicting information, the clinician discussing anxieties or fears, wanting to be more involved in decisions made about their care, and feeling they were treated with respect and dignity (Tables 8.6 and 8.7). Similarly, no statistically significant difference was seen in

the responses provided concerning care given by postholders and non-postholders in answer to questions C1, C2, and C3, which related to: the clinician being honest and open with them, clinician's understanding of issues/concerns that were important to them, and having confidence in the clinician (Table 8.8).

However, on more detailed analysis comparing across all three types of postholding sites and the non-postholding sites, a significant difference was observed for **question C1 'I believe that the clinician was honest and open with me': 100% of those attending an ANP or a CMS said 'Yes, definitely' compared with 86% attending a CNS and 87% of those in a non-postholding site (Table 8.8). These differences were found to be statistically significant when proportions were compared within the three posts (Fisher's exact=10.828, p=0.002).**

Similarly, in question C3 **(Fisher's exact=6.94, p=0.023), the highest proportions of those attending ANP services (98%) and CMS services (96%) said they 'definitely' had confidence in their clinician to provide the care they needed, compared with 84% of those attending CNS services and 87% attending non-postholding services.**

To examine question A2 (Table 8.6) in more detail, a further analysis was conducted comparing responses within each of the three postholder types and the non-postholding sites. **A significant difference was observed (*Fisher=11.01, p=0.019): 85% of those who attended ANP services answered 'No' to the question 'Sometimes in hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you?', compared with 60% of those attending CNS services, 58% of those attending a CMS and 68% of those attending non-postholding sites.**

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n

Table 8.6: Responses from service users to questions on communication by type of clinical postholder setting

A1 When you had important questions to ask did you get answers you could understand?
*Fisher's exact=6.258, p=0.070

	%	n	%	n	%	n	%	n	%	n
Yes, always	81.8	63	88.5	23	93.5	43	86.6	129	77.4	89
Yes, sometimes	14.3	11	7.7	2	2.2	1	9.4	14	20.0	23
No	1.3	1	3.8	1	0.0	0	1.3	2	0.9	1
I had no need to ask	2.6	2	0.0	0	4.3	2	2.7	4	1.7	2

A2 Sometimes in hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you? *χ^2=0.008, df=2, p=0.996

	%	n	%	n	%	n	%	n	%	n
Yes, often	6.8	5	3.8	1	4.3	2	5.5	8	5.3	6
Yes, sometimes	33.8	25	38.5	10	10.9	5	27.4	40	27.2	31
No	59.5	44	57.7	15	84.8	39	67.1	98	67.5	77

A3 If you had any anxieties or fears about your condition or treatment, did the clinician discuss them with you?
*Fisher's exact=3.174, p=0.360

	%	n	%	n	%	n	%	n	%	n
Yes, completely	65.3	49	88.5	23	76.1	35	72.8	107	66.7	76
Yes, to some extent	20.0	15	7.7	2	4.3	2	12.9	19	21.1	24
No	4.0	3	3.8	1	0.0	0	2.7	4	2.6	3
I didn't have any anxieties or fears	10.7	8	0.0	0	19.6	9	11.6	17	9.6	11

Similarly, the responses from CNS and CMS service users were combined and compared with responses from ANP service users for **question A6, 'Overall, did you feel you were treated with respect and dignity while you were in the hospital or service?'.** A Fisher's exact analysis revealed a statistically significant difference in responses **(Fisher's exact=5.68, p=0.040): a greater proportion of ANP service users (98%, n=44) responded 'yes definitely' compared to CNS/CMS service users (85%, n=88).**

Table 8.7: Further responses from service users to questions on communication by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
A4 Did the clinician talk in front of you as if you weren't there? *Fisher's exact=15.403, **p=0.0003**										
Yes, often	1.3	1	7.7	2	0.0	0	2.0	3	3.5	4
Yes, sometimes	7.9	6	3.8	1	2.2	1	5.4	8	20.9	24
No	90.8	69	88.5	23	97.8	45	92.6	137	75.7	87
A5 Did you want to be more involved in decisions made about your care and treatment? *χ^2=1.082, df=2, p=0.582										
Yes, definitely	35.1	26	30.8	8	23.9	11	30.8	45	25.0	29
Yes, to some extent	20.3	15	26.9	7	17.4	8	20.5	30	22.4	26
No	44.6	33	42.3	11	58.7	27	48.6	71	52.6	61
A6 Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? *Fisher's exact=1.717, p=0.431										
Yes, always	84.6	66	84.6	22	97.8	44	88.6	132	85.3	99
Yes, sometimes	14.1	11	15.4	4	2.2	1	10.7	16	12.1	14
No	1.3	1	0.0	0	0.0	0	0.7	1	2.6	3
A7 If your family or someone else close to you wanted to talk to the clinician did they have enough opportunity to do so? *Fisher's exact=10.308, p=0.063										
Yes, definitely	54.7	41	69.2	18	43.5	20	53.7	79	48.3	56
Yes, to some extent	9.3	7	7.7	2	8.7	4	8.8	13	19.0	22
No	1.3	1	0.0	0	4.3	2	2.0	3	5.2	6
No family or friends were involved	21.3	16	7.7	2	30.4	14	21.8	32	12.9	15
My family didn't want or need information	9.3	7	11.5	3	10.9	5	10.2	15	12.1	14
I didn't want family or friends to talk to a doctor or nurse	4.0	3	3.8	1	2.2	1	3.4	5	2.6	3

Table 8.8: Responses from service users to questions on the clinician's care and understanding by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
C1 I believe that the clinician was honest and open with me *χ^2=2.269, df=1, p=0.132										
Yes, definitely	85.5	65.0	100.0	26	100.0	47	92.6	138	87.1	101
Yes, to some extent	14.5	11.0	0.0	0	0.0	0	7.4	11	12.9	15
No	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Not relevant	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
C2 I believe that the clinician was understanding of issues/concerns that were important to me *Fisher's exact=3.974, p=0.211										
Yes, definitely	80.3	61	96.2	25	87.2	41	85.2	127	82.6	95
Yes, to some extent	15.8	12	3.8	1	6.4	3	10.7	16	16.5	19
No	1.3	1	0.0	0	0.0	0	0.7	1	0.0	0
I didn't have any concerns	2.6	2	0.0	0	6.4	3	3.4	5	0.9	1
Not relevant	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
C3 I have confidence in the clinician to provide the care I need *χ^2=0.836, df=1, p=0.360										
Yes, definitely	84.2	64	96.2	25	97.9	46	90.6	135	87.1	101
Yes, to some extent	15.8	12	3.8	1	2.1	1	9.4	14	12.9	15
No	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Not relevant	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
C4 I followed the advice given to me by the clinician *Fisher's exact=0.394, p=0.865										
Yes, definitely	78.7	59	92.3	24	87.2	41	83.8	124	81.7	94
Yes, to some extent	18.7	14	7.7	2	10.6	5	14.2	21	16.5	19
No	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
I didn't receive any advice	2.7	2	0.0	0	2.1	1	2.0	3	1.7	2
Not relevant	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

In relation to questions D10 and D14 relating to: issues about them and their care being discussed in public, and information on who to contact if they were worried, no statistically significant difference was seen in the responses made regarding care given by postholders and non-postholders (Tables 8.9 and 8.10). These results indicate that care given by postholders and non-postholders was equally good in terms of these aspects of therapeutic communication.

Results for question A4 in Table 8.7 showed a significant difference. A higher proportion of postholders than non-postholders (93% vs. 76%, p=0.0003) never spoke about the service users as if they were not present, which could contribute to the qualitative findings of greater service-user satisfaction with the relationship. No difference was seen in responses made between postholding and non-postholding sites regarding whether or not they were treated with respect and dignity.

8.2.6.3. Health promotion: education of service user and family, improved health knowledge of service users and carers

The qualitative results revealed that health promotion and education of service user and family were important areas to the service users, and results in the quantitative survey highlight this. No statistically significant difference was seen in the responses provided concerning care given by postholders and non-postholders in answer to questions A7 (Table 8.7), A9 (Table 8.11), A13 (Table 8.2), and D13 (Table 8.10), which related to: opportunity for family to talk to the clinician, explaining the purpose of the medicines, clear explanation given for the results of tests, assessments, X-rays or monitoring, and the format of the information being the same in both groups.

Table 8.9: Responses from service users to questions on the clinician's communication and contribution to health promotion by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
D10 Issues about me and my care were discussed in public that should have been addressed in private *χ^2=0.904, df=3, p=0.824										
Yes, definitely	8.0	6	11.5	3	2.1	1	6.8	10	4.4	5
Yes, to some extent	1.3	1	11.5	3	2.1	1	3.4	5	4.4	5
No	76.0	57	65.4	17	72.3	34	73.0	108	75.4	86
Not applicable	14.7	11	11.5	3	23.4	11	16.9	25	15.8	18
D11 I was given information by the clinician about self-help and support groups *χ^2=7.875, df=3, **p=0.049**										
Yes, definitely	46.7	35	42.3	11	21.7	10	38.1	56	33.0	37
Yes, to some extent	9.3	7	19.2	5	6.5	3	10.2	15	20.5	23
No	20.0	15	7.7	2	2.2	1	12.2	18	17.0	19
I didn't need any information	24.0	18	30.8	8	69.6	32	39.5	58	29.5	33
D12 I was given information by the clinician on how to maintain a healthy lifestyle *χ^2=8.721, df=3, **p=0.033**										
Yes, definitely	54.7	41	61.5	16	39.1	18	51.0	75	44.2	50
Yes, to some extent	14.7	11	11.5	3	10.9	5	12.9	19	25.7	29
No	8.0	6	7.7	2	2.2	1	6.1	9	8.8	10
Not applicable	22.7	17	19.2	5	47.8	22	29.9	44	21.2	24

Table 8.10: Responses from service users to questions on the type of information provided by the clinician to the service users by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
D13 Format information given *χ^2=8.845, df=3, **p=0.031**										
Verbal	77.3	51	95.0	19	71.8	28	78.4	98	78.8	82
In written format	4.5	3	0.0	0	0.0	0	2.4	3	6.7	7
By printed leaflets	7.6	5	0.0	0	7.7	3	6.4	8	10.6	11
No information given	10.6	7	5.0	1	20.5	8	12.8	16	3.8	4
D14 Did the clinician tell you who to contact if you were worried about your condition or treatment after you left hospital? *Fisher's exact=2.406, p=0.507										
Yes	76.5	52	96.2	25	80.4	37	81.4	114	77.1	84
No	14.7	10	3.8	1	8.7	4	10.7	15	11.0	12
Don't know, can't remember	8.8	6	0.0	0	8.7	4	7.1	10	11.9	13
Not applicable	0.0	0	0.0	0	2.2	1	0.7	1	0.0	0

Table 8.11: Responses from service users to questions on health information by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
A8 Did the clinician give your family or someone close to you all the information they needed to help you? *χ^2=12.688, df=4, **p=0.013**										
Yes, definitely	44.0	33	73.1	19	47.8	22	50.3	74	45.7	53
Yes, to some extent	10.7	8	0	0	8.7	4	8.2	12	23.3	27
No	4.0	3	0	0	6.5	3	4.1	6	4.3	5
No family or friends involved	22.7	17	15.4	4	30.4	14	23.8	35	18.1	21
Family or friends didn't want or need information	18.7	14	11.5	3	6.5	3	13.6	20	8.6	10
A9 Did the clinician explain the purpose of the medicines you were to take at home in a way you could understand? *χ^2=5.319, df=4, p=0.256										
Yes, completely	46.8	36	53.8	14	63.0	29	53.0	79	51.7	60
Yes, to some extent	19.5	15	0.0	0	4.3	2	11.4	17	19.8	23
No	5.2	4	0.0	0	0.0	0	2.7	4	4.3	5
I didn't need an explanation	9.1	7	3.8	1	4.3	2	6.7	10	5.2	6
I had no medicines	19.5	15	42.3	11	28.3	13	26.2	39	19.0	22
A10 Did the clinician tell you about medication side-effects to watch for when you went home? *χ^2=12.860, df=4, **p=0.0012**										
Yes, completely	42.7	32	42.3	11	46.8	22	43.9	65	39.7	46
Yes, to some extent	13.3	10	3.8	1	4.3	2	8.8	13	22.4	26
No	12.0	9	0.0	0	4.3	2	7.4	11	11.2	13
I didn't need an explanation	10.7	8	15.4	4	14.9	7	12.8	19	7.8	9
I had no medicines	21.3	16	38.5	10	29.8	14	27.0	40	19.0	22

Further analysis of question A9 revealed a difference between postholders in how thoroughly they had explained the purpose of the medicines that service users were to take at home in a way they could understand. **Of those attending an ANP, 63% said 'yes, completely' compared with 54% of those attending a CMS, 47% of those attending a CNS and 52% of those at a non-postholding site (Fisher's exact=17.78, p=0.012) (Table 8.11).** Similarly, in answer to question A13, 'Were tests, assessments, X-rays or monitoring results clearly explained by the clinician?', **92% of those attending a CMS said 'yes, completely', compared with 68% of those attending an ANP, 53% of those attending a CNS, and 50% of those attending a non-postholding site (Fisher's exact=18.87, p=0.006) (Table 8.2).**

Analysis of question A11 (Table 8.2) found a significant difference in **the proportions of service users who reported that their clinician in a postholding site completely revealed all the danger signals to look out for regarding their illness or treatment (64% in postholding site vs. 44% in non-postholding site, p=0.001).** Similarly, significant differences were observed for questions A8 and A10 (Table 8.11), which both related to the provision of extra information to the service user. **A higher proportion of the families of service users attending postholders received all the information they needed (50% vs. 46%, p=0.013) and a higher proportion of postholders than non-postholders told service users about their medication side-effects (44% vs. 40%, p= 0.0012), which could lead to improved health knowledge of service users and carers.**

Further evidence of possible enhanced health promotion was observed in questions D6 (Table 8.12), D9 (Table 8.5), D11 and D12 (Table 8.9) where service users were asked about clinical support in managing their own condition and the provision of extra information to them and their families. For D6 (Table 8.12), proportions stating that they definitely received good support were the same in both postholding and non-postholding sites (40%), **but in the postholding sites a significantly greater proportion also felt that their family did not need support (51% vs. 36%, p=0.006).** A similar result was observed for question D11 (Table 8.9). **Significantly more service users in postholding sites responded with 'yes definitely' when asked if they were given information about self-help and support groups (38% vs. 33%, p=0.049). However, significantly more also responded that they did not need any information (40% vs. 30%, p=0.049).** The same pattern of increased positive responses and increased responses saying information was not needed was also observed in question D9, **where significantly more service users in postholding sites said the clinician supported them to manage their own condition (75% vs. 64%, p=0.015) (Table 8.5).** In answer to question D12, **significantly more service users in postholding sites said the clinician gave them information on how to maintain a healthy lifestyle (51% vs. 44%, p=0.033) (Table 8.9).**

8.2.6.4. Provision of physical and psychosocial interventions

Results of questions D1 and D3 (Table 8.13) demonstrate **significantly higher rates of satisfaction in terms of the physical care and practical advice given in postholding sites when compared with non-postholding sites (76% vs. 66%, p=0.003 and 71% vs. 62%, p=0.039 respectively).** Concerning psychosocial interventions, no statistically significant difference was seen in the responses made regarding care given by postholders and non-postholders in answer to question D2, relating to how satisfied they were with the emotional support received from the clinician (Table 8.13).

Table 8.12: Responses from service users to questions on the clinician's contribution to the service user's care by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
D4 While you were attending the clinician, did you get enough treatment to help improve your symptoms? *Fisher's exact=2.095, p=0.579										
Yes, definitely	58.7	44	65.4	17	70.2	33	63.5	94	69.6	80
Yes, to some extent	25.3	19	3.8	1	4.3	2	14.9	22	12.2	14
No	2.7	2	0.0	0	2.1	1	2.0	3	3.5	4
Not applicable	13.3	10	30.8	8	23.4	11	19.6	29	14.8	17
D5 The clinician made a positive difference to my health and well-being. *χ^2=4.260, df=3, p=0.235										
Yes, definitely	68.9	51	76.9	20	70.2	33	70.7	104	66.7	76
Yes, to some extent	17.6	13	3.8	1	4.3	2	10.9	16	18.4	21
No	5.4	4	7.7	2	2.1	1	4.8	7	6.1	7
Not applicable	8.1	6	11.5	3	23.4	11	13.6	20	8.8	10
D6 The clinician provided a good support to my family. *Fisher's exact=11.987, **p=0.006**										
Yes, definitely	42.7	32	46.2	12	31.1	14	39.7	58	40.0	46
Yes, to some extent	6.7	5	15.4	4	4.4	2	7.5	11	20.0	23
No	4.0	3	0.0	0	0.0	0	2.1	3	4.3	5
My family did not need support	46.7	35	38.5	10	64.4	29	50.7	74	35.7	41

Table 8.13: Responses from service users to questions on the level of service user satisfaction by type of clinical postholder setting

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n

D1 How satisfied are you with the physical care you received from the clinician? *Fisher's exact=11.527, **p=0.003**

Very satisfied	65.7	46	84.6	22	85.1	40	75.5	108	65.8	75
Satisfied	25.7	18	15.4	4	12.8	6	19.6	28	34.2	39
Neither satisfied nor unsatisfied	7.1	5	0.0	0	2.1	1	4.2	6	0.0	0
Unsatisfied	1.4	1	0.0	0	0.0	0	0.7	1	0.0	0
Very unsatisfied	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Not applicable	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

D2 How satisfied are you with the emotional support you received from the clinician? *Fisher's exact=6.482, p=0.126

Very satisfied	65.8	50	73.1	19	74.5	35	69.8	104	58.8	67
Satisfied	23.7	18	23.1	6	21.3	10	22.8	34	35.1	40
Neither satisfied nor unsatisfied	6.6	5	3.8	1	4.3	2	5.4	8	4.4	5
Unsatisfied	3.9	3	0.0	0	0.0	0	2.0	3	0.9	1
Very unsatisfied	0.0	0	0.0	0	0.0	0	0.0	0	0.9	1
Not applicable	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

D3 How satisfied are you with the practical advice you received from the clinician? *Fisher's exact=7.380, **p=0.039**

Very satisfied	64.0	48	80.8	21	76.6	36	70.9	105	62.3	71
Satisfied	29.3	22	19.2	5	21.3	10	25.0	37	35.1	40
Neither satisfied nor unsatisfied	6.7	5	0.0	0	2.1	1	4.1	6	0.9	1
Unsatisfied	0.0	0	0.0	0	0.0	0	0.0	0	1.8	2
Very unsatisfied	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Not applicable	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

8.2.6.5. Other health outcomes

Other health outcomes found in the qualitative data (prompt and personalised treatment, enhanced compliance with treatments, reduced readmissions, improved health, reduction in problems worsening) were also identified in the quantitative survey. Prompt treatment was noted within the waiting times, discussed previously (Table 8.4) and **a significant difference in relation to personalised care was seen in the answers to question D7, 'I was given sufficient time to discuss my problems with the clinician'; 83% of those attending a postholder said 'yes, definitely' compared with 69% in the non-postholding sites (Fisher's exact=9.086, p=0.025) (Table 8.5).** Results showed no statistically significant difference in the responses provided concerning care given by postholders and non-postholders in answer to questions C4, D4 and D5, which related to following the advice given by the clinician (i.e. compliance), getting enough treatment to help improve their symptoms (i.e. reduction in problems worsening), and the clinician making a positive difference to their health and well-being (i.e. improved health) (Tables 8.8 and 8.12). This indicates that care given by postholders and non-postholders was

equally good in terms of these aspects. No data could be found from service users on reduced readmissions.

A Fisher's exact analysis (as a more appropriate alternative to a Chi-squared analysis) of the categorical responses among the CNS, CMS and ANP service users to question D4,'While you were attending the clinician, did you get enough treatment to help improve your symptoms?', revealed **a statistically significant difference in the responses (Fisher's exact=15.63, p=0.008). The majority of ANP service users (70%, n=33) said 'yes definitely' compared with CMS (65%, n=17) and CNS (59%, n=44) service users (Table 8.12.). In addition, a greater proportion of CMS service users (31%, n=8 vs. 23%, n=11 among ANP and 13%, n=10 among CNS) responded that the question was not applicable.**

A Fisher's exact analysis was also conducted of the categorical responses among the CNS, CMS and AP service users to question D5, 'The clinician made a positive difference to my health and well-being'. This revealed a result approaching statistical significance (Fisher's exact=11.65, p=0.051); the majority of CMS service users (77%, n=20) said 'yes definitely' compared with ANP (70%, n=33) and CNS (69%, n=51) service users. In addition, a greater proportion of AP service users (23%, n=11 vs. 12%, n=3 among CMS and 8%, n=6 among CNS) responded that the question was not applicable (Table 8.12).

8.2.6.6. Difference between AP and CS roles

Overall, in response to a number of the above questions, the positive results for APs appeared higher than those for CNSs, and on occasion higher results were also seen for CMSs compared with CNSs. For example, in answer to question A1, 'When you had important questions to ask did you get answers you could understand?', 94% of those attending an AP said 'yes, always' compared with 89% of those who had attended a CMS, 82% of those who had attended a CNS and 77% of those in the non-postholding sites (Table 8.6). However, these differences did not reach statistical significance when the proportions within the three posts were compared (Fisher's exact=7.835, p=0.161). **Significant differences were seen in the mean minutes that patients/clients waited within the postholding sites; shorter times were observed in the CNS sites (Table 8.14). More clients attending the CMSs (35%, n=9) had visits longer than 60 minutes as opposed to 11% CNS service users (n=8) and 11% AP service users (n=5) (Table 8.14).**

Significant differences were seen between the three posts in eight areas, which are reproduced in aggregate form in Table 8.14. Full details of the question asked and statistical tests used can be found in the original tables relating to those items. **The areas in which APs scored more highly than CSs were: communication, openness and honesty (similar to CMSs), instilling confidence, explaining medicines, providing treatment, and treating clients with respect and dignity. CNSs had the shortest waiting times. The areas in which CMSs scored more highly than either APs or CNSs were: explaining reasons for specific tests, assessments, X-rays or monitoring, and their results, and giving clients more time (Table 8.14).**

Table 8.14: Differences between ANP, CMS and CNS, as demonstrated by the service users' survey

Item no.	Table	Question	ANP	CMS	CNS	P value
A2	8.6	Sometimes in hospital or service, one doctor or nurse (or midwife) will say one thing and another will say something quite different, did this happen to you? **No**	**85%**	58%	60%	0.019
C1	8.8	I believe that the clinician was honest and open with me. **Yes, definitely**	**100%**	**100%**	86%	0.002
C3	8.8	I have confidence in the clinician to provide the care I need. **Yes, definitely**	**98%**	96%	84%	0.023
A9	8.11	Did the clinician explain the purpose of the medicines you were to take at home in a way you could understand? **Yes, completely**	**63%**	54%	47%	0.012
D4	8.12	While you were attending the clinician, did you get enough treatment to help improve your symptoms? **Yes, definitely**	**70%**	65%	59%	0.008
A6	8.6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? **Yes, definitely**	**98%**	85%	85%	0.04
RB2	8.4	I waited the following number of minutes to be seen on my last visit:	107	61	**46**	0.012
A12	8.2	Did the clinician explain why you needed specific tests, assessments, X-rays or monitoring? **Yes completely**	77%	**93%**	51%	0.001
A13	8.2	Were tests, assessments, X-rays or monitoring results clearly explained by the clinician? **Yes, definitely**	68%	**92%**	53%	0.0006
D8	8.5	I was with the clinician for the following amount of time – **% who spent over 60 minutes with the clinician:**	11%	**35%**	11%	0.005

8.2.6.7. Differences in care noted by service users

A final question was asked of all service users who attended a CS/AP: 'Have you noticed any difference in the care given by the CNS/CMS/ANP compared to care given by other members of the healthcare team?' Forty percent (n=57) replied that they had and of these 56 completed the open question asking for comments, all positively. **Thirty-three percent of those attending an ANP (n=15) had noticed a difference, compared with 37% (n=28) of those attending a CNS and 67% (n=14) of those attending a CMS (Table 8.15). These differences were found to be statistically significant when proportions were compared within the three posts (χ^2=7.482, df=2, p=0.024).**

Table 8.15: Service users' overall observation on difference in the type of care received, by nature of the clinical post

Profession	CNS*		CMS*		ANP*		All postholders	
	%	n	%	n	%	n	%	n
F1 Have you noticed any difference in the care given by the CNS/CMS/ANP compared to care given by other members of the healthcare team? *χ^2=7.482, df=2, **p=0.024**								
Yes	37.3	28	**66.7**	14	32.6	15	40.1	57
No	62.7	47	33.3	7	67.4	31	59.9	85
Not relevant	0.0	0	0.0	0	0.0	0	0.0	0

The qualitative comments were analysed and are presented numerically in Table 8.16. Fifty-five of the 57 service users made 132 comments (an average of 2.4 comments each), illustrating what positive differences they saw in care between CSs/APs and non-postholders. No negative differences were noted. Fourteen of them had attended APs, 13 had attended CMSs, and 28 had attended CNSs. Some comments were global in nature, describing their CS/AP as a "guru" (SU 89), "fantastic" (SU 38) or "vital" (SU 37), and writing of their CMS that they would be "lost without her" (SU 108).

Overall, 46% of the service users (n=25) had received more teaching and advice in a way that they could understand; 36% (n=20) described the CS/AP's personality as being different from other members of the healthcare team, using words such as "friendly", "sensitive," "sympathetic," "warm," "understanding," "approachable," "kind," and "patient". Thirty-five percent (n=19) made comments showing that they had experienced holistic continuity of care (Table 8.16); one wrote that her CMS "treats me like a person rather than a medical condition" (SU 108) and another: "I find the switching of doctors intolerable as I have to re-tell my story all the time" (SU 02).

Thirty-eight percent (n=21) had more trust and confidence in postholders than in the rest of the healthcare team, one writing: "I have great faith in her ☺" (SU 181). Twenty-six percent (n=14) wrote that postholders gave them more time to discuss their problems; for 18% of them (n=10) this meant that they were also available by telephone for advice and support. Twenty percent (n=11) also found them more committed, interested in their clients, and attentive to their needs. Fourteen percent (n=4) of the service users attending CNSs appreciated the way that they communicated with and coordinated the rest of the team (Table 8.16), one writing: "She is very aware of our circumstances and will do everything to make things run as smoothly as possible. This does not necessarily happen if the CNS is not involved at a particular visit" (SU 160).

Those attending ANPs commented on the shorter waiting times (36%, n=5) and their decision making skills (14%, n=2). One wrote: "I was very happy...that she was able to give me results of an x-ray without having to wait and see anybody else" (SU 49).

The women attending CMSs wrote more comments about her teaching and advising skills (68%, n=8) than did service users attending CNSs (43%, n=12) or ANPs (36%, n=5). Similarly, 39% of the women attending CMSs (n=5) appreciated the fact that she gave them time to discuss their problems, compared with 21% of those attending CNSs (n=6) or ANPs (n=3) (Table 8.16). These numbers are too small to conduct meaningful statistical analysis. Also, it should be noted that, as respondents chose what to write themselves, valid statistical comparisons cannot be made and the results are presented here for interest only.

Table 8.16: Comments from service users in postholding sites on how care given by their CS/AP differed to care given by other members of the healthcare team						
	ANP		CMS		CNS	
	No. of SUs commenting	No. of comments	No. of SUs commenting	No. of comments	No. of SUs commenting	No. of comments
	14	**33**	**13**	**34**	**28**	**65**
Teaching, advising, very knowledgeable, easy to understand	5 (36%)		**8 (62%)**		12 (43%)	
Personality (friendly, sensitive, sympathetic, patient, kind, warm, understanding, approachable)	5 (36%)		**5 (39%)**		10 (36%)	
Holistic care (more personalised, aware of all my needs, knows me and my family)	4 (29%)		**5 (39%)**		10 (36%)	
Trust (have trust, faith or confidence in CS/AP, relieves anxiety)	**5 (36%)**		4 (31%)		12 (43%)	
Gives me time to discuss	3 (21%)		**5 (39%)**		6 (21%)	
Available by phone	0		2 (15%)		8 (29%)	
Caring (more committed, interested in me, attentive)	**4 (29%)**		4 (27%)		3 (11%)	
Communicates with and coordinates the rest of the team	0		0		4 (14%)	
Decision making – makes decisions on his/her own	2 (14%)		0		0	
Shorter waiting time, seen quickly	**5 (36%)**		1 (8%)		0	

SUs = service users

8.2.6.8. Conclusion

In conclusion, the quantitative and qualitative analysis of the service users surveys revealed that both non-postholders and postholders were providing a satisfactory service which, in many aspects studied, did not differ significantly. This number of non-significant results is understandable, given that we are comparing two similar means of giving care and there is large variability within some responses to some questions. The variability may be a true one or may reflect variability in the clients' understanding of the questions.

In some of the areas detailed above, analysis revealed that postholders were, in the views of the service users, providing a significantly better service. None of the areas examined showed a significantly better service in any aspect in the non-postholding sites. For some aspects, AP services were rated more highly than CNS and, similarly, some CMS services were also rated more highly than CNS and, on occasion, more highly than AP.

Some statistically significant findings may have occurred by chance, but, given where they occurred, often in patterns of similar questions, we are fairly confident that the results are true and would suggest that further significant results could be obtained with a refinement of the questionnaire and an expansion of the sample size. A larger study would provide greater accuracy and some of the items where results were non-significant, but where a trend was shown, might prove to be significant. Full details on all results for CNS, CMS, AP and CNS/CMS/AP postholder results combined and compared with non-postholders are provided in Tables 8.1 to 8.16.

8.2.7. Differences between AP and CS roles

There were many similarities between the roles of AP and CS in the clinical practice area, as both roles were very clinically focused. APs and CSs were both seen as having the autonomy to manage their caseloads, which ensured smoother transition of patients/clients through the healthcare system. The quantitative results showed APs working at a higher level than CNSs. CMSs appeared to work usually at a level equivalent to CNSs, but one that was sometimes equal to, or higher than, APs, in particular in respect of their client education and health promotion role. Furthermore, APs appeared to be engaging in autonomous decision making to a much greater degree than were CNSs or CMSs (Table 8.16).

A key distinction was that APs appeared to be able to both refer and accept referrals, in contrast to CSs, whose ability to take referrals was not evidenced in the fieldnote observations. In particular, there was fieldnote evidence that some healthcare professionals (e.g. physiotherapist, occupational therapist) would not accept referrals from them.

The APs were also seen as performing an assessment, screening and diagnostic role, which helped to reduce total visit times and ensure faster throughput of patients or clients. Therefore, the autonomous role of the APs was linked to their success in reducing waiting time as the service user could be seen by one person rather than waiting to be referred to other members of the team.

8.2.8. Summary

Postholders appeared to differ from non-postholders in the areas of assessment and diagnosis, and referral. The postholders, particularly APs, appeared to provide in-depth comprehensive assessment of service users' needs and quick and appropriate referrals, as compared with non-postholders. The fact that assessments were thorough and personalised was noted as enabling successful treatment or appropriate referral, and a reduction in hospitalisation and unnecessary tests for clients. In addition, waiting times were reduced, thus achieving 'easy access' in line with the aims of the HSE Transformation Programme (HSE 2006c).

Non-postholders carried out assessments in collaboration with other team members. The observational data indicated that the medical staff, particularly the consultants, conducted comprehensive assessments but these tended to be more impersonal and time limited.

Linked to assessment was the role postholders had in relation to referral, similar to the 'consultant' concept mentioned by the National Council in relation to the CS role (NCNM 2008c). Both APs and CSs appeared to have a wide remit to refer service users to other members of the team and other healthcare providers, although CSs were more limited. In the non-postholder sites, it was evident that referral was also taking place; however, there appeared to be more referrals initiated by the consultants, and there was mention of some inappropriate referrals.

In relation to specific outcomes from case management, postholders were identified as differing from non-postholders by having more impact on readmission rates, collaborative decision making, continuity of care, waiting lists/waiting times and workload management – similarly to previous findings of evaluation studies on these roles (NCNM 2004, 2005a). In the non-postholding sites, there appeared to be several examples of good team working and communication but with less evidence or emphasis on collaborative decision making. Team working and communication was consultant-led rather than nurse-led in the examples provided. In non-postholding sites, there also appeared to be more references to nurses following strict policies and procedures rather than using their initiative to undertake autonomous, client-centred care, based on agreed guidelines.

The CSs/APs provided speedy access to care, and hence reduced waiting lists and waiting times, in comparison to non-postholding sites. There were numerous examples provided where CSs/APs managed

a caseload and the perception was that they ensured smoother transition of patients/clients through the healthcare system. In the non-postholding sites, there were numerous comments from nurses and doctors in relation to lack of support to manage the workload efficiently and having insufficient time for service users. It was also pointed out that postholders frequently manage very large clinical workloads, which tends to leave them with less time for meal breaks, and less time for research, education and audit.

There were numerous references, substantiated by quantitative data and documentary evidence, to the fact that postholders develop good relationships with patients/clients because they give people time, listen to concerns and show empathy. The areas where postholders were identified as having more of an impact compared with non-postholders were: developing therapeutic communication, health promotion, education of service user and family, physical and psychosocial interventions. These results are similar to those in previous evaluations of these roles (NCNM 2004, 2005a).

Postholders also used physical and psychosocial interventions to good effect in their care of patients and clients. In non-postholding sites, there was less evidence of holistic care. Postholders were identified as differing clearly from non-postholders in service user satisfaction with a good relationship, improved health knowledge of service users and carers, and health outcomes.

CHAPTER 9
Phase 2: Case study findings (2)

9.1 Introduction

The remaining three themes – clinical leadership, professional leadership, and research – are presented in this chapter. Each theme contains activities that describe it and outcomes that stem from those activities.

9.2 Theme 2 – Clinical leadership

Clinical leadership, one of the core concepts identified for APs by the National Council (NCNM 2008b, d), has also been highlighted by the HSE as important in underpinning patient/client services (HSE 2006c). Although not specifically identified as part of the CS role, the core concepts of education and training, and consultation, outlined for clinical nurse and midwife specialist practice by the National Council (NCNM 2008c), could be said to be sub-components of the clinical leadership role. The importance of clinical leadership has been emphasised recently by the Health Service Executive (HSE 2010b) in its analysis of the clinical leadership development needs of nurses and midwives in Ireland.

This emphasis on clinical leadership is also apparent internationally, with an expectation that clinical leaders will promote change within their organisation or micro-system and thereby shape its culture and way of working (McIntosh and Tolson 2008, Hix et al 2009). Clinical leadership is considered an important factor in the provision of improved patient/client outcomes, enhanced patient care and safety, creation of productive working environments, enhanced teamwork, professional accountability, and advancement of nursing practice (American Association of Colleges of Nursing 2007, Gifford et al 2007, Murphy et al 2009). According to Mantzoukas and Watkinson (2007 p. 33), the ability of CSs/APs "to lead and influence the reasoning of colleagues in the patients' best interest depends on authoritative clinical knowledge and wisdom, the ability to listen and enhance others' strengths, and the conviction to act as a moral agent".

In this study, data confirmed that the clinical leadership component of the role was perceived to feature strongly in the work of all APs and, to a lesser and more variable extent, in CNS and CMS roles. While descriptions from interviews with service users did not point to clinical leadership roles (as these interviews, not surprisingly, focused on the clinical role of the specialist vis à vis their care) data from other sources clearly confirmed a strong leadership function. Data offered many examples of the process used by APs and CSs to influence individuals, the practice environment and infrastructures, and of the outcomes in relation to changes in service delivery, patient/client care and team work.

Clinical leadership is given expression through the following activities:

- active membership of the multidisciplinary team

- active membership of committees with responsibility for policy, practice and guideline development

- initiating and improving patient/client care through service development

- influencing clinical practice through formal and informal education, mentoring, and coaching the multidisciplinary team

- influencing clinical practice through positive role modelling of autonomous clinical decision making and ongoing professional development for the multidisciplinary team.

The findings under each activity are presented first, followed by a section outlining the main outcomes identified as a result of the postholders' performance in each activity area.

9.2.1. Active membership of the multidisciplinary team

9.2.1.1. Communication and coordination

In postholder sites, there was clear evidence that CSs/APs were perceived as central in coordinating patient/client care and communication within the multidisciplinary team (MDT). The interview participants spoke about them as "being a pathway to everything", "the communication link", "the coordinator of the multidisciplinary team", "providing seamless, family centred care", "the linchpin the whole service revolves around" and "having a central role of facilitator and coordinator". This function was evidenced in a number of sources, and seven CSs/APs were in a formal, documented coordination role, as noted in the synopsis of documentary evidence (Table 9.1).

> The CNS is part of a multidisciplinary team and she coordinated the MDT meetings which includes speech and language therapists, social workers, PHNs... The CNS is also responsible for liaising with the theatre staff regarding clients who are to be scheduled for surgery. (Fieldnote observation, postholder site, CNS)

In many instances the CSs/APs were coordinating communication between a diverse range of healthcare professionals, including nursing, midwifery, medicine and allied healthcare professionals. They were also coordinating communication between the MDT and the patient/client and family, and between the hospital and primary care teams, and were frequently the key link person between the MDT and voluntary patient support groups. Numerous examples of formal processes of engaging with the MDT were recorded in the documentary evidence, for example:

- *Weekly management/CNS meeting organisation planner (Documentary evidence, postholder site, CNS)*

- *Evidence of formal processes of engaging with the multidisciplinary team*

- *Weekly timetable that includes scheduled multidisciplinary team meeting (Documentary evidence, postholder site, ANP).*

In non-postholder sites, there was less evidence of nurses or midwives being involved in coordinating patient/client care or communication within the multidisciplinary team, and only one nurse had this function formally noted (Table 9.1). In cases where there were opportunities to engage with the MDT at meetings, it was the CNM, care manager or staff nurse who participated in the team discussions about the management of patient/client care. Some of the problems with nurses and midwives not having a clinical lead were identified by this CNM3:

> They [Staff Nurses] don't have a clinical lead...so any changes from a laboratory perspective would be discussed with the team. When there isn't a clinical lead it's very difficult to introduce the likes of policies and procedures because you do need somebody, a clinical lead...so there is a team, but it's not...a cohesive team as you would have maybe in [other medical teams]. (CNM3, non-postholder site, matched CNS)

For the most part, in the non-postholding sites, it was the medical doctors and not the nurses who were perceived as taking the lead in decision making relating to care.

> Sixty people in the clinic they are all going through it, it would be up to the doctor to decide what the next move would be...clinically we [nurses] would be making no decisions about [these] patients. (CNM2, non-postholder site, matched CNS)

Table 9.1: Comparison of documentary evidence collected in postholding and non-postholding areas

Type	Postholding areas n=23	Non-postholding areas n=23
Audit: 1 in last 5 years	0	1 (4%)
Audit: completed annually	6 (1 APs, 17%; 5 CSs, 29%)	3 (13%)
Audit: completed 1-6 monthly	17 (5 APs, 83%; 12 CSs, 71%)	8 (35%)
Actions taken from audit	8 *a (1 APs, 17%; 7 CSs, 41%)	4 *b (17%)
Nursing patient documents	16 (4 APs, 67%; 12 CSs, 71%)	15 (65%)
Guidelines & protocols present	21 (6 APs, 100%; 15 CSs, 65%)	16 (70%)
Evidence of guideline updating	13 (5 APs, 83%; 8 CSs, 47%)	9 (39%)
Job descriptions available	17 (6 APs, 100%; 11 CSs, 65%)	0
Service user surveys used	8 (3 APs, 50%; 5 CSs, 29%)	2 (9%)
Committee membership	41 committees**a (6 APs, 100%; 8 CSs, 47%)	4 committees**b
Reduced waiting times	Local evidence of reduced times in ED (adult)	Local evidence of reduced times in Colposcopy area
Reduced waiting lists	Local evidence of reduced times in Colposcopy area	
Coordination of MDT	7 (1 APs, 17%; 6 CSs, 35%)	1 (4%)
Patient information resources	16 sites / 63 resources (developed by CSs/APs specifically for their services, in addition to HSE leaflets) (4 APs, 67%; 12 CSs, 71%)	16 sites / 94 resources (HSE/national groups leaflets)
Integrated care planning	8 (2 APs, 33%; 6 CSs, 35%)	4 (17%)
Policy development	6 (2 APs, 33%; 4 CSs, 24%)	1
Service planning	11 postholders ***a (5 APs, 83%; 6 CSs, 35%)	1***b (4%)
Research undertaken	15 (6 APs, 100%; 9 CSs, 53%)	7****b (9%)
Education facilitated for all members of MDT	20 (6 APs, 100%; 14 CSs, 82%)	5 (22%)
Publications & presentations including poster presentations	16 (5 APs, 83%; 11 CSs, 65%)	5 (22%)
Conferences attended	16 (6 APs, 100%; 10 CSs, 59%)	1 (4%)

MDT = Multidisciplinary team
Actions included:
*a service planning initiatives, staff screening service, patient discharge programme;
*b action planning, adding an extra clinic and gaining phlebotomy services
**a 14 postholders – many practitioners were on multiple committees
**b 2 non-postholders on 2 committees each (% is of personnel)
***a initiatives identified included development of a new clinic, development of a triage tool, staff training needs planning;
***b service planning from a training needs analysis
****b 5 were medically led research

Despite this, comments in non-postholding sites did not speak of the doctors as being 'communication links' or 'coordinators' of care, so their decision making function did not seem to equate with the similar role undertaken by ANPs.

9.2.1.2. Acting as a resource and consultant

Data indicated that CSs/APs were recognised by people within the MDT as a resource because of their clinical expertise in their area of specialist practice. Interview participants spoke of CSs/APs "having a huge skill level", "knowing what they are talking about" and "having an expert knowledge" that they brought to their area of specialist practice. CSs/APs frequently had patients or clients referred to them or were consulted by the MDT and patients, clients or relatives about care issues. The summary of fieldnote observations below illustrates the degree to which the MDT accessed the CSs/APs as a resource.

> She was bleeped by 2 doctors requesting her input in the medication management of a client due for discharge. Another bleep was from a GP asking for her advice regarding one of his clients. (Fieldnote observation, postholder site, CNS)

> Her advice was constantly...being sought from the doctors, the nurses and the patients. It was incredible the demands for advice that were posed to her on her visit to the ward. Queries were addressed to her from all levels of staff and patients directly, via phone and email. (Fieldnote observation, postholder site, CNS)

> During observation the ANP was asked by a doctor to assess a wound on a child that the doctor was caring for, and the ANP was asked by a doctor to read an x-ray of a child being cared for by the doctor. She explained fully her decisions based on current research based evidence. (Fieldnote observation, postholder site, ANP)

The CSs/APs were also a resource for the Directors of Nursing.

> *If you've a problem... I can ring up. For example, in relation to the whole issue of resourcing...the establishment of some of these services...we have used their expertise. We have invited them in, looked at 'is there any solutions we can develop here?'. They have been extremely supportive and have been in any practical help they have given. As the DoN, I can't imagine what it would be like without them. (DoN, postholder site, CNS)*

9.2.2. Outcomes of active membership of the multidisciplinary team

One important outcome of the CS/AP's involvement in the MDT was a perceived improvement in continuity of patient/client care.

> *It's an extremely important role. We couldn't do without her now and I wouldn't even like to try...[CMS] brings cohesion because primarily she's a midwife so she's acting as the interface between all of the disciplines for the patient. (Doctor, postholder site, CMS)*

> *...the consultant might be down there [in the clinic] two days a week. She [CNS] was running a five-day service. (DoN, postholder site, CNS)*

The fieldnote observation in this site confirmed this view:

> [Referring to the CNS] Invaluable – key to having good outcome for patients – MDT co-ordination ensures that the patients access all available services in a timely and coordinated manner. (Fieldnote observation, postholder site, CNS)

Another important outcome of good communication in the MDT was prompt referral of patients/clients

to the relevant specialist.

> So, to have someone [CNS] with those specialist skills who would often see patients we're not actively involved in, and who would ensure their stability, their ongoing work in terms of their [healthcare problem]. In addition to that, if there's any relapse in [healthcare problem] and they are attending [CNS], they would often be referred back to us promptly. So, you would meet their needs much quicker and that's done through multidisciplinary team referral and open lines of communication... The service user is getting care in a coordinated and planned fashion. (Doctor, postholder site, CNS)

The CS/AP contribution to the multidisciplinary team also was said to reduce the workload pressure of medical practitioners (see 8.2.2.5. also):

> The need to contact me isn't perhaps as compelling or as frequent as prior heretofore because she's [CMS] able to make some of the decisions. (Doctor, postholder site, CMS)

> ...it's great to have one person who is there all the time. Without a shadow of a doubt, she has made a massive contribution to the care. (Doctor, postholder site, CMS)

A further stated outcome relating to the CSs/APs' work as consultants was that it reduced patient/client readmission to hospitals.

> [The staff nurse] nurse calling...we can't manage her [patient]. So the nurse [CNS] goes in there more to advise on the nursing care...she would go in, advise and visit patients belonging to the service to see how they're getting on and to advise, maybe that would prevent them in the future having to be admitted. (DoN, postholder site, CNS)

However, a negative outcome of this reduction in the workload of medical practitioners was the opinion that it resulted in de-skilling of medical colleagues.

> One of the only negative outcomes of that is we have very, very senior nurse practitioners who are very, very senior [area of practice] nurses who have essentially now become focused in one particular genre of [area of practice] and that expertise has therefore by definition been lost to the front end of the department. (Doctor, postholder site, ANP)

The concern over de-skilling was also expressed by Directors of Nursing, who in some situations were proactive in reducing the risk by ensuring that the CSs/APs took on a coaching or mentoring role towards more junior nursing colleagues.

> We have a specific [specialty] clinic here. We've got maybe 660 attendees. That wouldn't be her key role. She would advise on the [health problem] rather than implement. I think it's important for staff...you don't want just one person to have that expertise and knowledge. That knowledge has to be shared. I think it's very important that the other members of the team keep their skills up... We don't want all the decision making in relation to treatment and [health problem] and everything just to be taken over by the ANP. (DoN, postholder site, ANP)

In non-postholder sites, similar comments suggest that de-skilling is a generic concern, not specifically related to CSs/APs.

> If she's [staff nurse] away for a week we can work around it,...but, in many ways there's no harm in that as a doctor. There's no harm for me to do [clinical intervention] occasionally because it's important that you don't get de-skilled completely. (Doctor, non-postholder site, matched ANP)

9.2.3. Active membership of committees with responsibility for policy, practice and guideline development[13]

It was evident from the interview and documentary data gathered during the observation phase that guideline and policy development was happening across both postholder and non-postholder sites. A greater number of postholding than non-postholding sites had guidelines present in the clinical areas (21 versus 16) (Table 9.1) and, in addition, in each postholding site, there were a number of guidelines present, whereas the number in non-postholding sites tended to be fewer. In postholding sites, the quality was also higher, with more evidence of research literature to support decisions on care. Similarly, six of the postholding and one of the non-postholding sites had printed policies available (Table 9.1).

One notable difference was that, in the postholder sites, the CSs/APs led guideline or policy development. The following is an exemplar of many fieldnote observations made on this topic:

> The CMS has developed clinical care pathways, assessment and monitoring tools for herself and the ward areas. She has been involved in the formation of the clinical care guidelines. (Fieldnote observation, postholder site, CMS)

The contribution of the CSs/APs in leading guideline and policy development was also affirmed during interviews with members of the MDT.

> *There wouldn't be care guidelines without an advanced nurse practitioner. Yes, they wouldn't exist at all. (Doctor, postholder site, ANP)*

> *[CNS] would have spearheaded those. I would find [CNS] is great in that she knows where to source information and because of her [specialist education] and her Master's and all that she had done, we rely on her...only for [CNS]...we would not have achieved what we do. (CNM, postholder site, CNS)*

> *One of the things the ANPs have done expertly is being very clear to develop clear policies around quite a large portfolio of patients. There is good stability behind the policy documentation around the practice. (Doctor, postholder site, ANP)*

The clinical leadership ability of the CSs/APs was evident in the activities of leading guideline developments within their own area of specialist practice, implementing the new guidelines and, in a few instances, coordinating a review or audit cycle. Where a review cycle was being carried out, the CSs/APs updated the guideline in line with their scope of practice and with reference to international best practice and research. There was more evidence of frequent guideline updating in postholding sites (13 versus 9) (Table 9.1). In addition to leading the development of guidelines, the evidence suggests that CSs/APs were instrumental in disseminating the guidelines through devising educational programmes for staff.

> *She [CNS] was...setting up the policies or...developing the practice through an evidence-based [approach], linking in with a team leader, who linked in with the team, who linked in with the core team, the CNM2. So, she was absolutely central. She provided the education. She provided the research. She brought them along. She empowered them. So, yes, I would say we are an evidence-based organisation, through her role. CNM2 couldn't do that. (DoN, postholder site, CNS)*

Documentary evidence cited below confirms the level of policy and guideline development, and a range of review and implementation activities carried out by CSs/APs:

- Schedule of Audits and Review of Clinical Practice

- Year Schedule for Project Team Audits
(Documentary evidence, postholder site, CNS)

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[13]The terms *guideline, policy* and *protocol* were used interchangeably by participants in the case study sites.

- Hospital Policy and Practice Guideline Manual for [named patient condition]

- Protocol for management of [name of patient condition/problem]

- Team member of multidisciplinary research project that supports a clinical practice initiative (Documentary evidence, postholder site, CMS)

- Publication of quarterly review of [name of clinical practice and clinic]

- Audit tool

- [Name of patient group] questionnaire about satisfaction with delivery of care (Documentary evidence, postholder site, ANP)

- Training Needs Analysis and Self-Assessment survey – includes policy and practice guidelines (Documentary evidence, postholder site, CNS).

CSs/APs were also recognised as experts and were called on as consultants by others when writing guidelines.

> *I actually did the plenary guidelines and she [CNS] went through them with a fine tooth comb to make sure they were right because that wasn't something I knew much about, the actual management of complex cases. (CNM2, postholder site, CNS)*

An important factor influencing their success in guideline development was the CSs/APs' clinical expertise, up-to-date knowledge, ability to source information efficiently and liaise with other specialist practitioners in the region or with other staff/colleagues within the organisation.

> *In relation to the ANP, I would see her role very much in ensuring best practice in the department and being involved in developing guidelines that are required in relation to a new type of treatment or maybe a change in antiseptic cleansing lotions, or whatever we use. She would always be involved in searching for the up-to-date practice and ensuring we have best practice. She would have a key role in ensuring good practice... They would lead on policy and guidelines for the management of patients. In relation to education for parents, education for staff. They would be key. (DoN, postholder site, ANP and CNS)*

In the postholding sites there was also evidence that CSs/APs were involved in influencing policy and practice through membership of local committees. The committees had responsibility for strategic issues (heads of department committee, policy and procedures committee), staff education (in-service education committee), quality assurance (quality steering committee), and multidisciplinary practice issues (drugs and therapeutics committee, patient/client documentation and records). In postholding sites, CSs/APs sat on 41 committees, with the six ANPs most active, and had a total membership of 20 committees between them. In non-postholding sites, two of the observed nurses sat on a total of four committees (Table 9.1).

In the non-postholder sites, it was evident that guideline and policy development was also taking place, however, the documentary evidence was less in these sites (Table 9.1). Nursing and midwifery contributions, in the majority of cases, came from members of existing guideline or policy development committees. It was evident from the data that non-postholder healthcare organisations had their own processes with responsibility for drawing up local policies and guidelines.

> *We have a policy, procedural, guideline committee in the hospital. We get a list of all the policies then that are due for renewal and we write to the author, they get an email to say your policy is due for updating. We don't have a huge amount because we don't have a clinical nurse specialist and we don't have somebody who is into research and all that in the department. So, any that are done heretofore have been done through the Drugs and Therapeutic Committee*

and myself [CNM3]. (CNM3, non-postholder site, matched CNS)

We had a policies procedures group. I [DoN] chaired it until I took up this job but I could no longer chair it...there's a lot of work involved. We've been trying to re-establish it. We now have a group of 8 people, all of whom are nurses who are willing to sit on it. (DoN, non-postholder site, matched CNS)

The responsibility for leading the development and reviewing guidelines in non-postholder sites was delegated to a range of healthcare clinicians, including nursing practice development coordinators, the Directors of Nursing or Midwifery, Assistant Directors of Nursing or Midwifery, Clinical Nurse or Midwife Managers, staff nurses or midwives and medical consultants.

The staff nurse had a central role in the development of the research based guidelines and practices required for HIQA. The staff nurse has acted as consultant and maintained all the documents within specific folders which are available to staff for referral at all times and are available on each unit. She is very pro active at developing new standards as client needs identify. (Fieldnote observations, non-postholder site, matched CNS)

The [staff] nurse is not involved in any policy development. [Name] diseases were the mandate of the consultant of which [type of clinical practice] is a subset. [Medical consultant] was involved in the set up of the [name] clinic, the treatment protocols and policies which were used in the clinic. (Fieldnote observation, non-postholder site, matched ANP)

The responsibility for implementing the policy and educating staff rested with various nursing and midwifery grades.

Since she [Assistant DoN] came along, she has helped us, I suppose, to become aware of how important it is to have documentation and the importance of the availability of all the policies and everything in the ward, and...to encourage people to read them and...be aware that they are there. (CNM2, non-postholder site, matched CNS)

In one non-postholding site there used to be a CNS in post who has since left without being replaced. The fieldnote observation for that site contained this entry:

There were no up-to-date specific policies for [health condition] other than what was compiled by the CNS who left (and reportedly is not being used now) but there was general medical information some of which was pertinent to [health condition]. Data on [health condition] outcomes specifically are no longer available. (Fieldnote observation, non-postholder site, matched CNS)

Overall, although guideline development and review did take place in all sites, it appeared to occur less frequently and have less of a focus in non-postholding sites than in the postholding sites.

9.2.4. Outcomes of active membership of committees with responsibility for policy, practice and guideline development

There were a number of perceived outcomes from guidelines developed by CSs/APs. Participants said that they made an impact on service delivery and influenced clinical practice of nurses and midwives through the use of evidence based assessment tools, such as falls assessment, skin assessment, psycho-social assessment, and challenging behaviour assessment tools. They also enhanced the use and understanding of nursing or midwifery documentation and provided clear care pathways for nurses and midwives to follow in their everyday clinical practice.

> *They [CNSs] worked on referrals and protocols and policies and the feedback from the consultant is that it has made a huge difference to her and to the team and to the way the business is run there. (DoN, postholder site, CNS)*

In addition, another outcome was empowering clinicians to take pride in their patient/client care and in gaining accreditation.

> *I [CNM2] would have been one of the ones prior to the accreditation coming in ahead and saying, like what's this accreditation going to demand of us? We all gave...100%, as we thought, to our patients...but...there was no written documentation to say we gave the excellent care that we give. So, I think through [CNS]'s influence, this has been brought to the fore and empowered all of us to take pride in our care and our care plans. (CNM2, postholder site, CNS)*

The observations recorded below illustrate the outcomes observed to occur from guideline development by the CSs/APs.

> The result was one central policy on the referral...in the region and a much more suitable referral policy. Something that really changed over the 13 years in role. (Fieldnote observation, postholder site, CNS)

> In order to achieve and maintain the standards by the University of [name of city] and HIQA, the CNS coordinated a number of working groups within the unit who had responsibility for devising best practice guidelines from the research evidence. The CNS acted as consultant and maintained all the documents... The CNS provides leadership within the specialist...nursing field in leading the accreditation process to the successful awarding of Practice Development Unit and centre of excellence [in patient care]. She acts as a role model and resource and achieving accreditation has enhanced patient centred and specialised nursing care practice standards within the unit. (Fieldnote observation, postholder site, CNS)

There did not appear to be such enthusiastic views on the beneficial impact of guidelines in non-postholding sites and no meaningful data were available for presentation.

9.2.5. Initiating and improving patient/client care through service development

There was clear evidence that CSs/APs were actively involved in developing new patient/client services within their organisation. Coming from a position of knowing the local context and patient/client group, and motivated by a desire to improve the patient/client journey, CSs/APs in postholding sites led on a wide range of service initiatives. There were four areas of service development evident in the data:

- developing new nurse-led clinics for specific patient/client groups, including health screening across the lifespan

- expanding nurse-led clinics to new patient/client groups

- increasing the number of existing clinics to reduce the waiting times

- reviewing patient/client pathways of care and care processes to improve efficiency of referral and follow-up processes, and reduce risks to patient/client safety.

The following observations and documentary evidence profile some of the many initiatives undertaken:

> The CNS was very involved in a number of clinical initiatives since she came into post 4 years ago. She devised the documentation system following consultation with other units...set up the

current laboratory mechanisms following coordination with the chief laboratory manager...established an appointment structure to give coordination to the clinics...established another clinic to cope with increased numbers attending the service and increased workload demands...formulated the service referral form and the discharge referral for the clinic...liaised with management to secure additional service and administrative assistance during clinic periods...developed the postal system for record books if required by patients to avoid delaying them at the clinic. (Fieldnote observation, postholder site, CNS)

- *Guideline for the management of [patient problem]: a multidisciplinary approach*

- *Patient information leaflets*
  (Documentary evidence, postholder site, ANP)

- *Triage tool developed for clinical practice*

- *Intravenous rehydration programme for (specific patient group)*

- *Patient information leaflet*
  (Documentary evidence, postholder site, ANP).

CSs/APs also had a direct impact on service development and used their skills, ability and knowledge to make a case for service development and change, and to advocate on behalf of patients/clients.

The CNS is a client advocate and is very active in this regard. During a recent staff shortage the CNS was very vocal in her advocacy for her client group and the importance of staff numbers regarding maintaining standards and best practice. (Fieldnote observation, postholder site, CNS)

By contrast, in the non-postholding study sites, the level and range of service development was not as evident as in postholding sites. The service developments focused more on the care processes, such as assessment tools or teaching nurses and midwives to undertake specific tasks, for example, smear tests, and setting up support groups for carers. These service development initiatives were led by Clinical Nurse or Midwifery Managers or doctors.

9.2.6. Outcomes of initiating and improving patient/client care through service development

The positive outcomes from the CSs/APs' service development initiatives varied between services and included:

- a reduction in waiting times (see sections 8.2.2.4, 8.2.2.5 and 8.2.5.3 also)

- efficient and timely screening of inappropriate referrals

- introduction of patient/client administration system

- easier access of patients/clients to appropriate and specialised services for vulnerable groups

- a more streamlined, efficient and effective service provision and referral process (see sections 8.2.1.2 and 9.2.1.1 also)

- introduction of interpreter support systems for non-English speaking patients/clients

- increased interaction between hospital and community, resulting in improved follow-up care.

An additional outcome for one service was becoming the regional centre for referral, although a negative outcome of this was an increased workload for the CSs/APs.

> *Their workload has increased and I suppose the fact that we are now the centre for referral...that has brought more activity into the unit. [CNS] would have introduced smear taking clinics now. She has started that... That was her initiative. (DoN, post-holder site, CNS)*

Another perceived outcome was related to improving documentation evaluating patient/client interventions.

> It wasn't really until the CNS came on board that we actually started having proper documentation in the area of recording. Everything was kind of ad-hoc before that. When the CNS came on board, we actually had proper documentation... Everything now is traceable, from the start of the programme to the end of the programme. Staff got used to that because it's more focused for them to follow their exit strategies than just word of mouth. So, anybody coming in to [Name] from another area would be able to read the strategy and be able to follow it closely...that's down to the CNSs having the paper trail. You can actually go back and see if the intervention is working and the consistency of staff and the CNSs play a huge role in that. (CNM3, postholder site, CNS)

Another positive outcome in service development is that the CSs/APs stimulated and motivated other healthcare practitioners in the service to make changes in their services.

> *That ANP gave the impetus that was needed to help people say, "I can move in there too."...one clinic in particular, they took on a form of what the ANP was doing. They couldn't fully do it. They didn't have an ANP but they took on a waiting list initiative based on a similar principle...I think what happened in the ANP area, it facilitated the others to think outside the box and think, "There's an ANP doing this. What can we do?"... Other teams said, "Maybe we could try that." It has had a knock on effect. (DoN, postholder site, ANP)*

Furthermore, there was some evidence that CSs/APs were involved in improving the patient/client's healthcare journey by lobbying within their organisation for better resources.

> The CNS has put forward a number of issues to facilitate the use of the service for clients...has lobbied and got access to disabled parking spaces just beside the entrance [to the] outpatient's department. The CNS supports the application for disability access identity cards for the clients, an issue that has been much referenced by the clients. In addition, the CNS has accessed non-related appointments for the clients such as Swine Flu vaccination, connection to the public health nurse/social worker to access disability supports such as social welfare, home improvements. Giving the clients support in this has been critical in the quality of life for the clients. (Fieldnote observation, postholder site, CNS)

Again, de-skilling was mentioned as a negative outcome of the CS/AP in relation to service development, although examples given tended to be examples of normal progression of others up a career ladder, when relieved of tasks they previously undertook. As one doctor stated:

> *It has changed what I do and in many ways... I'm now de-skilled in lung disease because I would rarely see them. There's no point in my doing what she does. (Doctor, postholder site, ANP)*

9.2.7. Influencing clinical practice through formal and informal education, mentoring and coaching the multidisciplinary team

9.2.7.1. Formal and informal education

There was clear evidence that practitioners in CS/AP roles were actively involved in promoting best practice through education of members of the multidisciplinary team within their organisation. The focus of the education was fourfold:

- providing education relating to their area of clinical practice and expertise

- educating people about their advanced practice role

- identifying deficits in clinical practice and providing education

- educating staff in the organisation about how to develop a new advanced practice post or set up a new service.

The data provided evidence that CSs/APs were involved in the education of a wide range of practitioners, including undergraduate and post-graduate student nurses and midwives, medical students, junior doctors and registrars, allied healthcare practitioners such as ambulance personnel, porters and care assistants. In 20 of the 23 postholding sites, the CS/AP was involved in facilitating education for other health professionals, compared with five clinicians (all nurses) observed in the non-postholding sites (Table 9.1).

Although many of the CSs/APs in this study were hospital based, they reached outside the walls of the hospital and their team to influence patient/client care through the education of colleagues in community practice, such as practice nurses, general practitioners, public health nurses and nurses in nursing homes.

A key aspect of clinical leadership is the ability to identify and lead the development of educational programmes that impact on service delivery and patient/client care. In the postholding sites both advanced practitioners and clinical specialists demonstrated their clinical leadership by identifying educational deficits in their area of practice, and responded by designing new programmes of education.

> *That [area of clinical practice] was identified as a learning need. The ANPs identified that and introduced an education programme, so that was as a result of need. (DoN, postholder site, ANP)*

> *[CMS] developed a 'Skills and Drills' session where she has all of the specialists involved in various two hour sessions between groups, whether it's a quick update on [clinical practice] or emergencies...whatever it may be. (DoM, postholder site, CMS)*

The fieldnote observations and documentary evidence confirmed the CSs/APs' involvement in education.

> *She [ANP] developed her own 2-day training module to prepare staff for the change model and delivers it within [name] service teams. (Fieldnote observation, postholder site, ANP)*

> - *Lecture material/presentations.*
>
> - *Programme of weekly training and education lectures/sessions.*
>
> - *Preceptor guidelines for student nurses
>   (Documentary evidence, postholder, CNS).*

Furthermore CSs/APs were also involved in educating informal care providers, namely, parents and carers, through formal education inputs and the development of education leaflets.

A wide variety of educational opportunities and methods were used. For example, giving formal lectures as part of orientation programmes, in-service education programmes, running clinical practice skills workshops, holding an open day for staff, and informally through presenting at clinical meetings of the MDT, visiting wards, attending nurse or midwife handover reports, being available to respond to staff questions, having one to one sessions with nurses/midwives at ward level, being shadowed by students, distributing up-to-date articles and guidelines to clinical staff, and developing posters and handouts for the ward.

By contrast, in non-postholding sites, although in-service education for the multidisciplinary team did occur, there was less evidence of nurse or midwife involvement in providing this education. For the most part, education about patient/client care and new treatments/procedures/equipment was provided by doctors and other healthcare professionals such as pharmacists, dieticians, physiotherapists, therapists, and service managers and company representatives. In cases where nurses or midwives were involved, it was part of their managerial role, for example, CNMs, DoNs, Practice Development Coordinator and Clinical Placement Coordinators. Where staff nurses or midwives were involved in education, it was part of their professional role in mentoring undergraduate student nurses/midwives while on clinical practice placements. In one case, there was evidence of formal in-service education programmes that were organised by a nursing practice development department. However, for the most part, education was informal and the need for a more coordinated approach to meeting the educational needs of nurses and midwives was recognised.

> The staff nurse is involved in staff education and presented sessions about HIQA to all staff in preparation for the HIQA visit. (Fieldnote observation, non-postholder site, matched CNS)

> The consultant is involved in educating nursing staff on all wards in treatments and equipments specific to clients both inpatient and outpatient with various [area of specialist practice] conditions. The consultant stated that due to fact that his inpatient caseload spans all wards...many teams of nurses require education on the specific nursing care management of [area of specialist practice] patients. Due to his workload he felt that he was unable to facilitate this educational role fully...he is often asked for help from the nursing staff on their set up and functioning [of equipment]. A role he feels would benefit greatly from having a respiratory nurse to coordinate nurse education. (Fieldnote observation, non-postholder site, matched CNS)

In non-postholding sites, there was also less evidence of nurse/midwife involvement in leading the development of educational programmes. Where it did exist, it was a role that was specifically designated to an Assistant DoN.

> There is a designated ADoN whose role is to lead educational programmes within the community hospital and the staff nurse has facilitated sessions in liaison with the ADoN. She has also been involved in a training needs analysis of nursing and clerical staff which is feeding into future educational staff programmes. It is reported that she is used as a resource for knowledge by the nurses within the community hospital. (Fieldnote observation, non-postholder site, matched CNS)

9.2.7.2. Mentoring and coaching

Mentoring and coaching other members of the multidisciplinary team is another important aspect of clinical leadership. In the postholding sites, both advanced practitioners and clinical specialists demonstrated their clinical leadership by mentoring and coaching healthcare staff in developing their clinical skills and encouraging staff to initiate projects that would lead to improvements in their area of clinical practice. Advanced practitioners mentored a wide range of healthcare staff within their own area of clinical practice, including new staff nurses or midwives, undergraduate student nurses or midwives,

medical registrars, other therapists and CSs.

> New medical registrars seek her [ANP] advice and assistance. She is currently supervising a new registrar on the unit regarding [name of procedures] techniques. (Fieldnote observation, postholder site, ANP)

> • *News bulletin update and information from National Centre for Research and Development in Ireland relevant to area of clinical practice [placed on notice board for all staff by CNS]. (Documentary evidence, postholder site, CNS)*

The interview data also referred to the mentorship coaching role of the CS/AP.

> *[Referring to CNS] mentoring of people and developing their skills, especially some of the younger nurses, some of the younger care staff coming out...there's a lot of that kind of informal coaching or education going on. (DoN, postholder site, CNS)*

By contrast, in non-postholding sites, there was little evidence of nurse/midwife involvement in improving clinical practice through mentoring and coaching the multidisciplinary team, apart from preceptoring undergraduate nursing and midwifery students.

9.2.8. Outcomes of influencing clinical practice through formal and informal education, mentoring and coaching the multidisciplinary team

9.2.8.1. Outcomes of formal and informal education

While the descriptions of the educational activities were strongly suggestive of clinical leadership, a focus on activities alone does not provide insights into the outcomes of education. Outcomes, however, did emerge from the interviews with members of the MDT and DoNs/DoMs and the observation data. The outcomes evident in the data were that CSs/APs in postholder sites had a positive impact on clinical practice through enabling healthcare staff to work more effectively with particular client groups and through improved patient/client care post discharge.

> *We have a lot of nursing homes and...we felt when the nurses were visiting, they didn't really have any knowledge as regards the type of patient and how to handle patients [with specific problem]... I have a [CNS] who...provides an education programme. It's structured, it's monitored... She goes out and educates the staff in the nursing homes on management of certain types of patients. (DoN, postholder site, CNS)*

> The CNS spends most time linking with this team and also teaching and helping ground level staff such as care staff and staff nurses to learn how to notice triggers to behaviour, redirections and coping mechanisms so they can work effectively with service users. (Fieldnote observation, postholder site, CNS)

Access to specialised health services was maximised through improved links between primary and tertiary facilities.

> *The CNS had to sort of almost educate local GPs, PHNs and all that, into what her role was all about. And that took a bit of time, but once it was grasped, now [CNS] is the person that they link into for all clinical issues. So, if something arises in the community...the GP will get onto [CNS] almost immediately...that obviously provides access to service for the older people...easier access to specialised services. (DoN, postholder site, CNS)*

Reduction in length of hospital stay for children was perceived to have improved.

The key part of this is to get the child home. So, we would have training programmes for parents in relation to [child health issue] and management of [practice area] to train them up for moving home. We run a 6 or 8 week programme with parents... There's a real drive to get these children managed at home and to put in as much education [as necessary]. (DoN, postholder site, CNS)

Participants mentioned how family carers' satisfaction with information provided had improved due to the CSs/APs' input.

I'd often hear relatives saying to me "[CNS] is such a resource to have. To get the information even, never mind care. To get the information...that it's great to be able to contact just one person." (DoN, postholder site, CNS)

In at least one instance, staff attrition rates in an area of clinical specialty were reduced.

The ANP was instrumental in establishing a start up programme for new nurses starting in [area of practice] to give support. She picked up some floundering and leaving shortly after joining [area of practice]...put together a start up programme for support. (DoN, postholder site, ANP)

Documentary evidence in the postholder sites provided ample evidence of benefits of CSs/APs' clinical leadership. For example, in one site, the ANP had achieved the following:

- *Supported the development of 22 ANPs both locally and nationally*

- *Developed guideline for the management of [problem]: a multidisciplinary approach*

- *Improved waiting time for patients*

- *Improved patient satisfaction*

- *Expanded referral pathways to match patient need*

- *Expanded scope of practice to include patients with complex presentations (Documentary evidence, postholder site, ANP).*

9.2.8.2. Outcomes of mentoring and coaching

Important outcomes of mentoring and coaching other healthcare staff were that it resulted in them advancing their own professional knowledge and skills and stimulated practice development through research.

She [ANP] was persuading me to do my Master's, which I eventually did, and I firmly believe it wouldn't have happened if it weren't for her encouragement...she's different to other nurses, she's just the most encouraging nurse I've ever come across. I was never as developed as I was until I came here and...just very encouraging. (Nurse, postholder site, ANP)

She's [ANP] encouraged us to do research to kind of identify the problems within service...for example, access...she encouraged me to do a study to identify exactly how the patients feel about how easy it is to access the service and how satisfied they are with the service and what they think could be improved...that gives us the hard evidence to say, these are the problems patients are having and now we're going about trying to address them, trying to improve things and increase capacity and shorten waiting times. (Nurse, postholder site, ANP)

In addition, support of other members of the MDT was perceived to have improved their clinical management of patient/client care.

The CNS...has moulded a team of professionals...such as OT, physio, speech and language,

workers at care assistant level...has up-skilled them to deal with things like parenting, counselling to a certain degree, and recognising issues that might arise at home. (DoN, postholder site, CNS)

9.2.9. Influencing clinical practice through positive role modelling of autonomous clinical decision making and ongoing professional development for the multidisciplinary team

There was clear evidence that APs, in particular, were demonstrating clinical leadership to other nurses and midwives by being a positive role model themselves in autonomous clinical decision making.

The big difference in terms of their clinical practice [CNS and ANP] would be the autonomy that the ANP would have and maybe the clinical decision making... I think what the ANPs are doing is a far superior level as regards their clinical autonomy and their ability to make decisions and process patients. (DoN, postholder site, ANP and CNS)

In addition, there was evidence that practitioners in CS/AP roles were actively engaged in the leadership process by being a positive role model for ongoing professional development. They created a positive milieu towards ongoing development through behaviours such as; engaging with clinical supervision (where available); keeping up-to-date with new practice development and research evidence by attending courses, conferences, other education fora and reading journals; networking with other colleagues through formal professional support groups to maintain awareness of current practice developments, and networking with other professional colleagues within and outside their own services to discuss how to manage situations involving challenging and difficult patient/client cases.

She [ANP] is a member of the ANP Network Support Group within her hospital. The group meets 2 monthly to discuss professional development issues and identify quality improvement initiatives from a corporate perspective. (Fieldnote observation, postholder site, ANP)

By contrast, in the non-postholder sites, there was varied evidence of nurses and midwives being actively engaged in ongoing professional development or keeping up-to date with practice development through networking with colleagues in other healthcare organisations.

The [practice area] nurses from the region meet regularly and have a good support and educational network. (Fieldnote observation, non-postholder site, matched ANP)

Both the quantity and quality of such development, however, appeared to be less than was observed or spoken of in the postholding sites.

Not particularly to [area of specialist clinical practice], no. Apart from study days and conferences really they wouldn't [have opportunity to make professional connections outside of the hospital]. (CNM3, non-postholder site, matched CNS)

9.2.10. Outcomes of influencing clinical practice through positive role modelling

Participants explained how postholders' autonomous decision making resulted in positive benefits for patient and client care, and some examples were given:

[CNS] does her own rounds, regularly. We have a registrar. They would go around and learn from her. In other words, they [doctors] are not going around necessarily to run the round. It's [CNS] really who is running the round. She would regularly pick up clinical problems that are new, that somebody without her experience wouldn't...have detected. (Doctor, postholder site, CNS)

They provide a level of continuity of care and input the medical team might not necessarily have because you're changing doctors on a regular basis...you have that level of senior clinical leadership. That's where I would see CMS and AMPs providing a massive support for not only the parents, but the junior midwives and nurses and the junior doctors. (DoM, postholder site, CMS)

Other outcomes included nurses and midwives being stimulated to emulate the postholder's activities themselves, including this comment from one nurse:

She's very much involved with all of our professional development – as in the nurses. She's very interested and very enthusiastic... I just haven't come across anyone who was as motivating and as inspiring as she was. (Nurse, postholder site, ANP)

9.2.11. Contextual and mediating factors that influenced the CSs/APs' ability to perform a clinical leadership role

In view of the current context of CSs/APs' development in Ireland, data confirmed that the clinical leadership ability of CSs/APs depended not just on clinical expertise but also required developed interpersonal skills as well as local and contextual knowledge. A number of mediating factors influenced the advanced practitioner's ability to perform a clinical leadership role, which included the organisational culture and constraints imposed by resources, such as time and number of CSs/APs in an area.

Because we had four ANPs in [area of clinical practice], they were more readily able to do it. Whereas if you only had one ANP in [area of clinical practice], you might have a bit of a difficulty. (DoN, postholder site, ANP)

Her role as a staff educator is a lot more difficult. That's really, I suppose a time issue. She is the only CNS in this area. Clinics have been increased. (CNM3, postholder site, CNS)

If I were to say to our [specialist area] people, "Let's free up [ANP name] and let her go out and do education for a day." I mean, [ANP name]'s workload is phenomenal. She's a standalone ANP in a very busy service...every minute of her day is tied up and a lot of it is clinical focused...she does a lot of hands-on, practical teaching at the time, but if you were to try to take her away from that for half a day every so often it would be difficult. (DoN, postholder site, ANP)

In addition, one participant raised other issues in terms of maintaining services with AMPs and CMSs in post due to the difficulty of finding personnel with the right amount of experience and the current employment control framework within the HSE that effectively prohibits filling vacant posts:

When somebody leaves a post, you can't get someone immediately with the expertise...the post is effectively lost to the service because of the lack of succession planning and the lack of an ability to recruit someone into the job. (DoM, postholder site, CMS)

CSs/APs also had to address resistance and power relations, and gain and keep the respect of doctors, staff nurses, management and other members of the multidisciplinary team.

[Referring to members of the multidisciplinary team] People who come into the organisation from somewhere else who haven't worked with clinical nurse specialists, they find it quite difficult sometimes when you have someone who is talking about things...in an expert way...it can be quite disconcerting... It's a bit different to what we're used to... You had a lot of defensiveness at the beginning around things. (Director of Services, postholder site, CNS)

In order to overcome resistance to the CS/AP's role and bring people along in a supportive manner, the CSs/APs' interpersonal skills and attributes were critical in changing attitudes.

The CNS coming from a very strong knowledge base and bringing that to the table. There was

a question mark over how far is this person going to invade our territory, almost. It worked out after a while, once they realised the motivation wasn't about taking over. It was about supporting and exploring and trying to find a common ground to work with each other and get on. (Director of Services, postholder site, CNS)

Again, it was down to the level of knowledge and expertise and the level of exposure this person [ANP] had in the area... She's shifting attitudes...the expertise of the person involved, they were able to bring people along with them and let them see that they weren't a threat. That was a big thing. (DoN, postholder site, ANP)

That's the [ANP]'s personality. She's brought everybody with her. (Doctor, postholder site, ANP)

In a very informal way, non-threatening way...she's building the esteem of the staff. (DoN, postholder site, CNS)

In addition, the personal attributes of being approachable, open to change, interested in exploring new areas of clinical practice and having change management skills were key to enabling CSs/APs to perform their clinical leadership role.

She [CNS] has great organisational skills...great prioritising skills. She's got great empathy. She knows stuff inside out... I know I can trust her judgement... She's always changing things, reviewing things if they don't work. She's very open. She will listen...She's constantly changing...constantly evolving as a practitioner... She's been very open, always, even if she hadn't agreed with me, she has always been open to it... She also will address issues with the team if something comes up. I think it's important that she does do that. I just want to say that the CNS role, when it is done well, it's unbelievable. (Social worker, postholder site, CNS)

9.2.12. Differences between AP and CS roles

Clinical leadership was evident in both APs and CSs, but the APs more often demonstrated autonomous clinical decision making, and were more frequently sought for their clinical expertise by the multidisciplinary team. They also mentored a wide range of healthcare staff within their own area of clinical practice, including new staff nurses or midwives, undergraduate student nurses or midwives, medical registrars, other therapists and CSs. APs were highly valued for their leadership in developing and benchmarking policy and guidelines against national and international standards. Many of the CSs were developing and strengthening their clinical leadership roles and demonstrated a number of the activities identified as part of the role of the Advanced Nurse Practitioner (NCNM 2005a), such as teaching, consultancy, and practice development.

9.2.13. Summary

In summary, the data suggest that specialist and advanced practitioners were all involved in clinical leadership, some more so than others. CSs/APs provided effective clinical leadership and influenced practice through:

- influencing organisational structures and process through formal and informal education, guideline development and service development

- creating a positive practice and learning milieu through role modelling, mentoring-coaching, motivating, inspiring and empowering team members

- active membership of the multidisciplinary team and various committees.

The key outcomes in relation to clinical leadership were:

- improved continuity of patient/client care

- prompt referral of patients/clients to relevant specialist

- reduced admission rates

- reduced workload of doctors

- enhanced use of evidence-based assessments and interventions by multidisciplinary team

- improved nursing documentation

- reduced waiting times, with a more streamlined and effective patient/client service

- improvement in family/carer satisfaction with information

- reduced staff attrition

- motivation of other healthcare staff to advance their professional knowledge and skills

- breaking down of barriers within the MDT.

The personal attributes and qualities of the CSs/APs were critical to the degree of success and acceptance of their clinical roles:

- being approachable

- being open to change

- being interested in exploring new areas of clinical practice

- having change management skills

- bringing people along in a supportive manner

- having good interpersonal skills.

Several contextual factors mediated and limited the advanced practitioner's ability to perform their clinical leadership role:

- lack of understanding of their role among colleagues

- fear of members of the team of role blurring and cross-over

- role overload

- large caseloads.

Importantly, similar barriers were identified in the 2005 evaluation of Advanced Nurse Practitioners (NCNM 2005a), which was carried out nine years after the introduction of the first ANP (Emergency) in Ireland. Interdisciplinary relationships, that is, professional tensions among members of the interdisciplinary team and fragmented interdisciplinary clinical care were also reported as perceived barriers to clinical leadership development in a recent national survey, the *National Nursing and Midwifery Clinical Leadership Development Needs Analysis* (HSE 2010b), which included all grades of nurses and midwives.

Although clinical leadership was evident in both APs and CSs, some qualitative differences were identified. The APs were more frequently sought for their clinical expertise by the multidisciplinary team, were more

proactively involved in educating staff within their organisation on how to set up new service initiatives, and were highly valued for their leadership in developing and benchmarking policy and guidelines against national and international standards. Importantly, it is evident that CSs were developing and strengthening their clinical leadership roles and in some cases were performing activities associated with the AP role, such as policy and guideline development, leading service development and role modelling of autonomous clinical decision making. Many of the clinical leadership activities identified in the 2005 evaluation of the role of the Advanced Nurse Practitioner (NCNM 2005a), such as teaching, consultancy, and practice development, were being undertaken by CSs in the current study.

In the non-postholding sites, there was also evidence of clinical leadership, particularly in relation to guideline and policy development. However, nursing and midwifery contribution was in the form of membership of existing committees, and healthcare organisations had their own processes with responsibility for drawing up local policies and guidelines. In relation to service developments, where they were happening they were led by clinical nurse/midwife managers or medical doctors, and were focused on improving local care processes as distinct from increasing the number and range of services for patients/clients and family groups. Similarly, there was little evidence of nurse or midwife involvement in leading the development of educational programmes. Where it did exist, it was a role that was specifically designated to nursing management. Finally, there was varied evidence of nurses or midwives being actively engaged in ongoing professional development or keeping up-to-date with practice development through networking with colleagues in other healthcare organisations.

9.3 Theme 3 – Professional leadership

Professional leadership is a core concept identified for advanced practice by the National Council (NCNM 2008b, d). In addition, Ackerman et al (1996) identify professional leadership in their proposed framework for advanced practice. Professional leadership operates at a higher level than clinical leadership, and is more externally focused, crossing boundaries of the local service into the national and international arenas. Through professional leadership, clinicians influence others in a higher seniority, help shape and influence healthcare and healthcare reform, and contribute to the development of the professions and advancement of nursing and midwifery knowledge (De Grasse and Nicklin 2001). Consequently, professional leadership requires a wider repertoire of skills and actions than clinical leadership as well as time, opportunity and strong personal motivation and commitment. Interview data from members of the clinical team and Directors of Nursing and Midwifery, and observation data from the case study sites, clearly confirmed a professional leadership function in the postholder sites. It is noted that the service users/carers did not refer to professional leadership roles of staff either within the postholding or non-postholding sites. Professional leadership in this study was given expression through the following activities, engaged in by both CSs and APs, to varying degrees:

- active engagement in policy development at a national and international level

- active engagement in education outside the service at a national and international level

- active engagement in professional organisations and committees at a national and international level.

Outcomes of such engagement were more difficult to measure and, in many instances, the actual engagement itself could be considered an outcome as it demonstrated acknowledgement of the CSs/APs' expertise. The findings under each activity are thus presented together with their outcomes.

9.3.1. Active engagement in policy development at a national and international level

In the postholding sites there was clear evidence that CSs/APs were perceived as being involved in influencing nursing and midwifery policy and practice and healthcare agendas through membership of committees. Their main involvement was with national committees, with some evidence of representation on international committees. A review of fieldnote observations indicated that national committee membership ranged from committees focused on their specialist area of practice, to memberships of advisory groups or sub-committees of the Department of Health and Children, the Pharmacy Board, and national nursing and midwifery organisations, such as An Bord Altranais and the National Council.

> The CNS is a member of many committees. She is a member of the National Discharge Planning Steering Committee who produced the Draft National Code of Practice for Discharge Planning which is awaiting governmental ratification. She is also involved within local [hospital] committees - Patient Care Committee, Informing Families working group, Review of Nursing Services in the Community project sub-group. The CNS is involved in planning for the [new hospital service]. (Fieldnote observations, postholder site, CNS)

> The ANP is a nursing representative to the [name of clinical specialty] advisory group. This group has one representative from each discipline and meets monthly, answering to the National Director services, drawing up national guidelines for [name of clinical specialty] services along with identification of KPIs [key performance indicators]. She is also a member of the Policy review group for [name of clinical specialty]. (Fieldnote observations, postholder site, ANP)

There was evidence that CSs/APs were actively involved in developing guidelines for clinical practice at national level and, in some instances, at international level. The guidelines developed spanned the practitioners' clinical specialties and also included more generic issues, such as drug administration and admission protocols. In the process of developing these guidelines, the CSs/APs collaborated with other specialist nursing and midwifery practitioners, and with other healthcare professionals.

> - *Letter from HSE acknowledging participation in [name of condition] guideline working group.*
>   *(Documentary evidence, postholder site, CMS)*

> She [CNS] has been involved with national groups including the International [name of specialty] Group and acted as [specialty] advisor to the Irish College of General Practitioners in their review of their documentation on [specialty]. (Fieldnote observation, postholder site, CNS)

> - *List of national committee memberships and advisory roles recorded as part of National Council accreditation portfolio.*
>   *(Documentary evidence, postholder site, ANP)*

CSs/APs also influenced policy development through making written submissions to national policy groups on issues relating to their area of practice. There was evidence that APs were invited to contribute their expertise to national groups.

> *This particular person, for example, had been invited into the Department of Health to participate in an exercise looking at the role of nursing staff carrying out [clinical area] procedures. (DoN, postholder site, ANP)*

In non-postholding sites, there was less evidence of nurse or midwife involvement in clinical practice guideline development or policy development at national or international level. Where there was involvement it was limited to national level and nursing and midwifery was represented by the DoN or

the Nursing Practice Development Coordinator.

9.3.2. Active engagement in education outside the service at a national and international level

Data indicated that CSs/APs were recognised by people within and outside the discipline as experts in their area of clinical practice. Consequently, they were invited to teach on accredited education programmes, at undergraduate and postgraduate level, designed for nurses, midwives, doctors, occupational therapists, physiotherapists, and other practitioner groups. Clinicians commented:

> *She works as an educator for the nursing and care agencies nationwide and for all of the referral centres. (Consultant, postholder site, CNS)*

> *They [CNSs] are actually going out and meeting other groups in the community...working with some voluntary groups... They would interlink a lot. It wouldn't be just the GP. They are looking much broader and wider. They are trying to approach other services in a more proactive way, which is about prevention rather than treating and curing. (DoN, postholder site, CNS)*

Advanced practitioners were also invited to deliver masterclasses on the role and area of expertise for the National Council. In so doing they not only influenced practitioners' knowledge and skills in their area of expertise but were shaping other clinicians' knowledge and views on the role of advanced practitioners in nursing and midwifery. In one case, the ANP's expertise was recognised internationally, with subsequent involvement in teaching a programme related to her specialty in another country. Documentary evidence in the postholder sites supported the contention that education was being delivered nationally and internationally:

- *Presentations at national research and professional development conferences*

- *Continuing education module for [patient condition] publication*
  (Documentary evidence, postholder site, CMS)

- *List of national and interdisciplinary presentations at conferences and a short education programme recorded as part of National Council accreditation portfolio.*
  (Documentary evidence, postholder site, ANP)

A key aspect of professional leadership is the ability to identify and lead initiatives that would advance nursing and midwifery practice and improve service delivery. In the postholding sites both advanced practitioners and clinical specialists demonstrated their professional leadership by identifying educational deficits in healthcare, and responded by designing new modules, and programmes of education that were accredited by third-level education institutions and/or An Bord Altranais. In some cases the education programmes designed were interdisciplinary in nature.

> The ANP teaches [external] Nursing Services which aids in up-skilling... The ANP is also involved in creating a course designed for [names] nurses which is currently in the process of accreditation. (Fieldnote observation, postholder site, ANP)

> The ANP has compiled a curriculum document for a proposed PG Dip in Nursing which is awaiting accreditation from the [name of awarding body]. (Fieldnote observation, postholder site, ANP)

> This CNS is a part time lecturer on P.G. course in [third-level institution]... She has also taught the group of Consultant Psychiatrists. (Fieldnote observation, postholder site, CNS)

Referring to the impact of a CNS's expertise on future nursing, one medical consultant noted:

I don't think anyone without her experience and wisdom would have been able to do that [see the need for an education programme]...in terms of her realisation of what was required for education of nurses and education of care assistants, she really has done that herself. I can't imagine that anyone that wasn't at least a clinical nurse specialist would have had the experience to actually realise what was required at a national level...this is going to obviously influence training for nurses for years to come. (Consultant, postholder site, CNS)

There was evidence that CSs/APs also influenced nursing and midwifery agendas by supporting service development in other, non-postholding sites.

Not only do they offer support here but we offer support to other organisations who wouldn't have the benefit of a CNS. (CNM3, postholder site, CNS)

Evidence of this support was also found in a non-postholding site where one clinician talked about visiting a postholding site to find out about service development:

When we were starting up here we did visit [hospital] where they have two nurse specialists there and we just kind of saw what they had and we tried to base ours on what they had...[see] if we were missing out on anything. See what extra they have...all in all we've tried to bring our standard up to their standard. (Clinician, non-postholding site, matched CNS)

In addition to being recognised as experts by other clinical practitioners, there was evidence of CSs/APs representing healthcare issues within the public arena. Data suggests that they used a variety of media to disseminate their messages about health, such as local radio, development of DVDs and written materials for health promotion, and providing face-to-face education input at public meetings and voluntary support groups. In some cases the CSs/APs were raising public awareness among school children about important yet often unspoken topics, such as sexual health and mental health. Referring to the impact of a CNS on raising public awareness on healthcare services and promoting nursing as a career, a DoN stated:

One of the team has been asked to present on a radio show...talk to the local radio about the service, the referral pathways, the type of client and the improvement that had happened to the service and the gains that are there. So, yes, [CNS] was able to go in quite comfortable and talk about the service and how it has changed...and we've had a local school...some of the team [CNSs] actually were able to go and speak to them and their transition year group about mental health. (DoN, postholder site, CNS)

In the non-postholding sites, there were fewer examples of practitioners taking the lead in the development of educational programmes accredited by third level institutions or reaching out to educate staff outside their service. Where educational programmes were being developed, it appeared that these were led by the DoN or equivalent grade.

9.3.3. Active engagement in professional organisations and committees at a national and international level

Where practitioners were involved in professional organisations and committees internationally they were at Advanced Nurse Practitioner level and were the national representative on the international body. The involvement at national and international level was considered by some DoNs as not only influencing nursing/midwifery policy and practice and healthcare agendas, but also contributing to enhancing the profile of nursing.

Impact has been huge... I suppose in the role of the ANP, we have been called on by services all over the country and outside the country. It has really raised the profile of nursing. (DoN, postholder site, ANP)

However, one contextual factor that influenced the level of activity of advanced practitioners in this area was their dependence on being nominated onto such committees by more senior personnel within the service. As one DoN explained:

> *In terms of informing policy, there probably is a bit of a weakness there. The Directors of Nursing are questioning it. We can't get on it ourselves. How can we expect our CNSs and ANPs to? It's a bit of a dilemma. (DoN, postholder site, ANP)*

In addition, it was considered that being nominated onto committees was important and consequently, the practitioner had the responsibility and authority to represent nursing and the organisation at that level. Another issue that impacted on clinical nurse specialists' ability to become involved in national and international committees was the demand to maintain their high caseload. As explained by this DoN in a postholding site:

> *Sitting on committees isn't number one on their [CNS] job description. Number one on their job description is seeing patients, taking referrals, looking after the service and dealing with waiting lists, dealing with the patient. (DoN, postholder site, CNS)*

CSs/APs demonstrated their professional leadership through setting up national fora in their specialist area, where no such forum existed previously. By contrast, in the non-postholding sites, level of activity in influencing nursing and midwifery policy and practice at national and international level was minimal. There were very few examples of matched non-postholder practitioners being members of national committees or making submissions to national policy groups, and no example of membership at international level.

9.3.4. Contextual and mediating factors that influenced the CSs/APs' professional leadership role

Effective role development requires clear guidelines on role function and structures to support the implementation of new roles. Data confirmed that the role of advanced practitioners was strongly influenced by having national standards and requirements, and an accreditation process as published by the National Council (NCNM 2008d). The document, *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Posts* (4th Edition) (NCNM 2008b) provides for a standardised development of AP roles. The proactive development of AP posts to meet population and service needs, and site preparation, enhanced role clarity, ensured consistencies in practice, and reduced barriers to AP integration within the healthcare team. Participants valued highly the support and guidance they received from the National Council in the development of AP posts and roles. Directors of Nursing reported:

> *The National Council would have supported all that because they were going to be doing site visits. It's good to have the practices the same. (DoN, postholder site, ANP)*

> *For the Council and us it was the first one in [name of clinical practice] and it was different, very new, very exciting and rewarding. I have to give very large praise to [Name] in the National Council. She worked with us every step of the way. She's been fantastic. She was open and available and she met with us loads of times. She kept with us and she would say, "What about that?" Oh, it was wonderful. Great. You really need people like that. Huge help. (DoN, postholder site, ANP)*

Having clear accreditation requirements was influential in ensuring that national standards were met. The process of re-accreditation was also perceived as a method of maintaining and developing the standard of APs. As one DoN stated:

> *We're conscious that the ANP post is coming up next year [for re-accreditation]. It will be the five years so it will have to be reviewed in a major way, in line with the Council's guidelines. So, we're gearing up for that. (DoN, postholder site, ANP)*

The study days and masterclasses provided by the National Council were also recognised as having a major impact on role development of both the CS and AP.

> *The National Council have had a big input in having study days specifically for CMS and ANP and having the masterclasses. They are of huge benefit to people thinking of pushing their specialty. (DoM, postholder site, CMS)*

It appears that the National Council's policy documents and site preparation templates (NCNM 2008b) were instrumental in ensuring that APs were fully integrated into the healthcare team and organisation. As part of the process of site preparation, local policy and practice guidelines need to be developed collaboratively and, clearly, the involvement of medical consultants and senior managers during the preparation process results in their support for the AP in their new role. Consultants and senior doctors in the AP postholding sites who participated in this study were unanimous in their support and highly valued the APs with whom they were working.

> *All three...surgeons are now trying to steal her onto their surgical lists. I mean, literally steal her...they recognise her expertise and her independence and want that available to them... So, absolutely, she would be seen to be an independent expert now by everybody, which is superb. (Consultant, postholder site, ANP)*

> *When she [ANP] took over...it changed the whole...philosophy of what the patients did for themselves...there's a lot of people who would seek out to come to this practice for the [respiratory] control, because they are not getting that quality someplace else. (Senior doctor, postholder site, ANP)*

> *[ANP] delivers...a persistent high level of care for a particular cohort of patients who present with potentially complex injuries and what is provided for our department is a significant enhanced level of care for that cohort of patients... I think what it's reflected in is a hugely reduced litigation...for our department. We generally don't tend to see problems relating to missed injuries...so it has also been a cost-effective measure within the service. Certainly my experience in terms of the ANP role in the department is one of very positive experience. (Consultant, postholder site, ANP)*

When negotiating access to some of the non-postholder sites, despite having secured hospital/service ethical approval, and support from senior nursing management, it was noted that where it was problematic and access was delayed, it was because of consultant related issues. Clearly, the successful establishment of AP roles is conditional on key healthcare team members, including consultants, supporting the development.

9.3.5. Differences between AP and CS roles

Both CSs and APs were active in teaching and developing new educational modules locally and nationally. Where APs differed was in their contribution to education in national masterclasses, and at international level on occasions. Both CSs and APs contributed to national and international guideline development. In addition, APs set up national fora for networking and sat on high level national committees and some international groups.

9.3.6. Summary

In summary, there was clear evidence that CSs/APs in the postholding sites were more actively involved in professional leadership than nurses and midwives in the matched non-postholding sites. The key outcomes identified in relation to professional leadership for advanced practitioners were that they:

- led initiatives in developing education programmes accredited by third level institutions and professional bodies

- shaped and influenced policy through their membership of national committees and through written submissions

- advanced practice and service provision through their contribution to national guideline development.

Professional leadership as a dimension of an advanced practitioner role was not as well developed when compared to the outstanding clinical leadership aspects of their practice. However, in comparison to the 2005 evaluation of the role of advanced practitioner in Ireland (NCNM 2005a), APs appear to be more involved in professional leadership activities at both national and international level. Medical consultants and senior doctors highly valued the expertise of the APs. The ability of advanced practitioners to embrace their professional leadership through active engagement in policy development suggests they are well positioned to act as clinical advisors to the National Clinical Care Programmes currently being established by the Quality and Clinical Care Directorate (ONMSD 2010b).

Compared to other countries, the development of AP roles in Ireland has occurred in a more planned and systematic manner, and consequently has avoided the problems associated with an ad-hoc development of advanced practitioner roles. DiCenso and Bryant-Lukosius's (2010) recent review of advanced practice in Canada highlights the importance of having a well defined role description, practice guidelines and supportive environment for the effective development and use of advanced practice roles. In Ireland, publications such as the *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Posts* (4th Edition) (NCNM 2008b) and the *Framework for the Establishment of Clinical Nurse/Midwife Specialist Posts* (4th Edition) (NCNM 2008c) provide clear guidance to the profession and key stakeholders on role development, including a clear differentiation between CS and AP roles, and site preparation, thus avoiding the problems documented in the international literature.

| 9.4 | Theme 4 – Research |

The new roles of ANP/AMP and CNS/CMS in nursing and midwifery were first recommended by the Commission on Nursing (Government of Ireland 1998) as part of a three step clinical career pathway for those working in the health service. The subsequent Health Service Circular 1999/217 formally set out the aims for the posts, which included the stipulation that each post should have *"a practice and service development, research and evaluation function"* (Government of Ireland 1998 p.11). The National Council later detailed the associated competencies within the conduct of research and audit for specialist and advanced practice as follows:

- identifies, critically analyses, disseminates and integrates nursing/midwifery and other evidence into the area of specialist practice

- initiates, participates in and evaluates audit

- uses the outcomes of audit to improve service provision

- contributes to service planning and budgetary processes through use of audit data and specialist knowledge (NCNM 2008c).

The following additional competencies specific to advanced practice were also included:

- identifies research priorities for the area of practice

- leads, conducts, disseminates and publishes nursing/midwifery research, which shapes and advances nursing/midwifery practice, education and policy and the wider health agenda (NCNM 2008b,d).

Clinically relevant health research has resulted in tangible improvements in patient outcomes and in service provision and delivery in Ireland (DoHC 2009). Continued government support for research activity in the health service is necessary if individuals working in it are to offer the highest standards of care to service users across a range of services and locations.

In this study, in general, the level of research and audit activity varied widely across the data set. The three main areas identified were:

- implementing evidence-based practice

- providing audit of service provision

- leading, conducting and disseminating research to advance nursing and midwifery practice.

9.4.1. Implementing evidence-based practice

The data indicated that all postholders were influential in implementing evidence-based practice (EBP) locally, and some made a contribution at national and international level. The effectiveness of the postholder in implementing EBP was enhanced further if there was a culture of research in the unit.

> *Its part of the ethos within the department from a consultant level that we practise within evidence-based guidelines, but it is very much enhanced by having characters like [ANP] there who have not just become aware of the evidence through training but have also got it implemented in the day to day practice. (CNM2, postholder site, ANP)*

Additional evidence to support this perception was gathered during observation at the site.

> The research focus in the department has led to the development of the policies and procedures manuals. (Fieldnote observation, postholder site, ANP)

One clinician suggested that advanced nurse practitioners may actually be more effective in implementing evidence-based practice than non-consultant hospital doctors.

> *I would see her as somebody who would be an advocate for maintaining the guidelines and insisting the guidelines are followed... I think the registrars are not particularly good at doing that. I think [ANP name] would be the standard bearer in that regard. (Doctor, postholder site, ANP)*

In addition, Table 9.1 indicates that services with postholders (n=21) were more likely to have evidence-based guidelines and protocols readily available for the delivery of care than services without a postholder on the team (n=16). Results from the 'key behaviours' scoresheet showed that 26% of postholders (n=6) always referred to research when explaining care to patients/clients and 70% (n=16) frequently did, compared with 14% (n=3) and 76% (n=16) of non-postholders respectively (Table 8.1). This is an empirical measure of the number of times clinicians referred to research during their interactions with

service users and staff. It seems to show a definite difference in research culture between postholding and non-postholding sites. The impact of many advanced practitioners and specialist nurses and midwives in terms of their influence on promoting EBP within the multidisciplinary team was also evident in the perceptions of others.

> *We got her [ANP] post approved for the accreditation process and she was the facilitator of it...[quality improvement]...so that brought the whole evidence-based practice development into the change process and that's everything she does... I can almost say now that if the team are doing it [practising evidence-based care] it's evidence-based because of her role. (DoN, postholder site, ANP)*

Although many postholders work in a designated clinical care team, others offer expertise on a specific clinical issue across a range of clinical settings with multidisciplinary input. The role of the specialist midwife in lactation is one such example:

> *All the practices have changed in the last few years...the CMS imparts an awful lot of information at ward level on what is best practice in terms of changing things. (DoM, postholder site, CMS)*

In the absence of a postholder to drive the implementation of EBP, some non-postholding sites used multidisciplinary team meetings as a forum to discuss the latest evidence:

> *We have a lot of meetings... the CNM3, the consultants, head of clerical and we would invite people in [to present] as appropriate...we try and get staff trained up and we would certainly keep an eye on the journals...we try and put things on computer, you know, so that they are a reference for people. (CNM3, non-postholder site, ANP)*

Participants in non-postholding sites also indicated that the availability of Q-Pulse[14] has improved the ease of access to evidence-based care pathways and this is particularly beneficial when staff are caring for a patient/client with a condition with which they are unfamiliar.

> *Say if it was something they [clinical staff] weren't familiar with and they knew it was being used in another part of the hospital, they would get the guidelines there [in Q-Pulse software], we'll say if it was over a weekend, they would be able to get onto best practice. (CNM3, non-postholder site, CNS)*

> *You can just log, you can just click onto it and key in any area that you want. You could write down [named clinical problem] and they will bring you up all the latest research or the latest up-to-date in terms of, I suppose, if they are using any new type of [treatment] or a new advice in terms of after care or they probably have success rates and everything. Anything you want, you can get on the intranet. (CNM2, non-postholder site, CNS)*

However, for some care providers the infrastructure was not on hand and access to relevant resources such as databases, libraries, Q-Pulse and the internet was not readily available. This was particularly so for nurses providing care in a community setting:

> *We [nurses] actually don't have internet here in this office so in terms of looking up current evidence and reading material it's difficult. (Nurse, non-postholder site, matched CNS)*

Accessibility to sources of evidence is critical if EBP is to be implemented. APs were not only involved in implementing EBP, but also appeared to be influential in ensuring that relevant guidelines were implemented by their colleagues in the multidisciplinary team. In their interactions with service users, many introduced the evidence to support the treatment being offered. Several advanced practitioners were also involved in developing national and international guidelines as part of their role and

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[14]Q-Pulse is a software system that enables organisations to manage compliance and regulatory activities.

consequently were making a contribution to evidence-based care beyond their local unit or service. In comparison, clinical specialists were involved in ensuring that their colleagues were aware of the existence of guidelines. Although they delivered care based on best available evidence, they were less likely than APs to be involved in developing evidence-based guidelines either locally or at a national level.

9.4.2. Audit of service provision

Many services reported that the development of national standards and the requirement to implement national policies necessitates the participation of services in clinical audit. Respondents highlighted the HIQA requirement to undertake audit as part of the regular monitoring of services in order to receive ongoing accreditation. This process was valued as it offered the opportunity to measure their service against national and international standards and there was a sense of achievement associated with meeting the standard required.

> *We could compare our data at an international level...so we'd have the opportunity to benchmark ourselves against other hospitals, both from the data perspective and national perspective and then compare that information nationally again, so there's an opportunity for that. (DoN, postholder site, ANP)*

> *We're meeting all those targets...and they congratulated us on that. (DoN, postholder site, CNS)*

The data indicated that those in specialist roles were more likely to be involved in audit activities than APs (39 data instances for CSs; average of 2.3 mentions per CS – versus 10 for APs; average of 1.7 mentions per AP). This may be due to the fact that there is no specific requirement to undertake research in the CS roles and that, in an area where both APs and CSs exist, the audit role falls to the CS.

> *[Research is] part of one of the key concepts of the ANP role... The CNS has the audit function... (DoN, postholder site, ANP)*

> *We have evaluated and re-evaluated our service on a number of occasions and there are key performance indicators that are brought out nationally for care...so she [CNS] would be involved in that. She would have been involved in the National [*****] Audit. I would also see that as a crucial CNS role that they would be involved in audit, quality improvement and research. (Doctor, postholder site, CNS)*

Observation of postholders in the field also highlighted that when a service had a CS in post it advanced the likelihood that services were audited for performance.

> The CNS is overall coordinator and maintains a log of audits, audit tools and reports. Areas of care that are audited include: palliative care, education, infection control, wound care, nutrition, restraint, oral care, dysphagia, continence, medication management, activities, health and safety, environment, falls risk, quiet room, documentation, HIQA. There is a date for completion and frequency aligned to each area with a designated person allocated as responsible. (Fieldnote observation, postholder site, CNS)

These data were substantiated by the documentary evidence, which showed that all 23 postholding sites conducted audits, six of them annually and 17 of them monthly to six-monthly. This is in contrast to the non-postholding sites, where only three audited annually and eight monthly to six-monthly (Table 9.1). One of these areas was colposcopy, and clinicians stated that the impetus for frequent audits came from the national cancer screening programmes, demonstrating the importance of outside influences in encouraging compliance with best practice. In the same way, the National Council, through approval, accreditation and re-accreditation, ensures that postholding sites audit practice continually. The National Council also provides detailed instructions and a resource pack to guide CSs/APs in how to conduct audit

and use the findings (NCNM 2008f).

The translation of outcomes of audit into improvement for service provision, while ensuring that targets are met, was illustrated by a number of respondents:

> *When you're able to go to somebody with figures, it has been very influential. So we actually really achieved things by auditing. (Doctor, postholder site, CNS)*

This was further supported by a DoN and midwifery services, who highlighted how integral the CSs are to the audit cycle and service development.

> *Audit and research is a huge problem. It's down to their clinical workload and the fact they do have a significant amount of administrative work to do. If they don't do it there is nobody else to do it. (DoN, postholder site, CNS)*

Documentary evidence showed that, in eight postholding sites, major initiatives had been implemented as a result of audits undertaken (Table 9.1). Although non-postholding sites are involved in clinical audit, maximising the information gained from audit activities designed to monitor and benchmark the quality of the service in line with best-practice guidelines seemed to be more of a challenge.

> *She [staff nurse] would audit every so often... We have our own kind of audit every Sunday that we have to do... But I don't know what's happening them as a result. We're doing this now a year but I don't know what pro-action has been taken as a result of doing those audits...There's never kind of a feedback as to where they are going to go with these audits. (CNM2, non-postholder site, matched CNS)*

> *Going back a few years ago we did an audit...we provided the information and he [audit coordinator] would do most of it...we more or less provide information to them and they do the rest. (CNM2, non-postholder site, matched CNS)*

In only four non-postholding sites had any actions or new initiatives been undertaken in response to audits (Table 9.1). The potential for developments based on the audit cycle was recognised by participants; however, complaints were made about the time pressure associated with the competing demands to deliver clinical care.

> *I suppose we could do more audits just to show, I think that's very important. We're so busy that we never get the time to do the paperwork, or the audits. I think that could be our flaw. We're working like bumblebees, but we don't show it on paper. (CNM2, non-postholder site, matched CNS)*

While audit is acknowledged by participants across postholding and matched sites as having the potential to improve service provision, the data show that practice developments resulting from audit are associated with services that have advanced or specialist nurses/midwives in post. Consequently, it is critical that services have a person in post with the time to collect and analyse data, provide feedback to clinicians, and offer support in the implementation of resulting changes. APs and CSs are seen as ideal to undertake this role, and the competencies required for advanced practice and specialist posts make explicit that these functions must be undertaken.

> *I think they [postholders] make a fundamental impact on clinical service provision...they audit their own practice...and audit is part of their job description. (DoN, postholder site, ANP)*

9.4.3. Leading, conducting and disseminating research to advance nursing and midwifery practice

The documentary data indicate that all six of the APs in this section of the study and nine of the CSs are

research active (Table 9.1), in contrast to the non-postholding sites where seven clinicians observed were undertaking research, five of them in medically-led research. Five of the APs had produced publications or presentations and so had 11 of the CSs, compared with five of the non-postholding clinicians, four nurses and one doctor (Table 9.1). Although all APs recognised the requirement to be research active, and were significantly more likely to present and publish their work than clinical specialists, many struggled with finding the time to undertake research while carrying a demanding clinical caseload. This problem was acknowledged by the Directors of Nursing and Midwifery.

> *The health service has mushroomed over the last three or four years. So there would be a lot of hard data that is available... She [ANP] has a significant amount of audits carried out on a regular basis. So, there's a lot of data there but it's making the time. That's the dilemma we hear time and time again with nurse practitioners, that's making the time for the research. It's a key part of their function...it is essential. With the ANP role, it's part of their job description...but...the vast majority don't do the research to the amount they're supposed to...we are challenged to try to allow them time for research.(DoN, postholder site, ANP)*

It should be noted that the term *research* may have different meanings to different people; the DoN above was speaking more of audit activities, although publishing an aggregation of data was then implied. It is unknown whether or not the understanding of 'research' as the generation of new knowledge is commonly held among these participants.

All of the APs in this study were undertaking their research activities in their own time, and some had more output than others. One participant suggested that this was to do with the motivation of individuals.

> *I think it falls back to the individual in the role how motivated they are to do it [research]. It's essential, not just for the reputation of the institution, and the person, but for developing a body of knowledge and profiling it to the wider community... These individuals should be self starters and motivated, they should be pushing the boundaries out for their service and specialty. (DoM, postholder site, CMS)*

However, with some support APs can be extremely influential in their specialist area of practice locally, nationally and internationally. Observation in the field and documentary analysis corroborated the exceptional level of one AP's research activity (leading national research projects, presenting nationally and internationally within her field of expertise, lecturing in the linked university, publishing research findings, and developing service initiatives in response to evidence generated through audit and research), especially given the limitations placed on her time by her clinical caseload.

- *Development of guidelines, medication protocols and audits.*

- *DVD developed for the HSE and [Statutory] Agency.*

- *Satisfaction questionnaires.*

- *Multiple publications as author and co-author.*

- *Evidence of involvement in educational programmes.*
  (Documentary evidence, postholder site, ANP)

In the sample, some CSs were performing at an advanced practice level, including in terms of the core competencies as they relate to research. Some of these had recently been deemed to meet National Council AP Standards and Requirements but were not appointed. One consultant said:

> *She's [CMS] central to a lot of our research and has audited a lot of our stuff... She is also doing a lot of research at a nursing level, as opposed to medical work... I think she has collaborated with other [clinical problem] specialist midwives and drawn up protocols. We both flew over*

to [place] to make a video (for the European Association for [clinical problem])...with that sort of initiative we are contributing to the international guidelines as well because we have a lot of experience... Yes, she's very active in research...she's certainly an important part of the team for the research we've done...[names 5 areas] those are projects she has taken a big collaborative role in. (Consultant, postholder site, CMS)

Observation and an analysis of the documents collected from this site (CMS portfolio of research, audit and project work, job description, list of educational sessions developed and delivered to staff and women, including written handouts/leaflets, letter from consultant outlining initiatives undertaken by the CMS to date, including reference to research activities with international collaboration, list of committee memberships, conferences attended, papers presented nationally and internationally and copies of awards for some of them, copies of peer review publications authored, and evidence of professional qualifications) also demonstrated that this CMS exhibited a level of research activity comparable to the requirement of advanced practice:

She has had articles published and...has been involved within many research activities relating to her role and client group. She has no protected time – and free periods are unpredictable within her clinical role... She has audited teaching and numbers but no time to do audit – would like to audit effects of initiatives she has developed. She has presented and published posters, articles, and research at local, national and international fora. (Fieldnote observation, postholder site, CMS)

For two postholders, there was evidence of the impact of their research activity on clinical care beyond the local site:

She's [CNS] very involved in developing national guidelines, protocols, care plans and checklists. Both for the hospital and then for children going home or to other hospitals...both of us have begun to be very involved in committees, support work groups to improve the quality of the service nationwide and we worked together with our fellow consultants and...nurses...with very senior members in the HSE to develop a national discharge protocol. (Consultant, postholder site, CNS)

Dissemination of research to advance nursing and midwifery practice took several forms. Most APs and some CSs have experience as lead researchers but most commented on the lack of time available to publish their work. However, many of the APs and some CSs used conferences as an opportunity to share their expertise and service developments with a multidisciplinary audience.

She [CMS]...has won an award for a poster presentation, presented at a [Clinical Specialty] Conference regarding the research undertaken. (Fieldnote observation, postholder site, CMS)

Research activity, although highly variable in amounts across the postholding sites, is linked with advances in nursing and midwifery practice and improvements to the quality of the service delivered. Although participants indicated that additional support was required to increase research output, nonetheless research was being conducted in postholders' free time. All six APs and nine of the CSs had also attended research conferences (Table 9.1). In contrast, there was an absence of evidence of any nursing or midwifery research being undertaken in non-postholding sites.

Observation and interview data from these matched sites seems to indicate that any research activity falls predominantly within the remit of medicine.

[Midwives] are involved in or support medical research but are not doing any themselves in relation to midwifery. (Fieldnote observation, non-postholder site, matched CMS)

No, it [research] tends to be, I suppose, medically led. (Consultant, non-postholder site, matched CNS)

I'm not aware of any research being done. Now, one of the consultants probably may have done some surveys or whatever...but I don't know of him having asked for any involvement from nursing staff. (CNM2, non-postholder site, matched CNS)

In the absence of a culture of research, there is some evidence that nursing and midwifery staff place less value on research as a core competency. Staff may need ongoing professional development to learn the skills of research and develop an appreciation for its importance and potential to influence clinical outcomes and service delivery. Even conference attendance, which was low in non-postholding sites (one participant), could assist here.

I'd say amongst the nursing staff it's probably half and half that have [research knowledge or awareness] or understand the nuts and bolts and value of it... I would say probably medicine would have had a great stranglehold on that. (Nurse, non-postholder site, matched CNS)

We don't have research, you know, a person involved in research and best practice and all of that, the practices would be quite antiquated, or whatever, for the lack of a better word. (CNM3, non-postholder site, matched CNS)

A fieldnote observation also demonstrated this lack of research culture:

As no research activity was observed, the nurse was asked about her research output. She said she "hates it!"... While she does not have access to the internet, she would look up stuff at home as necessary. Otherwise she is not aware of who may be conducting research within the MDT. (Fieldnote observation, non-postholder site, matched CNS)

In one non-postholding site, there used to be a CNS in post who has since left without being replaced. The documentary evidence for that site contained this fieldnote:

The nursing staff were not involved in any specific research in OPD but the doctors were involved on an ongoing basis – not specific to [health issue] but to medical diagnosis/care and treatment in general. The nurses spoken to were not involved in research and none have published in relation to [health issue] or general medical care. (Fieldnote observation, non-postholder site, matched CNS)

9.4.4. Summary

The data indicate that there is significant variation in the levels of research activity among APs across the data set. Although advanced nurse and midwife practitioners are required to be research active, and all six participants in this study were, the data indicate that none receives sufficient support to achieve the specific competencies as outlined. Of the APs undertaking research, all are supporting or leading on projects in their own time, with the exception of one.[15] This, in combination with a heavy clinical workload, has an impact on the level of research being conducted. However, given that some APs are meeting their research requirements, it has been suggested that perhaps some are more motivated than others to meet the level required.

Of the 17 CSs observed as part of this study, nine were conducting research, a core activity related to the role of an AP rather than to a CS. Of these nine CSs, three (2 CNSs and 1 CMS) are working at AP level in order to attain accreditation. The remaining CSs are, in general, more heavily involved in leading or supporting audit activities, rather than conducting research. There are several possible explanations for this finding. For example, leading research and being educated to Master's level are not requirements for approval as a clinical specialist, and a Master's qualification is necessary to give the required minimum level of research knowledge. Also, CSs are unlikely to be given protected time for research when it is not seen as part of their role.

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[15]One ANP has agreed four hours' protected time per week with the Director of Nursing.

9.5 Midwifery specific issues

As the birth process is regarded among midwives as a natural event, related to health and not illness, mixed views exist in the midwifery profession as to whether or not there is a place for advanced and specialist practice in a health orientated model of care. Previous research conducted by the National Council showed this to be a concern of many of the midwives consulted nationally (NCNM 2004), and the originators of the MSc in Midwifery course developed by Trinity College Dublin to prepare AMPs took cognisance of this when designing the programme (Begley et al 2007). This belief is undoubtedly one explanation for the fact that midwifery has fewer advanced and specialist midwifery posts when compared with nursing. The latest figures available from the National Council (October 2010) indicate that, of the 121 approved advanced practice posts, 120 are in nursing and one is in midwifery. Of the 2,052 approved specialist posts, 1,983 are in nursing and only 69 are in midwifery.

For those who support advanced and specialist practice in midwifery, the clinical career pathway offered by these posts is seen as a way of ensuring excellence in clinical care through retaining experts in the clinical area:

> *I suppose the first element of it [impact of AMP/CMS] is the excellence in clinical care they're providing. They have already achieved a level of knowledge that's in excess or superior to almost all of their peers in the clinical setting. Therefore they bring that expertise and...they bring an extra dimension to that specialty for the patient they're looking after. They provide a level of continuity of care and input the medical team might not necessarily have because you're changing doctors on a regular basis...you have that level of senior clinical leadership. That's where I would see CMSs and AMPs providing a massive support for not only the parents, but the junior midwives and nurses and the junior doctors. (DoM, postholder site, CMS)*

The impact of the role on service delivery is also evident:

> *Certainly the CMS or AMP should be a resource across the disciplines...they manage caseloads very effectively...from a subjective level I can say that the level of complaints in [a particular service area] have diminished. I see that as significant...[services with a CMS] have led to a change in culture in practice. (DoM, postholder site, CMS)*

> *[If we lost AMP and CMS posts] we'd be back to the situation wherein there's no way of retaining the clinical expertise and that's a big thing. If you have somebody with ten, fifteen, twenty years' of expertise and the only way they feel they can get some sort of recognition...if we lose that sense of a career pathway for those people, we lose that expertise...it goes off into education. (DoM, postholder site, CMS)*

However, it must be acknowledged that, within midwifery as a whole, an alternative view is widely held regarding the potential for these posts to fragment care. These fears were evidenced by previous research conducted by the National Council (NCNM 2004) and explicated by one of the DoMs here:

> *I have very strong feelings on it [advanced and specialist practice in midwifery] and I'm not sure if it would fit in with mainstream thought... With the general nurses, they would be deemed to be a generalist and then you go into your specialist area in the nursing environment and that's where...the pathway flows. In midwifery I'm just not sure that that is the same pathway we should be leaning towards because midwives by definition are more specialists. They're not generalist midwives. If they have gone through the programme and they're working to the full potential of their role as midwives, why would they then be developing further specialist roles? ...are we in danger down the line then of having so many subdivisions within one specialty that nobody really has a full picture anymore? (DoM, postholder site, CMS)*

There is a concern that advanced and specialist posts may be created in midwifery that do not in fact advance midwifery practice *per se*. As neonatal units are based in maternity hospitals rather than in children's hospitals, candidates for specialist and advanced practice posts in this context usually (although not exclusively) come to work in the area with a midwifery registration and background. One DoM (and Nursing) commented that midwives working in the area of neonatology had been appointed to advanced nursing practice posts, which she perceived to be similar to medical roles, and she was not sure that that was the way advanced practice should be developing in midwifery:

> *We have some [ANPs – not AMPs] in [neonatology] who are brilliant but are they doctors? They follow the roster of the medical staff and they fill in the gaps. I actually think that's a huge loss to midwifery... I actually think the more we move over [to] that way of working unless we're really, really careful, we're losing the whole midwifery skill that people bring to that role. They're moving further over into the whole medicalised and I'm not sure if that is the way we should be going. (DoM, postholder site, CMS)*

This view is understandable as it relates to an ANP, and does not take into account the added value of the ANP role where, despite taking on an extended role (i.e. performing some tasks traditionally seen as a doctor's role), role expansion into a higher level of nursing practice may also occur. In midwifery, however, clinical midwives have significant levels of autonomy, as their scope of practice allows them to be autonomous practitioners when caring for women and babies at low risk of developing complications. This level of autonomy is perceived by some to obviate the need for specialist and advanced practice roles in midwifery, as the focus is on normality and not illness.

Concerns were also raised as to progression for midwives after they had been appointed as AMPs:

> *From their [AMP] career progression, you're 35, you're 40 years of age and you do this. What's open to you then? You are very much off to one side. So, is it more research or do they do other things? I don't know how you would continue to have the satisfaction from their perspective long-term. (DoM, postholder site, CMS)*

The *Report of the Commission on Nursing* (Government of Ireland 1998) recognised midwifery as a unique profession, distinct from nursing; this view remains within the profession and emphasises some participants' view that CS/AP roles are not suitable for midwifery:

> *They are so two completely distinct professions with completely different roles and traditions...everything is so different in midwifery... Then they [experienced midwives] are gone to a specialist post and I mean, that is great for the specialism, but it's not great for the very basic, so important care that you need to provide... So, we need to be really careful...taking on that advanced role which works very well because of the NCHDs Working Time Act and all of that. They [doctors] want everybody to be doing things from cannulation, episiotomy, suturing and anything else. That is a part of the role of the midwife. It's not enhanced or extended or anything else. If you're providing care for women you should be able to do a lot of that...[midwives] are autonomous and accountable...there is an independence in midwifery that is not seen [in nursing] but we see it. (DoM, postholder site, CMS)*

In summary, polarised views exist within midwifery as to the benefit of advanced and specialist practice to the profession. While the benefit of the roles in terms of service delivery are acknowledged, there are fears about the extent to which an over reliance on a postholder may diminish the skills of the midwife providing holistic care to women, their babies and their families. Some of these fears are not unique to midwifery, but were heard during interviews with clinicians and DoNs in the nursing field also. However, they were balanced by the very positive comments of these same interviewees, who acknowledged the education role of CSs/APs with other staff, and the benefits that role expansion and extension brought to healthcare.

CHAPTER 10
Phase 2: Economic analysis

10.1 Introduction

An economic analysis was conducted, under the supervision of Professor Charles Normand, the Edward Kennedy Chair of Health Policy and Management, Trinity College Dublin, to ascertain some of the financial implications of employing CSs and APs in the Irish setting. This chapter has been contributed by Professor Normand and his two research assistants, Padhraig Ryan and Paul Revill, and answers objective six of the SCAPE study:

- To explore the financial implications of CS and AP posts for the Irish health services, in terms of efficiency and effectiveness.

Justification and discussion of the methods used was included in Chapter 7. The data collected for the study were: (i) staff costs and (ii) activity levels for the matched service pairs. Midwifery was excluded due to lack of ethical approval for this section of the study, so all references in this chapter are to nursing and nurses. Where possible, costs and activity data were gathered for the entire team of which the CS/AP was a member. However, for certain CSs/APs in psychiatry, the analysis was conducted by comparing the specialist nurses with matched non-specialist nurses (see Chapter 7 and Table 10.1). Workload was captured in terms of patient/client throughput for all but the intellectual disability services, where workload was represented by the number of clients residing in the service for challenging behaviour, and by the number of clients enrolled with the service for early intervention. Complete data of a satisfactory standard were obtained for 10 of the services.

This analysis compares staffing costs, the key driver of variable costs, in postholding and matched non-postholding sites. Staffing costs are linked with workload to gauge the activity-adjusted staffing costs, and statistical analysis is used to assess the overall impact of CSs/APs on staffing costs.

10.2 Results

As detailed in Chapter 7, the Wilcoxon signed-rank test is implemented by, first, arranging the available data in a table (Table 10.1). The test statistic, W_+, is given by the sum of all the positive values in the Signed Rank column. The test statistic, W_-, is given by the sum of all of the negative values in the Signed Rank column, in this study, $W_+ = [39]$ and $W_- = [16]$. When absolute differences are used instead of relative differences, these values change slightly to $W_+ = [37]$ and $W_- = [18]$. The statistical significance of the lowest test statistic, in this instance [16], is then compared to the corresponding critical value from the Wilcoxon table to determine whether the null hypothesis should be accepted or rejected.

Staff costs were generally similar for the postholding and matched non-postholding sites after adjusting for activity levels. The sample results are represented graphically below (Figure 10.1). For services for which costs were lower for the postholding unit than for the matched non-postholding unit, the bar falls downwards below zero. The mean costs per patient are shown in Table 10.1.

Table 10.1: Data results of economic analysis

Subject (i): Service	X_i: Non-postholding arm, activity-adjusted costs (€)	Y_i: Postholding arm, activity-adjusted costs (€)	Cost differential (€)[16]:	$\frac{Y_i}{X_i} - 1$ Proportional difference[17]	Rank of proportional difference	Signed rank
Colposcopy	80.73	61.44	-19	-0.24	3	-3
Sexual health	29.76	28.68	-1	-0.04	8	-8
Anti-coagulant	6.86	7.83	1	0.14	5	5
ED minor injuries	29.29	24.84	-4	-0.15	4	-4
Geriatric community care	908.81	1,024.48	116	0.13	6	6
General practice/ Primary care	13.96	18.54	5	0.33	2	2
Cognitive behaviour therapy	88.09	88.96	1	0.01	10	10
Addiction counselling	58.29	59.72	1	0.02	9	9
Challenging behaviour	3,050.67	1,743.89	-1,307	-0.43	1	-1
Early intervention	140.79	156.95	16	0.11	7	7

Figure 10.1: Overview of findings
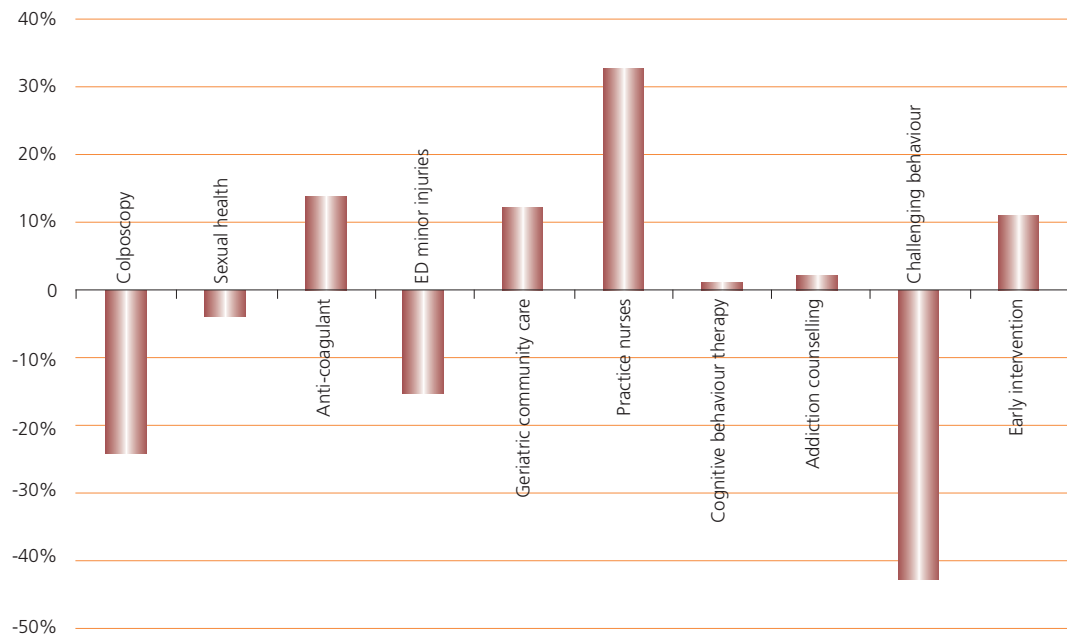
[16]The cost differential per client for challenging behaviour is substantially higher than the cost differential per patient for any other service. This is misleading, however, as the number of clients receiving care in this service on a weekly basis is substantially lower than the number of patients seen on a weekly basis in other services; therefore, the aggregate weekly cost differential more closely resembles the other services.

[17]A negative value indicates that activity-adjusted staff costs are lower for the postholding service.

It can be seen from the graph that, in six out of 10 matched pairs, activity-adjusted costs are higher for the postholding than the non-postholding group. In general, activity-adjusted costs were very similar within pairs. Indeed, postholding site unit costs fell within 85% to 115% of the non-postholding site unit costs in seven out of 10 cases. Services with CSs/APs do not unequivocally appear to operate at either higher or lower cost than those without these grades of staff. This is confirmed by the Wilcoxon signed-rank test statistic.

In this case, the critical value is [8] (two-tailed statistical significance = 0.05). As this is less than the test statistic W (W=16), there is no basis to reject the null hypothesis and we cannot conclude that the introduction of CSs/APs is either cost-increasing or cost-decreasing.

Table 10.2 below shows which of the postholding sites employed CSs, APs, or both of these categories of workers, and whether services were inpatient or outpatient. It is also shown whether costs were analysed at the level of individual nurses or at the level of a full multidisciplinary team (including medical personnel, more traditional nursing personnel such as staff nurses, and support staff such as healthcare assistants) for each pair of services. The final column shows whether higher or lower costs were recorded in the postholding site.

Table 10.2: Details of staff and services in postholding sites

Service	CS/AP/Both	Costs	Inpatient/Outpatient	Postholding: Higher/Lower cost
Colposcopy	CS	Full team	Outpatients	Lower
Anti-coagulant	CS	Full team	Outpatients	Higher
Geriatric community care	CS	Full team	Inpatients	Higher
Addiction counselling	CS	Individual nurses	Outpatients	Higher
Challenging behaviour	CS	Full team	Inpatients	Lower
Early intervention	CS	Full team	Home visits	Higher
General practice/Primary care	AP	Individual nurses	Outpatients	Higher
ED minor injuries	AP	Full team	Outpatients	Lower
Sexual health	Both	Full team	Outpatients	Lower
Cognitive behaviour therapy	Both	Individual nurses	Outpatients	Higher

Of the six postholding sites with CSs and no APs, four had higher unit costs and two had lower unit costs than the corresponding non-postholding sites. Of the two services with both a CS and AP, one had higher and the second had lower unit costs than their matched non-postholding sites. The two services with APs but no CSs also had lower unit costs than their matched non-postholding sites. The sample size is too small to enable a valid statistical analysis of any of these sub-groups.

Costs were analysed at the level of the entire multidisciplinary team for the majority of services, as shown in Table 10.2. The exceptions to this were the primary care practice nurse service and the two psychiatric services. The bulk of services for which complete data were obtained are outpatient services, the exceptions being geriatric community care and the two intellectual disability services.

10.3 Discussion

This analysis explored some of the cost implications of employing CSs/APs in Ireland. As illustrated in Figure 10.1, activity-adjusted costs are higher for CS/AP services in six out of 10 pairs and lower in four pairs – showing no statistically significant difference overall. However, the observed differences in costs were generally small. Unit costs were virtually identical for the matched and non-postholding sites in psychiatric services (addiction counselling and cognitive behaviour therapy). There is some evidence that the higher salaries payable to CSs/APs can be partially or completely offset by an increase in productivity.

There were significant differences in scale between some of the matched pairs. This is important because unit costs per patient may be of lesser magnitude in larger sites with greater activity levels due to the spreading of fixed costs over a larger number of patients, which is referred to as economies of scale. It is difficult to determine if our findings were influenced by economies of scale, particularly as this is more likely to occur in the costs of overheads than in clinical staffing costs, and only the latter category of costs was included in this analysis. The sexual health postholding site had a client throughput approximately five times greater than the matched site, yet activity-adjusted costs were similar. For community hospital geriatric care, the postholding service had just 23 beds, compared to 174 beds in the matched service, and activity-adjusted staff costs were approximately 12% greater in the postholding site.

For colposcopy services, activity-adjusted costs were almost 24% lower in the postholding site. The most marked difference between all matched pairs was for intellectual disability challenging behaviour, where unit costs were around 40% less for the postholding group compared to the non-postholding group. These services provide care for moderately intellectually disabled individuals who require high support due to their challenging behaviour. In this instance the results may have been affected by scale economies. The matched site had just four clients (in one residence), cared for by three staff members at all times, compared to over thirty clients divided over six residences in the matched site. It is possible that, at a certain threshold number of clients, the staffing requirements per client drop off, as a large number of clients in different residences are unlikely to simultaneously engage in violent behaviour. Nonetheless, it is plausible that the greater training of the nurse specialist reduces overall staffing needs.

For general practice/primary care, unit staffing costs per client were over 30% higher for the AP than for the practice nurse. This is partially explained by the fact that the AP spends a half day each week conducting research, and some time also in a second clinic without an appointment system at which a lower client throughput is recorded. Subtle case-mix differences may also have played a part as the AP, unlike the practice nurse, is involved in chronic disease management.

10.4 Limitations

This study had a number of limitations, and results may have been affected by a range of potential problems and confounders. Lack of comparable economic data recorded in some nursing areas reduced the numbers of sites that could be involved in the economic analysis, and a failure to obtain permission to obtain economic data in one midwifery site resulted in the impossibility of analysing any of the comparable midwifery economic material. Only staffing costs were included, and data were collected for one week only. Efforts were made to ensure that each week was representative of the usual workload, but this may not always have been the case. However, it is unlikely that these limitations affected the

different types of site differently.

The recruitment embargo could have reduced the accuracy of results, as services may have been operating below optimal staffing levels. Also, the majority of matched pairs were based on outpatient or community data that are not included in the HIPE data system, meaning it was not feasible to adjust workload for case-mix. It was assumed that case-mix was comparable across all matched pairs included in the results. Results may be affected by self-selection bias in that better managed and thus more efficient services could choose to employ CSs/APs, meaning efficient services may be over represented in the postholding sample. There also may have been non-respondent bias over those services that did not provide data.

For the ED minor injuries non-postholding service, staffing and patient throughput data pertain to a period prior to the commencement of the SCAPE project. Furthermore, since the nursing and medical personnel involved spend some time working outside the minor injuries area, an estimate had to be made of the split of time in each location, and this is another potential source of inaccuracy in the estimates. For these reasons the findings on this comparison must be treated with caution.

Certain potential economic benefits associated with CSs/APs may not have been detected. For example, in psychiatric care a key source of financial savings may be reducing the occurrence of costly hospital (re-)admissions. This was anecdotally reported to occur in nurse specialist services in addiction counselling, family therapy and psychotic services (but note complete data were not obtained for family therapy). The family therapy service operates a fundamentally different model to the matched service, which is based on the medical model of care. Family therapy aims to examine the interpersonal relationships that may exacerbate or cause psychological conditions, compared to the more intrapsychic medical model. If specialist mental health nurses offer a more effective service, which succeeds in reducing the numbers of costly hospital admissions, this study design was not capable of capturing such a saving. On the other hand, implementation costs associated with introducing CSs/APs, such as training and information costs, were not included in the analysis either.

10.5 Conclusion

This arm of the study explored some of the cost implications of employing CSs/APs in Ireland relative to standard nurses or medical personnel. Overall, results of this economic analysis do not show a difference in costs between the different models of care. This suggests that the higher salaries payable to CSs/APs may be partially or completely offset by an increase in activity levels.

Future research is needed to address patient/client level effects of employing CSs/APs; for example, whether or not a reduction in hospital (re-)admissions can be achieved in areas such as psychiatry. The effectiveness of chronic disease management by general practice/primary care APs also merits detailed analysis, as Ireland's existing model of chronic disease management is regarded as inadequate (HSE 2006b).

The findings of this analysis must be considered conjointly with other result sections of SCAPE. Since the economic analysis did not demonstrate a difference in costs between the services with CSs/APs and the comparison sites, there is a case for introducing nurse (and midwife) specialists and advanced practitioners if clinical benefits are demonstrated for the services that use them.

CHAPTER 11
Phase 3: Interviews with policy makers

<table>
<tr><td>**11.1**</td><td>Introduction</td></tr>
</table>

Twelve policy makers were interviewed by telephone or face-to-face, to provide background context for the Phase 2 findings. Participants included representatives of the Department of Health and Children (DoHC), the Health Service Executive (HSE) and a number of relevant organisations that govern or shape health policy in Ireland. An outline of the draft findings formed the basis for the interview schedule (Appendix 9) and was discussed with each policy maker in relation to the wider health service context. Findings from these interviews are outlined in section 11.2.

<table>
<tr><td>**11.2**</td><td>Interviews with policy makers to contextualise Phase 2 findings</td></tr>
</table>

11.2.1. Participants' opinions of CSs and APs

Most participants spoke favourably about CS and AP roles, describing them as "providing the vision for a new generation of nurses" (PM5), "well respected" (PM6), and "absolutely key to a modern health system" (PM3). They were described as having "made an enormous contribution" (PM7), in that they gave "added value" (PM8), "provide continuity" (PM9) and played "a very key influential role" (PM10). The benefits of the roles were seen to be recognised by other clinicians, managers and service users also, which was felt to be important:

> ...there's a...high value on specialist and advanced practising roles...a huge drive in each programme team to include specialist nurses and practice nurses and this was coming from the medical, medicine itself...[it] is an illustration of the professional standing of nurses and midwives. (PM1)

> ...where there are specialist roles, the positive feedback we have from patients...is very encouraging. (PM3)

> ...the overall improvement for service users, i.e. for children and their families, has been commented on within that service. (PM10)

Some differentiation was noted between the impacts of advanced practice and specialist roles. Two participants commented that, while the impact of advanced practice was always consistent, there was much more variability in the CS role:

> In relation to clinical nurse specialists, I would not be as convinced [about impact]. Again, this is opinion in that the evidence, if there is any out there I'm not familiar or aware of it. I'm aware of the reviews alright that were carried out in some of the services. I think there's a muddying of the waters. (PM10)

The concerns related, first, to a lack of governance structures when some roles were developed in the early days of the initiative, resulting in a greater diversity within the CS role than was desirable. However, participants also acknowledged that there had been considerable improvement in terms of new CS developments recently.

> I think for some clinical nurse specialists, particularly those...in the early days were appointed, they perhaps did not have to go through as rigorous a process as those in recent times, and

perhaps the practice actually hasn't altered and they are still doing what they always did but they just have a new title added onto them. (PM10)

In general nursing...there was much more development in the job description [for CS] and the role in the general service...individuals had to sit down, construct a role, find a place for themselves within the service, identify where it could be a nurse-led service and take it as a much broader newer initiative. I couldn't say the same thing happened at that time in mental health... However, since then there has been some bigger developments...we would have CNSs in eating disorders...in CBT...in relation to childhood, adolescent psychiatry, psychiatry of later life, etc. And they have all been very positive. (PM12)

One participant spoke of the advanced role in relation to midwifery, expressing the view that:

...the midwives...always would have had high standing, particularly in the labour ward... I've always had the view that they were advanced practitioners and should be paid as such, particularly as midwives are different from...nurses in that they are actually taking...clinical decisions, rather than just implementing decisions that other people take. (PM7)

11.2.2. The clinical practice role

Participants spoke highly of the CSs' and APs' input into clinical practice, particularly noting psycho-social and practical skills and improved patient/client outcomes.

I'd...talk to the nurse, not any of the doctors...it's the nurse who will tell her the quality pieces around how she manages. I think medics aren't good at the caring piece, psycho-social piece...if you talk to the consultant, you'll get the high powered stuff but you rarely get a lot of detail on the real nitty-gritty, important day-to-day issues. (PM2)

...in the clinical area, the development of specialists and ANPs has certainly added value to the health service in terms of patient outcomes. (PM8)

Their role in multidisciplinary teamwork was also noted.

Every team should have at least one CNS. (PM4)

A specific skill set in relation to diagnosing...multidisciplinary team working... I think that's an absolute strength of clinical nurse specialists and ANPs...they're good at referring to other health professionals and consultants. (PM6)

CNSs appointed in more recent years...would be much more strategic in the way they would look at their role. It's not a simple case of calling out to someone, assessing them, titrating their medication...or referring back to the...doctor. They have become much more autonomous...they've developed much more leadership roles within teams. (PM12)

One benefit of AP roles, in particular, was seen to be swifter access to services, which allowed service users to be assessed, treated and discharged from the system, thus decreasing waiting lists.

...we do have data to show that the biggest problem we have in our health services is actually accessing it...and two of the things that contribute significantly to it are the assessment and the diagnostics, because they are the two things that are initially blocking people getting into the health services. (PM1)

For the individual who is accessing the services it's a much cleaner, swifter way...being assessed, having treatment and being discharged and for the service it means that you don't have these long waiting lists...that's where ANPs have excelled. (PM12)

...they made differences in relation to cutting...waiting times and...streamlining the work that they do. (PM6)

In addition, CSs and APs were praised for their greater organisational skills, better continuity of care and follow-up, which led to improved care and compliance.

I would have seen them...in the gastro surgery running nurse-led constipation clinics...developing...child friendly tools...to help provide care in...constipation, functional abdominal pain...how you manage complex cases of disease...they weigh very carefully. Keep track of who is on what treatment...They [CNS] have a great ability to manage...keep records...They do flowcharts...of people who are due to come in and where are they. Doctors don't do that particularly well, I think. (PM2)

One of the best advantages of an advanced nurse practitioner post in a hospital setting can often be that there is continuity of care. (PM9)

I think the evidence, the outcomes that we get with the structure of chronic disease management in particular, with continuity being provided by advanced nurse practitioners and clinical nurse specialists...show that in fact you can get better outcomes than you get from patients who are being managed through services where clinicians are changing...from consultation to consultation, that continuity of care is very important in terms of patient compliance and all that. (PM11)

In addition to continuity of care, the holistic and educative approach taken by these practitioners, and their resulting impact on patient/client quality of life was seen as vitally important:

...they [CS and AP] are taking on functions which obviously are functions of nursing but may previously have been conducted by med students or...the therapies...we get a more holistic intervention when it's housed within one professional. (PM1)

[CS]...providing a real continuity of care...often less high powered care but probably more important...providing the information the patients need. It makes huge difference to their actual quality of life...much more informative. Much more explaining. Much more complete. (PM2)

...if you have a nurse who's very knowledgeable in a particular area and the patient has direct access to them, it can often prevent...or identify problems that are happening and allow the nurse to intervene very quickly. (PM9)

The APs were appreciated for their research and evidence-based knowledge in the clinical area, which participants in contact with them had been able to source.

I need a roving resource to make sure we stay square. That we're, you know, best practice, evidence-based, clear what we're doing...so, the advanced nurse practitioner is very attractive to me in that regard. (PM4)

Three participants commented that there was the potential for a reduction in litigation and a better patient/client safety focus:

I don't see any negative impact in terms of safety of care or litigation...and I think if there is good continuity of care, good communications and a sound multidisciplinary basis to it, I hope that it might improve matters. (PM7)

...that's being seen the world over, that there's been a decrease in the litigation in relation to advanced practice. That they have been very safe practitioners. That's for sure. (PM5)

...they can provide safer care because...they follow the patient through from the start to the finish and manage a caseload. (PM6)

Other participants highlighted innovative clinical initiatives stimulated or brought about by APs, which had led the field in Ireland.

...the work on ionising radiation that was done in advance of even the HSE or anyone else deciding that the scope of practice needed to be looked at and expanded. They [ANPs in one hospital] had a programme built and were delivering it...very effectively and they were an enormous resource when...the legislation was confirmed that nurses could request ionising radiation. (PM6)

Comments were made on the need to expand CS and AP roles across the country, to enable all to experience quality care.

...it leads to questions of equity and equality of services across the whole country in relation to how, you know, you can deliver the same kind of quality and have equal access to everybody. (PM6)

Two participants had concerns around the introduction of specialist and advanced roles, and cautioned that they might hinder the development of more junior staff:

I do think that the clinical nurse specialist, a lot of them are providing very, very good service to patients but I think...what can happen is if we don't get it right, there can be some tension and friction between the staff nurse, and what we want to do is develop up the capacity of all nurses. (PM9)

There is the risk, like anything else, when you shine a bright light into one area it casts everything else into darkness...other colleagues feel de-skilled, feel lesser...and they step back. 'Really, I'm not your family therapist. You need my very expert colleague here.' (PM4)

These fears, however, are tempered by the views of how well the CSs/APs mentor and educate their colleagues.

I think that they have a key role in educating...nurses. (PM9)

I found that anywhere that you looked in relation to guidelines that they were involved in, they actually also brought along the whole nursing, midwifery profession with them, so there was greater buy-in in relation to patient care. (PM6)

One participant felt that CSs did not take on a direct care patient management role; however, it should be noted that this is not included in their job description.

They [the CSs] don't see themselves as managers and managing their caseload. (PM8)

11.2.3. Clinical leadership

The belief that CSs/APs were often leaders in their field was noted as an important finding, although participants also felt that APs did not always get the recognition that they deserved:

...pushing out the boundaries of nursing and providing...leadership in healthcare organisations...to keep the best, most competent and skilled nurses at the bedside. (PM5)

I think that they're [ANPs] leaders in nursing, okay, but I'm not sure they are seen as it, because of their clinical work. (PM1)

People [mental health nurses] are moving away from hospitals out into the community. There is a sense that you would only send pioneers out there...they need to be very well equipped and they are exceptional strong nurses and that often describes CNSs. (PM4)

Numerous comments were made about how the CSs/APs demonstrated strong clinical leadership in their

local areas by being at the forefront of practice, leading in aspects such as guideline development and new care initiatives:

> If there's...a change in practice, that they [CNS] are very good to take it on as to what should happen and develop guidelines around that. (PM2)

> ...certainly I would say...that the majority of expertise in this type of guideline development is with CNSs and ANPs now practising. (PM1)

> ... they're constantly looking at the evidence that's supporting their practice and that...guideline is being constantly updated and reviewed and...there is a very good process for ongoing review of the protocols and the evidence to support the practice and I think that then improves patient safety and contributes to better knowledge. (PM9)

> When we move towards even more public health screening, etc, and the movement of acute and non-acute care. I think that's a huge niche opportunity for advanced practitioners as well. (PM3)

> In terms of policy and guideline development and the mental health service in general, I think it's fair to say that it's being led out by the nursing profession. Areas where policies and procedures are not in accordance with good practice, it's quite obvious in those areas that nurses have not been, and are not, involved. (PM10)

Participants also highlighted the potential to share developments at a national level:

> ... involved in guideline development, so I think...it's a resource that should be built on, not just for...whatever they are locally. It should be accessed nationally, I would say. (PM3)

The majority of participants spoke of the amount of formal and informal education of other staff undertaken by CSs/APs.

> ...their ability to educate the junior staff. You know, the huge resource they [CNS] are for the new people [junior doctors] coming in every 6 months, new consultants coming in...what the practice in their particular area is and how it's done and, you know, what the guidelines are in a given hospital...this is what, you know, the CNSs provide as members of that multidisciplinary team. (PM2)

> I have involved some of the specialised midwives in giving formal lectures to the medical students...in...blood transfusion, infectious diseases...they certainly have a role in medical undergraduate education. (PM7)

One participant made suggestions as to how AP roles might develop in the future, to increase their leadership potential:

> ... I'd like to see, particularly the ANPs, right, come together in some national leadership position...that actually do become the voice of nursing, both publicly and within the decision making in hospitals... So, for example, if we had an A&E crisis, okay, that advanced nurse practitioners...would be centre stage in helping to advise on the resolution of that problem. (PM1)

11.2.4. Professional leadership

Leadership at a higher and wider level was discussed by all participants, with favourable comments made on the strategic leadership demonstrated by, in particular, the APs.

> I think the amount of teaching they are doing is phenomenal...the rest of us are just talking about what we're reading in books. Whereas these guys are actually able to really teach about

their particular area...it's critical that we retain the teaching function and the mentoring function for ANPs and CNSs. That's growing our next generation of nurses. (PM1)

I would be...aware of them being on committees at international level...across Europe and...we were delighted that...we had all nurses and midwives prescribing, which was unique worldwide. (PM5)

...many of those who have excelled...I would say it very much depends on the type of management leadership that's in the area...Some of them are obviously writing papers and, you know, developing some sort of international kind of kudos. (PM12)

Suggestions were made as to how such leadership potential could be harnessed and supported to encourage career progression of CSs/APs.

There really should be some sort of recognised career progression or vocational management training for those who...really have the acumen and show the interest because...these are the kind of people who, in other countries 5, 6, 7, 8 years down the line could be chief executives, if we developed them correctly...into becoming senior clinical managers for the future...actually making decisions around the provision of the service...[they] understand the challenges in managing we don't understand. (PM3)

...the team building and the management skills of leading teams of people, because... I see it happening here. (PM8)

11.2.5. Research and audit activity

The main study had found that audit was identified as a key strength, in particular for CSs. Research activity by CSs was not very prominent, which was not surprising as it does not form part of their normal job description. Despite this, nine CSs (53% of them) were involved in research activity of some kind. All APs were conducting research, although the amount was variable, with most undertaking research in their own time and struggling to achieve this part of the role. All policy makers interviewed believed that research was an important element of the AP's function but acknowledged the difficulties of undertaking research while setting up a new role. Collaboration and support were identified as key to research output.

In the absence of fast moving, good turn around research, very closely allied to what's going on the ground, and broadcasting its message back, I think we could be in serious trouble here...the ANPs have a key role in that. (PM4)

...they had enormous strength in audit alright. They could turn their hand to auditing overnight... I found that research wasn't as strong as I would have expected... I think that comes down to a time constraint and not having the support in relation to being able to do it, because they're very intelligent, capable people. (PM6)

A large portion of their time is taken in caseload management, rather than research and audit. When audit is conducted, it's probably in the context of looking at numbers and throughput...in order to validate the post and continue its existence, rather than [conducting research using those data]. (PM12)

Suggestions were made as to why research output might be low, including lack of time and disparaging comments from other colleagues.

I can understand perfectly why they [ANPs] don't have the time [for research...It's not a priority in their day-to-day...we might think it's necessary, but when you're on the ground in this difficult environment right now, it is not a priority. You're lucky if quality of care is a priority. (PM5)

I see nursing research as hugely valuable but it often gets pooh-poohed by the medical profession because it's not published in New England Journal and the likes. (PM2)

There was also a concern that research output was not always visible and activity was slowed by the need for approval from multiple ethics committees.

If they have engaged in [research] to any great extent we're not aware of it... I suppose one major difficulty in relation to this whole area of research in particular, I suppose, the dilemma that any researcher has in this country in terms of ethical approval. (PM10)

Participants made suggestions as to how the output of research and audit might be improved, emphasising how important this aspect of the role was.

I think often they struggle because...they mightn't have the time, number one, which because of their caseload and they're so busy, but equally if they don't have an academic support, I think they may not be able to do it [research]. (PM9)

I would like to see their involvement in research really looked at in terms of...protected time. (PM2)

...there needs to be encouragement of both the midwives and the medical staff to undertake [research]. (PM7)

...protected time, I know is something that's supposed to have been built into this but I'm not so sure exists at the moment. (PM12)

A stronger link between practice and academia was also recommended:

We haven't seriously addressed the link between academia and practice... There's no relationship at all in some places. And in the next generation of advanced nurse practitioners, that is something that we need to do. That...solves our research problem, through the process of joint appointments and...is there a way of one of the universities adopting it as a research agenda, advanced nursing practice and developing expertise in it...we could get much bigger studies. (PM1)

I know some of the hospitals were looking at having a joint chair and when I was approached about it I remember thinking 'this will get the research base properly done for nursing for practice'... I think it would be fantastic if we could do something like that. (PM9)

11.2.6. Resources

There was considerable acknowledgement that lack of resources, including budget cuts, a government applied moratorium on recruitment and budget holders' interest in immediate monetary savings, was an issue that hampered development of the CS/AP roles.

I would be very encouraging of the ongoing development of the midwife specialist and I would like to see it expanded in due course...resources permitting [laughs]. (PM7)

We have a moratorium [on recruitment] at the moment... That complicates everything we do. But we can't just keep going around saying 'we have a moratorium, we can't do anything'...so if somebody comes and says they want to do a joint appointment, well, let's look at it and see how we can work around it. (PM1)

...complementary [care given by CS/AP] is an added cost, whereas substitution is probably a decreased cost...so the long-term effects would be better but you won't see it in just an immediate research analysis... It's purely what it costs at the moment and how they can save on that cost at the moment, whether the patient ends up coming back ten times into A&E or

into the hospital is irrelevant [to funders]. I think all of that has never been taken into the equation. (PM5)

The reality is for one ANP, you could have three staff nurses, so this is in terms of employment ceiling now and your budget...it's going to be hard to make that argument both from the DoN's point of view and from those involved from an industrial relations point of view... You'll be very clearly told we want three more nurses...until you can demonstrate the value of having the ANP. (PM12)

The belief expressed in the above quote is not borne out by the findings of the economic evaluation (Chapter 10), which demonstrated no difference in salary costs between postholding and non-postholding sites. However, the quote does demonstrate the difficulty faced by managers of persuading budget holders of the added value of the AP role, despite the evidence available.

One participant spoke of how, in their view, nursing or midwifery budgets were sometimes used to fund advanced posts that did not appear to be supplying nursing or midwifery care.

...of the 5,000 odd [psychiatric nurses] we have at the moment, many of them aren't nursing...we have nurses who look more like psychologists than our clinical psychologists do...they have morphed into a whole variety of different things...so if the budget for nursing, for example, is paying for a whole load of staff who are actually delivering a psychology type service, that's...we need to rewire the system. (PM4)

Some suggestions for circumventing lack of funding included seeking research funds and using technology to support care giving:

...you're getting involved in the research community and you're building a research profile, that then enables you to bid for research programmes, which in turn draws in resources... So, if we don't somehow start to free up ANPs to be involved in this, we're just going to go around in circles. (PM1)

...if you're in a walk-in centre that's nurse-led, practitioner-led...to really push the advanced practitioner role safely I think there's a huge opportunity for technology to help support that as well. (PM3)

The cost of specialist and advanced nursing and midwifery services was discussed by participants. The majority believed that, even if the service cost more initially, it would become more cost-effective due to increased clinical effectiveness.

I have been able to delegate a lot of the first visit appointments to the specialist. So, they certainly have been able to replace medical hours for outpatient colposcopy diagnosis and treatment. (PM7)

Certain care elements, it [CS/AP roles] will be more cost-effective... It's probably more clinically effective actually...particularly with...skilled interventions they are doing more regularly than the odd junior doctor coming in, giving a twirl and going out again. So, actually in the right clinical environment with the right skills for the right patients, you would expect it...to be certainly at least as, if not more, clinically effective because of the continuity of the practitioner. (PM3)

...they replace the work often done by, you know, a medical practitioner. I don't know that they always replace the work done by a nurse because I think...because of their skills, they do it better... I think they add huge value...there might be no huge cost saving...in terms of how many people you could take out of the system if you put in a...clinical nurse specialist. I think the outcomes and the value of the work is hugely different...is hugely improved... I think it's

far more cost-effective. (PM2)

If you looked at errors and...infections and all those...quality things. I think you have to look at it as a whole rather than to break it down and if that's done... I think the service is certainly, probably, more cost-effective in the long-run. (PM6)

While the potential for cost savings was highlighted by participants, one suggested that more evidence is required before a conclusion can be reached.

I haven't seen any convincing evidence that total healthcare system costs are influenced by the extent of deployment or otherwise of advanced or clinical nurse specialists. I know it's often talked about as a potential but I'm not familiar with evidence that in fact that has been the experience at a healthcare system level. (PM11)

11.2.7. Challenges to the introduction of CS/AP roles

The challenges that participants saw in introducing CS/AP roles, including medical fears of diminished roles, and lack of support, were mentioned briefly.

One of the challenges is that the whole medical power... Like anything, when you're changing...the existing practitioners, see that as a fear area... You can't just keep...two people doing exactly the same thing if actually one person could do it very well and someone else is freed up to do something differently...diagnostics, interpretation of images...doing minor procedures. All of those elements. It is a kind of fear of letting go and it's not a criticism. That's just human. (PM3)

There's certainly a great deal of paranoia among the medical profession initially looking at enhancing the nurse's role in the context of mental health service, certainly. (PM12)

As policy makers we haven't given enough guidance and maybe support in some ways to nurses in their roles as ANPs and CNSs...many of the posts...around the country have been developed really from an interest being expressed by a nurse and it hasn't always been service related... I think there are challenges with that because the positions then, and the service, do not always fit neatly. (PM8)

Despite these fears, the main study saw extensive support from members of the medical profession throughout the country, who were working with and appreciated the contributions of CSs/APs. In addition, the site preparation required by the National Council (NCNM 2008b) ensures that the posts do 'fit neatly' with the service, and are service-led. Recommendations from the policy makers for the development of CS/AP posts included the need for extensive dialogue with all clinicians prior to introduction of the roles, strong clinical governance, and guidelines on collaborative decision making – all suggestions in agreement with the present site preparation required by the National Council (NCNM 2008b).

If they don't fit comfortably within a structure and have identified 'this is where you are actually placed within the nursing organisational structure within your own multidisciplinary team and organisationally', then...the contribution to organisational objectives and goals and strategic plans...can be very limited. (PM8)

[It is important] that there is absolute support and a very strong governance framework and a risk management framework to support these people. (PM9)

...as specialist roles are introduced and where new advanced practitioner roles are introduced, it's for us to get it right from the start around clinical governance. (PM3)

ANP roles...have developed with a large amount of support from consultants and the broader healthcare workforce and have developed within hospitals...where they have structures and support to keep the momentum going and develop that service. (PM12)

...independent practices are easier to regulate...and if you have dependent practice it's very easy to regulate as well, the buck stops with the consultant... But there's a piece in the middle, collaborative decision making, that's always challenging to regulate. (PM1)

In addition, one spoke of the long term and wider implications of introducing these roles in terms of workforce planning, and of the need to plan ahead.

...huge implications for workforce planning...if you have advanced practitioners taking on roles particularly outside of the traditional midwifery, well then we are going to need more midwives...you have more experienced...midwives running antenatal clinics...you may not need to have as many obstetricians in the outpatients. (PM7)

11.2.8. Future directions for CS/AP roles

Policy makers emphasised the important contribution CSs/APs could make to the HSE transformation agenda. They suggested there would be a major focus on patient/client safety, that recent policy initiatives would result in a reorientation of services, and that CSs/APS had a critical role to play in this:

Whatever way we develop nursing, it must be done from a patient safety point of view. There must be very strong governance to support the development of practice, whether it's at CNS level or ANP level or at any level. (PM10)

Many of the consultants...[are] leading the national integrated programmes for COPD or heart failure, emergency medicine...and the roles of CNSs and ANPs are certainly going to be critical to their successes. (PM8)

If you looked at an individual with an intellectual disability and a mental health problem, there's huge scope for a nurse-led service and an ANP role in that. (PM12)

Developments within the area of chronic disease management were emphasised as important, as was the need for services that span hospital and community.

I think the area of chronic disease management, immunisation...primary care are all areas where I think there's substantial scope for further development of the role that hasn't yet properly or fully happened. Certainly not in any consistent national basis. (PM11)

Also in the area of chronic disease management. I think we need to do a huge amount of work on that and that could be at CNS level or ANP. (PM9)

The nurse specialists would tell me lots more they could do if we had the resources as an outreach. Many of them could actually be working out in the community. (PM8)

I would love to see it [advanced practice] more developed in community because I think that's where it needs to be. I think if you look at the international evidence that often it's not in the acute hospitals that we have advanced practice because the structures and processes that are in place. (PM9)

There were, however, challenges to be overcome, including the need for clarity about governance structures and resources:

I think the problem probably is to do with having an NHO [National Hospital Office] and PCCC [Primary, Community and Continuing Care] as was and I think the whole governance of people coming out from hospitals to work in the community could have been a major issue as to

whose responsibility is the patient and how you manage that process. And, again, with the development of the integrated care now, that that hopefully will be resolved so that the continuity of care, which is the whole mandate behind integration and will actually sort those issues out, but I do think that in order to provide continuity of care there should be mobility between the two services. (PM9)

The need for an expansion of roles into higher level practice and areas that had less medical support was noted.

We have the CNS and...they become an expert in a disease pattern...and then we have the ANP who is a higher level of practice... I do believe the ANP should have another role... But I don't know if we then develop another grade of nursing. A consultant nurse. I think we've divided it up too much...there needs to be cohesion between all levels. (PM1)

I would like to see more of them in the community, more of them in elderly care, because those are the areas that you don't have the medical support and we don't see them in mental health too much or in ID or paediatrics. (PM5)

Others emphasised the need for creative, flexible, supportive environments that allow practitioners to develop, if these valuable staff are to be retained.

[re ANPs]...we're attracting a more cerebral nurse...unless you satisfy that need in them, you will lose them from the profession altogether. If you're going to drop them into a very controlled suffocating environment, you're wasting your time. (PM4)

One participant spoke of how the AP person should be registered in their own right, believing that that would protect them once they left a registered post.

...the issue of registering the post and the person...the person should be registered...because there's no country in the world that registers the post. So that if you get out of post, you automatically lose your registration as an advanced practitioner. (PM5)

It is true that the National Council in Ireland is unique in the comprehensive approval process it has set up to approve all posts in the country. This process encourages service areas to demonstrate commitment to and support of the role, and allows the service area and multidisciplinary team members to work together in planning and preparing for the introduction of the role. This process is of inestimable value in terms of building relationships and appears to have resulted in the supportive environment for CS/AP posts that makes Ireland the envy of other less fortunate countries.

11.2.9. Summary

Most of the 12 participants spoke favourably about CS and AP roles and praised them for their greater organisational skills, and better continuity of care and follow-up, which were perceived to lead to improved care and compliance. They believed that CSs/APs were often leaders in their field who should receive recognition for this role. These participants praised the auditing skills of CSs/APs and expressed a wish for more research. There was considerable acknowledgement that lack of resources – including through budget cuts, a government applied moratorium on recruitment and budget holders' interest in immediate monetary savings – hampered development of the CS/AP roles. The important contribution CSs/APs could make to the HSE transformation agenda in the future was emphasised.

CHAPTER 12
Synthesis of findings and discussion

| 12.1 | Introduction |

The SCAPE study is a major national, mixed-methods study designed to evaluate the clinical services provided by clinical nurse and midwife specialists and advanced nurse and midwife practitioners in Ireland. Five main sources of data were obtained in this study (with other sources gathered within those as necessary). These were:

- focus groups with 63 key stakeholders

- Delphi survey with 312 CSs/APs (evaluated and validated after completion by 288 CSs/APs and 69 key stakeholders)

- case study observation (184 hours) and interviews (41 service users/family members/carers, 41 healthcare professionals and 23 Directors of Nursing or Midwifery). Observation included quantitative data in the form of recorded key behaviour indicators and quantified documentary evidence.

- case study service users' survey (279 surveys)

- interviews with 12 policy makers.

In addition, an economic evaluation was conducted in 20 sites (10 matched pairs).

| 12.2 | Limitations and strengths of the methodology |

12.2.1. Limitations

The research in this study was restricted by the extent of available information both from published research and data within the Irish healthcare system. The limitations outlined below provide detail of specific challenges that emerged for the research team:

- There was a lack of good information from published work, so that the systematic review of reviews was unable to reach a definite conclusion (4.11)

- A number of challenges were encountered in matching some of the postholding sites with comparable clinical sites that cared for similar patients/clients, where no CSs/APs were employed (section 7.4.8). This occurred particularly in the field of intellectual disability, and recruiting sufficient numbers of service users from that area to complete the survey was also difficult (7.4.8.4)

- Although 279 service users completed surveys, the numbers were not always sufficient to demonstrate statistically significant results, even though apparent differences were seen (this is discussed in section 8.2.6.7)

- There were not always hard data such as service audits to corroborate what was observed in practice or discussed in the interviews. However, this is perhaps more of a limitation of how data are collected and recorded within the health service rather than a limitation of this precise methodology

- It was unfortunate, but unavoidable, that no Advanced Midwife Practitioner could be included in the study as the criterion of 'at least one year in post' could not be met by any potential participants

- For the economic analysis, suitable and sufficient data were only available in 20 sites, or 10 matched pairs, which is a major drawback when studies of this sort are imperative to conduct. The extent of data

collected for this study is, however, notably greater in quantity than in many other similar studies across the world. (For further discussion of the limitations of the economic section, see section 10.4).

12.2.2. Strengths

12.2.2.1. Phase 1

- The complex, mixed-method design chosen for this study lent strength and integrity to all phases of the project.

- The Delphi instrument developed was firmly grounded in:

  - the findings from two comprehensive and detailed reviews

  - the views of key stakeholders (health professionals, CSs/APs and service users) collected in focus groups

  - consensus from three rounds of a Delphi study with the main contributors (the CSs/APs)

  - a comprehensive validation exercise by a group of key stakeholders (other health professionals)

  - a final evaluation by CSs/APs.

- The Delphi method itself provided consensus of expert opinion without the bias that can occur in situations where panel members can be intimidated or inhibited.

- The response rates in the Delphi study of 45% and 64% in Round 1, with higher rates of 76% and 93% in Round 2, and 94% and 96% in Round 3, were excellent.

12.2.2.2. Phase 2

- Simultaneous triangulation of quantitative and qualitative data improved the credibility and validity of the findings.

- Multiple data sources (literature, focus groups, Delphi results, documentary evidence, interviews with clinicians, service users, Directors of Nursing and Midwifery and policy makers, and service users' survey) increased the reliability of the findings.

- The extensive observation periods allowed the research assistants time to add factual and interpretative data to the context in which care was being delivered in both postholding and matched sites.

12.2.2.3. Phase 3

- Interviews with policy makers enabled contextualisation of the data, which helped to ground the findings in the real world.

- All sources of data were combined and integrated – a key outcome of mixed-methods designs.

- The integration of so many types of data, from both the qualitative and quantitative paradigms, increases the validity of the work and strengthens the final conclusion.

12.3	Synthesis of findings from all data sets

12.3.1. Outline of presentation

The purpose of this chapter is to draw together the disparate findings and present a synthesis of all analyses. A discussion of the findings in relation to international literature then follows, leading to the key conclusions and recommendations.

Six tables are used in this section to present outcomes on CSs/APs across the different data sets, with contrasting data given on non-postholding areas where appropriate.

Column one in each table identifies the outcomes from focus groups; the terms used by participants were used as descriptors for each outcome examined. Other comparable descriptors were used by other sections of the study; for example, *'provides more timely care'* from the focus groups (Table 12.1, no. 13) was linked with *'speed of access to care/treatment delay/waiting for appointment'* from the Delphi survey, and with *'reduced waiting lists'* and *'prompt treatment'* from the case study.

Column two identifies the outcomes from the Delphi, validation and evaluative surveys. **Column three** presents the evidence from interviews in practice, the case study observations as recorded in field notes and documents, and the quantitative 'key behaviours' scoresheet. **Column four** presents evidence from service user questionnaires and (for the cost section only) economic analysis. This is for the purpose of clarity, and to present all data together in tabular form, but it should be noted that the economic analysis is an extra source of data for that one outcome alone. **Column five** presents evidence from policy maker interviews.

Column six identifies the extent of evidence across the data sets. As service users' surveys were only applicable for certain outcomes (e.g., service users were not asked about research output, audit, teaching other staff, using evidence-based guidelines), there are five sources of data for these outcomes and four for the remainder. Evidence is thus considered very strong if evident in 5/5 or 4/4 sources, strong if 4/5 or 3/4 sources, moderate if 3/5 or 2/4 sources, weak if 2/5 sources. One piece of evidence alone is considered an unsubstantiated outcome.

There were key differences in outcomes between the CS and AP data sets in the first two columns, with more outcomes identified for APs. When an outcome is exclusive to one group, this is indicated by *(AP)* or *(CS)* (in brackets) in the tables. When differences are seen between CS and AP outcomes, these are highlighted in bold in the text.

The integration of data sets resulted in four discrete areas of outcomes:

- individual patient/client outcomes

- outcomes specific to other healthcare staff

- outcomes specific to the health services

- barriers to implementing the CS/AP role.

Abbreviations for multidisciplinary team (MDT), documentary evidence (DE), evidence based (EB) and service user (SU) are used throughout the tables and are explained on the first occasion only.

12.3.2. Patient/client outcomes

There were 20 individual patient/client outcomes; there was very strong evidence to support 15, strong

evidence for four and no evidence for one (Table 12.1). The outcome for which there was no evidence was *'decreases mortality'*. This was identified initially in the focus groups but there were no data to support it in the Delphi study or case study work. However, it is difficult to provide observational or case study data in relation to this outcome and further work may be required comparing mortality rates of services to determine if this is, or is not, an outcome related to CS or AP practice.

There was strong evidence to support the two outcomes *'increases advocacy'* and *'promotes self-management skills';* there was evidence across all data sets of this second activity, with higher level working seen in the AP Delphi results. Policy makers emphasised the importance of this outcome to the HSE transformation agenda and the need to reorientate services in the direction of chronic disease management. Strong evidence also supported *'preparedness for treatment/intervention'*. Evidence from case study postholding sites found that patients/clients were prepared for interventions and service users were given more information and practical advice. Strong evidence was also evident for *'reduces exacerbations of condition'*. The Delphi results supported this outcome and case study sites provided evidence of reduced readmission rates. This is an important finding that should result in cost savings for the HSE; hence it would be important to explore this further.

Very strong evidence was presented to support *'earlier diagnosis and intervention'*, and there were data from the case study work showing that CSs/APs did perform assessments, diagnose and provide interventions. There was some evidence from the service user quantitative survey that **waiting times at their last visit in CS services were less than in CMS or AP services,** but in the service users' comments on the survey, **APs appeared to have the shortest waiting times.** The waiting time for treatment appeared very much lower in AP (12 hours) and CMS (1 hour) sites than in non-postholding sites (239 hours). This may be due to the level of autonomy in the AP and CMS services, which may be facilitating swifter throughput. These data may all depend very much on the service specialty, which could explain the differing results.

Very strong evidence supports *'conducts holistic assessment',* which was identified in focus groups and in case study sites where there was evidence of holistic assessment being undertaken. Service users also felt they had more time to discuss problems in postholding sites. There was very strong evidence for the outcome *'decreases morbidity'*. This was divided by the Delphi into a number of outcomes, including symptom management, physical comfort, **pain (AP only)** and promotion of patient safety. Policy makers identified direct care as a key part of the role for CSs and APs. However, they felt that some CS roles had moved from direct care to a more consultative function, where they advised others.

Very strong evidence supports *'increases knowledge'* and *'promotes self-efficacy'* as outcomes for APs and CSs. In the case study, the perception of respondents in postholding sites was that CSs/APs educated service users and families; the survey results showed that service users were given more information in postholding sites, and this difference was significant. *'Adherence to treatment'* was also very strongly supported by a range of evidence, with more service users stating that they followed advice in postholding sites. Very strong evidence of *'preventing complications'* was also presented; observational data provided corroboration on the provision of interventions that prevent complications. Another outcome supported across data sets was *'promotes wellness';* well-being includes all bio-psycho-social domains. *'Promoting health'* was also very strongly supported; there was a significant difference in the proportion of service users who had information about healthy lifestyles in postholding and in non-postholding sites. Very strong evidence also exists for *'conduit to other services';* this was supported in Delphi and there was evidence in postholding sites in the case study of referral to other health professionals.

'Patient/client satisfaction' was also very strongly supported across data sets. Service users in postholding sites were significantly more satisfied with their care. This is an important outcome in a client focused health service that aims to match services more closely to patient/client expressed needs. *'Patient/client perception of being well cared for'* was very strongly supported across data sets. Observational work in

case study postholding sites revealed that CSs/APs provided emotional support and personalised care. There was a difference in service users' perceptions of time given to discuss problems between postholding and non-postholding sites. *'Trust in the practitioner'* was translated in the Delphi work as *'therapeutic relationships'*. Evidence of good relationships was seen across data sets but perceptions of the extent to which practitioners were viewed by service users as open and honest varied; 100% agreed that this was the case with ANP or CMS, and 86-87% in CNS and non-postholding sites. *'Family support'* was also very strongly supported across data sets, with more positive findings in postholding sites.

The last outcome for which there was very strong evidence was *'provides more timely care'.* No difference was seen in overall waiting times between postholding and non-postholding sites, in the service user survey. However, there were significant data from interviews; service users and clinicians stated that waiting times were reduced, in particular with APs (see sections 8.2.2.4, 8.2.2.5, 8.2.5.3). Some policy makers also highlighted that access to care had increased because of AP services (Table 12.1). There was also documentary evidence from two sites of audits of waiting times having demonstrated a reduction due to CS/AP presence (Table 9.1).

There was a significant difference between waiting times for CNS, CMS and AP services; **waiting times to be seen at the service users' last visit in CNS services were significantly shorter.** This may be because the CNSs would appear to be running a more scheduled service, with appointments, whereas the CMSs and APs were caring for more acute or emergency patients and clients. The service users' comments on the survey gave evidence of shorter waiting times for AP services in the ED, compared with EDs in the non-postholding sites.

Table 12.1: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on individual patient/client outcomes

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
1	Decreases morbidity	Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation) Physical comfort (e.g. nausea, physical discomfort, being settled) **Pain (severity, pain relief) (AP)** Appropriateness of medication regime (e.g. degree to which dosage, type of medications is appropriate) Promotes patient/client safety. Potentially avoidable adverse events are prevented (e.g. misdiagnosis, medication errors, inappropriate treatment)	Uses physical interventions to decrease symptoms (8.2.4.3, 8.2.5.2, 8.2.5.3)	78% of SUs said they received enough treatment to help improve their symptoms (20% said 'not applicable') (8.2.6.5) 76% of SUs attending CSs/APs were very satisfied with the physical care received, compared with 66% of those attending non-postholders (8.2.6.4, Table 8.13) 100% of SUs had confidence in the CS/AP to provide the care they needed (8.2.6, Table 8.8)	Direct care identified as key part of role for CSs/APs (11.2.1, 11.2.2, 11.2.8) Some concerns in relation to CS and the focus of working through others only (indirect rather than direct care) (11.2.2) CSs/APs identified as very safe practitioners (11.2.2)	Very strong evidence (5/5 sources)
2	Decreases mortality	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	No evidence
3	Increased knowledge of service users/family	Communication (non-verbal/verbal skills, SU's expression of preferences) The SU's knowledge (possessing relevant information, understanding of medical condition/treatment, making sense of personal experience) Family/carer adjustment **(family ability to support SU's physical needs, acceptance of illness) (AP)**	Educates SUs and family (8.2.4.2, 8.2.5.2) Carer's satisfaction with information increased (9.2.8.1) Tailored information resources developed by CSs/APs (9.2.1, Table 9.1)	CSs/APs gave SUs and their families more information (8.2.6.3), completely revealed all the danger signals to look out for (64% in postholding sites vs. 44% in non-postholding sites) (8.2.6.3)	Policy makers were clear that knowledge is enhanced and this makes a difference. Also comments made on the increased safety of care due to continuity (11.2.2)	Very strong evidence (5/5 sources)
4	Promotes self management	The person's knowledge (e.g. possessing relevant information, understanding of medical condition/treatment, making sense of personal experience) **Physical self care capacity** (e.g. ability to manage general needs or illness-specific needs) **(AP)** **Personal independence in society** (e.g. ability to manage daily affairs, everyday functioning in home/community) **(AP)**	Teaches self-management (8.2.4.2, 9.3.4)	CSs/APs gave SUs more information about self help and support groups (38% vs. 33%) (8.2.6.3) and how to maintain a healthy lifestyle (51% vs. 44%) (8.2.6.3) Significantly more SUs in postholding sites said the clinician supported them to manage their own condition (77% vs. 64%) (8.2.6.3); more said they did not need information (40% vs. 30%) (8.2.6.3)	Policy makers want an increased focus on community and chronic disease management in line with HSE transformation agenda (11.2.8). No mention of CSs/APs promoting self-management, although that could be due to lack of practical experience of CS/AP work	Strong evidence (4/5 sources), with higher level working seen in the AP Delphi results.

Table 12.1: (continued)

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
5	Adherence to treatment	Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)	Evidence of improved medication compliance (8.2.4.2, 8.2.5.3) and adherence to treatment (8.2.5.2)	No difference seen between sites in SUs views of following the advice given to them (8.2.6.5), but 98% attending a CS/AP said they did follow the advice given to them (8.2.6.5)	Some mention of patient compliance due to continuity of care (11.2.2)	Very strong evidence (5/5 sources)
6	Earlier diagnosis and intervention	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Assessment and diagnosis conducted by CSs/APs (8.2.1.1) **Waiting time for treatment appeared lower in AP and CMS sites than in CNS or non-postholding sites (8.2.3.5).**	Waiting times in CS/AP services were said to be significantly less (8.2.2.4) **Waiting times for first appointment less for CS than AP (8.2.3.5).**	Some evidence that earlier diagnosis contributes to swifter access to services (11.2.2) Policy makers suggest that links within community would make this more likely (11.2.8)	Very strong evidence (5/5 sources)
7	Reduces exacerbations of condition	Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)	Reduced readmission rates and re-emergence of acute symptoms (8.2.2.1, 8.2.4.2, 8.2.5.2, 8.2.5.3, 9.2.2)	82% said the CS/AP made a positive difference to their health and well-being (Table 8.13)	No evidence stated, but raised the need to have integrated care, hospital and community functioning together. Funding mechanism at present makes this difficult (11.2.8)	Strong evidence (4/5 sources)
8	Prevents complications	Maintenance of safe environment (e.g. risks in the clinical environment to patient/client and others, safe home environment)	Provides education (8.2.4.2, 8.2.5.2) and interventions that prevent complications (8.2.4.3, 8.2.5.3)	More CSs/APs told SUs about medication side-effects (44% vs. 40%) (8.2.6.3)	Evidence and knowledge-based care used (11.2.2), which improves safety (11.2.3)	Very strong evidence (5/5 sources)
9	Conducts holistic assessment, identifies problems beyond those with which client presented	Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc, are appropriate)	Evidence of holistic assessment (8.2.1.1, 8.2.2.3, 8.2.4.2) Evidence of extra problems identified (8.2.4.2) Holistic assessment not so clear in non-postholding sites (8.2.4.3)	More SUs in postholding sites were given health information and extra advice (8.2.6) More SUs had sufficient time to discuss their problems in postholding sites (83% vs 69%) (8.2.6.5)	Policy makers note this as a key element of advanced practice (11.2.2)	Very strong evidence (5/5 sources)

Table 12.1: (continued)

		Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
10		Conduit to other services/ referral	Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc, takes place)	Referral to other healthcare professionals (8.2.1.2) Referral from other professionals, **mainly to APs** (8.2.1.2) Co-ordination of multidisciplinary team (9.2.1.1)	Data not collected	Some evidence of referral by CSs/APs to other services (11.2.2)	Very strong evidence (4/4 sources)
11		Promotes wellness (averting problems)	Quality of life – Psychological (psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image) – Physical (physical well-being: pain, mobility, physical comfort) **greater knowledge (validation survey) (AP)** Well-being across different domains (e.g. bio-psycho-social domains, person's needs in multiple areas of functioning) Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)	Provides information, support and education of service users, and clinics (8.2.4.2, 8.2.4.3, 8.2.5.2)	CSs/APs gave all the information SUs needed, including extra information, and more frequently gave information on danger signals (8.2.6.3)	Some evidence (11.2.3)	Very strong evidence (5/5 sources)
12		Promotes health	Health promotion beliefs (e.g. beliefs about healthy lifestyle, acceptance of behaviour change advice, self directed on health promotion needs)	Provides information, support and education of SUs, and clinics (8.2.4.2, 8.2.4.3, 8.2.5.2) Tailored information resources developed by CSs/APs (9.2.1, Table 9.1)	CSs/APs gave information on danger signals (64% vs. 44%) Significantly more SUs in postholding sites said the CS/AP gave them information on how to maintain a healthy lifestyle (51% vs. 44%) (8.2.6.3)	Some evidence of this (11.2.2)	Very strong evidence (5/5 sources)
13		Provides more timely care	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Reduced waiting lists (8.2.2.4, 8.2.2.5) Prompt treatment (8.2.5.3) Waiting time reduced by CS/AP, some believe **APs reduced it more** (8.2.2.4) DE of decreased waiting time in 2 sites (Table 9.1)	Waiting times in CS/AP services were said to be significantly less (8.2.2.4) Waiting times **for CS services were less than for CMS or AP** (8.2.3.5)	Policy makers gave some evidence in some services that waiting lists reduced and access increased (11.2.2)	Very strong evidence (5/5 sources)

Table 12.1: (continued)

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
14	Patient/client preparedness for intervention	Appropriateness of interventions (degree that medical/nursing/ midwifery procedures, interventions and treatments are appropriate) Preparedness for treatment (SU expectations for surgery, awareness of treatment side-effects)	Prepared for interventions (8.2.5.2)	SUs were given more information and practical advice in postholding sites (8.2.6.3) SUs said CSs/APs gave more explanation of why they needed assessments (66% vs. 50%) (8.2.3.3)	No evidence	Strong evidence (4/5 sources)
15	Patient/ client satisfaction	Patient/client satisfaction with information (e.g. satisfaction with professional advice) Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)	Good relationships (8.2.5.1), better knowledge and health (8.2.5.2, 8.2.5.3) Decreased litigation (9.3.4) More SU satisfaction surveys used by CSs/APs (9.2.1, Table 9.1)	CSs/APs spent longer with clients (8.2.3) Higher rates of satisfaction in postholding sites (75.5% vs. 65.8%) (8.2.6.4) 40% of SUs answering the survey saw a positive difference in care given by CS/AP compared with care given by other members of MDT (8.2.6.7)	Policy makers believed there was an impact on patient/client satisfaction, and made comments on decreased litigation (11.2.2)	Very strong evidence (5/5 sources)
16	Increases patient/client perception of being well cared for	Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)	CSs/APs provided emotional support (8.2.4.3) and personalised care (8.2.5.3)	Satisfaction increased in postholding sites (8.2.6) More SUs had sufficient time to discuss their problems (83% vs. 69%) (8.2.6.5)	Some evidence of client satisfaction (11.2.1)	Very strong evidence (5/5 sources)
17	Increases advocacy – SU wishes are known, respected	Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)	Evidence of acting as an advocate (8.2.1.2, 8.2.4.4, 9.2.5, 9.2.6)	More SUs had sufficient time to discuss their problems (8.2.6.5), particularly when attending CMSs (Table 8.14)	Policy makers noted the improvement in services (11.2.1), but no mention of advocacy	Strong evidence (4/5 sources)
18	Added value outcome: trust in practitioner, feeling known	Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility) Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which person's voice is heard)	Develops good relationships with SUs (8.2.4.1) Clients trust them (8.2.5.1), feel comfortable with them (8.2.5.1, 8.2.5.3)	CSs/APs spent longer with clients (33% for >31 minutes vs. 14% in non-postholding sites) (8.2.3.6). CSs/APs included service users in all communications (93% vs. 76%) (8.2.6.2) 100% attending an AP or CMS said "Yes, definitely, the clinician was honest and open with me" vs 86% attending a CNS and 87% a non-postholding site (8.2.6.6)	Some positive comments re added value (11.2.1)	Very strong evidence (5/5 sources)

		Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
19		Promotes self-efficacy/self-esteem	Shared decision making (e.g. patient/client involvement in decision making, involvement of family) Self-esteem (e.g. person's opinion of self, body image, positive/negative self beliefs) Mood (e.g. postnatal depression, feeling down, depression) Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)	Provides education, self-help groups (8.2.4.2)	SUs and families were given all information needed in postholding sites (50% vs. 46%) (8.2.6.3)	Many policy makers believed that expansion into chronic disease management was difficult because of structures (11.2.8)	Very strong evidence (5/5 sources)
20		Provides family support	Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment) Family/carer quality of life (e.g. degree of carer strain, impact of illness on family well-being) (AP)	Carer's satisfaction with information increased (9.2.8.1)	Fewer family members required information or support in postholding sites (51% vs. 36%) (8.2.6.3), and families were given more information (8.2.6.3)	Policy makers agreed this was an important element and there was some evidence of it occurring (11.2.1)	Very strong evidence (5/5 sources)

Table 12.1: (continued)

12.3.3. Outcomes specific to other healthcare staff

There were 11 outcomes specific to other healthcare staff, with very strong evidence for nine, strong evidence for one, and moderate evidence for one (Table 12.2). *'Provides career advice'* was supported by the case study work where advice on career opportunities was noted, but the evidence is moderate only. *'Increases work satisfaction and retention'* was supported by strong evidence but **related to the AP role only,** and would need to be explored further.

Very strong evidence was found to support the following outcomes:

- Reduces potential to de-skill junior staff

- Increases knowledge and skill of other care providers

- Develops services

- Makes staff feel well supported

- Promotes positive attitudes **(very strong for AP, strong for CS)**

- Provides role model

- Motivates staff

- Contributes to more competent staff

- Empowers other staff **(very strong for AP, strong for CS).**

Case study data from postholding sites revealed evidence of CSs and APs educating staff and developing new services, and policy makers gave many examples of service developments led by APs or CSs. The concerns expressed by a few participants regarding CSs/APs de-skilling junior staff were not borne out by the data. Across data sets there was very strong evidence of APs and CSs engaging in staff education, and being a resource. Policy makers differentiated between CS and AP roles, suggesting that, although both roles provided clinical leadership, **APs provided more leadership, and at a higher level.**

Table 12.2: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to other healthcare staff

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
1	Increases knowledge and skill of other care providers	Achievement of new educational intervention for staff nurses/midwives/other professionals. Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience). Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, junior doctors, occupational therapists, etc).	Educates (9.2.7.1) and motivates (9.2.8.2) staff. More education of MDT by CSs/APs (20 CS/AP sites compared with 5 non-postholding sites) (9.2.1, Table 9.1).	Some policy makers were clear that CS/AP roles do contribute to better knowledge across services, and that they educate many other healthcare staff (11.2.3).	Very strong evidence (4/4 sources)
2	Empowerment of other staff	Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition).	Educates staff to empower them for role expansion (9.2.7.1, 9.2.8.1, 9.2.8.2), brings staff along with them (9.2.11). (CS/AP but **AP appears to act at a higher level).**	Leadership and teamwork noted by policy makers as **AP** outcome (11.2.4).	**Very strong evidence** (4/4 sources) **for AP. Strong evidence** (3/4 sources) **for CS.**
3	Makes staff feel supported	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care).	Seen as a resource by the MDT (9.2.1.1).	Evidence of their usefulness as a resource for staff (11.2.2.).	Very strong evidence (4/4 sources)
4	Development of services	Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment).	Evidence of developing new patient/client services (9.2.5). 11 CS/AP sites had developed new initiatives vs. 1 non-postholding site (9.2.1, Table 9.1).	All policy makers gave examples of service development led by APs and some by CSs (11.2.1).	Very strong evidence (4/4 sources)
5	Promotes positive attitudes	Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development). Openness to innovation – Healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team). Other nurses' or midwives' attitudes to their work (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights) **(AP).**	Evidence of contribution to staff development and motivating staff to develop themselves (9.2.8.1, 9.2.8.2).	**Difference between AP and CS roles,** evidence of CS contribution not as clear, but examples were given of teaching and encouraging staff (11.2.3, 11.2.4).	**Very strong evidence** (4/4 sources) **for AP. Strong evidence** (3/4 sources) **for CS.**

Table 12.2: (continued)

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
6	Increases work satisfaction and retention **(ANP only)**	Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role).	Some evidence of AP's effect on other staff's retention (9.2.8.1).	No evidence	**Strong evidence (3/4 sources) for AP only.**
7	Provides role model	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care). Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development).	CSs/APs led guideline or policy development (9.2.3). Acted as role models in autonomous clinical decision making **(APs more often)** (9.2.9, 9.2.10).	Policy makers suggested this was very important for younger staff and provided evidence of strong clinical leadership (11.2.3) and work on guideline development (11.2.3).	Very strong evidence (4/4 sources)
8	Contributes to more competent staff	Use of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to EB guidelines). Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to EB practice). Achievement of new educational intervention for peers (e.g. education on assessment, or management, of a condition). Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care). Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience). Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc).	Educates staff (9.2.7.1, 9.2.8.1, 9.2.8.2). Demonstrated clinical leadership (9.2). More education of MDT by CSs/APs (20 CS/AP sites compared with 5 non-postholding sites) (9.2.1, Table 9.1). Guidelines and updating of guidelines seen in almost all CS/AP sites (9.2.1, Table 9.1).	Policy makers clear that this is an outcome (11.2.3, 11.2.4).	Very strong evidence (4/4 sources)
9	Provides career advice	No evidence	Advises other staff on further education (9.2.8.2)	No evidence	Moderate evidence (2/4 sources)
10	Reduces potential to de-skill junior staff (medical & nursing)	Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience). Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc).	Some concern re de-skilling of other staff (8.2.2.5, 9.2.2, 9.2.6) but strong acknowledgment also of their staff education input (9.2.1.1, 9.2.7.1, 9.2.8.1, 9.2.8.2, 9.3.2).	Some policy makers concerned that there is the potential to de-skill staff nurses, related to CS role only (11.2.1, 11.2.2), but no proof. Evidence given of teaching junior medical and nursing/midwifery staff (11.2.3).	Very strong evidence (4/4 sources) that they educate and develop staff.

Table 12.2: (continued)					
	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
11	Motivates staff	Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development). Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role).	Motivated and empowered staff (9.2.4, 9.2.6, 9.2.8.1, 9.2.8.2).	Some evidence that CSs/APs brought other staff along with them and stimulated developments (11.2.3).	Very strong evidence (4/4 sources)

12.3.4. Outcomes specific to the health services

12.3.4.1. Introduction

There were 21 outcomes specific to the health services, with very strong evidence for 13, strong for six, moderate for one and no evidence for one. The outcomes are grouped into three main areas: service delivery, service development and service quality. Those that relate to service delivery (Table 12.3) are:

- waiting times
- throughput
- accessibility
- length of stay
- continuity of care
- readmission rates
- reduces costs
- reduces criminality
- improves communication across the MDT
- collaboration.

Those that relate to service development (Table 12.4) are:

- policy development
- strategic planning
- service expansion
- potential to work across hospital and community
- community knowledge/support/advocacy groups
- leadership.

Those that relate to service quality (Table 12.5) are:

- conducts audit

- expert advice

- implements research evidence

- promotes evidence-based practice

- conducts research.

12.3.4.2. Service delivery

'Reduces criminality' was the outcome with no evidence, which had come from the initial focus groups. It is possible that this outcome may be seen from CS/AP practice in the mental health or intellectual disability areas, but it was not seen as a generic finding. Moderate evidence supported *'leads to shorter length of stay'.* Strong evidence supported:

- reduced readmissions

- reduced costs.

There was very strong evidence to support:

- decreased waiting times

- increased throughput

- increased continuity of care

- increased accessibility

- increased communication with the MDT

- increased collaboration.

These outcomes (Table 12.3) were associated with the AP role and demonstrate the potential of APs to impact on service delivery targets. There was some evidence, however, from the service user survey that **waiting times were less in CS services when compared to AP services.** In the service users' comments on the survey, **APs appeared to have the shortest waiting times,** however. The waiting time for treatment appeared very much lower in AP (12 hours) and CMS (1 hour) sites than in non-postholding sites (239 hours) (Table 8.4). This may be due to the level of autonomy in the AP and CMS services, which may be facilitating swifter throughput.

Table 12.3: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service delivery

	Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
1	Decreases waiting times	Waiting times (e.g. prompt appointments, waiting times for triage) (AP)	Reduces waiting times and waiting lists (8.2.2.4, 8.2.2.5)	**Waiting times within CS** services were **significantly less than AP/CMS** services (8.2.3.5) but **waiting times reduced more in AP services,** according to SU comments (Table 8.16)	Policy makers gave some evidence in some services that access increased and waiting lists reduced (11.2.2)	Very strong evidence (5/5 sources) for both CS and AP
2	Increases throughput	Waiting times (e.g. prompt appointments, waiting times for triage) (AP)	Increases throughput (8.2.2.5)	Data not collected	**Policy makers identify this within AP role** (11.2.2)	**Very strong evidence** (4/4 sources) for **AP.** **Strong evidence** (3/4 sources) for **CS.**
3	Decreases readmission rates	Appropriateness of initiating/ending healthcare episodes (e.g. degree to which appropriate admission, discharge, etc, takes place)	Reduced readmission rates (8.2.2.1, 8.2.4.2, 8.2.5.2, 8.2.5.3, 9.2.2)	Data not collected	No evidence	Strong evidence (3/4 sources)
4	Reduces criminality (CNS only)	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	Appropriate data not available to study	No evidence
5	Leads to shorter length of stay	No evidence	Some evidence of shorter lengths of stay (9.2.8.1.)	Data not collected	No evidence	Moderate evidence (2/4 sources)
6	Improves continuity of care/carer	Continuity of care (e.g. consistency in patient/client interactions with same staff member)	Continuity of care and carer (8.2.2.3)	No difference seen in continuity of care (8.2.3) but more SUs attending CSs/APs were given sufficient time to discuss their problems (8.2.6.5) and other measures of continuity were high (8.2.3). **CMS spent more time with SUs than AP or CS** (Tables 8.14, 8.16).	Policy makers clear that this is an outcome (11.2.2)	Very strong evidence (5/5 sources)
7	Increases accessibility	Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)	Reduced waiting times (8.2.2.4, 8.2.2.5) Improved access to specialised health services (9.2.8.1)	**Waiting times for first visit in CS** services were **significantly less than in AP/CMS services** (8.2.3.5)	Swifter access in some services (11.2.2)	Very strong evidence (5/5 sources)
8	Improves communi-cation across MDT	Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)	Improving communication in the MDT (9.2.1.1, 9.2.2, 9.2.11). In 7 sites, CSs/APs coordinated the MDT (Table 9.1)	Data not collected	Policy makers clear that there is evidence of this (11.2.1)	Very strong evidence (4/4 sources)

	Evidence from focus group out- comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from case study: service users' (SUs) questionnaires/ economic analysis	Evidence from policy maker interviews	Evidence rating
Table 12.3: (continued)						
9	Increases collaboration among care providers	Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)	Collaborative decision making in MDT (8.2.2.2), co-ordination of MDT (9.2.1.1). Referral to other professionals (CS/AP) and from other professionals, **mainly to APs** (8.2.1.2)	No difference seen in collaborative decision making (8.2.3.3) but 96% said care was delivered in a planned and coordinated manner (8.2.3.3)	Policy makers clear that there is evidence of this (11.2.1)	Very strong evidence (5/5 sources)
10	Reduces costs	Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc, are appropriate)	Efficient use of resources (8.2.2.4)	Overall, no difference found in costs between postholding and non-postholding matched sites, when comparing staff costs only (Chapter 10)	Some evidence that policy-makers believe CS/AP services to be cost-effective (11.2.6) due to increased clinical effectiveness	Strong evidence (4/5 sources) on the cost-effectiveness of roles. Evidence from 1 source for no differences in salary costs.

12.3.4.3. Service development

Strong or very strong evidence was gathered for outcomes related to service development. Contribution to service development, strategic planning and guideline development was evident across data sets.

Strong evidence was available for:

- potential to work across hospital and community.

There was very strong evidence for:

- contributes to policy development, guidelines

- contributes to strategic planning of services

- potential for service expansion e.g. nurse-/midwife-led clinics

- increases community knowledge/support/advocacy groups

- practises leadership.

There was very strong evidence that CSs and, in particular, APs were seen to *practise leadership'.* The APs led initiatives in developing education programmes that were accredited by third-level institutions and professional bodies; shaped and influenced policy through their membership of national committees and through written submissions; and further advanced practice and service provision through their contribution to national guideline development (Table 12.4).

12.3.4.4. Service quality

There was very strong evidence for:

- promotes evidence-based practice

- implements research evidence.

Strong evidence was seen for:

- provides expert clinical advice

- conducts audit

- conducts research.

The standard of evidence for these last two outcomes is particularly high as it was gathered from case sites and includes examples of actual audits and examples of research and publications. **The outcome 'conducts research' was associated with APs mainly** but it was also noted that the volume of research was limited (perhaps understandably, given that only six APs were included in the case study). Issues such as support, team research and links with higher education were raised as suggestions to improve research output. It is clear from the data that **leadership and research were outcomes most associated with AP roles,** but there was also strong evidence that the amount of, and barriers to, research output was an area of concern (Table 12.5).

		Evidence from focus group out-comes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
Table 12.4: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service development						
1		Contributes to policy development, guidelines	Use of clinical guidelines (e.g. staff nurse or midwife awareness and uptake of guidelines, staff access to evidence-based guidelines). Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based guidelines).	Develops guidelines at national/international level (9.3.1). DE of guidelines in 21/23 CS/AP sites (9.2.1, Table 9.1). DE of policy development in 6 CS/AP sites, compared with 1 non-postholding site (9.2.1, Table 9.1).	Policy makers clear that this is a key element of both roles and gave clear examples of how CSs/APs were leading this development (11.2.3, 11.2.4)	Very strong evidence (4/4 sources)
2		Contributes to strategic planning of services	Achievement of new educational intervention – patient/SU (e.g. information leaflets on condition, education on self monitoring of condition). Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team).	Involved in national committees/advisory groups (9.3.1). Sets up national fora (9.3.3). Evidence of service planning in 11 CS/AP sites (1 in non-postholding site) (9.2.1, Table 9.1). CSs/APs contributed to 41 committees (4 in non-postholding sites) (9.2.1, Table 9.1).	Policy makers clear about this as a key outcome (11.2.4) although evidence not clear in all services	Very strong evidence (4/4 sources)
3		Potential for service expansion e.g. nurse-/ midwife-led clinics	Nursing/midwifery staff understanding of CS role (e.g. knowledge about specialist role, integration of specialist role in unit). Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)	Takes on medical workload (8.2.2.5, 9.2.2). Runs clinics (8.2.2.5, 8.2.4.3).	Policy makers clear – many opportunities for expansion, nurse-/midwife-led clinics (11.2.8), chronic disease (11.2.8), new hospital structures and midwifery practice (11.2.7).	Very strong evidence (4/4 sources)
4		Increases community knowledge/ support/advocacy groups	Quality of life – social (social well-being inclusive of relationships with social network, friends and family)	Some evidence of representing healthcare issues within the public arena, visiting support groups and teaching in schools (9.3.2)	Evidence in some services only (11.2.8)	Very strong evidence (4/4 sources)
5		Potential to work across hospital/ community	Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in your unit/team)	No evidence	Policy makers deemed this essential, want an increased focus on community and chronic disease management in line with HSE transformation agenda (11.2.8)	Strong evidence (3/4 sources)
6		**Practises leadership (AP mainly)**	Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)	Mentors (9.2.7.2, 9.2.8.2) and supports staff (9.2.1.1), advice sought on clinical decisions (9.2.1.1), encourages networking (9.2.9, 9.2.10). Educates at national and international level **(AP mainly)** (9.3.2). Enhances the profile of nursing and midwifery (9.3.3).	**Evidence of this in AP role** (11.2.3) and evidence of education at national level (11.2.4)	Very strong evidence (4/4 sources)

Table 12.5: An illustration of the integrated findings across data sets regarding the effects of CS/AP services on outcomes specific to the health services: service quality

	Evidence from focus group outcomes	Evidence from Delphi outcomes, validation and evaluative surveys	Evidence from case study: interviews, field notes and documentary evidence (DE)	Evidence from policy maker interviews	Evidence rating
1	Implements research evidence	Research awareness in clinical practice (e.g. knowledge of research process in your unit, team or ward). Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice). Achievement of new clinical initiatives (e.g. implementation of new wound dressing, new assessment procedure).	Uses evidence-based tools (9.2.4). Implements research-based practice (9.4.1).	Policy makers identify this as essential, and provide good evidence of implementation occurring (11.2.2)	Very strong evidence (4/4 sources)
2	Promotes evidence-based practice	Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice). Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines).	Uses best practice and evidence-based assessment tools (9.2.4). Clear evidence of use of research-based practice (9.2.1.2, 9.2.3). Evidence-based guidelines in 21/23 CS/AP sites (9.2.1, Table 9.1).	Clear evidence of this (11.2.3)	Very strong evidence (4/4 sources)
3	No evidence	Provides expert clinical advice	Clearly seen as an expert resource (9.2.1.1), educator (9.2.7.1, 9.2.8.1) and mentor (9.2.7.2, 9.2.8.2)	Clear evidence that CSs/APs are seen as expert resource personnel (11.2.2) and educators (11.2.4)	Strong evidence (3/4 sources)
4	Conducts audit	No evidence	Clear evidence of the conduct of audits (9.2.3), especially by CSs (9.4.2). All CS/AP sites had documented audits (12/23 non-postholding sites) (9.2.1, Table 9.1).	Evidence in many services of this (11.2.5)	Strong evidence (3/4 sources)
5	Conducts research	Research activity level in clinical practice (e.g., involvement of your unit in research, research collaboration with other units, developing a research project) **(AP)**	Research conducted **by all 6 APs and 9 CSs** (even though it is not expected of them) (9.4.3). DE showed 15 CSs/APs conducting research compared with 7 clinicians in non-postholding sites (5 were medically-led projects) (9.2.1, Table 9.1).	Many policy makers raised concern re low output of research, but cited some publications by CSs/APs (11.2.4). Perhaps not aware that this was not part of the CS role. Suggested the need for protected time, collaborative research and links with higher education (11.2.5).	Very strong evidence (4/4 sources) **that research is conducted by APs, and a small amount of research is conducted by 9 CSs (53%)**

12.3.5. Barriers to implementing the role

There was moderate evidence to show that CSs/APs lacked administrative support, resources and protected time for research (Table 12.6), which prevented them from fulfilling all aspects of their role. In the field of maternity care, a previous study showed some division in the midwifery and obstetric professions regarding the appropriateness or otherwise of the introduction of CMSs and, in particular, AMPs (NCNM 2004). The arguments against such roles were aired in section 9.5, and a similar point was

raised by one of the 12 policy maker participants (Table 12.6).

In other countries, the medical profession is seen to have raised some barriers to the introduction of CS/AP posts and the policy makers in this study warned that good communication was necessary in the preparation period. This study, however, showed unanimous support from consultants and senior doctors in the AP postholding sites who highly valued the APs with whom they were working. This may be as a result of the National Council's approval and accreditation process whereby the hospital site has to prepare for the introduction of CS/AP roles, with the involvement of all clinicians (NCNM 2008b, c).

Table 12.6: Barriers to implementation of the role			
	Evidence from case study: interviews, field notes and documentary evidence	Evidence from policy maker interviews	Evidence rating
1	Needs administrative support (8.2.2.5)	Policy makers noted the lack of resources to support CSs/APs (11.2.6)	Moderate evidence (2/4 sources)
2	Lack of time and resources (9.2.11), particularly to conduct research (9.4.3)	Policy makers noted the lack of protected time for CSs/APs to conduct research (11.2.5)	Moderate evidence (2/4 sources)
3	Strong support was seen from doctors and other clinicians for CS/AP roles (8.2.1.1, 8.2.2.3, 8.2.2.5)	Challenges to the introduction of the roles were outlined (11.2.7), and remedies suggested	Moderate evidence (2/4 sources)
4	Divided opinions on the benefits/need for advanced midwifery practice as midwives described as already at that level (9.5)	Similar opinions expressed by one policy maker (11.2.1)	Moderate evidence (2/4 sources)

12.3.6. Differences between ANP and CNS/CMS roles

Throughout the study, a number of differences were seen between the roles of the AP, CNS and CMS, which is understandable due to the specific core concepts and expectations for each role. Many of these differences are related to the 'autonomy' concept of the AP role, which would, for example, facilitate a higher level of case management and physical care and treatment. The sources of these data have been integrated in Table 12.7, and show differences in eight main areas.

Of these, APs rated very highly on:

• physical care and treatment

• case management (diagnosis, intervention, referral)

• leadership and empowerment of other staff

• conducting research.

In addition, they were the only ones who rated *'job satisfaction'* as an important outcome.

APs and CMSs both rated very highly in:

• communication and interpersonal relations

• increasing self management of patients/clients.

CMSs rated very highly in:

- improving continuity of care and carer.

There were contradictory data as to whether CSs or APs reduced waiting times the most. Waiting time is a good example of an outcome that would be very susceptible to change, depending on the specialty area. For instance, there was good documentary evidence in the postholding emergency department that the ANP had reduced waiting times for patients, but this finding did not occur in some other settings. In the mental health field, the item asked in the service user survey regarding how well postholders or clinicians had explained tests, x-rays and assessments to them would not have received a high rating as they usually need very few, if any, such tests. Similar variations can be seen in many other clinical areas and, for this reason, caution must be exercised in interpreting and using these data. However, it is apparent that, overall, APs do rate very highly in the areas of leadership, research and in higher level physical and psychological care compared with CSs. CMSs rate very highly on increasing self management of patients/clients and in communication, clinical and practice based areas, and particularly highly in improving continuity of care and carer (Table 12.7).

Table 12.7: Integrated data sources showing differences between ANP, CMS and CNS roles

Role	Evidence of differences from focus-group outcomes	Evidence of differences from Delphi outcomes/ validation and evaluative surveys	Evidence of differences from case study: interviews, observation	Evidence of differences from service users' (SUs) questionnaires	Evidence of differences from policy maker interviews
Communication and interpersonal relations				**APs scored more highly than CSs in some aspects of communication,** being open and honest, explaining medicines, treating SUs with respect (Table 8.14). **CMSs (92%) and APs (77%) explained more completely** why SUs needed tests than **CNSs (51%).** Similar results re danger signals (Table 8.2) and time to discuss problems (Table 8.5).	
Physical care, treatment		Pain (severity, pain relief) **(AP only).** Quality of life – physical and best practice in clinical service delivery, greater knowledge (validation survey) **(AP only).**		**APs scored more highly than CSs in some aspects of giving sufficient treatment to improve symptoms** (Table 8.14)	
Improves continuity of care/carer				**CMSs spent more time with SUs than AP or CS** (Tables 8.14, 8.16). **More SUs attending CMS noticed a difference in care given** (Table 8.15).	
Improves access, efficiency		**Waiting times** (e.g. prompt appointments, waiting times for triage) **(AP only)**	Waiting time reduced by both CSs/APs, some of the opinion that **APs reduced it more** (8.2.2.4)	Waiting times for first visit to **CS services were significantly less than in AP/CMS services** (8.2.3.5) (Table 8.4), but **waiting times reduced more in AP services,** according to SU comments (Table 8.16). Waiting time for treatment appeared lower in **AP and CMS sites than in CNS or non-postholding sites** (8.2.3.5).	
Increases self-management of patients/clients		Assisting SUs to develop physical self care capacity **(AP only)**. Increasing SUs' personal independence in society (e.g. ability to manage, everyday functioning) functioning in home/community) (AP)		**CMSs scored more highly than APs and CNSs in explaining why SUs needed specific tests, and explaining the results to them** (Table 8.14) **and in teaching, advising, being easy to understand** (Table 8.16)	
Case management, diagnosis intervention, referral			Referral from MDT **(mainly APs)** (8.2.1.2). Demonstrated autonomous clinical decision making **(APs more often)** (9.2.9, 9.2.10).		Policy makers identify that **APs increase throughput** (11.2.2)

Table 12.7: (continued)

Role	Evidence of differences from focus-group outcomes	Evidence of differences from Delphi outcomes/ validation and evaluative surveys	Evidence of differences from case study: interviews, observation	Evidence of differences from service users' (SUs) questionnaires	Evidence of differences from policy maker interviews
Leadership, empowerment of other staff, promotes positive attitudes	**Practises leadership (ANP mainly)**	**Other nurses' or midwives' attitudes to their work** (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights) **(AP).** **Supports junior doctors as well as nurses/midwives (validation survey) (AP).**	Educates at national and international level **(AP mainly)** (9.3.2). Educates staff to empower them (9.2.7.1, 9.2.8.1, 9.2.8.2) (CS/AP, **but AP appears to act at a higher level**). Clinical expertise sought by MDT, **APs particularly** (9.2.7.2).		**Evidence of this in AP role** (11.2.3) and evidence of education at national level (11.2.4). Leadership and teamwork noted by policy makers as **AP outcome** (11.2.4), **evidence of CS contri-bution not as clear** (11.2.3, 11.2.4).
Conducts research		**Research activity** in clinical practice (e.g., involvement in research, research collaboration, publishing, developing a research project) **(AP)**	Research conducted **by all 6 APs and 9 CSs (53%)** (9.4.3)		
Job satisfaction	Increases work satisfaction and retention **(ANP only)**		Some evidence of **AP's effect** on other staff's retention (9.2.8.1)		

12.4 Discussion of findings

12.4.1. Patient/client outcomes

Fifteen patient/client outcomes were clearly identified as part of the role of CSs/APs, with very strong support from the various types of data. Strong support was evident for a further four outcomes also. The number of outcomes, and number of tasks and behaviours included under each patient/client outcome heading, illustrates the broad clinical focus ascribed to the CS/AP roles in Ireland (NCNM 2008b, c, d) in line with some, but not all, other countries (Woods 1997, Henderson 2004).

Care of service users through physical and psychosocial interventions, with early diagnosis and holistic assessment and appropriate referral to other clinicians, featured strongly. These findings concur with those of other studies, notably Bourbonniere and Evans (2002), who describe APs demonstrating high levels of expertise in the assessment, diagnosis, and treatment of complex health problems of individuals, groups, and communities. Kring (2008) also speaks of CSs/APs as "expert" practitioners, and Carryer et al (2007) of "dynamic" practitioners, titles that could be applied to the CSs/APs of Ireland, based on these data. It is clear that these practitioners provide added value, and that their contribution will be vital to support the chronic disease patient-centric model of care proposed by the HSE (HSE 2006b).

Evidence in the SCAPE study points towards positive outcomes as a result of CSs/APs' interventions, such as decreases in morbidity, reduced exacerbation of symptoms, and reduced complications. Laurant et al's (2005) systematic review of substitution of doctors by nurses in primary care showed similarly that appropriately trained nurses could produce as high quality care as primary care doctors, with similar good health outcomes for patients. Bonsall and Cheater's (2008) overview of the impact of advanced practice roles also found that nurses working in advanced primary care roles provided safe and effective care and patient satisfaction was generally high. Although the literature reports some evidence of decreased mortality in certain client groups (McCorkle et al 2000), there were no data apparent from the SCAPE study to show this effect.

The evidence from the systematic reviews included in the SCAPE study (section 4.11) suggests that, in agreement with these findings, nurse-led interventions have a similar impact to usual care on the majority of clinical outcomes across various client groups and clinical conditions. The review found that psychological outcomes of satisfaction, anxiety and depressive symptoms were all improved for nurse-led care, and the SCAPE findings concur with that. Such findings are particularly important in the mental health field, where the care provided by CSs/APs has been shown to make a difference (NCNM 2004, 2005a). Midwife-led models of care were found, in the review, to have significant benefit across both clinical and psychological outcomes. Importantly, there is no evidence of harm associated in the international literature with nurse- or midwife-led interventions. The SCAPE study, similarly, found no instances of negative influences of CS/AP care on patient/client outcomes in any of the data sources. In addition, there was evidence of decreased litigation, a finding previously noted in other evaluations (NCNM 2005a).

Education of patients/clients has been previously noted as an important function of the CS role (NCNM 2004), and an important part of the AP role also (NCNM 2005a). The special health promotion and education skills of the CSs/APs in the SCAPE study led to increased knowledge of service users, resulting in improved adherence to treatment, increased wellness and a greater level of self-efficacy and support – similar to the findings of comparable studies in the UK (Gerrish et al 2007). Considerable patient/client satisfaction and an impression of being well cared for was part of the CSs/APs' "added value" (Mundinger et al 2000b), with service users in postholding sites expressing themselves significantly more satisfied

with their care. This is an important outcome in a client focused health service that aims to match services more closely to patient/client needs. In particular, the emphasis on health promotion and increased self management is very much in line with the vision expressed in the HSE's National Service Plan that will have 530 primary care teams in operation by the end of 2011 (HSE 2010a).

Observational work in case study sites revealed that CSs/APs provided emotional support and personalised care, which may have resulted in the improved therapeutic relationships and trust noted among service users attending CSs/APs. Such findings of increased satisfaction have been noted in other studies (Sakr et al 1999, Kinnersley et al 2000, Bryant and Graham 2002, Douglas et al 2003, Bonsall and Cheater 2008), particularly in relation to emotional care, health promotion and education.

It should be noted that care given in both postholding and non-postholding sites was good, and much of it excellent, but there were indications of the extra 'added value' for the individual patient or client in the postholding sites. Previous researchers have drawn attention to the need to design methods that successfully identify the distinctive focus of advanced practice (Bryant-Lukosius and DiCenso 2004, Kleinpell and Gawlinski 2005). The SCAPE study, by using a comprehensive mixed methodology including extensive study of the international literature, has succeeded in isolating a number of key differences between CS/AP care, and care given by other clinicians. Some of these (reduced readmission rates, increased adherence to best practice guidelines, reduced complications, increased continuity of care, increased patient access to care, increased patient satisfaction, increased patient education/health education, increased education of patients' family, teaching/counselling/listening, coordination of care, community resource access and holistic care) have been identified in other work also (Kleinpell and Gawlinski 2005, Plager and Conger 2007). These key attributes of the CSs/APs are of prime importance in fulfilling the targets of the HSE's Transformation Programme, of providing easy access to services, and ensuring that people have confidence in the services (HSE 2006c).

Ingersoll et als' (2000) two indicators, 'perception of being well cared for' and 'the sense of trust in the provider' came through clearly as two outcomes very strongly supported by the SCAPE study data. Overall, it was clear from the findings that CSs/APs in Ireland are contributing strongly to patient and client satisfaction and positive health outcomes. As well as providing a high standard of care, these practitioners provide added value for service users and their families.

12.4.2. Outcomes specific to other healthcare staff

Nine outcomes specific to other healthcare staff were clearly identified as functions of the role of CSs/APs, with very strong support from the various types of data. Strong support was evident for one outcome and moderate support for one further outcome. The outcomes illustrate the importance of the positive effect these practice roles have on the health services in Ireland – findings comparable with the international literature (Kleinpell and Gawlinski 2005).

Education of other staff is seen universally as an advanced practice role (Kring 2008, NCNM 2008d). As part of their role, these Irish CSs/APs were seen to act as role models, and motivated, empowered and supported staff to advance their careers, increasing their knowledge and skill and promoting positive attitudes, particularly in relation to evidence-based guidelines, thus contributing towards more competent staff. Although a few participants expressed the concern that CSs/APs could possibly de-skill other staff, no proof was seen of this and the overwhelming amount of data demonstrating the CSs/APs' immense educative role undoubtedly refutes this idea. The literature also is clear that the role of CNSs is more to do with disseminating knowledge and empowering generalist nurses to take on new roles, rather than the clinical specialist taking over patent/client care themselves (Jack et al 2002, NCNM 2004).

These findings concur with much of the work on specialist nurses and midwives in Ireland and other countries, which demonstrated empowerment of generalist nurses to care for patients in their absence,

through education and support (Ling 2005), role modelling to manage disruptive patient behaviours and improve morale, and acting as a nurse advocate and resource (Linck and Phillips 2005, NCNM 2004). APs, in particular, have been found previously to educate all members of the multidisciplinary team (NCNM 2005a), and this was clearly shown in the SCAPE findings also. Added value is seen here once more, in terms of two criteria noted in previous work: 'increased adherence to best practice guidelines' and 'increased staff education' (Kleinpell and Gawlinski 2005).

Job satisfaction came through clearly in a previous study of APs in Ireland (NCNM 2005a), as a prime motivator of all the APs included. The SCAPE study, similarly, noted this finding in the Delphi section.

It was clear from these findings that CSs/APs in Ireland are making a strong contribution to the education, support and development of nurses, midwives and other healthcare staff. As well as acting as a key resource and providing a high standard of support and education, these practitioners provide added value for all other healthcare professionals through their educative actions.

12.4.3. Outcomes specific to the health services

12.4.3.1. Service delivery

Six service delivery outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further two outcomes and moderate support for one. The number of tasks and behaviours included under each service delivery outcome heading shows clearly the strategic importance of CS/AP roles in Irish health services (HSE 2006c).

CSs/APs were responsible for increased collaboration and improved communication within the multidisciplinary team. Working individually with, in the case of APs and some CMSs, autonomy and decision making powers, they decreased waiting times and increased patient/client throughput in their services. As a result, readmission rates were decreased and resource costs fell – similarly to findings from other areas (Kleinpell and Gawlinski 2005). Previous evaluations and reviews of the effects of CSs/APs' care also found improvements in, for example, child and adolescent mental health services (NCNM 2009), where waiting lists reduced from over one year to seven weeks following introduction of an ANP service. Similarly, audits of CS/AP care in Ireland have found a 36% reduction in bed occupancy rates and a 22% decrease in length of stay (NCNM 2010c).

The systematic review of reviews in this study (section 4.11) found conflicting evidence on the cost-effectiveness of nurse-led interventions, which is exacerbated by a lack of high quality economic data. Midwife-led models of care are, however, associated with cost savings compared with medical-led models of care. The findings from the SCAPE study, while not detecting any overall decrease or increase in costs due to CS/AP posts being implemented, did provide evidence that resource usage was decreased. Some concerns expressed by participants on the high cost of AP posts can be dispelled by examining the salary scales. The ANP's salary as set by the Department of Health and Children's[18] would not equate to even twice a junior staff nurse's salary, is very little above a senior dual-qualified nurse's salary and much less than a senior registrar's.

The economic findings of SCAPE did tend to show that, when nurses or midwives were substituted for doctors, salary costs fell, similarly to the position in the US where nurse practitioners are widely recognised as a more cost-effective alternative to physicians (Dunn 1997). When CSs/APs are replacing staff nurses or midwives, then salary costs are, naturally, going to increase; however, there was evidence from SCAPE that CSs/APs were more cost-effective due to their enhanced and expanded role. The effectiveness of both CS and AP roles has been previously demonstrated (NCNM 2004, 2005a) and strong evidence was shown

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[18]From 1st January 2010, an AP salary (1st year) is €54,870. Staff nurse salary (1st year) is €30,234. A senior dual-qualified nurse's salary is €45,271. A senior medical registrar's salary (1st year) is €65,347 (http://www.dohc.ie/publications/pdf/salary_scales_jan10.pdf?direct=1)

by SCAPE to support these findings. Increasing the numbers of CSs and APs as currently modelled, therefore, would assist the HSE to deliver optimal and cost-effective primary, secondary and tertiary care, as planned in the national chronic disease management programme (HSE 2006b).

The continuity and holism of care seen in this study, and noted previously (NCNM 2005a), provided enhanced care and increased service user satisfaction. Role expansion, such as was found in a number of areas in this study, occurs when additional skills and responsibilities are integrated into the specialist role, thus expanding the sphere of nursing or midwifery practice and influence, and is seen as central to advanced practice (Mac Lellan 2007). The implementation of the European Working Time Directive will require a major contribution from nurses and midwives, through expansion of roles, which, within the framework of advanced practice as set out by the National Council, will be of inestimable value (NCNM 2010b). The HSE's National Service Plan in the area of chronic disease management (HSE 2010a) includes development and expansion of the role of CNSs and ANPs, as does the recent report on plans for the reconfiguration of acute hospital services in Cork and Kerry (Higgins 2010). ANPs are also listed as key team members in the National Cancer Screening Service (NCSS) plan for a colorectal cancer screening programme (NCSS 2009).

Role extension was also found in this study. It can lead to fragmentation of care (Mantzoukas and Watkinson 2007), or a decrease in nursing or midwifery philosophy as a more medical focus becomes dominant (Arslanian-Engoren et al 2005). The ideal situation is said to be a blend of nursing (or midwifery) and medicine (Brown and Draye 2003). This was found in the roles examined in this study, as patient/client satisfaction and other measures showed high levels of advanced nursing and midwifery practice in tandem with the conduct of some tasks previously deemed to be medical only. Autonomy, which is also considered central to effective performance of advanced practice roles (Mac Lellan 2007, Srivastava et al 2008), was evident in the practice of the ANPs and some CSs. Patient/client outcomes appeared to be at least the same as those for usual care, as measured by all sources of data – findings similar to Laurant et al's (2005) systematic review of substitution of doctors by nurses in primary care, and the systematic review of reviews in section 4.11. In some areas, for example, pain management, patient/client outcomes were improved, and, in previous audits of CS/AP care across the country (NCNM 2010c), results include, for example, breastfeeding rates increasing from 42% to 49%, MRSA rates falling by 19% and pressure ulcers rates from 7.6% to 1.5%.

12.4.3.2. Service development

Five service development outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further one outcome. The tasks and exemplars of achievement given under each service development outcome heading are at a strategic level, showing the importance of advanced and specialist practice roles for the future health services in Ireland (HSE 2006c).

Postholders were shown to be involved in policy development, strategic planning, and service expansion and development. They also increased community knowledge and support and had the potential to work across hospital and community, which is essential for future healthcare plans (HSE 2010a). APs, in particular, were found to demonstrate leadership in their roles, through developing accredited education programmes, their membership of national committees and their contribution to national guideline development. Very little of the international literature dwells on these aspects of the CS/AP role, apart from noting that leadership is one part of the AP's role (Carryer et al 2007, Mantzoukas and Watkinson 2007, Spross and Lawson 2009).

Professional leadership as a dimension of the CS/AP role was perhaps not as well developed when compared to the outstanding clinical leadership aspects of their practice. However, in comparison to the 2005 evaluation of the role of advanced practitioner in Ireland (NCNM 2005a), APs appear to be more

involved in professional leadership activities at both national and international level. The ability of APs to embrace professional leadership through active engagement in policy development suggests they are well positioned to act as clinical advisors to the National Clinical Care Programmes currently being established by the Quality and Clinical Care Directorate (ONMSD 2010b).

The HSE has recently committed to investing in clinical leadership development, which it believes should be part of ongoing professional and organisational development rather than being implemented on a once off basis (HSE 2010b). Given the CS/AP's experience in this area, their expertise should be used to assist in fulfilling this aspiration, by mentoring and developing others.

12.4.3.3. Service quality

Two service quality outcomes were clearly identified as part of the role of CSs/APs, with very strong support from diverse types of data. Strong support was evident for a further three outcomes. The fact that *'conducts audit'* did not come through clearly as a finding in the Delphi survey of CSs and APs is interesting, as there was clear and practical evidence of audits being conducted throughout all postholding sites and managers were profuse in their appreciation for the role of CSs/APs in their conduct. Audits by CSs/APs have been used to illustrate the effectiveness of specialist and advanced practice care in a number of previous evaluations (NCNM 2009, 2010a), and the numbers of audits performed in the SCAPE study were higher in postholding sites. These skills are essential as continuing commitment to audit and the measurement and recording of key performance indicators are evident in future healthcare plans (HSE 2010a).

Two other outcomes – *'implementing research'* and *'promotes evidence-based practice'* – were very strongly supported by diverse types of data and demonstrate the fulfilment by CSs/APs of the National Council's accreditation criteria (NCNM 2008d). These key elements of the role are found across countries in the majority of studies on specialist and advanced practice (Kleinpell and Gawlinski 2005), and when practised with clinical expertise and in line with clients' preferences, demonstrate 'best practice' (Haynes et al 1996).

Conducting research, an expectation of APs only, was found to be an output of all six APs in the study, as well as of nine CSs, in common with expectations worldwide for advanced practice roles (Manley 1997, Mantzoukas and Watkinson 2007, Kring 2008, Spross and Lawson 2009). A number of the CSs who were undertaking research were preparing to be accredited as APs, and were either undertaking a Master's degree (with the obligation to conduct a research thesis), or preparing a portfolio of activities for submission to the National Council.

Although the output of some APs was considerable, most found it hard to find the time to conduct research, and had to spend personal time on their research activities. These individuals were high achievers and demonstrated strong personal initiative that drove them to succeed. They all presented their work at conferences and five of the six APs had research publications. The National Council's Review of Achievements contains examples of CSs/APs' initiatives and research, and the 2009 version lists a sample of 14 publications stemming from APs' research (NCNM 2009). Similarly, 29 examples of APs' research projects were presented five years ago (NCNM 2005a). It is obvious that research skill and motivation is present, but is in its infancy and is occurring against all the odds, with little support. Formal links between CSs/APs and clinical and academic research networks should be instituted where appropriate and feasible, to ensure that patient-centred, multidisciplinary research develops alongside clinical and technical research within clinical specialties. Funding for research, and dedicated time to pursue research actively in their specialist areas, as envisaged by the Health Research Board (HRB 2009) and DoHC (DoHC 2009), are essential and will reap benefits in terms of improvements in patient/client care.

12.4.4. Differences between the AP and CS roles

Internationally, many reports present CSs and APs together as though they were performing the same function. Roles described as specific to the AP include the provision of holistic care and health promotion, engaging in research (Arslanian-Engoren et al 2005), engaging in complex reasoning and skills of analysis (Bourbonniere and Evans 2002), and applying comprehensive skills in patient assessment (Carryer et al 2007). In addition, advanced practice nurses are described as nurses who have an expert knowledge base, complex decision making skills and clinical competencies that allow for expanded practice (Sheer and Wong 2008).

In Ireland, a clear distinction between the core concepts of advanced practice and clinical nurse specialist/clinical midwife specialist is made (Furlong and Smith 2005). The core concepts of clinical practice, patient advocacy, education and training, research and audit, and consultation, are outlined by the National Council for the clinical nurse or midwife specialist in Ireland (NCNM 2008c). Four core concepts of advanced nurse practitioners and advanced midwife practitioners are given as autonomy in clinical practice, expert practice, professional and clinical leadership, and research (NCNM 2008d).

The SCAPE study has substantiated these concepts. First, the focus group interviews, while agreeing that CSs and APs had many outcomes in common, identified decision making, autonomy, research and leadership as differentiating characteristics of advanced practice. The Delphi survey delineated nine additional advanced practice outcomes, many of which were corroborated by the case study data. Some policy makers and DoNs/DoMs raised a concern about consistency of practice across clinical specialist areas, particularly in relation to CSs who may have been appointed in the early days of the initiative, and lack of governance which led to individualist developments. These seemed to be isolated experiences that were not borne out by data from other sources. Advanced practice, in contrast, was unanimously endorsed. In a recent report on the development of CNS and ANP roles in Canada based on over 60 stakeholder interviews and a review of over 500 articles, growing consensus related to the purpose of ANP roles was found, yet inconsistencies in perceptions and practice related to the roles of ANPs, patterns of deployment, and integration were identified (DiCenso and Bryant-Lukosius 2010).

We in Ireland have the benefit of clarity around the two roles, given the National Council's frameworks and accreditation processes. Data in the case study confirmed that the role of advanced practitioners was strongly influenced by having national standards and requirements, and an accreditation process as published by the National Council (NCNM 2008d). The document, *Framework for the Establishment of Advanced Nurse Practitioner and Advanced Midwife Practitioner Posts* (4th Edition) (NCNM 2008b) provides for a standardised development of AP roles. The proactive development of AP posts to meet population and service needs, and site preparation, enhanced role clarity, ensured consistencies in practice, and reduced barriers to AP integration within the healthcare team. Participants in the case study, particularly Directors of Nursing or Midwifery, valued highly the support and guidance they received from the National Council in the development of AP posts and roles. It is now important to identify and implement strategies to ensure continued support of CS and AP roles as currently structured. In particular, CS roles need clarity, and CSs need encouragement for continued development.

In summary, then, there is a clear difference in the two posts; advanced practice roles provide a number of strategic advantages such as improved service delivery, faster throughput, reduced costs and a clear governance and accreditation structure. This is understandable, as the two posts are at different levels on the same clinical career pathway. The fact that CMSs work, and are rated in this study, at a similar level to APs for certain aspects is also understandable as midwives start from a position of autonomy even at point of registration, and presumably develop that skill even more at clinical specialist level. In addition, CMSs rated more highly in continuity of care and carer, an area in which midwives would be trying to excel, even prior to undertaking clinical specialist roles.

At present in Ireland there are large numbers of CSs, with comparatively few APs. Benefits in outputs from APs are considerable, including a higher level of patient/client care, increased leadership and greater research output. The feasibility, therefore, of supporting a number of the current CSs in developing their skills and education to become APs should be considered. This should be a key focus of the HSE for the future in line with its transformation plans for increased community care and support for managing chronic illness.

12.4.5. Barriers to implementing the role

There was moderate evidence, from the case data and policy maker interviews, to show that CSs/APs lacked administrative support, resources and protected time for research (Table 12.6), which prevented them from fulfilling all aspects of their role. Barriers may also be seen in the introduction of new CS/AP posts in Ireland. O'Shea (2008) describes the evolution of advanced practice nursing in Ireland and details, in addition to the absence of physicians in some areas, other influential changes in medical practice such as technological advances, the transfer of tasks from medicine to nursing, the expansion of healthcare coverage through community nursing, and the reorientation of healthcare systems to primary care. In particular, the transfer of medical tasks to nursing has been seen internationally as a competing demand that acts as a constraint to implementing fully the nursing roles of research, leadership and education in the practice setting (Plager and Conger 2007).

Opposition from organised medicine to the role has been seen internationally. In Sweden, Lindblad et al (2010) report some opposition from GPs to the new role of ANP in primary care. In the US, this opposition is seen especially with regard to prescribing roles (Norris and Melby 2006). Some resistance by doctors to the NP role also occurred in New Zealand, but the view more recently is that doctors have "mellowed" in their attitude to the NP role (O'Connor 2008, p.13). Similarly, in Northern Ireland, Griffin and Melby (2006) report GPs being less positive than emergency doctors and nurses towards the development of advanced practice roles in emergency nursing. British CNSs report the importance of physician support to their role (Boyle 1997).

However, the SCAPE study showed clear support for CSs/APs from doctors, other clinicians and policy makers, which may be as a result of the National Council's accreditation process whereby the hospital site has to prepare for the introduction of AP roles, with the involvement of all clinicians. Strong support has also been seen in another Irish study of views of key stakeholders in the healthcare field (O'Shea 2008), which showed that the medical profession had a positive view of the CSs/APs, believed they were good coordinators of care, and welcomed the idea of more nurse- and midwife-led services. Similar endorsement from Irish health policy documents (HSE 2010a, ONMSD 2010a) clearly shows the esteem in which these practitioners are held.

In this study, recommendations from the policy makers for the development of CS/AP posts included the need for extensive dialogue with all clinicians, strong clinical governance and guidelines on collaborative decision making. Previous work has demonstrated that good communication with all key parties was essential in the preparation for AP roles (NCNM 2005a). Ireland is unique in having established frameworks and standards for the expansion of nursing and midwifery roles (NCNM 2010b), which include all these points, and this strength should be maintained.

Opposing points of view were raised as to the appropriateness or otherwise of the introduction of CMSs and, in particular, AMPs – findings similar to previous work (NCNM 2004). The arguments against such roles were aired in section 9.5, and a similar point was raised by one policy maker (Table 12.6). However, the outstanding success of the CMS roles portrayed in this study, in addition to previous audits and evaluations of CMSs (NCNM 2004, 2010a, 2010c), would suggest that more CMSs and AMPs should be encouraged. The National Council strongly supports this view, maintaining that such enhanced midwifery

roles are of the greatest importance to support future plans to develop more community based maternity services (NCNM 2008g).

Internationally, education for APs is being advanced to Master's level, where, again, Ireland leads the field. The success of the CS/AP roles shown by this study is therefore due, in part, to the strong frameworks, entry criteria, educational standards and accreditation processes set up. Any change to these processes might adversely affect the documented outcomes in the future.

12.5	Conclusion

The majority of the CSs/APs in this study had complex roles and most, if not all, worked closely with a multidisciplinary team. It has been stated (Gerrish et al 2007) that the precise contribution that CSs/APs make to care is hard to identify and attribute directly to them, due to this close relationship. The benefit of using mixed methodology in this major national study is clear, however, in that the majority of outcomes highlighted have been substantiated by a number of different sources. As interview data corresponded with documentary evidence, service users' questionnaires and comments, fieldnotes, and 'key behaviour' scoresheets, as well as with the policy maker and focus group data, and Delphi surveys, both between- and within-method triangulation corroborated the findings.

The weight of evidence demonstrating the key and influential roles that these personnel inhabit is considerable and the overall positive effect of CSs/APs on patient/client care, other staff and the health services in general is very apparent. Given these considerable benefits, and the fact that the economic analysis did not demonstrate a difference in costs between services with CSs/APs and the comparison sites, there is a strong case for introducing more CS and AP posts across the country. In particular, expansion of the CS/AP roles in chronic disease management and community care is essential to the transformation agenda of the HSE. CMS and AMP posts should also be encouraged.

Strong structures and processes around approval/accreditation and, for APs, re-accreditation, have led to this consistently high standard of practitioner and outcomes. The success of the introduction of these roles in Ireland now needs to be maintained and developed to ensure continued excellence into the future.

12.6	Recommendations

Introduction

This study, through extensive research methods, using a variety of data collection tools, has examined the clinical outcomes of CSs and APs in Ireland. Boxes 1, 2 and 3 summarise the main findings for CSs and APs, which had strong and very strong evidence.

This study has demonstrated conclusively that care provided by CSs and APs improves patient/client outcomes, is safe, acceptable and cost neutral. Nursing and midwifery care is provided in a complex changing environment and it is critically important that resources be used in a cost-effective, strategic manner. The study shows the potential of CSs and APs to support implementation of health policy, meet the changing health needs of the population, address patient expectations, contribute to service reconfiguration and provide nursing and midwifery leadership for the introduction of care models and care programmes into the HSE and, potentially, other health services. CSs and APs support a safe environment for patients by increasing the use of evidence-based clinical guidelines and by the conduct of research.

Clinical Specialists: Main Findings (strong and very strong evidence[19])

The CS caseload involves working with the MDT to provide specialised assessment, planning, delivery and evaluation of care using protocol driven guidelines. The CS role maximises the team impact on patient outcomes. Care delivery and caseload management is delivered in line with core concepts identified by the National Council *(clinical focus, patient/client advocacy, education and training, audit and research, consultancy)*.

Clinical care is a significant part of the CS role in Ireland. This is contrary to international and, in particular, US profiles where the literature shows CSs have limited patient/client contact. Overall, there was no additional cost for CS service (staff costs and activity levels for matched CS and non-CS services). CS services had decreased costs for colposcopy and managing challenging behaviour. CSs were working to expand and develop practice (many CSs were working towards AP role).

Table 12.7 outlines integrated data sources showing differences between CMS and CNS roles.

Box 1 outlines main findings CNSs.

Box 2 outlines main findings CMSs.

Box 1: Clinical Nurse Specialist Main Findings (strong and very strong evidence)

Evidence demonstrated that CNSs:

Reduced morbidity

Decreased considerably SUs waiting times

Provided earlier access to care. **CNSs provided early access to first visits**

Decreased readmission rates

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Increased continuity of care

Increased patient/client satisfaction

Increased communication with patients/clients and families

Promoted patient/client self-management

Had significant MDT support for the role

Provided clinical leadership

Conducted clinical audit (and 53% conducted research).

Box 2: Clinical Midwife Specialist Main Findings (strong and very strong evidence)

Evidence demonstrated that CMSs:

Reduced morbidity

Decreased waiting times

Provided earlier access to care. **CMSs provided early access to treatment**

Decreased readmission rates

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Increased continuity of care. **CMSs spent significant time with SUs teaching, advising and explaining tests and results**

Increased patient/client satisfaction. CMSs were noted by service users to make a difference to their care

Increased communication with patients/clients and families. **CMSs spent significant time with SUs to discuss their problems**

Promoted patient/client self management

Had significant MDT support for the role

Provided clinical leadership

Conducted clinical audit (and 53% conducted research).

[19]Further details in Tables 12.1 to 12.5.

Advanced Practitioners: Main Findings (strong and very strong evidence[20])

The AP caseload involves holistic assessment, diagnosis, autonomous decision making regarding treatment, provision of interventions and discharge from a full episode of care. Care delivery and caseload management is provided by APs in line with core concepts identified by the National Council *(autonomy in clinical practice, expert practice, professional and clinical leadership, research)*.

The education level of APs in Ireland is in line with international standards. Overall, there was no additional cost for AP service (staff costs and activity levels for matched AP and non-AP services). AP services had decreased costs for ED minor injuries and sexual health.

Box 3: Advanced Practitioners Main Findings (strong and very strong evidence)

Evidence demonstrated that APs:

Reduced morbidity

Decreased waiting times

Provided earlier access to care

Decreased readmission rates

Increased patient/client throughput

Increased evidence-based practice

Increased use of clinical guidelines for MDT

Developed guidelines for local, regional and national distribution

Increased continuity of care

Increased patient/client satisfaction

Increased communication with patients/clients and families

Promoted patient/client self management

Worked to expand and develop scope of practice to include more complex care provision

Demonstrated high job satisfaction

Had significant MDT support for the role

Provided clinical and professional leadership

Conducted audit and research.

[20]Further details in Tables 12.1 to 12.5.

Recommendations

Service Delivery and Service Planning

1. This study has demonstrated that care provided by CSs and APs is cost neutral and improves patient/client outcomes. There are therefore demonstrable value-added benefits for patient/client outcomes and service delivery as a result of having CSs and APs as part of the overall nursing or midwifery team.

   It is recommended that service planning and service development incorporate the roles of CS and AP where appropriate. This should include strategic short, medium and long term planning at national, regional and local level, based on service need, in order to ensure coherent service development. In particular:

   a. Further expansion of CS roles in chronic illness management and community care is essential to support the transformation agenda of the HSE, to provide increased continuity of care and to manage the hospital/community interface.

   b. Further expansion of AP roles in chronic illness management and community care is essential to support the transformation agenda of the HSE, to facilitate patient/client access, early diagnosis, treatment and continuity of care, and to manage the hospital/community interface.

   c. Clear delineation between CS and AP roles should be maintained; where the service requires competencies at AP level, systems should be identified to facilitate the required development as appropriate, with emphasis on the entire nursing/midwifery resource, grounded in service need.

   d. CS and AP role development should ensure that the unique nursing or midwifery contribution to holistic care is retained.

2. This study collated more economic data than most international studies examining CS and AP practice. Cost data were limited for a number of CS and AP services, which impacted on the extent of detailed judgement that could be made about the cost-effectiveness of CS and AP roles. The importance of being able to demonstrate efficiency and cost-effectiveness cannot be understated; guidance on the data required is given in Appendix 11.

   It is recommended that consideration be given at service, regional and national level to improving the collection of data to facilitate economic analysis. Cost data should be recorded, available and standardised across all health authorities so that complete economic data analysis is possible in the future.

3. This study has demonstrated significant improved clinical outcomes for patients and clients. The importance of ongoing measurement of clinical outcomes is critical to ensuring maximisation of resources. The tool developed for this study provides key outcome areas for measuring the impact of CS and AP roles.

   a. It is recommended that specific key performance indicators be developed for core CS and AP clinical outcomes to facilitate future audit and research.

   b. It is recommended that specific clinical specialty outcomes be developed and implemented for CSs and APs.

   c. It is recommended that clear governance structures and systems be put in place for all CS roles to reduce diversity of outcomes and maximise impact.

4. The findings of this study indicate that, in services that had CSs and APs, evidence-based practice,

motivation of staff nurses and midwives, practice development, innovation and clinical leadership all increased. This indicates that, in addition to improving direct patient/client care, CSs and APs maximise the potential to impact on the practice of others and on the service as a whole.

It is recommended that considerable emphasis be placed on the clinical and professional leadership aspect of CS and AP roles when such roles are being developed, in order to maximise their potential to influence and develop the practice of others and contribute to service development.

Role Development

5. This study has demonstrated that the core concepts of CS and AP practice outlined by the National Council are being fulfilled by CSs and APs and that the current national frameworks and standards (based as they are on international evidence on role development and excellence in clinical practice) have proven to be robust and successful in improving patient/client care and service delivery. The level of preparation put into service needs analysis, defining roles and integrating them into services has contributed significantly to their success. Lack of clarity around role development that results in reduced role effectiveness has been demonstrated in other countries. Therefore, it is imperative that current frameworks and standards be maintained to mitigate this risk, and that the visibility of the roles be increased.

   a. **It is recommended that current standards and frameworks for CS and AP roles be maintained and enhanced to ensure that the positive outcomes identified in this study are continued and improved upon.**

   b. **Regular audit of CS and AP roles and outcomes should be conducted, using the CS and AP evaluation tools based on the minimum data sets derived from the Delphi survey, with speciality specific additions, and results should be disseminated through case reviews, annual reports and through the service planning process.**

6. It is clear from the findings of this study that developments in the clinical career pathway of Midwifery and Intellectual Disability Nursing have not taken place at the same pace as in some of the disciplines of nursing. Consideration now needs to be given to how CS and AP posts in these two areas can be developed, with the involvement of all stakeholders, based on service need.

   It is recommended that those in leadership positions in areas of Intellectual Disability Nursing and midwifery progress the debate in order to ensure appropriate consideration is given to enable the development of the clinical career pathway in the interest of excellence in health service delivery and client care.

Continuing Professional Development

7. APs (and some CSs) were engaging in research, and clinical audit was well established for both CSs and APs. On going support to build these skills is required.

   a. **It is recommended that collaborative research networks of CSs and APs, clinicians and academics in relevant disciplines be established in order to maximise research potential.**

   b. **It is recommended that links with nursing and midwifery academic areas be forged, including, where possible, partnerships, secondments, or joint appointments, in order to maximise CS/AP research and publications.**

   c. **It is recommended that protected time to pursue research and publication activities be established for all APs.**

d. It is recommended that both CSs and APs be provided with access to educational opportunities and resources to develop their skills in audit and measurement of clinical outcomes in order to increase quality care, research and audit in practice.

8. Both this study and the literature highlighted the importance of continuing professional development to maintain and develop further skills and competencies and to support expanded roles.

The data identified a clear differentiation between CS and AP in terms of leadership roles.

a. It is recommended that clear governance structures, models of clinical supervision and mentorship be developed and implemented in order to maximise the effectiveness of the CS/AP role.

b. It is recommended that key competencies and key performance indicators specific to AP leadership and research outcomes be identified.

c. It is recommended that key competencies and key performance indicators specific to the leadership role of the CS be developed.

d. It is recommended that CSs and APs have access to a variety of continuing professional development activities such as competency development, peer review, education and training in order to achieve their key performance indicators.

9. The issue of professional isolation for APs is well documented in the international literature, and also emerged as an issue, for some, in this study. If advanced practitioners are to demonstrate true professional leadership, this aspect of their role development needs support.

It is recommended that APs be facilitated to participate in national and international networks in order to maximise professional leadership potential.

Future Research

10. This study provides a list of key outcome areas, which can be used as a minimum data set for measuring the impact of CS and AP roles and outcomes. It was evident from the literature review that clinical outcome measurement tools for CS and AP services are limited. The importance of being able to demonstrate clinical outcomes for CS and AP roles cannot be overstated.

It is recommended that future research focus on developing methods for capturing *specific* clinical outcomes related to CS and AP interventions for their clinical specialty.

11. A number of key research gaps were identified during this study.

It is recommended that further research be conducted into:

a. evaluating the effects of CS or AP interventions through randomised controlled trials using nurse- and midwife- sensitive outcomes identified in this study

b. the effects of CS and AP care on patients/clients in specialist areas (e.g. reduction in (re)admissions for people experiencing mental health problems, and chronic disease management)

c. the application and appropriateness of the CS and AP models in intellectual disability nursing

d. the factors that maximise CS/AP effectiveness

e. the differences between CS and AP roles

f. work satisfaction and retention among CSs/APs.

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Appendices

| Appendix 1a | Underpinning of coding framework using Schultz framework | | | | | |

	Schultz framework	Interpretation Patient/client	Interpretation Professional/ Service	Patient outcomes	Other health professional outcomes		
•	Schultz et al (2002 p.590)	Gerrish et al (2007 p.131) interpretation of Schultz et al (2002)	Gerrish et al (2007 p.133) proposal for judging professional significance	From the study proposal: Outcomes for impact of advanced and specialist practitioner on service users (from practitioner perspective)	From the study proposal: Outcomes for impact of advanced and specialist practitioner on other healthcare professionals (from practitioner perspective)	Domain	Outcomes
1	Symptomatology: "the extent to which individuals return to normal functioning or experience a change in symptoms"	Symptomatology: the extent to which individuals return to normal functioning or experience a change of symptoms. It is concerned with the physical and psychological benefit of the intervention to the patient and/or carer.	Professional benefit: the extent to which the APN enhanced the competence of frontline staff by developing their knowledge, skills and confidence	Symptomatology: changes in person's condition, functional capacity, perceptions of capacity to effectively self-manage, reduction in hospitalisation, reduction in exacerbations of condition, delayed institutionalisation	Professional impact: changes in knowledge, competence, confidence, service expansion		
2	Quality of life: "the extent to which interventions broadly improve an individual's quality of life"	Quality of life: the extent to which the intervention broadly improves an individual's quality of life	Quality of working life: front-line staff's perspective on improvements in the quality of their working life arising from the APN's intervention; this might include enhanced job satisfaction and fulfilment	Quality of life: service user or carer improvements in quality of life, to include multi-dimensional components e.g. well-being, life satisfaction	Quality of life: advanced and specialist practitioners' perspective on improvements in the quality of their and other's working life arising from the advanced and specialist practitioner's intervention; this might, for example, include enhanced job satisfaction and fulfilment		

Appendix 1a. (continued)

	Schultz framework	Interpretation Patient/client	Interpretation Professional/ Service	Patient outcomes	Other health professional outcomes		
3	Social significance: the extent to which outcomes are important to society (e.g. impact of intervention on service use)	Social significance: the extent to which the outcomes are important to society. Societal concerns are often translated into healthcare policy; for example, relating to hospital admission rates or length of stay	Social significance: the extent to which APN interventions are important to society. Societal concerns are translated into healthcare policy, which then become the concern of NHS managers. Thus, social significance can refer to the extent to which APNs address the policy objectives of the organisation for which they work. This might include, for example, contributing towards achieving government targets such as reducing MRSA rates by developing the knowledge and skills of frontline staff in infection control.	Social significance: the extent to which advanced and specialist practitioner interventions are regarded as being important to society. Societal concerns are translated into healthcare policy, which then become the concern of health service managers.	Social significance: the extent to which advanced and specialist practitioners perceive that they address the policy objectives of the organisation for which they work.		
4	Social validity: "the extent to which treatment goals, procedures, and outcomes are acceptable as assessed by client or expert ratings of the interventions and their impact on participants' lives"	Social validity: the social importance and acceptability of the intervention procedures and outcomes. This includes identifying that the intervention addresses one or more meaningful or important problems in the patient's/carer's life.	Social validity: the social importance and acceptability of the APN's intervention procedures and outcomes for frontline staff. In other words, does the APN address meaningful and important problems that frontline staff encounter? This might include, for example, solving clinical problems, empowering frontline staff, minimising the risk of de-skilling.	Social validity: the extent to which interventions are perceived by service users as important; the extent to which care is viewed as socially acceptable	Social validity: the social importance and acceptability of the advanced and specialist practitioners' procedures and outcomes for frontline staff; the extent to which advanced and specialist practitioners address meaningful and important problems that frontline staff encounter. This might include, for example, solving clinical problems, empowering frontline staff, minimising the risk of de-skilling.		

Appendix 1b	Coding framework identifying outcomes

Level Individual client/patient	Symptomatology defined as: • the actual symptoms of an illness/disease • subjective appraisal of the symptoms of an illness/disease • capacity to manage symptoms.	Morbidity Mortality Increased knowledge of service users/family Promote self-management Adherence Earlier diagnosis and intervention Reduce exacerbations of condition Prevent complications Holistic assessment, identifying problems beyond the presenting ones Conduit to other servicers/referral Promoting wellness (averting problems) Provide more timely care Patient preparedness for intervention
	Quality of life defined as: • ability to enjoy normal activities of life	Patient satisfaction Added-value outcome: trust in practitioner, feeling known Promote self-efficacy/self-esteem Family support
Level Staff	Professional impact defined as: • changes in other staff's behaviour and attitude • change in the culture of service provision	Increased knowledge and skill of other care providers Empowerment Development of services Promotes positive attitudes Contributes to more competent staff
	Quality of working life defined as: • enhancement of personal satisfaction experienced at work	Work satisfaction Retention (ANP only) Role model Provide career advice
Level Service/hospital/health care setting	Social significance defined as: • extent to which service provision matches service and societal goals	Waiting times Readmission rates Shorter length of stay Throughput Reduced costs Continuity of care/carer Accessibility Contribute to policy development, guidelines, setting parameters
	Increased community knowledge/support groups/advocacy groups Potential for service expansion e.g. set up nurse-led clinics Potential to work across hospital/community Contribute to strategic planning of services Social validity defined as: • extent to which interventions address a problem/area verified as important by the individual, staff, institution or society • extent to which interventions are valued by the individual, staff, institution or society	Implement research evidence Research Audit Make staff feel supported Reduce criminality Promote health Perception of being well cared for Collaboration among care providers Communication across MDT Service users' wishes are known and respected e.g. advocacy Reduce potential to de-skill junior staff (medical and nursing) Motivate staff Provide expert clinical advice Practise leadership (ANP only) Provides evidence through audit Promotes evidence-based practice

Appendix 2a | Search strategies for systematic review

Cochrane Database of Systematic Reviews (CDSR) and Database of Abstracts of Reviews of Effects (DARES)

#1   MeSH descriptor Nurse Clinicians explode all trees

#2   MeSH descriptor Nurse Practitioners explode all trees

#3   MeSH descriptor Nurse Midwives explode all trees

#4   MeSH descriptor Nurse Anesthetists explode all trees

#5   specialist near nurs*

#6   specialised near nurs*

#7   specialized near nurs*

#8   advanced near midwi*

#9   advanced near nurs*

#10   (nurse-led)

#11   (nurse near consultant*)

#12   "modern matron"

#13   (macmillan near nurs*)

#14   (nurs* near triage)

#15   lead near nurse*

#16   midwi* near led

#17   (case near manage*) near (nurse* or midwi*)

#18   nurse* near practitioner*

#19   midwi* near practitioner*

#20   midwi* near consultant*

#21   clinical near research near nurse*

#22   (clinical next nurse next specialist*)

#23   lecturer near/2 practitioner

#24   specialist near midwi*

#25   specialised near midwi*

#26   specialized near midwi*

#27   lead near midwi*

#28   midwi* near triage

#29   (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR

#14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28)

Cumulative Index to Nursing and Allied Health Literature (CINAHL)

1. CINAHL; META ANALYSIS/;

2. CINAHL; SYSTEMATIC REVIEW/;

3. CINAHL; (metaanaly$ OR meta-analy$).af;

4. CINAHL; exp LITERATURE REVIEW/; 7137 results.

5. CINAHL; "systematic review".ti,ab;

6. CINAHL; "systematic overview".ti,ab;

7. CINAHL; commentary.pt;

8. CINAHL; letter.pt;

9. CINAHL; editorial.pt;

10. CINAHL; exp ADVANCED PRACTICE NURSES/;

11. CINAHL; (modern ADJ matron).ti,ab;

12. CINAHL; (macmillan adj2 nurs*).ti,ab;

13. CINAHL; (midwi* adj2 led).ti,ab;

14. CINAHL; (nurse* adj2 led).ti,ab;

15. CINAHL; (nurs* adj2 practitioner*).ti,ab;

16. CINAHL; (clinical ADJ research ADJ nurs*).ti,ab;

17. CINAHL; (lead adj2 nurs*).ti,ab;

18. CINAHL; (specialist adj2 nurs*).ti,ab;

19. CINAHL; (speciali*ed adj2 nurs*).ti,ab;

20. CINAHL; (speciali*ed adj2 midwi*).ti,ab;

21. CINAHL; (specialist adj2 midwi*).ti,ab;

22. CINAHL; (advanced adj2 midwi*).ti,ab;

23. CINAHL; (midwi* adj2 consultant*).ti,ab;

24. CINAHL; (midwi* adj2 triage).ti,ab;

25. CINAHL; (midwi* adj2 practitioner*).ti,ab;

26. CINAHL; (nurs* adj2 consultant*).ti,ab;

27. CINAHL; (lead adj2 midwi*).ti,ab;

28. CINAHL; ((case adj2 manage*) AND (nurs* OR midwi*)).ti,ab;

29. CINAHL; (clinical ADJ research ADJ midwi*).ti,ab; 0 results.

30. CINAHL; 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR

23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29;

31. CINAHL; 1 OR 2 OR 3 OR 4 OR 5 OR 6;

32. CINAHL; 7 OR 8 OR 9;

33. CINAHL; 30 AND 31;

34. CINAHL; 33 not 32;

ExcerptaMedica Database (EMBASE)

1.   EMBASE; exp META ANALYSIS/; 35062 results.

2.   EMBASE; ((meta ADJ analy*) OR metaanaly*).ti,ab; 23396 results.

3.   EMBASE; (systematic ADJ review*1).ti,ab; 15766 results.

4.   EMBASE; (systematic ADJ overview*1).ti,ab; 333 results.

5.   EMBASE; 1 OR 2 OR 3 OR 4; 56061 results.

6.   EMBASE; cancerlit.ab; 334 results.

7.   EMBASE; cochrane.ab; 7416 results.

8.   EMBASE; embase.ab; 6325 results.

9.   EMBASE; (pscylit OR psychlit).ab; 264 results.

10. EMBASE; (psychinfo OR psycinfo).ab; 1598 results.

11. EMBASE; (cinahl OR cinhal).ab; 1979 results.

12. EMBASE; (science ADJ citation ADJ index).ab; 673 results.

13. EMBASE; bids.ab; 196 results.

14. EMBASE; 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13; 11952 results.

15. EMBASE; (reference ADJ lists).ab; 2634 results.

16. EMBASE; bibliograph*.ab; 6063 results.

17. EMBASE; hand-search*.ab; 1350 results.

18. EMBASE; (manual ADJ search*).ab; 1004 results.

19. EMBASE; (relevant ADJ journals).ab; 225 results.

20. EMBASE; 15 OR 16 OR 17 OR 18 OR 19; 10200 results.

21. EMBASE; (data ADJ extraction).ab; 5656 results.

22. EMBASE; (selection ADJ criteria).ab; 6233 results.

23. EMBASE; 21 OR 22; 11579 results.

24. EMBASE; review.pt; 933844 results.

25. EMBASE; 23 AND 24; 6225 results.

26. EMBASE; letter.pt; 445246 results.

27. EMBASE; editorial.pt; 228356 results.

28. EMBASE; exp ADVANCED PRACTICE NURSE/; 2495 results.

29. EMBASE; (modern ADJ matron*).ti,ab; 2 results.

30. EMBASE; (macmillan adj2 nurs*).ti,ab; 18 results.

31. EMBASE; (midwi* adj2 led).ti,ab; 51 results.

32. EMBASE; (nurs* adj2 led).ti,ab; 571 results.

33. EMBASE; (nurs* adj2 practitioner*).ti,ab; 1749 results.

34. EMBASE; (midwi* adj2 practitioner*).ti,ab; 60 results.

35. EMBASE; (lead adj2 nurs*).ti,ab; 33 results.

36. EMBASE; (lead adj2 midwi*).ti,ab; 3 results.

37. EMBASE; (midwi* adj2 triage).ti,ab; 0 results.

38. EMBASE; (nurs* adj2 triage).ti,ab; 211 results.

39. EMBASE; (specialist adj2 nurs*).ti,ab; 844 results.

40. EMBASE; (specialist adj2 midwi*).ti,ab; 5 results.

41. EMBASE; (specialised adj2 midwi*).ti,ab; 1 results.

42. EMBASE; (specialised adj2 nurs*).ti,ab; 51 results.

43. EMBASE; (specialized adj2 nurs*).ti,ab; 158 results.

44. EMBASE; (specialized adj2 midwi*).ti,ab; 1 results.

45. EMBASE; (advanced adj2 midwi*).ti,ab; 1 results.

46. EMBASE; (advanced adj2 nurs*).ti,ab; 332 results.

47. EMBASE; (nurs* adj2 consultant*).ti,ab; 111 results.

48. EMBASE; (midwi* adj2 consultant*).ti,ab; 11 results.

49. EMBASE; ((case adj2 manage*) AND (nurs* OR midwi*)).ti,ab; 478 results.

50. EMBASE; (clinical ADJ research ADJ nurs*).ti,ab; 13 results.

51. EMBASE; (clinical ADJ research ADJ midwi*).ti,ab; 0 results

52. EMBASE; 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47 OR 48 OR 49 OR 50 OR 51; 5844 results.

53. EMBASE; 5 OR 14 OR 20 OR 25; 68775 results.

54. EMBASE; 52 AND 53; 106 results.

55. EMBASE; 26 OR 27; 673602 results.

56. EMBASE; 54 not 55; 105 results.

Medline

1. nurse anesthetists/ or nurse clinicians/ or nurse practitioners/ or nurse midwives/ (24995)

2. professional autonomy/

3. exp Nurses/ (58345)

4. 3 and 2 (1896)

5. (specialist adj2 nurs*).ti,ab.

6. (specialised adj2 nurs*).ti,ab.

7. (specialised adj2 midwi*).ti,ab.

8. (specialized adj2 midwi*).ti,ab.

9. (specialist adj2 midwi*).ti,ab.

10. (specialized adj2 nurs*).ti,ab.

11. (advanced adj2 midwi*).ti,ab.

12. (advanced adj2 nurs*).ti,ab.

13. (nurs* adj2 led).ti,ab.

14. (nurse adj2 consultant*).ti,ab.

15. (modern adj matron*).ti,ab.

16. ((lead adj2 nurse*) or (lead adj2 midwi*)).ti,ab.

17. (macmillan adj2 nurse*).ti,ab.

18. (midwi* adj2 led).ti,ab.

19. ((case adj2 manage*) and (nurs* or midwi*)).ti,ab.

20. (nurse* adj practitioner*).ti,ab.

21. (midwi* adj2 practitioner*).ti,ab.

22. (midwi* adj2 consultant*).ti,ab.

23. ((clinical adj nurse adj specialist*) or (clinical adjmidwi* adj specialist)).ti,ab.

24. (nurs* adj triage).ti,ab.

25. (midwi* adj2 triage).ti,ab.

26. (lecturer adj2 practitioner*).ti,ab.

27. or/5-26

28. review.ab.

29. review.pt.

30. meta-analysis.ab.

31. meta-analysis.pt.

32. meta-analysis.ti.

33. 29 or 32 or 30 or 31 or 28

34. letter.pt.

35. comment.pt.

36. editorial.pt.

37. 36 or 35 or 34

38. randomized controlled trial.pt.

39. random*.ab.

40. trial*.ab.

41. 39 or 38 or 40

42. 27 or 4 or 1

43. 42 and 33 and 41

44. 43 not 37

Appendix 2b	AMSTAR tool

Assessment of multiple systematic reviews (AMSTAR) tool (Shea et al 2007)

1. Was an 'a priori' design provided? The research question and inclusion criteria should be established before the conduct of the review.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
2. Was there duplicate study selection and data extraction? There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
3. Was a comprehensive literature search performed? At least two electronic sources should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
4. Was the status of publication (i.e. grey literature) used as an inclusion criterion? The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
5. Was a list of studies (included and excluded) provided? A list of included and excluded studies should be provided.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
6. Were the characteristics of the included studies provided? In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analysed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
7. Was the scientific quality of the included studies assessed and documented? 'A priori' methods of assessment should be provided (e.g. for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
8. Was the scientific quality of the included studies used appropriately in formulating conclusions? The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
9. Were the methods used to combine the findings of studies appropriate? For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I^2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?).	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
10. Was the likelihood of publication bias assessed? An assessment of publication bias should include a combination of graphical aids (e.g. funnel plot, other available tests) and/or statistical tests (e.g. Egger regression test).	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable
11. Was the conflict of interest stated? Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.	☐ Yes ☐ No ☐ Can't answer ☐ Not applicable

Appendix 3	Outcomes identified from systematic reviews

Individual client/patient

1. Mortality

2. Survival

3. Morbidity

4. Quality of life (patient, client, consumer)

5. Health Related Quality of Life (HRQoL)

6. The physical health of participants

7. The mental health of participants

8. Independence/functional status

9. Patient satisfaction

10. Patient compliance/adherence

11. Patient well-being

12. Psychosocial problems

13. Patient's health status

14. Patient's reported knowledge of information and advice received from professionals

15. Perceived quality of healthcare

16. Activities of daily life

17. Patient's psychological well-being

18. Symptom management

19. Objective measures of social or psychological functioning (including the number of days spent on sick leave/absence from school and employment status)

Staff

20. Practitioner adherence to clinical guidelines

21. Practitioner healthcare activity (examinations, provision of advice)

22. Carer's quality of life

23. Development of new intervention/clinical development

24. Demonstration of a contribution to research

25. Demonstration of a team/service development

26. Development of an educational intervention/package

27. Collaboration in a multi-professional team

Healthcare service or setting

28. Number of prescriptions

29. Number of investigations

30. Number of referrals

31. Number of admissions

32. Number of return consultations

33. Length of inpatient stay

34. Inpatient bed days avoided

35. Number of readmissions

36. Duration of readmissions

37. Frequency of consultations

38. Length of consultation

39. Referral (internal or external) to other practitioners or services in the emergency department and/or hospital or to practitioners or services in the community

40. Waiting times

41. Number of primary care appointments

42. GP visits

43. Nurse visits

44. Numbers of tests and investigations carried out

45. Appropriateness and volume of medication prescribed (including evidence of drug toxicity)

Economic data

Perceived or identified cost reduction

Health service costs

Use of healthcare resources

Cost of post-discharge care

Cost outcomes

Direct (service)

Indirect (societal) costs

Cost-effectiveness

Direct healthcare costs

Salary

Training

Admissions

Procedures

Visits

Drugs

Indirect healthcare costs

Time taken off from work

Usual activities and overhead costs

Cost of inpatient stay

| Appendix 4 | Coding analysis grid used to compare outcomes across stakeholder groups |

SCAPE Analysis Grid – Focus Group Data

		Advanced practitioner perspective	Specialist practitioner perspective	Manager perspective	Client perspective	Consultant perspective
1	**Key elements of role**					
a	Advanced practitioner	A1	A2	A3	A4	A5
b	Specialist practitioner	B1	B2	B3	B4	B5
2	**Extent to which elements are realised**					
a	Advanced practitioner	C1	C2	C3	C4	C5
b	Specialist practitioner	D1	D2	D3	D4	D5
3	**Concerns about role**					
a	Advanced practitioner	E1	E2	E3	E4	E5
b	Specialist practitioner	F1	F2	F3	F4	F5
4	**Outcomes for impact of advanced and specialist practitioner on service users**					
a	Symptomatology: Changes in person's condition, functional capacity, perceptions of capacity to effectively self-manage, reduction in hospitalisation, reduction in exacerbations of condition, delayed institutionalisation	G1	G2	G3	G4	G5
b	Quality of life: Service user or carer improvements in quality of life, to include multi-dimensional components e.g. well-being, life satisfaction	H1	H2	H3	H4	H5
c	Social significance: The extent to which advanced and specialist practitioner interventions are regarded as being important to society. Societal concerns are translated into healthcare policy, and then become the concern of health service managers.	I1	I2	I3	I4	I5
d	Social validity: The extent to which interventions are perceived by service users as important. The extent to which care is viewed as socially acceptable.	J1	J2	J3	J4	J5
5	**Outcomes for impact of advanced and specialist practitioner on other healthcare professionals**					
a	Professional impact: Changes in knowledge, competence, confidence, service expansion	K1	K2	K3	K4	K5
b	Quality of life: Advanced and specialist practitioners' perspective on improvements in the quality of their and other's working life arising from the advanced and specialist practitioners' intervention; this might, for example, include enhanced job satisfaction and fulfilment.	L1	L2	L3	L4	L5
c	Social significance: The extent to which advanced and specialist practitioners perceive that they address the policy objectives of the organisation for which they work	M1	M2	M3	M4	M5

SCAPE Analysis Grid – Focus Group Data (continued)

		Advanced practitioner perspective	Specialist practitioner perspective	Manager perspective	Client perspective	Consultant perspective
5	Outcomes for impact of advanced and specialist practitioner on other healthcare professionals (continued)					
D	Social validity: The social importance and acceptability of the advanced and specialist practitioners' procedures and outcomes for front-line staff. The extent to which advanced and specialist practitioners address meaningful and important problems that frontline staff encounter. This might include, for example, solving clinical problems, empowering frontline staff, minimising the risk of de-skilling.	N1	N2	N3	N4	N5
6	**Concerns / Challenges about role**					
a	Advanced practitioner	O1	O2	O3	O4	O5
b	Specialist practitioner	P1	P2	P3	P4	P5

Appendix 5a	Items identified as specific to the role of Clinical Specialists (grouped by role as given by clinical specialists)

Acute Mental Healthcare In Day Hospital Setting	Monitoring weight and diet when on antipsychotic medication Monitoring concordance with medication Monitoring blood results when on mental health medication Supporting and driving change in the healthcare setting
Affective Disorders Cognitive Psychotherapy	Facilitation of therapeutic group Gradual graded exposure work Mindfulness approaches Compassion-focused therapy Behavioural activation
Behaviour Management	Living environment Personal choice
Behavioural Psychotherapy	Admission rates to psychiatric hospital – a measure of effectiveness Reduced frequency, need to attend outpatient clinics – agreed Prevention of psychosis onset Suicide prevention Relief of life restrictions associated with anxiety Reduced prescription of anxiolytic medications Direct access from primary care
Cardiac Rehabilitation	Lifestyle/behaviour change Sexual counselling Manage and control angina Cholesterol and BP levels to target Access to cardiac rehabilitation service regardless of geographic location
Challenging Behaviour	Maintenance of the individual's emotional interpersonal environment
Child and Adolescent Psychiatry	Liaison with relevant agencies outside HSE workplace e.g. schools Education of other agencies re management of conditions/symptoms within their environment Knowledge in therapeutic techniques e.g. CBT, solution-focused approaches, family-based interventions etc
Child and Adolescent Substance Misuse	Substance abuse Social functioning Emotional health/well-being
Chronic Kidney Disease Management	Ward staff possess relevant information in order to give appropriate care
Cognitive Behavioural Psychotherapy (CBT)	Prevention of psychosis onset Suicide prevention Relief of life restrictions associated with anxiety Reduced prescription of anxiolytic medications Direct access from primary care
Colposcopy	Effectiveness of treatment, complete excision of pre-cancer cells Patient compliance with follow-up Economical use of equipment – avoiding waste
Community Addiction Service/ Hepatitis	Reduction of infection transmission within cohorts Incorporation of community resources in care plans Advocacy work on behalf of patient, to enable patient-centred care Access to literacy-sensitive health promotion/information Appreciation by other disciplines of the importance of collaborative practice (shared care) Clear understanding by other staff of appropriate referrals/proper use of referral process Inclusion of CNS in consultations regarding their specialist area of practice
Community Child and Adolescent Psychiatry	Psycho-education for parents and educational settings for a child with specific mental health diagnosis Psycho-education for children with a mental health diagnosis Children have necessary behavioural & cognitive strategies to manage symptoms of anxiety

Appendix 5a (continued)

Community Mental Health	Awareness of sexual dysfunction arising from side-effects of medication Awareness of risk of weight gain as side-effects Development of a sense of personal responsibility Development of confidence to choose alternatives Preventing and monitoring risk of suicide or violence Reducing need for psychiatric hospital admission Responding to crises via on-call system Providing support and counselling Advocating for patients with other agencies Assessing whether any children are at risk Assessing need for welfare and/or housing Assessing need for psychotherapy referral Administering depot injections Educating patient and family re mental health issues Knowledge of other relevant services available Knowledge of alternative treatments/care/therapies available Other service area staff including non-statutory staff's knowledge level of mental health issues where relevant and without compromise of patient confidentiality e.g. when interfacing with such services Advocacy Quality of life Social inclusion Flexibility in out-of-hours support
Counselling	Clients begin to see the functions and meaning in their behaviour, felt experience Clients begin to make contact with their own healing power Active acceptance is more evident Adaptation to change/loss Heightened awareness of self and illness/limitations More appropriate intervention More efficient use of resources
Creative, Diversional and Recreational Activation	Advocacy
Diabetes	Knowledge of individual targets re blood sugars/HbA1c, BP, lipids, weight, exercise Knowledge re hypoglycaemia prevention, recognition, treatment where appropriate Knowledge re personal foot care Understanding importance of regular review Understanding importance of healthy diet/regular exercise/maintaining a healthy weight Understanding importance of not smoking Understanding importance of moderate alcohol intake (if an alcohol drinker) Knowledge of 'sick-day rules' Knowledge of need to inform Licensing Authority/car insurance of diabetes status Health professionals' knowledge of diagnostic criteria for diabetes Health professionals' ability to give main points relating to diabetes to patients on diagnosis Health professionals' knowledge re targets for optimum glycaemic, BP, lipid control Health professionals' knowledge re treatment algorithms for diabetes Health professionals' awareness of importance of prompt intervention with diabetes-related foot conditions Integrating the wider multidisciplinary team covering both the primary and secondary-care settings Individualised care plans appropriate to age and illness Patient advocate for appropriate clinical management Good glycaemic control Senior nursing and clinical managers' knowledge level Senior nursing and clinical managers' attitude to clinical leadership Control of blood glucose, i.e. HbA1c Reduction of CVD risk factors Standardisation/equity of patient education Promoting evidence-based interventions Involvement in local and national service development Demonstrate leadership quality in service development Drive local initiatives in line with national development plans Work collaboratively with voluntary bodies involved in patient support Understanding treatment and its actions e.g. insulin therapy Understanding of entitlements for people with diabetes Importance of blood glucose control
Drug Treatment Court Liaison Nurse	Knowledge of psychiatric history and risk of self-harm Client knowledge regarding harm reduction/risks of drug use Social status, housing and access to services Liaising with social workers/family support workers/PHNs Rehabilitation, access to detox/inpatients drug treatment services Financial issues, budgeting, assistance with med card applications Social skills, time management, use of diary/appointment keeping

Appendix 5a (continued)

Ear, Nose and Throat, including Head and Neck	Self-care needs in relation to patients with a tracheostomy or laryngectomy
Early Intervention	Team working Assessment Access to acute inpatient mental health care Access to appropriate community support
Eating Disorders	Weight restoration/maintenance measures Management of exercise Normalise eating behaviours
Elderly Care	Supports available to family on discharge Family caring for the frail elderly need to feel they have a point of contact for questions and worries Feedback from family and patients on the Common Summary Assessment Report process
Family Therapy	Bring the voices of patients and families to professionals meetings
General Practice	Optimal management of chronic disease Maximum uptake of paediatric immunisation Maximum uptake of cervical check and breast check Empowerment of individuals to manage their own disease process Understanding medication management at home Positive health promotion Autonomy for clients' needs Promoting mental health awareness Using reflective practice to plan for future care Using clinical audit to plan for better patient outcomes Follow-up of abnormal results e.g. blood tests/smears Follow-up on defaulter of attendance for appointments
Health Promotion and Assessment in Older Persons	Advocacy follow-through on person's needs Assessments for care planning
Haemophilia	Seamless transfer from paediatric to adult care Inclusion and welfare of siblings Public awareness e.g. schools, clubs, etc
Haemovigilance	Patients receive blood and blood products only when required Patients are made aware of the risks and alternatives to receiving blood/blood products Patients receive information re receiving blood/blood products All suspected transfusion reactions/events are followed up All near misses/non-compliances in transfusion practice are followed up Involvement in risk management in issues related to blood/blood products External inspection by bodies to ensure national/international requirements are upheld Regular auditing of blood transfusion practice to ensure standards are being maintained Involvement in quality meetings and blood transfusion committee meetings Education of all personnel involved in transfusion practice Implementation of other ways to deliver education e.g. e-learning Evaluating personnel's knowledge about transfusion practice Ensuring compliance with article 14 and 15 re traceability for blood/blood products Involvement in product recall and look-backs as requested by the Irish Blood Transfusion Service Development of guidelines specific to blood transfusion Prevention of future adverse events Patients are appropriately transfused Informed consent is obtained prior to blood transfusion therapy
Heart Failure	Teaching self-care to patients Assessing effectiveness of patient's self-care knowledge Readmission rates Number of patient initiated contacts with service Recording of daily weights Readmission rates

Appendix 5a (continued)

Infection Control	Low rates of healthcare-associated infection High compliance rates with hand hygiene Prompt and appropriate feedback of audits Early control of outbreaks Good attendance at education sessions Access to protected time for research Support from management to take on board new research, etc Healthcare-associated infection rates minimised Low c Diff rates & prevention of c Diff outbreaks Low blood & body fluid exposures Reduction in bacteraemias Reduction of healthcare-associated infections 100% compliance with MRSA screening protocol Above 85% in cleaning audits
Lactation	Improved breastfeeding initiation rates Successful breastfeeding
Liaison Psychiatry	Referral of all patients presenting with a parasuicide attempt
Metabolic Nursing (Inherited Disorders of Metabolism)	Blood phenylalanine levels in PKU patients Dietary compliance in specific metabolic conditions Outcomes in maternal PKU offspring Continuity of care in nurse-led PKU clinics
Occupational Health	Rehabilitation Staff feel valued by the service you provide in occupational health Staff report injuries promptly to occupational health Staff use the occupational health service for well-being as well as injury management
Older Persons Care	Fall reduction Pain control Staff education
Osteoporosis	Access to team member at short notice e.g.: consultant to discuss patient issues
Paediatric Haematology Oncology Outreach to the Community	Continuous support, availability and contact
Paediatric Limb Reconstruction	Quality of life improvement e.g. functional improvement after reconstructive surgery Satisfaction with level of access to service for families of sick children nationwide
Psychotherapy	Integration of different perspectives within multidisciplinary team
Rehabilitation and Recovery	Advocacy Quality of life Social inclusion Flexibility in out-of-hours support
Relaxation Counselling Reflexology	Refresher course to maintain competency
Respiratory Sleep Nurse Specialist	Good sleep hygiene
Resuscitation	Early recognition of serious illness in children by clinical staff Systematic structured approach to emergency care Systematic structured approach to assessment of serious illness in children
Rheumatology	Health assessment questionnaires Disease activity scores Schober index measurement Valuation of day-care services Patient/client access to service provider Capturing patients with an early inflammatory arthritis Competence in injection technique – methotrexate Competence in injection technique – anti-TNF Rescue work – highlighting and preventing potential events Helping patients to self-manage chronic condition Provision of rapid-access clinic, triage and urgent treatment Leading on development of care services that patients value e.g. out-of-hours appointments

Appendix 5a (continued)

Sexuality and Disability	A good understanding of the effects of disability/illness on sexuality, sexual function and fertility Partner understanding of above Provide information and treatment for erectile dysfunction Provide information on fertility issues Provide support for those undergoing fertility treatment
Smoking Cessation	Smoking cessation education. Staff should not allow their own lifestyle to influence any omission in providing appropriate information to patient on smoking cessation. Smoke-free campus
Stroke Rehabilitation	Individual goals for each patient Individual stroke booklets for each patient Encouraging patients to voice what they want Educating higher-diploma students and degree students Giving presentations to other colleagues Assessing patient's suitability for rehabilitation Setting up clinics post-discharge
Ultrasound	That some positivity can be evident even in the case of an abnormality having been diagnosed That people now have the relevant information and can choose to what is best for them in their circumstances That the referral on to a fetal medicine specialist will mean that a multidisciplinary team approach to the care of a compromised infant at birth would be a good outcome That the statistics at year end are audited to maintain transparency That annual clinical reports would continue to publish statistics

Appendix 5b	Items identified as specific to the role of Advanced Practitioners (grouped by role as given by advanced practitioners)

Emergency/Ambulatory Care	Patient has excellent understanding of injury and expected length of recovery Decrease in unplanned patient returns to unit
Emergency Nursing	Waiting time to be seen in emergency department (ED) Waiting time until discharge from ED Waiting time for a bed from decision to admit in ED Number of investigations ordered (x-ray, labs) Patient satisfaction rating Number of infected wounds Number of re-presentations with the same injury Number of patients that leave without waiting to be seen in department
Neonatology	Length of stay Initiation/discontinuation of respiratory support Breast feeding rates Episodes of late-onset sepsis Catheter related blood stream infections Participation in developing national guidelines where appropriate Sustainability of role; supporting ANP students and candidates Networking with other ANPs both in same area of practice and other areas of practice Involvement in higher-education programmes (developing, supporting, facilitating, etc) Participation in professional development issues (i.e. member of committees e.g. HSE local/regional/national; An Bord Altranais; National Council for the Professional Development of Nursing and Midwifery)
Palliative Care	Attending to spiritual care Advocating for patient Informed decision making Audit
Sexual Health	Refer for partner notification is essential in treatment of sexually transmitted infections HIV disclosure where necessary
Urology	Hospital acquired urinary tract infection secondary to urodynamic studies Appropriate continuation of intermittent self-catheterisation Appropriateness of urodynamic referrals

Appendix 6a — 'Pen picture' tool

Type of Outcome	Outcome	Example of evidence/lack of evidence
Patient Outcome	Patient/client involved in shared decision making	
	Patient/client/family knowledgeable and prepared (preparedness for treatment, patient or family education, health promotion activity)	
	Patient/client aware of diagnosis and understands consequences, treatment options, outcomes	
	Facilitates continuity of care	
Nurse or midwife or health professional	Advises others on use of evidence/research relevant to practice	
	Involved in policy development/dissemination	
	Involved in knowledge - educating other professionals	
	Provides leadership in an area of practice	
	Involved in clinical initiatives (care pathway development, clinical guidelines)	
	Addresses patient/client symptoms and experiences of illness/distress addressed (symptom management, looking at holistic assessment, assessment that is wide-ranging)	
	Demonstrates clinical autonomy	
Healthcare Service	Evidence of shared decision making with other members of the multidisciplinary team	
	Refers to other health professionals	
	Assessment of service needs initiated by the CNS or ANP	
	Facilitates speedy access to services for patient/client	
	Evidence of networking/linking with community health professionals/voluntary organisations on patient/client issues	

Appendix 6b	Core observation 'tick box' tool – key tasks and behaviours

A = Always, F = Frequently, S = Sometimes, N = Never, Notes = Notes on evidence – how condition was met

Criterion	A	F	S	N	Notes
Communication					
Listening skills – clinician gives time for pt/client to talk, looks open and relaxed, shows by response that they have heard what was said					
Feedback – clinician checks that pt/client understood what was said					
Decision making – pt/client's point of view asked for, pt/client appears involved in decision					
Information giving – gives information either verbal, written, or by demonstration					
Using open questions – clinician picks up and acts on cues "You look distressed…", or "Is there anything you would like to ask?"					
Liaison with other key stakeholders (family, other MDT, other and state which)					
Safe Environment					
Hand washing – between every pt/client and the next					
Using gloves, if appropriate					
Equipment – maintaining sterility					
Using Research Evidence					
Refers to research, or evidence from audit, or web-sites, during consultations					
Health Promotion/Lifestyle					
Health promotion advice or literature given – in addition to information on the specific disorder/reason for care					
Education provided on self-monitoring the pt/client's condition					

| Appendix 7a | Interview schedule for clinicians (postholding site) |

The SCAPE study interview schedule

Interview with health professional (CNS/CMS/ANP site)

Introduction

Welcome, thanks, check re consent. State interview will take about half an hour.

The purpose of this interview is to explore with you your experiences of working within a healthcare team that includes a Clinical Nurse/Midwife Specialist or Advanced Nurse Practitioner. I am interested in your views and in what you think is important, so there are no set questions.

I have a number of areas of professional practice that I am interested in, but anything else you would like to say is even more important, so please do add it in. Shall we start with:

Co-worker's understanding of Clinical Specialist or Advanced Practitioner role

What do you understand the Clinical Nurse/Midwife Specialist (or Advanced Nurse Practitioner) role to be?

Prompts: would it help with any of the above aspects of professional care?

Does the role support or influence you and the care you give?

Prompt: give examples.

What do you see as being the difference in the service provided since the CNS/ANP joined the team?

Is there a clinical care pathway for service users in your service area?

Did the CNS/ANP influence the care pathway for the service user in this service area?

Care pathways

I am interested in how various aspects of care are delivered by the CS/AP. Maybe you could tell me about some of these aspects. For example:

- appropriateness of **assessments/diagnosis** (degree to which clinical investigations, professional assessments, tests, etc. are appropriate)

- appropriateness of **interventions** (including medication regime, degree to medical/nursing/ midwifery procedures, interventions and treatments are appropriate)

- appropriateness of **referral/liaison** (degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc. takes place)?

- appropriateness of **initiating/ending health care episodes** (degree to which appropriate admission, discharge, etc. takes place)

Prompts: anything especially good? Anything especially not so good? (after each)

Anything that facilitates or hinders the above aspects?

Teamwork and Communication

How you have experienced inter-disciplinary teamwork and communication between yourself, the CS/AP and the rest of the team?

Prompt: What were the good things, and the not so good things? (Can you give me an example?)

(Looking for comments in relation to: communication practices and mutual understanding between health professions and team members, effectiveness in health care team addressing patient/client needs).

Best practice in service delivery

To what extent has the CS/AP role influenced the adoption and/or implementation of evidence-based care, implemented national health policy or clinical guidelines?

Prompt: can you give me an example?

(Evidence of collaboration, new initiatives, scope of practice considerations)

Have there been any achievements of new clinical/practice initiatives? (e.g. implementation of new wound dressing, new assessment procedures)

Prompt: can you give me an example of good care? Of not so good care?

Have any of the above been stimulated by the presence of the CS/AP, or would they have happened anyway?

Research awareness

How would you describe the level of knowledge about research in your unit, team or ward?

Prompt: any examples of team members who have conducted research?

How about the use of research findings among the clinical team, or their attitude to evidence-based practice?

Prompt: would you have any examples of how research has been incorporated into care? International best practice guidelines? Accessibility to research evidence? Evidence-based practice?

Have any of the above been stimulated by the presence of the CS/AP, or would they have happened anyway? Journal clubs? Dissemination of evidence?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

| Appendix 7b | Interview schedule for clinicians (non-postholding sites) |

The SCAPE study interview schedule

Interview with health professional (non-postholding site)

Introduction

Welcome, thanks, check re consent. State interview will take about half an hour.

The purpose of this interview is to explore with you your experiences of working within a healthcare team within this clinical specialty area. I am interested in your views and in what you think is important, so there are no set questions.

I have a number of areas of professional practice that I am interested in, but anything else you would like to say is even more important, so please do add it in. Shall we start with:

Care pathways

I am interested in how various aspects of care are delivered. Maybe you could tell me about some of these aspects. For example:

- appropriateness of **assessments/diagnosis** (degree to which clinical investigations, professional assessments, tests, etc. are appropriate)

- appropriateness of **interventions** (including medication regime, degree to medical/nursing/ midwifery procedures, interventions and treatments are appropriate)

- appropriateness of **referral/liaison** (degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc. takes place)?

- appropriateness of **initiating/ending health care episodes** (degree to which appropriate admission, discharge, etc. takes place)

Prompts: anything especially good? Anything especially not so good? (after each). Anything that facilitates or hinders the above aspects?

Teamwork and Communication

How you have experienced inter-disciplinary teamwork and communication between yourself and the rest of the team?

Prompt: What were the good things, and the not so good things? (Can you give me an example?)

(Looking for comments in relation to: communication practices and mutual understanding between health professions and team members, effectiveness in health care team addressing patient/client needs).

Best practice in service delivery

To what extent has this service area influenced the adoption and/or implementation of evidence-based care, implemented national health policy or clinical guidelines?

Prompt: can you give me an example?

Evidence of collaboration, new initiatives, scope of practice considerations)

Have there been any achievements of new clinical/practice initiatives? (e.g. implementation of new wound dressing, new assessment procedures)

Prompt: can you give me an example of good care? Of not so good care?

Research awareness

How would you describe the level of knowledge about research in your unit, team or ward?

Prompt: any examples of team members who have conducted research?

How about the use of research findings among the clinical team, or their attitude to evidence-based practice?

Prompt: would you have any examples of how research has been incorporated into care? International best practice guidelines? Accessibility to research evidence? Evidence-based practice?

Can you identify who stimulates the above? Journal clubs? Dissemination of evidence?

Co-worker's understanding of CS/AP role

I know that you do not work with a CS/AP in this unit. But maybe you could tell me a little about what you understand the Clinical Nurse/Midwife Specialist (or Advanced Nurse Practitioner) role to involve?

Prompts: would it help with any of the above aspects of professional care?

Is there a clinical care pathway for service users in your service area?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

Appendix 7c — Interview schedule for DoNs/DoMs (postholding site)

The SCAPE study interview schedule

Interview with DoN/DoM (CNS/CMS/ANP site)

Introduction

Welcome, thanks, check re consent. State interview will take about half an hour.

The purpose of this interview is to explore with you your experiences of employing CNS/CMS/ANPs and the impact of their role on patient/client care and professional practice. I am interested in your views and in what you think is important, so there are no set questions.

I have a number of areas of professional practice that I am interested in, but anything else you would like to say is even more important, so please do add it in. Shall we start with:

The Clinical Specialist or Advanced Practitioner role

Have you noticed any difference in the service provided since the CNS/ANP was/were appointed? Please tell me about this ...

Does the CNS/ANP influence the care pathway for service users in their service area?

Prompt: in what way? Examples?

Teamwork and Communication

How do you view inter-disciplinary teamwork and communication between the CS/AP and the rest of the team?

Prompt: What are the good things, and the not so good things? (Can you give me an example?)

(Looking for comments in relation to: communication practices and mutual understanding between health professions and team members, effectiveness in health care team addressing patient/client needs).

Best practice in service delivery

Has the CS/AP role influenced the adoption and/or implementation of evidence-based care, implemented national health policy or clinical guidelines in their area?

Prompt: can you give me an example?

(Evidence of collaboration, new initiatives, scope of practice considerations)

Have there been any achievements of new clinical/practice initiatives (e.g. implementation of new wound dressing, new assessment procedures, innovations, interventions) in this area?

Prompt: can you give me an example?

Have any of the above been stimulated by the presence of the CS/AP, or would they have happened anyway?

Has there been an audit of practice conducted in this area?

Prompt: Is it possible to receive a copy of this audit?

Research awareness

How would you describe the level of knowledge about research in the CNS/CMS/ANP's area?

Prompt: any examples of team members who have conducted research?

Is this level of knowledge any different to other areas in the hospital/service?

How about the use of research findings among the clinical team, or their attitude to using evidence-based practice?

Prompt: would you have any examples of how research has been incorporated into care in this area? International best practice guidelines? Accessibility to research evidence? Evidence-based practice?

Have any of the above been stimulated by the presence of the CS/AP, or would they have happened anyway? Journal clubs? Dissemination of evidence?

Staff education and support

Has the CS/AP contributed to the education of other staff (nurses/midwives/others) in this hospital/service?

Prompt: In what ways? Examples? When guidelines are being developed, are staff involved?

In what ways would the CS/AP support staff in giving specialist care?

Prompt: any influence on decision making in clinical care? Developing competencies?

Would the CS/AP have any influence on staff attitudes to more global issues such as safety, patient/clients' rights, infection control etc?

Prompt: any examples?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

Appendix 7d | Interview schedule for DoNs/DoMs (non-postholding site)

The SCAPE study interview schedule

Interview with DoN/DoM (non-postholding site)

Introduction

Welcome, thanks, check re consent. State interview will take about half an hour.

The purpose of this interview is to explore with you your experiences of managing a service without CNS/CMS/ANPs and the impact that this may, or may not, have on patient/client care and professional practice. I am interested in your views and in what you think is important, so there are no set questions.

I have a number of areas of professional practice that I am interested in, but anything else you would like to say is even more important, so please do add it in. Shall we start with:

Teamwork and Communication

How do you view inter-disciplinary teamwork and communication between the members of the x healthcare team?

Prompt: What are the good things, and the not so good things? (Can you give me an example?)

(Looking for comments in relation to: communication practices and mutual understanding between health professions and team members, effectiveness in health care team addressing patient/client needs).

Best practice in service delivery

To what extent has this service area influenced the adoption and/or implementation of evidence-based care, implemented national health policy or clinical guidelines?

Prompt: can you give me an example?

(Evidence of collaboration, new initiatives, scope of practice considerations)

Have there been any achievements of new clinical/practice initiatives (e.g. implementation of new wound dressing, new assessment procedures, innovations, interventions) in this area?

Prompt: can you give me an example?

Has there been an audit of practice conducted in this area?

Prompt: Is it possible to receive a copy of this audit?

Research awareness

How would you describe the level of knowledge about research in the x service area?

Prompt: any examples of team members who have conducted research?

Is this level of knowledge any different to other areas in the hospital/service?

How about the use of research findings among the clinical team, or their attitude to using evidence-based practice?

Prompt: would you have any examples of how research has been incorporated into care in this area? International best practice guidelines? Accessibility to research evidence? Evidence-based practice? Journal clubs? Dissemination of evidence?

Staff education and support

Do team members in this area contribute to the education of other staff (nurses/midwives/others) in this hospital/service?

Prompt: In what ways? Examples? When guidelines are being developed, are staff involved?

In what ways would team members support staff outside this area in giving specialist care?

Prompt: any influence on decision making in clinical care? Developing competencies?

The Clinical Specialist or Advanced Practitioner role

Some other hospitals/units have a CNS/ANP post in this specialist area. Please can you talk to me about your views on this and whether or not you think the addition of such a role would make a difference to care?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

| Appendix 7e | Interview schedule for service users (postholding and non-postholding sites) |

The SCAPE study interview schedule - Interview with service user

Introduction

Welcome, thanks, check re consent. State interview will take about half an hour.

The purpose of this interview is to explore with you your experiences and satisfaction with care received from the Clinical Nurse/Midwife Specialist/Advanced Nurse Practitioner/healthcare team/nurses/doctors etc (select most appropriate, depending on postholder/non-postholder site). I am interested in your views and in what you think is important, so there are no set questions. I have 5 areas of care that I am interested in, but anything else you would like to say is even more important, so please do add it in. Shall we start with:

Communication

Please tell me how you have experienced communication between yourself and your clinician – what were the good things, and the not so good things?

Prompt: can you give me an example?

And the relationship between you and your clinician? How was that?

Prompts: anything especially good? Anything especially not so good?

Do you feel safe? Reliable? Trusting relationship?

Continuity of care & access to care

Please tell me how easy or difficult you feel your access to care was? Any examples you can give me? Was there good continuity of care (seeing same person/few people each time?)

Satisfaction with care

In general, how satisfied are you with the care given by your clinician?

Prompt: can you give me an example of good care? Of not so good care?

How does she/he help you to manage your… (disease, condition, symptoms)?

(Only for postholding sites)

Have you noticed any difference in the care given by the CS/AP compared to care given by other members of the health care team?

Prompts: What does she/he do that no-one else does? What difference has it made to you? If the CS/AP service was withdrawn, what would you miss? What value-added things (if any) has the CS/AP brought to your life?

Knowledge/skills

Appropriate interventions?

Does he/she know what was needed to be done?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

Appendix 8 — Service user questionnaire

In the interests of saving space, only two of the questionnaires are replicated here: the ANP (postholding) site and the non-postholding site versions. Questionnaires for CNS and CMS were identical to the ANP version, with 'ANP' replaced by 'CNS' or 'CMS' as applicable. In the CMS version, words such as 'patient', 'nurse' or 'disease' were replaced by 'woman', 'midwife' and 'condition'. Copies of all questionnaires (ANP, AMP, CNS, CMS) are included in Appendix 11. Questionnaires administered to service users attending endoscopy and colposcopy services had six extra questions appended, as set out below (endoscopy example only). Actual copies of all the questionnaires may be obtained by contacting the research team at the School of Nursing and Midwifery, Trinity College Dublin: (nursing.midwifery@tcd.ie).

Questions about your endoscopy examination

D15 Before your endoscopy, did a member of staff explain the risks and benefits of the procedure in a way you could understand?
(Please tick one box only)

- Yes, definitely 1☐
- Yes, to some extent 2☐
- No 3☐
- I did not want an explanation 4☐

D16 If you answered ìYes, definitelyî or ìYes, to some extentî above, were the risks and benefits explained by a:
(Please tick one box only)

Doctor 1☐   Nurse 2☐   Advanced Nurse Practitioner 3☐   No-one 4☐

D17 Before your endoscopy, did a member of staff explain what would be done during the procedure?
(Please tick one box only)

- Yes, definitely 1☐
- Yes, to some extent 2☐
- No 3☐
- I did not want an explanation 4☐

D18 If you answered ìYes, definitelyî or ìYes, to some extentî above, was the procedure explained by a:
(Please tick one box only)

Doctor 1☐   Nurse 2☐   Advanced Nurse Practitioner 3☐   No-one 4☐

D19	After your endoscopy, did a member of staff explain how the procedure had gone? (Please tick <u>one</u> box only)
	Yes, definitely 1 ☐
	Yes, to some extent 2 ☐
	No 3 ☐
	I did not want an explanation 4 ☐
D20	If you answered ìYes, definitelyî or ìYes, to some extentî above, was the procedure explained by a: (Please tick <u>one</u> box only) Doctor 1 ☐ Nurse 2 ☐ Advanced Nurse Practitioner 3 ☐ No-one 4 ☐

Site number

Ward/unit code

CNS/CMS/ANP/matched site
CNS = 01, CMS = 02, ANP = 03, Matched = 20

| | | 0 | 3 |

Study number

(for office use only)

THE SCAPE STUDY

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – ANP site

INFORMATION WILL BE HELD IN CONFIDENCE

This questionnaire has 6 sections, labelled with the letters A to F, and asks you to tell us about your experiences of receiving health care from the Advanced Nurse Practitioner (ANP).
Please ask the researcher if you are not sure who your Advanced Nurse Practitioner is.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick only one box each time	(Please tick one box only) Yes ¹☑ No ²☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.

THANK YOU FOR TAKING THE TIME TO FILL IN THIS QUESTIONNAIRE

IMPORTANT, please complete!!	
I am a patient/client of this service	1 ☐
I am a family member or carer completing this survey on behalf of a patient/client of this service	2 ☐

A	QUESTIONS ABOUT COMMUNICATION

A1 When you had important questions to ask the ANP, did you get answers you could understand?

(Please tick <u>one</u> box only)

Yes, always	1 ☐
Yes, sometimes	2 ☐
No	3 ☐
I had no need to ask	4 ☐

A2 Sometimes in a hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you?

(Please tick <u>one</u> box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A3 If you had any anxieties or fears about your condition or treatment, did the ANP discuss them with you?

(Please tick <u>one</u> box only)

Yes, completely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't have any anxieties or fears	4 ☐

A4 Did the ANP talk in front of you as if you weren't there?

(Please tick <u>one</u> box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A5	Did you want to be more involved in decisions made about your care and treatment? (Please tick <u>one</u> box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? (Please tick <u>one</u> box only)
	Yes, always 1☐
	Yes, sometimes 2☐
	No 3☐
A7	If your family or someone else close to you wanted to talk to the ANP, did they have enough opportunity to do so? (Please tick <u>one</u> box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	No family or friends were involved 4☐
	My family didn't want or need information 5☐
	I didn't want my family or friends to talk to a doctor 6☐ or nurse
A8	Did the ANP give your family or someone close to you all the information they needed to help you? (Please tick <u>one</u> box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	No family or friends were involved 4☐
	My family or friends didn't want or need information 5☐
A9	Did the ANP explain the **purpose** of the medicines you were to take at home in a way you could understand? (Please tick <u>one</u> box only)
	Yes, completely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't need an explanation 4☐
	I had no medicines 5☐

A10	Did the ANP tell you about medication **side effects** to watch for when you went home? (Please tick <u>one</u> box only)
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need an explanation 4☐ I had no medicines 5☐
A11	Did the ANP tell you about **danger signals** regarding your illness or treatment to watch for after you went home? (Please tick <u>one</u> box only)
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need to be told of any danger signals 4☐
A12	Did the ANP explain why you needed specific tests, assessments, X-rays or monitoring etc? (Please tick <u>one</u> box only)
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't have any tests, assessments, X-rays or monitoring 4☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the ANP? (Please tick <u>one</u> box only)
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't have any tests, assessments, X-rays or monitoring 4☐ My results are not available yet 5☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily)

B	**Questions about continuity of care (having the same person or same few people minding you) and access to care (getting appointments and tests arranged easily)**
B1	I waited the following time to get my first appointment to this service: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B6	All members of my care team knew me and my story: (Please tick <u>one</u> box only) Strongly agree 1 ☐ Agree 2 ☐ Disagree 3 ☐ Strongly disagree 4 ☐

B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the ANP was sure of what needed to be done to help me or sought advice as necessary) (Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐
B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned. (Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐

Thank you for completing the questions so far.

You are now half-way through the survey.

C	Questions about the relationship between you and the Advanced Nurse Practitioner (ANP).
C1	I believe that the ANP was honest and open with me (Please tick one box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
C2	I believe that the ANP was understanding of issues/concerns that were important to me (Please tick one box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't have any concerns 4☐
C3	I have confidence in the ANP to provide the care I need (Please tick one box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
C4	I followed the advice given to me by the ANP (Please tick one box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't receive any advice 4☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1 How satisfied are you with the physical care you received from the ANP?
(Please tick <u>one</u> box only)

Very satisfied   1☐
Satisfied   2☐
Neither satisfied nor unsatisfied   3☐
Unsatisfied   4☐
Very unsatisfied   5☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____

_____

_____

_____

D2 How satisfied are you with the emotional support you received from the ANP?
(Please tick <u>one</u> box only)

Very satisfied   1☐
Satisfied   2☐
Neither satisfied nor unsatisfied   3☐
Unsatisfied   4☐
Very unsatisfied   5☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D3 How satisfied are you with the practical advice you received from the ANP?
(Please tick <u>one</u> box only)

Very satisfied	¹ ☐
Satisfied	² ☐
Neither satisfied nor unsatisfied	³ ☐
Unsatisfied	⁴ ☐
Very unsatisfied	⁵ ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D4 While you were attending the ANP, did you get enough treatment to help improve your symptoms?
(Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

D5 The ANP made a positive difference to my health and well being.
(Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D6	The ANP provided a good support to my family. (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ My family did not need support 4☐ **If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:** _____ _____ _____ _____
D7	I was given sufficient time to discuss my problems with the ANP. (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need time to discuss 4☐
D8	I was with the ANP for the following amount of time (Please tick <u>one</u> box only) 0-5 minutes 1☐ 6-10 minutes 2☐ 11-15 minutes 3☐ 16-30 minutes 4☐ 31-60 minutes 5☐ Over 60 minutes 6☐
D9	I feel the ANP supports me to manage my own condition (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need support 4☐

D10	Issues about me and my care were discussed in public that should have been addressed in private. (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐

D11	I was given information by the ANP about self help and support groups. (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need any information	4☐

D12	I was given information by the ANP on how to maintain a healthy lifestyle. (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below	

D13	Was the information given to you: (Please tick <u>one or more </u>boxes)	
	Verbally	1☐
	In written format	2☐
	By printed leaflets	3☐
	No information given	4☐

D14	Did the ANP tell you who to contact if you were worried about your condition or treatment after you left hospital?	
	Yes	1☐
	No	2☐
	Don't know, can't remember	3☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)

E1   I am

(Please tick <u>one</u> box only)

Female	1☐
Male	2☐

E2   I am in the following age group:

(Please tick <u>one</u> box only)

0-3	1☐	28-37	8☐
4-7	3☐	38-47	9☐
8-11	4☐	48-57	10☐
12-14	5☐	58-67	11☐
13-17	6☐	68-77	12☐
18-27	7☐	78-87	13☐
		Over 87	14☐

E3   I am

(Please tick <u>one</u> box only)

Irish	1☐
From the UK	2☐
Polish	3☐
Other European	4☐
African	5☐
Other	6☐

(If "other", please state country of origin) _____

One last question over the page!!!

F	A question about the care you have received from the Advanced Nurse Practitioner (ANP):

F1 Have you noticed any difference in the care given by the ANP compared to care given by other members of the health care team?

(Please tick one box only)

Yes   1 ☐

No   2 ☐

If yes, please specify:

_____

_____

_____

_____

_____

_____

_____

_____

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken. Please use the reply paid envelope to send it back to us. If you have any problems in completing this questionnaire, please call xxx on xxx and we will answer your queries or send you out another questionnaire. xxx will also fill out the questionnaire for you over the phone, if you wish.

Site number

Ward/unit code

CNS/CMS/ANP/matched site
CNS = 01, CMS = 02, ANP = 03, Matched = 20

| | | 2 | 0 |

Study number

(for office use only)

THE SCAPE STUDY

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – non postholding site

I N F O R M A T I O N   W I L L   B E   H E L D   I N   C O N F I D E N C E

This questionnaire has 5 sections, labelled with the letters A to E, and asks you to tell us about your experiences of receiving health care.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick only one box each time	(Please tick one box only) Yes ¹ ☑ No ² ☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.	

THANK YOU FOR TAKING THE TIME TO FILL IN THIS QUESTIONNAIRE

IMPORTANT, please complete!!

I am a patient/client of this service   1 ☐

I am a family member or carer completing this survey
on behalf of a patient/client of this service   2 ☐

A	QUESTIONS ABOUT COMMUNICATION

A1 When you had important questions to ask a doctor or nurse, did you get answers you could understand?

(Please tick one box only)

Yes, always	1 ☐
Yes, sometimes	2 ☐
No	3 ☐
I had no need to ask	4 ☐

A2 Sometimes in a hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you?

(Please tick one box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A3 If you had any anxieties or fears about your condition or treatment, did a doctor or nurse discuss them with you?

(Please tick one box only)

Yes, completely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't have any anxieties or fears	4 ☐

A4 Did doctors or nurses talk in front of you as if you weren't there?

(Please tick one box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A5	Did you want to be more involved in decisions made about your care and treatment? (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐

A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? (Please tick <u>one</u> box only)	
	Yes, always	1☐
	Yes, sometimes	2☐
	No	3☐

A7	If your family or someone else close to you wanted to talk to a doctor or nurse, did they have enough opportunity to do so? (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	No family or friends were involved	4☐
	My family didn't want or need information	5☐
	I didn't want my family or friends to talk to a doctor or nurse	6☐

A8	Did the doctors or nurses give your family or someone close to you all the information they needed to help you? (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	No family or friends were involved	4☐
	My family or friends didn't want or need information	5☐

A9	Did a member of staff explain the **purpose** of the medicines you were to take at home in a way you could understand? (Please tick <u>one</u> box only)	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need an explanation	4☐
	I had no medicines	5☐

A10	Did a member of staff tell you about medication **side effects** to watch for when you went home? (Please tick <u>one</u> box only)	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need an explanation	4☐
	I had no medicines	5☐
A11	Did a member of staff tell you about **danger signals** regarding your illness or treatment to watch for after you went home? (Please tick <u>one</u> box only)	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need to be told of any danger signals	4☐
A12	Did a member of staff explain why you needed specific tests, assessments, X-rays or monitoring etc? (Please tick <u>one</u> box only)	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the doctor or nurse? (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
	My results are not available yet	5☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily)

B	Questions about continuity of care (having the same person or same few people minding you) and access to care (getting appointments and tests arranged easily)
B1	I waited the following time to get my first appointment to this service: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: (Please write a number in <u>first</u> box only, and then tick <u>one</u> box only) e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B6	All members of my care team knew me and my story: (Please tick <u>one</u> box only) Strongly agree　　　　1☐ Agree　　　　　　　　2☐ Disagree　　　　　　　3☐ Strongly disagree　　　4☐

B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, my main clinician was sure of what needed to be done to help me or sought advice as necessary)
	(Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐
B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned.
	(Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐

Thank you for completing the questions so far.

You are now half-way through the survey.

C	Questions about the relationship between you and your clinician (s). These questions are about the healthcare professional who provided most of your care

C1 I believe that the clinician (e.g. doctor or nurse) was honest and open with me
(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐

C2 I believe that the clinician (e.g. doctor or nurse) was understanding of issues/concerns that were important to me (Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐
I didn't have any concerns	4☐

C3 I have confidence in the clinician (e.g. doctor or nurse) to provide the care I need
(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐

C4 I followed the advice given to me by the clinician (e.g. doctor or nurse)
(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐
I didn't receive any advice	4☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1 How satisfied are you with the physical care you received from the clinician (e.g. doctor or nurse)?

(Please tick <u>one</u> box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____

_____

_____

_____

D2 How satisfied are you with the emotional support you received from the clinician (e.g. doctor or nurse)?

(Please tick <u>one</u> box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D3	How satisfied are you with the practical advice you received from the clinician (e.g. doctor or nurse)? (Please tick <u>one</u> box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D4	While you were attending this hospital or service, did you get enough treatment to help improve your symptoms? (Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

D5	The clinician (e.g. doctor or nurse) made a positive difference to my health and well being.

(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐
Not applicable	4☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

6	The clinician (e.g. doctor or nurse) provided a good support to my family.

(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐
My family did not need support	4☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

D7	I was given sufficient time to discuss my problems with my clinician (e.g. doctor or nurse)

(Please tick <u>one</u> box only)

Yes, definitely	1☐
Yes, to some extent	2☐
No	3☐
I didn't need time to discuss	4☐

D8	I was with my clinician (e.g. doctor or nurse) for the following amount of time (Please tick <u>one</u> box only)	
	0-5 minutes	1☐
	6-10 minutes	2☐
	11-15 minutes	3☐
	16-30 minutes	4☐
	31-60 minutes	5☐
	Over 60 minutes	6☐
D9	I feel the clinician (e.g. doctor or nurse) supports me to manage my own condition (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need support	4☐
D10	Issues about me and my care were discussed in public that should have been addressed in private. (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
D11	I was given information by a clinician (e.g. doctor or nurse) about self help and support groups. (Please tick <u>one</u> box only)	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need any information	4☐

D12	I was given information on how to maintain a healthy lifestyle.
	(Please tick <u>one</u> box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	Not applicable 4☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below
D13	Was the information given to you:
	(Please tick <u>one or more</u> boxes)
	Verbally 1☐
	In written format 2☐
	By printed leaflets 3☐
	No information given 4☐
D14	Did a member of the care team tell you who to contact if you were worried about your condition or treatment after you left hospital?
	Yes 1☐
	No 2☐
	Don't know, can't remember 3☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)

E1 I am

(Please tick <u>one</u> box only)

Female   1☐
Male   2☐

E2 I am in the following age group:

(Please tick <u>one</u> box only)

0-3	1☐	28-37	8☐
4-7	3☐	38-47	9☐
8-11	4☐	48-57	10☐
12-14	5☐	58-67	11☐
13-17	6☐	68-77	12☐
18-27	7☐	78-87	13☐
		Over 87	14☐

E3 I am

(Please tick <u>one</u> box only)

Irish   1☐
From the UK   2☐
Polish   3☐
Other European   4☐
African   5☐
Other   6☐

(If "other", please state country of origin)

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken. Please use the reply paid envelope to send it back to us. If you have any problems in completing this questionnaire, please call xxx on xxx and we will answer your queries or send you out another questionnaire. Xxx will also fill out the questionnaire for you over the phone, if you wish.

| Appendix 9 | Policy makers interview schedule |

The SCAPE study interview schedule

Interview with policy makers

Introduction

Welcome, thanks, check re consent. Interview will take about half an hour.

The purpose of this interview is to explore with you your views of CNS/CMS/ANPs, the impact of their role on patient/client care and professional practice and, in particular, I am seeking from you the context in the health service within which these roles exist. I am interested in your views and in what you think is important, so there are no set questions and if you have relevant issues that you think need highlighting, please do tell me about them.

To aid discussion, I have a list of issues that have been identified from the initial findings as important, and I would appreciate your input on as many of these as you feel you can comment on. Shall we start with a generic question on:

The Clinical Specialist or Advanced Practitioner role

Have you noticed any difference in the service provided nationally, or in the professional standing of nurse and midwives, since the CNS/CMS/ANPs were appointed? Please tell me about this…

Prompt: any examples?

Initial findings

Clinical practice role

The main activities demonstrating their clinical practice role were:

Managing a caseload e.g. assessing, diagnosing, managing the care pathway, working within a multi-disciplinary team, referral to and from the CNS/CMS/ANP – with the following **outcomes of care**: collaborative decision making, increased continuity of care, decreased litigation, safety of care, decreased waiting lists/time, problems with workload management (little support)

Service provision e.g. health promotion, physical interventions, psychosocial interventions – with the following **outcomes of care**: health improvement, increased knowledge.

Views on this? Prompt: can you give me an example?

Clinical leadership

The main activities demonstrating clinical leadership were:

Guideline development e.g. usually led by the ANP, but always a member of the development team - with the following **outcomes**: impact on practice, existence of policies, regular review of policies.

Acting as a resource e.g. providing clinical supervision, membership of committees, acting as a consultant, education of other staff, mentorship - with the following **outcomes**: high awareness of CNS/CMS/ANP skills among multidisciplinary team members, change in team education programmes.

Service development e.g. early booking schemes, improved charts, initiatives in care - with the following **outcomes**: improvements in care

Views on this? Prompt: can you give me an example?

Professional leadership

The main outcomes demonstrating professional leadership were:

Impacting on knowledge, skills and practice of health care practitioners outside their service e.g. teaching on existing accredited education programmes at undergraduate and postgraduate level and designing new programmes.

Influencing practice through the development of national and international clinical practice guidelines e.g. practitioners in advanced practice roles were actively involved in developing guidelines for clinical practice at national level and, in some instances, at international level.

Influencing nursing/midwifery and health care agendas at national or international level e.g. practitioners in advanced practice roles were involved in influencing nursing/midwifery policy and practice and health care agendas through membership of committees. Their main involvement was with national committees, with some evidence of representation with international committees.

Views on this? Prompt: can you give me an example?

Research activity

The main issues surrounding research activity were:

General level of activity e.g. Much more audit than research, all used research-based guidelines and networked among each other.

Difference between CNS/CMS and ANP roles e.g. CNS/CMS in general had few research skills (few had MSc). None did research, some ANPs did or were involved in studies – but all who were doing research did it in their own time.

Good access to data e.g. The ANPs in particular had a lot of data, but no time to do anything with it.

Lack of resources e.g. No training, no protected time, no support from other team members. Less research in mental health and community roles, possibly because no access to computers/internet.

Views on this? Prompt: can you give me an example?

Financial implications

In general, the work performed by the CNS/CMS/ANPs appeared to cost less than equivalent work performed by NCHDs. However, work performed by the CNS/CMS/ANPs appeared to cost more than equivalent (?) work performed by staff nurses or midwives. Overall, costs were the same.

Views on this? Prompt: can you give me an example?

Is there anything else you would like to add?

Prompt: can you give me an example of that?

Closing

Thank you very much for your very helpful contribution to this study

Appendix 10	Demographic details of service users who completed surveys

Table 1: Age and gender profile of service users responding to the survey. (Note: an additional eight responses were provided to a modified survey within the intellectual disability discipline)

Profession	CNS		CMS		ANP		All postholders*		Non-postholders*	
	%	n	%	n	%	n	%	n	%	n
E1 I am male/female *χ^2=0.377, df=1, p=0.539										
Female	52.0	39	100.0	24	42.6	20	56.8	83	53.0	61
Male	48.0	36	0.0	0	57.4	27	43.2	63	47.0	54
E2 I am in the following age group										
0-3	4.1	3	0.0	0	6.4	3	4.2	6	4.3	5
4-7	2.7	2	0.0	0	6.4	3	3.5	5	1.7	2
8-11	0.0	0	0.0	0	6.4	3	2.1	3	0.9	1
12-17	0.0	0	0.0	0	8.5	4	2.8	4	1.7	2
18-27	6.8	5	16.7	4	12.8	6	10.4	15	16.5	19
28-37	23.3	17	75.0	18	17.0	8	29.9	43	25.2	29
38-47	12.3	9	8.3	2	10.6	5	11.1	16	11.3	13
48-57	16.4	12	0.0	0	8.5	4	11.1	16	12.2	14
58-67	6.8	5	0.0	0	14.9	7	8.3	12	10.4	12
68-77	11.0	8	0.0	0	6.4	3	7.6	11	5.2	6
78-87	15.1	11	0.0	0	2.1	1	8.3	12	10.4	12
Over 87	1.4	1	0.0	0	0.0	0	0.7	1	0.0	0

Table 2: Nationality of service users responding to the survey

Profession	CNS		CMS		ANP		All postholders		Non-postholders	
	%	n	%	n	%	n	%	n	%	n
E3 I am (nationality)										
Irish	89.3	67	62.5	15	89.4	42	84.9	124	91.3	105
From the UK	6.7	5	0.0	0	0.0	0	3.4	5	6.1	7
Polish	1.3	1	8.3	2	0.0	0	2.1	3	0.9	1
Other European	2.7	2	4.2	1	6.4	3	4.1	6	0.9	1
African	0.0	0	12.5	3	2.1	1	2.7	4	0.0	0
Other	0.0	0	12.5	3	2.1	1	2.7	4	0.9	1

Appendix 11	Evaluation Tools

This Appendix contains the following tools that clinical specialists and advanced practitioners may find useful in evaluating the services they provide:

a) Clinical specialist evaluation tool

b) Advanced practitioner evaluation tool

c) Guidance for future economic evaluation of role(s)

d) Core observation 'tick box' tool - key tasks and behaviours

e) Service user questionnaire (AMP)

f) Service user questionnaire (ANP)

g) Service user questionnaire (CMS)

h) Service user questionnaire (CNS)

i) Examples of extra questions for service user questionnaire - ANP - endoscopy and colposcopy

Appendix 11a. Clinical specialist evaluation tool

This tool contains a core set of outcome measures identified by clinical specialists as important in evaluating the impact of their role on individual patient/client outcomes, outcomes for nurses, midwives and other healthcare professionals, and outcomes for healthcare services and settings. For the purpose of this tool, an outcome is defined as a state, behaviour or belief that can be affected as a result of nursing or midwifery care (Johnson et al 2000). The 47 outcomes in the data set can be supplemented with items relevant to your specific clinical specialist role. Examples of specific items for some specialist roles are available in Appendix 5a.

Please rate each outcome on a scale of 1 to 7 as follows:

1 = Very low impact: I believe that I am achieving a very low impact on this outcome

4 = Neutral: I believe that I am achieving neither a high nor low impact on this outcome

7 = Very high impact: I believe that I am achieving a very high impact on this outcome.

Note 1: CSs could use other evidence to support their own ratings of outcomes for example, reports of case studies, clinical supervision or clinical audits – see no. 8 below.

Note 2: CSs could develop key performance indicators (KPIs) based on the core set of outcomes (see NCNM Discussion Paper No 3, December 2010. *Key Performance Indicators: A Guide to Choosing, Developing and Using KPIs for Clinical Nurse/Midwife Specialists and Advanced Nurse/Midwife Practitioners*).

Core outcome item	1	2	3	4	5	6	7
Patient/client outcomes							
1. Communication (e.g. person's non-verbal/verbal skills, expression of preferences)							
2. Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)							
3. Patient/client satisfaction with information (e.g. satisfaction with professional advice) (use of SCAPE SU questionnaire or other as appropriate – see Appendix 11e-i)							
4. Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)							
5. Shared decision making (e.g. patient/client involvement in decision making, involvement of family)							
6. The person's knowledge (e.g. possessing relevant information, person's understanding of medical condition/treatment, making sense of personal experience)							
7. Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)							
8. Appropriateness of interventions (e.g. degree to which medical/nursing/midwifery procedures, interventions and treatments are appropriate) could use other evidence e.g. report of case study/clinical supervision/clinical audit)							
9. Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)							
10. Patient/client anxiety (e.g. worry, stress reactions, restlessness and agitation)							
11. Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc takes place)							
12. Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc are appropriate)							
13. Health promotion beliefs (e.g. beliefs about healthy lifestyle, acceptance of behaviour change advice, self-directed on health promotion needs)							
14. Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)							
15. Quality of life – physical (e.g. physical well-being inclusive of pain, mobility, physical comfort)							
16. Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation)							
17. Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)							
18. Physical comfort (e.g. nausea, physical discomfort, being settled)							
19. Appropriateness of medication regime (e.g. degree to which dosage, type, etc of medications is appropriate)							
20. Relapse (e.g. flare up in chronic condition, re-emergence of acute symptoms, frequency/severity of relapse)							
21. Quality of life – psychological (e.g. psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)							
22. Self-esteem (e.g. person's opinion of self, body image, positive/negative self-beliefs)							
23. Mood (e.g. postnatal depression, feeling down, depression)							
24. Personal independence – personal beliefs (e.g. beliefs about recovery, self-efficacy, institutionalisation)							
25. Quality of life – social (e.g. social well-being inclusive of relationships with social network, friends and family)							
26. Patient/client safety – potentially avoidable adverse events (e.g. misdiagnosis, medication errors, inappropriate treatment)							

CLINICAL SPECIALIST EVALUATION TOOL

Core outcome item	1	2	3	4	5	6	7
Client/patient outcomes (continued)							
27. Maintenance of safe environment (e.g. avoiding risks in clinical environment to patient/client and others, safe home environment)							
28. Preparedness for treatment (e.g. patient/client expectations for surgery, awareness of treatment side-effects)							
29. Family knowledge (e.g. possessing relevant information, understanding of medical condition/treatment)							
Outcomes for nurses, midwives or other health professionals							
30. Use of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to evidence-based guidelines)							
31. Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)							
32. Nursing/midwifery staff understanding of clinical specialist role (e.g. knowledge about specialist role, integration of specialist role in unit)							
33. Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition)							
34. Research awareness in clinical practice (e.g. knowledge of research process in your unit, team or ward)							
35. Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment)							
36. Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)							
37. Achievement of new educational intervention – patient/service user (e.g. information leaflets on condition, education on self-monitoring condition)							
38. Achievement of new clinical initiatives (e.g. implementation of new wound dressing, new assessment procedure)							
39. Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development)							
40. Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience)							
41. Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)							
Outcomes for healthcare services							
42. Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)							
43. Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines)							
44. Continuity of care (e.g. consistency in patient/client interactions with same staff member)							
45. Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based care guidelines)							
46. Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in unit/team)							
47. Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)							

Reference

Johnson, M., Maas, M., & Moorhead, S. (2000) *Nursing Outcomes Classification.* Mosby, St Louis, MO.

Appendix 11b. Advanced practitioner evaluation tool

This tool contains a core set of outcome measures identified by advanced practitioners as important in evaluating the impact of their role on individual patient/client outcomes, outcomes for nurses, midwives and other healthcare professionals, and outcomes for healthcare services and settings. For the purpose of this tool, an outcome is defined as a state, behaviour or belief that can be affected as a result of nursing or midwifery care (Johnson et al 2000). The 51 outcomes in the data set can be supplemented with items relevant to your specific advanced practice role. Examples of specific items for some AP roles are available in Appendix 5b.

Please rate each outcome on a scale of 1 to 7 as follows:

1 = Very low impact: I believe that I am achieving a very low impact on this outcome

4 = Neutral: I believe that I am achieving neither a high nor low impact on this outcome

7 = Very high impact: I believe that I am achieving a very high impact on this outcome.

Note 1: APs could use other evidence to support their own ratings of outcomes – for example, reports of case studies, clinical supervision or clinical audits - see no. 8 below.

Note 2: APs could develop key performance indicators (KPIs) based on the core set of outcomes (see NCNM Discussion Paper No 3 December 2010. *Key Performance Indicators: A Guide to Choosing, Developing and Using KPIs for Clinical Nurse/Midwife Specialists and Advanced Nurse/Midwife Practitioners.*)

Core outcome item	1	2	3	4	5	6	7
Patient/client outcomes							
1. Communication (e.g. person's non-verbal/verbal skills, expression of preferences)							
2. Therapeutic relationship (e.g. trust, openness, nurse's/midwife's credibility)							
3. Patient/client satisfaction with information (e.g. satisfaction with professional advice) (use of SCAPE SU questionnaire or other as appropriate – see Appendix 11e-i)							
4. Personal preferences respected (e.g. patient/client perspective taken on board by MDT, degree to which the person's voice is heard)							
5. Shared decision making (e.g. patient/client involvement in decision making, involvement of family)							
6. The person's knowledge (e.g. possessing relevant information, person's understanding of medical condition/treatment, making sense of personal experience)							
7. Patient/client satisfaction with interpersonal aspects of care (e.g. patient/client evaluation of emotional support and communication)							
8. Appropriateness of interventions (e.g. degree to which medical/nursing/midwifery procedures, interventions and treatments are appropriate) (could use other evidence e.g. report of case study/clinical supervision/clinical audit report)							
9. Access to care (e.g. speed of access to appropriate care, assessment/treatment delay, waiting for appointment)							
10. Appropriateness of referral (e.g. degree to which appropriate referral to other nurses, midwives, doctors, professionals, etc takes place)							
11. Appropriateness of assessments (e.g. degree to which clinical investigations, tests, etc are appropriate)							
12. Patient/client satisfaction with technical aspects of care (e.g. patient/client evaluation of service delivery)							
13. Well-being across different domains (e.g. person's functioning across bio-psycho-social domains, person's needs in multiple areas of functioning)							

ADVANCED PRACTITIONER EVALUATION TOOL

Core outcome item	1	2	3	4	5	6	7
Patient/client outcomes (continued)							
14. Quality of life – physical (e.g physical well-being inclusive of pain, mobility, physical comfort)							
15. Symptom management (e.g. relief from symptoms such as pain, agitation, inflammation)							
16. Physical self-care capacity (e.g. ability to manage general needs or illness specific needs)							
17. Pain (e.g. severity, frequency, pain relief)							
18. Adherence (e.g. following medical treatment, medication compliance, taking up dietary or exercise advice)							
19. Physical comfort (e.g. nausea, physical discomfort, being settled)							
20. Appropriateness of medication regime (e.g. degree to which dosage, type, etc of medications is appropriate)							
21. Quality of life – psychological (e.g. psychological well-being inclusive of emotional stability and adjustment, self-esteem, body image)							
22. Family/carer quality of life (e.g. degree of carer strain, impact of illness on family well-being)							
23. Family/carer adjustment (e.g. family ability to support patient's/client's physical needs, acceptance of illness)							
24. Anxiety (e.g. worry, stress reactions, restlessness and agitation)							
25. Quality of life – social (e.g. social well-being inclusive of relationships with social network, friends and family)							
26. Patient/client safety – potentially avoidable adverse events (e.g. misdiagnosis, medication errors, inappropriate treatment)							
27. Maintenance of safe environment (e.g. avoiding risks in the clinical environment to patient/client and others, safe home environment)							
28. Preparedness for treatment (e.g. patient/client expectations for surgery, awareness of treatment side-effects)							
29. Appropriateness of initiating/ending healthcare episodes (e.g. degree to which appropriate admission, discharge, etc takes place)							
Outcomes for nurses, midwives or other health professionals							
30. Use of clinical guidelines (e.g. staff nurse or midwife awareness and take up of guidelines, staff access to evidence-based guidelines)							
31. Integration of research in clinical practice (e.g. use of research findings among clinical team, attitude to evidence-based practice)							
32. Nursing/midwifery staff understanding of advanced practitioner role (e.g. knowledge about AP role, integration of AP role in unit)							
33. Achievement of new educational intervention – peers (e.g. education on assessment, treatment or management of a condition)							
34. Research activity level in clinical practice (e.g. involvement of unit in research, research collaboration with other units, developing a research project)							
35. Research awareness in clinical practice (e.g. knowledge of research process in unit, team or ward)							
36. Achievement of new educational intervention – staff nurses or midwives/other professionals (e.g. in-service education on assessment/treatment)							
37. Clinical leadership of nurses/midwives (e.g. staff feeling well supported, influence on decisions affecting patient/client care)							
38. Achievement of new educational intervention – patient/service user (e.g. information leaflets on condition, education on self-monitoring condition)							
39. Achievement of new clinical initiatives (e.g. new wound dressing, new assessment procedure)							

Core outcome item	1	2	3	4	5	6	7
Outcomes for nurses, midwives or other health professionals (continued)							
40. Attitude to practice development among nurses/midwives (e.g. involvement of staff in developing guidelines, openness to practice development)							
41. Nurses'/midwives' satisfaction with clinical role (e.g. staff nurse or midwife perception of increased restriction/expansion of clinical role)							
42. Other professionals' knowledge level (e.g. understanding of clinical issues, patient/client needs, family experience, among junior doctors, occupational therapists, etc)							
43. Other nurses' or midwives' knowledge level (e.g. staff nurses' or midwives' understanding of clinical issues, patient/client needs, family experience)							
44. Other nurses' or midwives' attitudes to their work (e.g. staff nurses' or midwives' attitudes to safety, infection control, patient rights)							
Outcomes for healthcare services							
45. Multidisciplinary work – communication (e.g. communication practices and mutual understanding between health professions and team members)							
46. Waiting times (e.g. prompt appointments, waiting times for triage)							
47. Multidisciplinary work – team performance (e.g. effectiveness in healthcare team addressing patient/client needs)							
48. Best practice in clinical service delivery – locally (e.g. hospital or unit adoption of evidence-based care guidelines, implementation of national health policy or clinical guidelines)							
49. Continuity of care (e.g. consistency in patient/client interactions with same staff member)							
50. Best practice in clinical service delivery – regionally or nationally (e.g. regional or national adoption and implementation of evidence-based care guidelines)							
51. Openness to innovation – healthcare unit (e.g. attitude to innovative solutions, treatments and initiatives in unit/team)							

Reference

Johnson, M., Maas, M., & Moorhead, S. (2000) *Nursing Outcomes Classification*. Mosby, St Louis, MO.

Appendix 11c. Guidance for future economic evaluation of role(s)

Economic analysis in healthcare compares the costs and outcomes of alternative courses of action. For example, a physician-led service may be compared to a nurse-led service in order to judge which offers the best value for money, and the findings may be used to guide health policy decision making. It is important to involve a health economist experienced in economic evaluation from the outset of the study design phase.

The measurement of resource use and costs associated with a health intervention involves three steps: identifying resources, quantifying resources, and assigning monetary values to resources. This process should follow the methodology set out in Section 2.10 of the Health Information and Quality Authority's (HIQA 2010, p. 26) *Guidelines for the Economic Evaluation of Health Technologies in Ireland* (http://www.hiqa.ie/media/pdfs/HTA_Economic_Guidelines_2010.pdf).

The primary economic analysis should consider all direct medical costs for the HSE, such as "drugs, medical devices, medical services including procedures, hospital services" (HIQA 2010). Other costs borne by the patient, such as productivity costs, can be included in a secondary analysis.

Ideally, the required data would be available from routine accounting sources, but this may not be possible due to cost aggregation into cost centres. For example, if assessing an advanced practitioner-led minor-injuries clinic, routine accounting data may not distinguish between minor injuries and the various other sections of an emergency department. To overcome this requires careful planning to collect data relevant to the intervention under examination.

To measure the outcomes of care, the reader should refer to the HIQA guidelines (2010) which recommend the Quality Adjusted Life Years outcome measure. Patients should be followed up after the intervention to capture subsequent levels of healthcare use – for example, the rate of hospital (re-)admissions. For studies measuring patient throughput, hospital inpatients may be broadly classified using Diagnosis Related Groups as identified by the ESRI in its 2010 publication *Activity in Acute Public Hospitals in Ireland, 2009 Annual Report* (http://www.esri.ie/publications/search_for_a_publication/ search_results/view/index.xml?id=3146). This system does not currently extend to some services such as outpatients, in which case patient throughput may be an appropriate means of measuring productivity.

Appendix 11d. Core observation 'tick box' tool – key tasks and behaviours

A = Always, F = Frequently, S = Sometimes, N = Never, Notes = Notes on evidence – how condition was met

Criterion	A	F	S	N	Notes
Communication					
Listening skills – clinician gives time for patient/client to talk, looks open and relaxed, shows by response that they have heard what was said					
Feedback – clinician checks that patient/client understood what was said					
Decision making – patient/client's point of view asked for, patient/client appears involved in decision					
Information giving – gives information either verbal, written, or by demonstration					
Using open questions – clinician picks up and acts on cues: "You look distressed…", or "Is there anything you would like to ask?"					
Liaison with other key stakeholders (family, other MDT, other, and state which)					
Safe Environment					
Hand washing – between every patient/client and the next					
Using gloves, if appropriate					
Equipment – maintaining sterility					
Using Research Evidence					
Refers to research, or evidence from audit, or websites, during consultations					
Health Promotion/Lifestyle					
Health promotion advice or literature given – in addition to information on the specific disorder/reason for care					
Education provided on self-monitoring the patient/client's condition					

Appendix 11e. Service user questionnaire (AMP)

THE SCAPE STUDY questionnaire

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – AMP site

INFORMATION WILL BE HELD IN CONFIDENCE

This questionnaire has 6 sections, labelled with the letters A to F, and asks you to tell us about your experiences of receiving health care from the Advanced Midwife Practitioner (AMP).
Please ask if you are not sure who your Advanced Midwife Practitioner is.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick <u>only one box each time</u>	(Please tick <u>one</u> box only) Yes ¹ ☑ No ² ☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.	

THANK YOU FOR TAKING THE TIME TO FILL IN THIS QUESTIONNAIRE

IMPORTANT, please complete!!

I am a patient/client of this service	1☐
I am a family member or carer completing this survey on behalf of a patient/client of this service	2☐

A	QUESTIONS ABOUT COMMUNICATION
A1	When you had important questions to ask the AMP, did you get answers you could understand?

(Please tick one box only)

Yes, always	1☐
Yes, sometimes	2☐
No	3☐
I had no need to ask	4☐

A2 Sometimes in a hospital or service, one doctor, nurse or midwife will say one thing and another will say something quite different, did this happen to you?

(Please tick one box only)

Yes, often	1☐
Yes, sometimes	2☐
No	3☐

A3 If you had any anxieties or fears about your condition or treatment, did the AMP discuss them with you?

(Please tick one box only)

Yes, completely	1☐
Yes, to some extent	2☐
No	3☐
I didn't have any anxieties or fears	4☐

A4 Did the AMP talk in front of you as if you weren't there?

(Please tick one box only)

Yes, often	1☐
Yes, sometimes	2☐
No	3☐

A5	Did you want to be more involved in decisions made about your care and treatment? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐

A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? *(Please tick <u>one</u> box only)*
	Yes, always 1☐ Yes, sometimes 2☐ No 3☐

A7	If your family or someone else close to you wanted to talk to the AMP, did they have enough opportunity to do so? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family didn't want or need information 5☐ I didn't want my family or friends to talk to a doctor 6☐ or midwife

A8	Did the AMP give your family or someone close to you all the information they needed to help you? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family or friends didn't want or need information 5☐

A9	Did the AMP explain the **purpose** of the medicines you were to take at home in a way you could understand? *(Please tick <u>one</u> box only)*
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need an explanation 4☐ I had no medicines 5☐

A10	Did the AMP tell you about medication **side effects** to watch for when you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need an explanation	4☐
	I had no medicines	5☐
A11	Did the AMP tell you about **danger signals** regarding your illness or treatment to watch for after you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need to be told of any danger signals	4☐
A12	Did the AMP explain why you needed specific tests, assessments, X-rays or monitoring etc? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the AMP? *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
	My results are not available yet	5☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily)

B	Questions about continuity of care *(having the same person or same few people minding you)* and access to care *(getting appointments and tests arranged easily)*
B1	I waited the following time to get my first appointment to this service: *(Please write a number in first box only, and then tick one box only)* e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: *(Please write a number in first box only, and then tick one box only)* e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable

B6	All members of my care team knew me and my story: *(Please tick <u>one</u> box only)*
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐
B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the AMP was sure of what needed to be done to help me or sought advice as necessary) *(Please tick <u>one</u> box only)*
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐
B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned. *(Please tick <u>one</u> box only)*
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐

Thank you for completing the questions so far.

You are now half-way through the survey.

C	Questions about the relationship between you and the Advanced Midwife Practitioner (AMP).

C1 I believe that the AMP was honest and open with me
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐

C2 I believe that the AMP was understanding of issues/concerns that were important to me
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't have any concerns	4 ☐

C3 I have confidence in the AMP to provide the care I need
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐

C4 I followed the advice given to me by the AMP
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't receive any advice	4 ☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1   How satisfied are you with the physical care you received from the AMP?
(Please tick one box only)

Very satisfied   1 ☐
Satisfied   2 ☐
Neither satisfied nor unsatisfied   3 ☐
Unsatisfied   4 ☐
Very unsatisfied   5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____

_____

_____

_____

D2   How satisfied are you with the emotional support you received from the AMP?
(Please tick one box only)

Very satisfied   1 ☐
Satisfied   2 ☐
Neither satisfied nor unsatisfied   3 ☐
Unsatisfied   4 ☐
Very unsatisfied   5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D3 How satisfied are you with the practical advice you received from the AMP?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D4 While you were attending the AMP, did you get enough treatment to help improve your symptoms?
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

D5 The AMP made a positive difference to my health and well being.
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D6	The AMP provided a good support to my family. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	My family did not need support	4☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D7	I was given sufficient time to discuss my problems with the AMP. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need time to discuss	4☐

D8	I was with the AMP for the following amount of time *(Please tick <u>one</u> box only)*	
	0-5 minutes	1☐
	6-10 minutes	2☐
	11-15 minutes	3☐
	16-30 minutes	4☐
	31-60 minutes	5☐
	Over 60 minutes	6☐

D9	I feel the AMP supports me to manage my own condition *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need support	4☐

D10	Issues about me and my care were discussed in public that should have been addressed in private. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
D11	I was given information by the AMP about self help and support groups. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need any information	4☐
D12	I was given information by the AMP on how to maintain a healthy lifestyle. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below	
D13	Was the information given to you: *(Please tick <u>one or more</u> boxes)*	
	Verbally	1☐
	In written format	2☐
	By printed leaflets	3☐
	No information given	4☐
D14	Did the AMP tell you who to contact if you were worried about your condition or treatment after you left hospital?	
	Yes	1☐
	No	2☐
	Don't know, can't remember	3☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)
E1	I am *(Please tick <u>one</u> box only)* Female 1☐ Male 2☐
E2	I am in the following age group: *(Please tick <u>one</u> box only)* 0-3 1☐ 28-37 8☐ 4-7 3☐ 38-47 9☐ 8-11 4☐ 48-57 10☐ 12-14 5☐ 58-67 11☐ 13-17 6☐ 68-77 12☐ 18-27 7☐ 78-87 13☐ Over 87 14☐
E3	I am *(Please tick <u>one</u> box only)* Irish 1☐ From the UK 2☐ Polish 3☐ Other European 4☐ African 5☐ Other 6☐ *(If "other", please state country of origin)* _____

One last question over the page!!!

F	A question about the care you have received from the Advanced Midwife Practitioner (AMP):
F1	Have you noticed any difference in the care given by the AMP compared to care given by other members of the health care team? *(Please tick one box only)*

Yes   1 ☐

No   2 ☐

If yes, please specify:

_____

_____

_____

_____

_____

_____

_____

_____

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken.

Appendix 11f. Service user questionnaire (ANP)

THE SCAPE STUDY questionnaire

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – ANP site

INFORMATION WILL BE HELD IN CONFIDENCE

This questionnaire has 6 sections, labelled with the letters A to F, and asks you to tell us about your experiences of receiving health care from the Advanced Nurse Practitioner (ANP).
Please ask if you are not sure who your Advanced Nurse Practitioner is.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick <u>only one box each time</u>	(Please tick <u>one</u> box only) Yes [1] ☑ No [2] ☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.	

**THANK YOU FOR TAKING THE TIME
TO FILL IN THIS QUESTIONNAIRE**

IMPORTANT, please complete!!	
I am a patient/client of this service	1 ☐
I am a family member or carer completing this survey on behalf of a patient/client of this service	2 ☐

A	QUESTIONS ABOUT COMMUNICATION
A1	When you had important questions to ask the ANP, did you get answers you could understand? *(Please tick one box only)* Yes, always 1 ☐ Yes, sometimes 2 ☐ No 3 ☐ I had no need to ask 4 ☐
A2	Sometimes in a hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you? *(Please tick one box only)* Yes, often 1 ☐ Yes, sometimes 2 ☐ No 3 ☐
A3	If you had any anxieties or fears about your condition or treatment, did the ANP discuss them with you? *(Please tick one box only)* Yes, completely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐ I didn't have any anxieties or fears 4 ☐
A4	Did the ANP talk in front of you as if you weren't there? *(Please tick one box only)* Yes, often 1 ☐ Yes, sometimes 2 ☐ No 3 ☐

A5	Did you want to be more involved in decisions made about your care and treatment? *(Please tick one box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐

A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? *(Please tick one box only)*
	Yes, always 1☐
	Yes, sometimes 2☐
	No 3☐

A7	If your family or someone else close to you wanted to talk to the ANP, did they have enough opportunity to do so? *(Please tick one box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	No family or friends were involved 4☐
	My family didn't want or need information 5☐
	I didn't want my family or friends to talk to a doctor 6☐ or nurse

A8	Did the ANP give your family or someone close to you all the information they needed to help you? *(Please tick one box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	No family or friends were involved 4☐
	My family or friends didn't want or need information 5☐

A9	Did the ANP explain the **purpose** of the medicines you were to take at home in a way you could understand? *(Please tick one box only)*
	Yes, completely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't need an explanation 4☐
	I had no medicines 5☐

A10	Did the ANP tell you about medication **side effects** to watch for when you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	I didn't need an explanation	4 ☐
	I had no medicines	5 ☐
A11	Did the ANP tell you about **danger signals** regarding your illness or treatment to watch for after you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	I didn't need to be told of any danger signals	4 ☐
A12	Did the ANP explain why you needed specific tests, assessments, X-rays or monitoring etc? *(Please tick <u>one</u> box only)*	
	Yes, completely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	I didn't have any tests, assessments, X-rays or monitoring	4 ☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the ANP? *(Please tick <u>one</u> box only)*	
	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	I didn't have any tests, assessments, X-rays or monitoring	4 ☐
	My results are not available yet	5 ☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily).

B	Questions about continuity of care *(having the same person or same few people minding you)* and access to care *(getting appointments and tests arranged easily)*
B1	I waited the following time to get my first appointment to this service: *(Please write a number in first box only, and then tick one box only)* e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: *(Please write a number in first box only, and then tick one box only)* e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B6	All members of my care team knew me and my story: *(Please tick one box only)* Strongly agree 1☐ Agree 2☐ Disagree 3☐ Strongly disagree 4☐

B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the ANP was sure of what needed to be done to help me or sought advice as necessary) *(Please tick one box only)*

Strongly agree	1 ☐
Agree	2 ☐
Disagree	3 ☐
Strongly disagree	4 ☐

B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned. *(Please tick one box only)*

Strongly agree	1 ☐
Agree	2 ☐
Disagree	3 ☐
Strongly disagree	4 ☐

Thank you for completing the questions so far.

You are now half-way through the survey.

C	**Questions about the relationship between you and the Advanced Nurse Practitioner (ANP).**
C1	I believe that the ANP was honest and open with me *(Please tick <u>one</u> box only)* Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
C2	I believe that the ANP was understanding of issues/concerns that were important to me *(Please tick <u>one</u> box only)* Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't have any concerns 4☐
C3	I have confidence in the ANP to provide the care I need *(Please tick <u>one</u> box only)* Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
C4	I followed the advice given to me by the ANP *(Please tick <u>one</u> box only)* Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I didn't receive any advice 4☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1 How satisfied are you with the physical care you received from the ANP?
(Please tick one box only)

Very satisfied — 1 ☐
Satisfied — 2 ☐
Neither satisfied nor unsatisfied — 3 ☐
Unsatisfied — 4 ☐
Very unsatisfied — 5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____
_____
_____
_____

D2 How satisfied are you with the emotional support you received from the ANP?
(Please tick one box only)

Very satisfied — 1 ☐
Satisfied — 2 ☐
Neither satisfied nor unsatisfied — 3 ☐
Unsatisfied — 4 ☐
Very unsatisfied — 5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____
_____
_____
_____

D3	How satisfied are you with the practical advice you received from the ANP?
	(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D4	While you were attending the ANP, did you get enough treatment to help improve your symptoms?
	(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

D5	The ANP made a positive difference to my health and well being.
	(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D6	The ANP provided a good support to my family.
	(Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
My family did not need support	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D7	I was given sufficient time to discuss my problems with the ANP.
	(Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need time to discuss	4 ☐

D8	I was with the ANP for the following amount of time
	(Please tick <u>one</u> box only)

0-5 minutes	1 ☐
6-10 minutes	2 ☐
11-15 minutes	3 ☐
16-30 minutes	4 ☐
31-60 minutes	5 ☐
Over 60 minutes	6 ☐

D9	I feel the ANP supports me to manage my own condition
	(Please tick <u>one</u> box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need support	4 ☐

D10	Issues about me and my care were discussed in public that should have been addressed in private.
	(Please tick one box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	Not applicable 4☐
D11	I was given information by the ANP about self help and support groups.
	(Please tick one box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't need any information 4☐
D12	I was given information by the ANP on how to maintain a healthy lifestyle.
	(Please tick one box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	Not applicable 4☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below
D13	Was the information given to you:
	(Please tick one or more boxes)
	Verbally 1☐
	In written format 2☐
	By printed leaflets 3☐
	No information given 4☐
D14	Did the ANP tell you who to contact if you were worried about your condition or treatment after you left hospital?
	Yes 1☐
	No 2☐
	Don't know, can't remember 3☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)
E1	I am *(Please tick one box only)* Female 1☐ Male 2☐
E2	I am in the following age group: *(Please tick one box only)* 0-3 1☐ 28-37 8☐ 4-7 3☐ 38-47 9☐ 8-11 4☐ 48-57 10☐ 12-14 5☐ 58-67 11☐ 13-17 6☐ 68-77 12☐ 18-27 7☐ 78-87 13☐ Over 87 14☐
E3	I am *(Please tick one box only)* Irish 1☐ From the UK 2☐ Polish 3☐ Other European 4☐ African 5☐ Other 6☐ *(If "other", please state country of origin)* _____

One last question over the page!!!

F	A question about the care you have received from the Advanced Nurse Practitioner (ANP):
F1	Have you noticed any difference in the care given by the ANP compared to care given by other members of the health care team?

(Please tick one box only)

Yes   1☐

No   2☐

If yes, please specify:

_____

_____

_____

_____

_____

_____

_____

_____

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken.

Appendix 11g. Service user questionnaire (CMS)

THE SCAPE STUDY questionnaire

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – CMS site

INFORMATION WILL BE HELD IN CONFIDENCE

This questionnaire has 6 sections, labelled with the letters A to F, and asks you to tell us about your experiences of receiving health care from the Clinical Midwife Specialist (CMS).
Please ask if you are not sure who your Clinical Midwife Specialist is.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick only one box each time	(Please tick one box only) Yes ¹☑ No ²☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.	

THANK YOU FOR TAKING THE TIME TO FILL IN THIS QUESTIONNAIRE

IMPORTANT, please complete!!	
I am a patient/client of this service	1 ☐
I am a family member or carer completing this survey on behalf of a patient/client of this service	2 ☐

A	QUESTIONS ABOUT COMMUNICATION
A1	When you had important questions to ask the CMS, did you get answers you could understand? *(Please tick one box only)* Yes, always 1 ☐ Yes, sometimes 2 ☐ No 3 ☐ I had no need to ask 4 ☐
A2	Sometimes in a hospital or service, one doctor, nurse or midwife will say one thing and another will say something quite different, did this happen to you? *(Please tick one box only)* Yes, often 1 ☐ Yes, sometimes 2 ☐ No 3 ☐
A3	If you had any anxieties or fears about your condition or treatment, did the CMS discuss them with you? *(Please tick one box only)* Yes, completely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐ I didn't have any anxieties or fears 4 ☐
A4	Did the CMS talk in front of you as if you weren't there? *(Please tick one box only)* Yes, often 1 ☐ Yes, sometimes 2 ☐ No 3 ☐

A5	Did you want to be more involved in decisions made about your care and treatment? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? *(Please tick <u>one</u> box only)*
	Yes, always 1☐ Yes, sometimes 2☐ No 3☐
A7	If your family or someone else close to you wanted to talk to the CMS, did they have enough opportunity to do so? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family didn't want or need information 5☐ I didn't want my family or friends to talk to a doctor 6☐ or midwife
A8	Did the CMS give your family or someone close to you all the information they needed to help you? *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family or friends didn't want or need information 5☐
A9	Did the CMS explain the **purpose** of the medicines you were to take at home in a way you could understand? *(Please tick <u>one</u> box only)*
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need an explanation 4☐ I had no medicines 5☐

A10	Did the CMS tell you about medication **side effects** to watch for when you went home?
	(Please tick <u>one</u> box only)
	Yes, completely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't need an explanation 4☐
	I had no medicines 5☐
A11	Did the CMS tell you about **danger signals** regarding your illness or treatment to watch for after you went home?
	(Please tick <u>one</u> box only)
	Yes, completely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't need to be told of any danger signals 4☐
A12	Did the CMS explain why you needed specific tests, assessments, X-rays or monitoring etc?
	(Please tick <u>one</u> box only)
	Yes, completely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't have any tests, assessments, X-rays or monitoring 4☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the CMS?
	(Please tick <u>one</u> box only)
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't have any tests, assessments, X-rays or monitoring 4☐
	My results are not available yet 5☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily).

B	Questions about continuity of care *(having the same person or same few people minding you)* and access to care *(getting appointments and tests arranged easily)*
B1	I waited the following time to get my first appointment to this service: *(Please write a number in first box only, and then tick one box only)* e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: *(Please write a number in first box only, and then tick one box only)* e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable

B6	All members of my care team knew me and my story: *(Please tick <u>one</u> box only)*	
	Strongly agree	1 ☐
	Agree	2 ☐
	Disagree	3 ☐
	Strongly disagree	4 ☐
B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the CMS was sure of what needed to be done to help me or sought advice as necessary) *(Please tick <u>one</u> box only)*	
	Strongly agree	1 ☐
	Agree	2 ☐
	Disagree	3 ☐
	Strongly disagree	4 ☐
B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned. *(Please tick <u>one</u> box only)*	
	Strongly agree	1 ☐
	Agree	2 ☐
	Disagree	3 ☐
	Strongly disagree	4 ☐

Thank you for completing the questions so far.

You are now half-way through the survey.

C	Questions about the relationship between you and the Clinical Midwife Specialist (CMS).
C1	I believe that the CMS was honest and open with me *(Please tick <u>one</u> box only)* Yes, definitely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐
C2	I believe that the CMS was understanding of issues/concerns that were important to me *(Please tick <u>one</u> box only)* Yes, definitely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐ I didn't have any concerns 4 ☐
C3	I have confidence in the CMS to provide the care I need *(Please tick <u>one</u> box only)* Yes, definitely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐
C4	I followed the advice given to me by the CMS *(Please tick <u>one</u> box only)* Yes, definitely 1 ☐ Yes, to some extent 2 ☐ No 3 ☐ I didn't receive any advice 4 ☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1 How satisfied are you with the physical care you received from the CMS?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____

_____

_____

_____

D2 How satisfied are you with the emotional support you received from the CMS?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D3 How satisfied are you with the practical advice you received from the CMS?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

D4 While you were attending the CMS, did you get enough treatment to help improve your symptoms?
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

D5 The CMS made a positive difference to my health and well being.
(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
Not applicable	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D6	The CMS provided a good support to my family.

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
My family did not need support	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D7	I was given sufficient time to discuss my problems with the CMS.

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need time to discuss	4 ☐

D8	I was with the CMS for the following amount of time

(Please tick one box only)

0-5 minutes	1 ☐
6-10 minutes	2 ☐
11-15 minutes	3 ☐
16-30 minutes	4 ☐
31-60 minutes	5 ☐
Over 60 minutes	6 ☐

D9	I feel the CMS supports me to manage my own condition

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need support	4 ☐

D10	Issues about me and my care were discussed in public that should have been addressed in private. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	Not applicable	4 ☐
D11	I was given information by the CMS about self help and support groups. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	I didn't need any information	4 ☐
D12	I was given information by the CMS on how to maintain a healthy lifestyle. *(Please tick <u>one</u> box only)*	
	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	Not applicable	4 ☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below	
D13	Was the information given to you: *(Please tick <u>one or more</u> boxes)*	
	Verbally	1 ☐
	In written format	2 ☐
	By printed leaflets	3 ☐
	No information given	4 ☐
D14	Did the CMS tell you who to contact if you were worried about your condition or treatment after you left hospital?	
	Yes	1 ☐
	No	2 ☐
	Don't know, can't remember	3 ☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)	
E1	I am (Please tick <u>one</u> box only) Female 1 ☐ Male 2 ☐	
E2	I am in the following age group: (Please tick <u>one</u> box only) 0-3 1☐ 28-37 8☐ 4-7 3☐ 38-47 9☐ 8-11 4☐ 48-57 10☐ 12-14 5☐ 58-67 11☐ 13-17 6☐ 68-77 12☐ 18-27 7☐ 78-87 13☐ Over 87 14☐	
E3	I am (Please tick <u>one</u> box only) Irish 1☐ From the UK 2☐ Polish 3☐ Other European 4☐ African 5☐ Other 6☐ (If "other", please state country of origin) _____	

One last question over the page!!!

F	A question about the care you have received from the Clinical Midwife Specialist (CMS):
F1	Have you noticed any difference in the care given by the CMS compared to care given by other members of the health care team? *(Please tick <u>one</u> box only)* Yes 1☐ No 2☐ If yes, please specify: _____ _____ _____ _____ _____ _____ _____ _____

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken.

Appendix 11h. Service user questionnaire (CNS)

THE SCAPE STUDY questionnaire

(Evaluation of Specialist Clinical and Advanced Practitioners in Nursing and Midwifery)

Service users' survey – CNS site

INFORMATION WILL BE HELD IN CONFIDENCE

This questionnaire has 6 sections, labelled with the letters A to F, and asks you to tell us about your experiences of receiving health care from the Clinical Nurse Specialist (CNS).
Please ask if you are not sure who your Clinical Nurse Specialist is.

The questionnaire only takes 15 minutes to complete!

How to fill in the questionnaire	Example
1. Most questions can be answered by putting a "tick" in the box next to the answer that applies to you. Please tick only one box each time	(Please tick one box only) Yes 1 ☑ No 2 ☐
2. **Please try to answer ALL of the questions**. Further instructions on how to answer questions are given throughout the questionnaire.	

THANK YOU FOR TAKING THE TIME TO FILL IN THIS QUESTIONNAIRE

IMPORTANT, please complete!!	
I am a patient/client of this service	**1** ☐
I am a family member or carer completing this survey on behalf of a patient/client of this service	**2** ☐

A	**QUESTIONS ABOUT COMMUNICATION**

A1 When you had important questions to ask the CNS, did you get answers you could understand?

(Please tick one box only)

Yes, always	1 ☐
Yes, sometimes	2 ☐
No	3 ☐
I had no need to ask	4 ☐

A2 Sometimes in a hospital or service, one doctor or nurse will say one thing and another will say something quite different, did this happen to you?

(Please tick one box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A3 If you had any anxieties or fears about your condition or treatment, did the CNS discuss them with you?

(Please tick one box only)

Yes, completely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't have any anxieties or fears	4 ☐

A4 Did the CNS talk in front of you as if you weren't there?

(Please tick one box only)

Yes, often	1 ☐
Yes, sometimes	2 ☐
No	3 ☐

A5	Did you want to be more involved in decisions made about your care and treatment? *(Please tick one box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐
A6	Overall, did you feel you were treated with respect and dignity while you were in the hospital or service? *(Please tick one box only)*
	Yes, always 1☐ Yes, sometimes 2☐ No 3☐
A7	If your family or someone else close to you wanted to talk to the CNS, did they have enough opportunity to do so? *(Please tick one box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family didn't want or need information 5☐ I didn't want my family or friends to talk to a doctor 6☐ or nurse
A8	Did the CNS give your family or someone close to you all the information they needed to help you? *(Please tick one box only)*
	Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ No family or friends were involved 4☐ My family or friends didn't want or need information 5☐
A9	Did the CNS explain the **purpose** of the medicines you were to take at home in a way you could understand? *(Please tick one box only)*
	Yes, completely 1☐ Yes, to some extent 2☐ No 3☐ I didn't need an explanation 4☐ I had no medicines 5☐

A10	Did the CNS tell you about medication **side effects** to watch for when you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need an explanation	4☐
	I had no medicines	5☐
A11	Did the CNS tell you about **danger signals** regarding your illness or treatment to watch for after you went home? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need to be told of any danger signals	4☐
A12	Did the CNS explain why you needed specific tests, assessments, X-rays or monitoring etc? *(Please tick <u>one</u> box only)*	
	Yes, completely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
A13	Were tests, assessments, X-rays or monitoring results clearly explained by the CNS? *(Please tick <u>one</u> box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't have any tests, assessments, X-rays or monitoring	4☐
	My results are not available yet	5☐

Thank you for completing the questions so far. The next section is about CONTINUITY OF CARE (having the same person or same few people minding you) AND ACCESS TO CARE (getting appointments and tests arranged easily).

B	Questions about continuity of care *(having the same person or same few people minding you)* and access to care *(getting appointments and tests arranged easily)*
B1	I waited the following time to get my first appointment to this service: *(Please write a number in first box only, and then tick one box only)* e.g. to put 7 weeks – write "7" in the first box and then tick the "☐ weeks" box ☐ ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B2	I waited the following time to be seen on my last visit: *(Please write a number in first box only, and then tick one box only)* e.g. to put 5 hours – write "5" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B3	I waited, on average, the following time to have investigations such as blood tests, assessments, X-rays or monitoring: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B4	I waited, on average, the following time for treatment: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B5	I waited, on average, the following time to get results of tests: *(Please write a number in first box only, and then tick one box only)* e.g. to put 3 hours – write "3" in the first box and then tick the "☐ hours" box ☐ ☐ minutes ☐ hours ☐ days ☐ weeks ☐ months ☐ Not applicable
B6	All members of my care team knew me and my story: *(Please tick one box only)* Strongly agree 1☐ Agree 2☐ Disagree 3☐ Strongly disagree 4☐

B7	My care was delivered in a planned and coordinated manner (that is, I was told what would happen, everyone seemed to work as a team, the CNS was sure of what needed to be done to help me or sought advice as necessary)
	(Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐
B8	My wishes and needs were taken into account when my ongoing care treatment/management was planned.
	(Please tick <u>one</u> box only)
	Strongly agree 1☐
	Agree 2☐
	Disagree 3☐
	Strongly disagree 4☐

Thank you for completing the questions so far.

You are now half-way through the survey.

| C | Questions about the relationship between you and the Clinical Nurse Specialist (CNS). |

C1	I believe that the CNS was honest and open with me *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐

C2	I believe that the CNS was understanding of issues/concerns that were important to me *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't have any concerns 4☐

C3	I have confidence in the CNS to provide the care I need *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐

C4	I followed the advice given to me by the CNS *(Please tick <u>one</u> box only)*
	Yes, definitely 1☐
	Yes, to some extent 2☐
	No 3☐
	I didn't receive any advice 4☐

Thank you for completing these sections of the questionnaire. The next section asks about your satisfaction with care.

D	Questions about satisfaction with care

D1 How satisfied are you with the physical care you received from the CNS?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give your reasons:

_____

_____

_____

_____

D2 How satisfied are you with the emotional support you received from the CNS?
(Please tick one box only)

Very satisfied	1 ☐
Satisfied	2 ☐
Neither satisfied nor unsatisfied	3 ☐
Unsatisfied	4 ☐
Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

| D3 | How satisfied are you with the practical advice you received from the CNS? |
| | *(Please tick <u>one</u> box only)* |

	Very satisfied	1 ☐
	Satisfied	2 ☐
	Neither satisfied nor unsatisfied	3 ☐
	Unsatisfied	4 ☐
	Very unsatisfied	5 ☐

If you ticked "Unsatisfied" or "Very unsatisfied", please give reasons:

_____

_____

_____

_____

| D4 | While you were attending the CNS, did you get enough treatment to help improve your symptoms? |
| | *(Please tick <u>one</u> box only)* |

	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	Not applicable	4 ☐

| D5 | The CNS made a positive difference to my health and well being. |
| | *(Please tick <u>one</u> box only)* |

	Yes, definitely	1 ☐
	Yes, to some extent	2 ☐
	No	3 ☐
	Not applicable	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

SERVICE USER QUESTIONNAIRE (CNS)

D6	The CNS provided a good support to my family.

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
My family did not need support	4 ☐

If you ticked "Yes, definitely" or "Yes, to some extent", please give reasons:

_____

_____

_____

_____

D7	I was given sufficient time to discuss my problems with the CNS.

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need time to discuss	4 ☐

D8	I was with the CNS for the following amount of time

(Please tick one box only)

0-5 minutes	1 ☐
6-10 minutes	2 ☐
11-15 minutes	3 ☐
6-30 minutes	4 ☐
31-60 minutes	5 ☐
Over 60 minutes	6 ☐

D9	I feel the CNS supports me to manage my own condition

(Please tick one box only)

Yes, definitely	1 ☐
Yes, to some extent	2 ☐
No	3 ☐
I didn't need support	4 ☐

D10	Issues about me and my care were discussed in public that should have been addressed in private. *(Please tick one box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
D11	I was given information by the CNS about self help and support groups. *(Please tick one box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	I didn't need any information	4☐
D12	I was given information by the CNS on how to maintain a healthy lifestyle. *(Please tick one box only)*	
	Yes, definitely	1☐
	Yes, to some extent	2☐
	No	3☐
	Not applicable	4☐
	If you ticked "yes, definitely" or "yes, to some extent", please answer question D13 below	
D13	Was the information given to you: *(Please tick one or more boxes)*	
	Verbally	1☐
	In written format	2☐
	By printed leaflets	3☐
	No information given	4☐
D14	Did the CNS tell you who to contact if you were worried about your condition or treatment after you left hospital?	
	Yes	1☐
	No	2☐
	Don't know, can't remember	3☐

Three final questions about you (the patient/client):

E	Questions about you (If you are a family member or carer completing this survey on behalf of a patient/client of this service, please use patient/client's details to complete)

E1 | I am
(Please tick _one_ box only)

Female 1☐
Male 2☐

E2 | I am in the following age group:
(Please tick _one_ box only)

0-3	1☐	28-37	8☐
4-7	3☐	38-47	9☐
8-11	4☐	48-57	10☐
12-14	5☐	58-67	11☐
13-17	6☐	68-77	12☐
18-27	7☐	78-87	13☐
		Over 87	14☐

E3 | I am
(Please tick _one_ box only)

Irish 1☐
From the UK 2☐
Polish 3☐
Other European 4☐
African 5☐
Other 6☐

(If "other", please state country of origin) _____

One last question over the page!!!

F	A question about the care you have received from the Clinical Nurse Specialist (CNS):
F1	Have you noticed any difference in the care given by the CNS compared to care given by other members of the health care team?

(Please tick one box only)

Yes   1☐

No   2☐

If yes, please specify:

_____

_____

_____

_____

_____

_____

_____

_____

Thank you very much for completing the questionnaire. We are very grateful for the time and trouble you have taken.

Appendix 11i. Examples of extra questions for service user questionnaire – ANP - endoscopy and colposcopy

	Questions about your endoscopy examination.
D15	Before your endoscopy, did a member of staff explain the risks and benefits of the procedure in a way you could understand? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D16	If you answered "Yes, definitely" or "Yes, to some extent" above, were the risks and benefits explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐
D17	Before your endoscopy, did a member of staff explain what would be done during the procedure? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D18	If you answered "Yes, definitely" or "Yes, to some extent" above, was the procedure explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐
D19	After your endoscopy, did a member of staff explain how the procedure had gone? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D20	If you answered "Yes, definitely" or "Yes, to some extent" above, was the procedure explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐

	Questions about your colposcopy examination.
D15	Before your colposcopy, did a member of staff explain the risks and benefits of the procedure in a way you could understand? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D16	If you answered "Yes, definitely" or "Yes, to some extent" above, were the risks and benefits explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐
D17	Before your colposcopy, did a member of staff explain what would be done during the procedure? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D18	If you answered "Yes, definitely" or "Yes, to some extent" above, was the procedure explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐
D19	After your colposcopy, did a member of staff explain how the procedure had gone? (Please tick <u>one</u> box only) Yes, definitely 1☐ Yes, to some extent 2☐ No 3☐ I did not want an explanation 4☐
D20	If you answered "Yes, definitely" or "Yes, to some extent" above, was the procedure explained by a: (Please tick <u>one</u> box only) Doctor 1☐ Nurse 2☐ Advanced Nurse Practitioner 3☐ No-one 4☐