

NIHR Mental Health Research Network guide to finding and reading a research paper



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1. PURPOSE OF THIS GUIDE

This guide is published by the NIHR Mental Health Research Network (MHRN) (www.mhrn.info) to help mental health services users and their carers to access research into mental health. It explains how research is published as research papers, what the different sorts of papers are, how they are structured, how to identify a particular research paper and, finally, how to get hold of it. Section 8 contains a list of useful links.

2. WHAT IS A RESEARCH PAPER?

A <u>research paper</u> is an article that describes what researchers did, what they found, and what they think it means. Before it is published by a very specialized magazine (often called an academic journal), the journal's editor will ask for advice from other expert researchers on whether the journal should publish it, reject it, or ask for further information or corrections in some places before agreeing to publish. This process is known as `peer review' and is the defining feature of academic publishing.

Some of the most important medical and scientific research journals are <u>Nature</u>, <u>Science</u>, the <u>British Medical Journal (BMJ)</u>, the <u>Lancet</u>, and the <u>New England Journal of Medicine</u>. One measure of the importance of a journal is its `impact factor', which reflects the average number of times an article in that journal is cited in another journal the following year.

Some top psychiatry journals by impact factor (from highest to lowest) are:

- Archives of General Psychiatry
- Molecular Psychiatry
- American Journal of Psychiatry
- Biological Psychiatry
- Neuropsychopharmacology
- Schizophrenia bulletin
- British Journal of Psychiatry
- Journal of Clinical Psychiatry
- Journal of Child Psychology and Psychiatry
- Journal of the American Academy of Child and Adolescent Psychiatry
- Addiction

Grey literature

<u>Grey literature</u> is non-peer-reviewed research, such as that published by a government agency or a charity. Examples are some <u>Department of Health</u>, <u>Mind</u>, and <u>Centre for Mental Health publications</u>.

Different types of research papers

Research papers come in a variety of forms. They all contain carefully gathered and reported information, but differ in their details.

Original article

This is the most common type of paper, which describes original research done by the authors that has led to new knowledge.

Example: Mood Induction in Depressive Patients: A Comparative Multidimensional Approach

Case report

The authors describe a single case with unique features. This might be a new instance of a disease, complication, or way to diagnose it, or a new response to treatment.

Example: Generalized Seizure in a Mauritian Woman taking Bupropion

Review article

A review gives a detailed analysis of recent developments on a specific topic. It gathers together information from other published papers to give an overview.

Example: Schizophrenia and Violence: Systematic Review and Meta-Analysis

Editorial

The editor of the journal – or someone invited by the editor – gives their opinion on recent developments in a topic, or gives a short review or overview of original research articles published in the same issue of the journal.

Example: Are women a different group of HIV-infected individuals?

Letter to the Editor

This is a letter a reader of the journal has written to the editor, normally with comments on previously published articles. It might also be called 'Correspondence'.

Example: Symptoms of anxiety and depression in adolescent students; a perspective from Sri Lanka

Commentary

A short article in which the author gives his or her personal opinion on a subject.

Example: Facts, values, and Attention-Deficit Hyperactivity Disorder (ADHD): an update on the controversies

How papers are structured

The basic structure of a research paper is summarised by the acronym IMRAD:

- Introduction (Background to the research, and the question being tackled.)
- Method (What did they do?)
- Results (What did they find? This might include tables and graphs of data.)
- And
- Discussion (What does it mean?)

However, other sections may also be present.

Title

The title of a research paper may just give its topic (`Living alone and antidepressant medication use: a prospective study in a working age population') or it may summarize its principal results.

Abstract

The abstract of a paper is a summary of what the researchers did, what they found, and what they think it means. It is nearly always available for free, even when the full paper is not.

<u>Acknowledgements</u>

Here the authors thank their funders or others who helped them.

References

Very commonly in the introduction, methods or discussion, the authors will mention previous work done by themselves or others. In this section, they give details of where this work has been published, so that readers can find it.

There are several standard ways of referencing papers. They will all include the journal name, which is often abbreviated, the journal volume number (often in bold), the number of the first page of the article, and usually the year of publication. The title of the article is frequently given and the name of at least the first author. (Some papers have very many authors and then the Latin abbreviation `et al.' meaning `and others' may be used.)

For instance, BMC Public Health 2012, 12:236 means the article published by the journal "BioMed Central Public Health" in 2012, volume number 12, starting at page 236.

Declarations of interest

Journals may require authors to include here any additional information that could have affected their work or its conclusions.

3. HOW TO FIND A RESEARCH PAPER

With the academic reference to a paper, it is relatively straightforward to find the paper online either directly or by finding the journal website and tracking it down. However, more commonly, we might want to track down the original research behind a news or feature article in a newspaper or magazine.

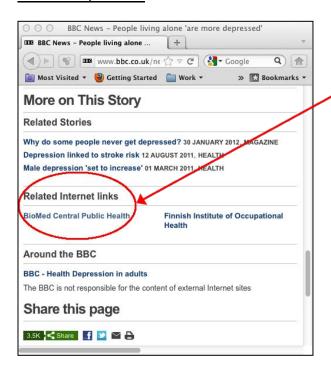
Finding a research paper from a news article

A print edition of a newspaper or magazine might tell you the name of the journal that published the research that inspired a news article. It will often include the name of at least one of the researchers and their institution, but without the volume and page number a little detective work is required.

For instance, in this BBC News online article on depression and living alone, the text says that the research paper mentioned was published in `BioMed Central's public health journal'. It also says that one of the researchers (who will be an author of the paper) is Dr. Laura Pulkki-Raback, who works at the Finnish Institute of Occupational Health. In addition, it tells us what the study involved: the researchers `tracked the use of antidepressants' in working-age Finns; 1,695 were men and 1,776 were women, and they had an average age of 44.6 years. All this information and when the news article was published – can be used to track down the original research paper. In this case, because it includes a link to the original research paper at the bottom, we only need this information to check we have found the right paper.

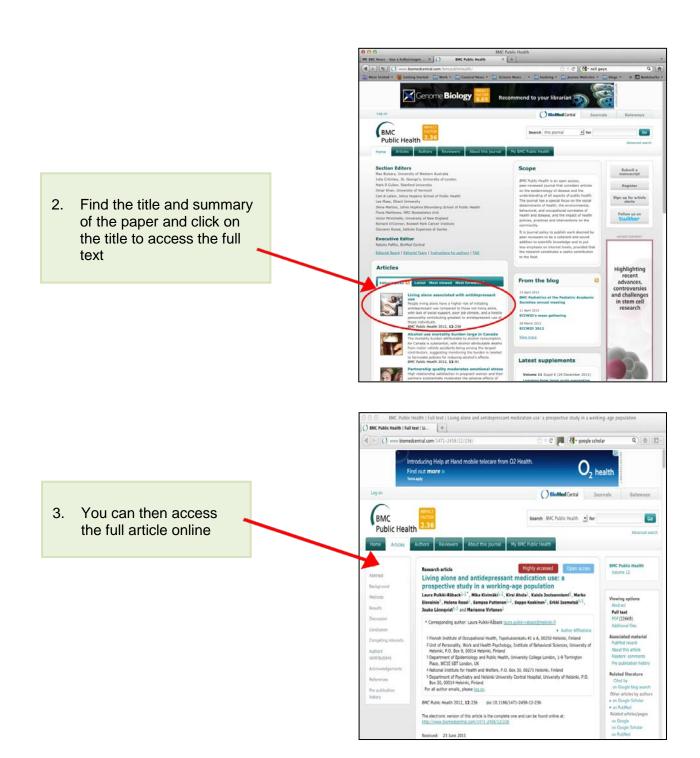


If links are provided



 Scroll down to the bottom of the online news page to find the link. For this news item, it is labelled `BioMed Central Public Health'

> Click on the BioMed Central Public Health link to go to the website of the online journal that published the paper (BMC Public Health)



It is worth noticing that the way the research is described changes between the newspaper, the link on the journal website and the research paper itself. The first two focus on the conclusion of the work, but the last one focuses on the method of the research (see Table 1).

Table 1: Example of how the description of research changes with the medium

Medium	Description of research
BBC News site	People living alone `are more depressed'
Journal website summary link to	Living alone associated with antidepressant use
paper	
Title of research paper	Living alone and antidepressant medication use: a
	prospective study in a working age population

If no links are provided

If the newspaper or magazine article doesn't give you links – and often they don't, particularly when the research paper isn't available for free online – then you can use academic search engines or searchable academic databases to find the original research paper or papers that inspired it.

Academic search engines

We can use the information about the research we picked out of the article to track it down using a free academic search engine like <u>PubMed</u>, <u>Google Scholar</u>, <u>Scirus</u>, <u>science.gov</u>, or <u>WorldWideScience</u> for any discipline, or <u>PsychSpider</u> for psychology. These specialise in searching academic literature. They all publish help and tips for new users: <u>PubMed help</u>; <u>Google scholar help</u>; <u>Scirus help</u>; <u>science.gov</u> help; <u>WorldWideScience help</u>; and <u>Psychspider help</u>.

For life sciences and mental health research, the most useful of these is probably PubMed. It has an <u>online tutorial</u> and more help is also available online.

When searching on them, it's worth trying out different keywords and different combinations. Each will have slightly different ways of refining searches, but it's worth knowing these common ways of specifying what you want (see Table 2).

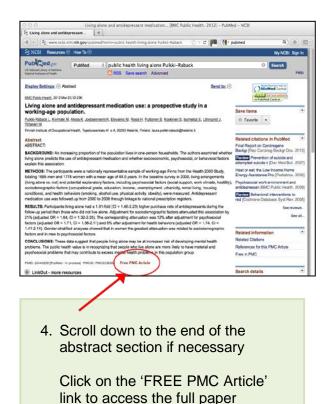
Table 2: How to refine search terms for common search engines

Search term	What the search engine will do
BMC Public Health 12:236 (2012)	Quick search, with journal + volume + pageInfo + pub year
depression Finland	Search for depression AND Finland
Depression OR antidepressant	Finds papers containing depression OR antidepressant. "OR"
	must be in capitals
(depression OR antidepressant)	Finds papers containing either depression OR antidepressant
AND Pullki-Raback	AND, on top of that, <i>Pullki-Raback</i>
depress* Pullki-Raback	Finds papers containing <i>Pullki-Raback</i> AND terms that start
	with depress.
depression Pullki-Raback -	Finds citations containing depression AND <i>Pullki-Raback</i> but
Japan	NOT Japan
With quotes: "living alone"	"living alone" (with quotes) results in a search for living alone
	as a sequence of two words.
Without quotes: living alone	Using no quotes is always less strict, and will give back all
	citations where the words living and alone occur, not
	necessarily sequentially.

PubMed simple example

- Open the PubMed website at http://www.ncbi.nlm.nih.gov/pubmed/
- 2. Type 'public health living alone Pulkki-Raback' into the search line and press 'Search'





3. Try different search terms if the first one is unsuccessful or provides too many possible papers. (A search for 'public health living alone' gives 626 results.)

In this case PubMed has found the correct paper first time. With an advanced search we can enter the exact title of the journal (provided it is on the PubMed database) and also specify where terms might be found



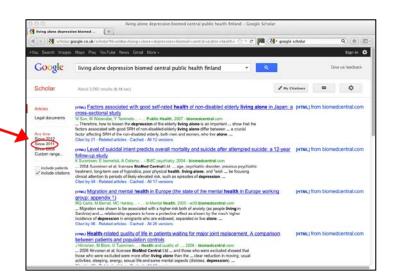
Google Scholar example

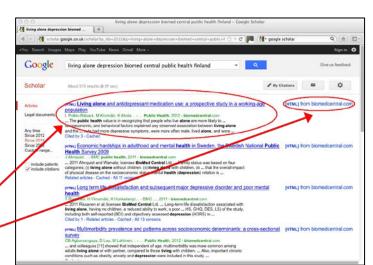
It's possible to use other search engines and databases to find the same paper, for instance, with Google Scholar.

- 1. Open Google Scholar at http://scholar.google.co.uk
- Type 'living alone depression biomed central public health finland' into the search box and _ click in the search symbol (which looks like a magnifying glass)



3. Click on 'Since 2011' to show only those papers published in 2011 or later





4. Click on the title of the paper (or the link on the right) to access the full article



5. Enjoy!

Finding relevant articles from a feature article

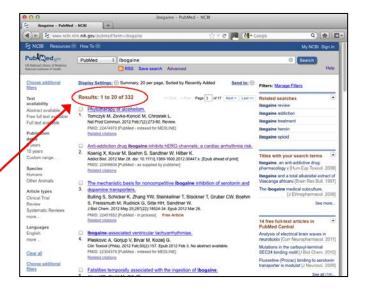


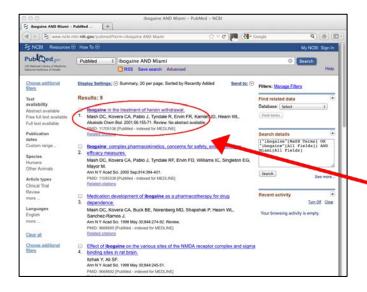
This story on the anti-addictive drug ibogaine in the BBC news online magazine is a feature article that isn't based on the recent publication of one particular research paper. Instead, it gives an overview of the history, risks and controversies of research into the drug over several decades.

There is a link to the Miller School of Medicine at the University of Miami but no links to specific research papers. We can use PubMed to investigate the topic.

- 2. Open the PubMed website at http://www.ncbi.nlm.nih.gov/pubmed/
- 1. Type 'ibogaine' into the search line and press 'Search'

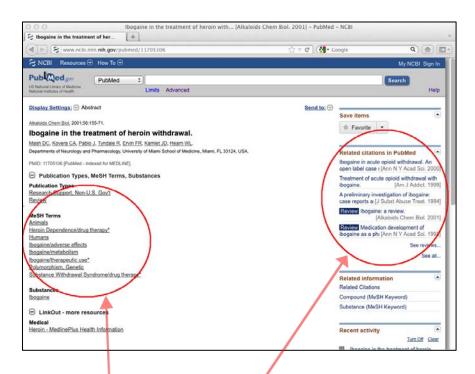
This gives 332 results, which is probably too many





3. Type 'ibogaine AND Miami' into the search line and press 'Search'

This brings up nine results. The first of these is a review article from 2011 with the title 'Ibogaine in the treatment of heroin withdrawal'



- 4. Click on the link for the paper. This doesn't take us to the full text but it does show us related citations in PubMed; these are papers on the same or similar topics
- 5. We can also see Publication Types, MeSH Terms (standard Medical Subject Headings), which are links that will also lead us to papers on similar topics

4. HOW TO GET HOLD OF RESEARCH PAPERS

As in the examples, it is possible to obtain some articles for free. Even where journals require a subscription or ask for payment for print/online access to the full text of articles, it is occasionally possible to obtain free or cheap access via a library.

Open Access and Delayed Open Access

Some journals publish their articles for free online, known as open access. Notable open access journals are the <u>PLoS</u> family of journals. `Delayed open access' journals make articles available for free some time after publication. For example, the top general science journal <u>Proceedings of the National Academy of Sciences of the USA</u> makes its articles available for free six months after first publication. Some journals (even if they are open access) require you to register in order to access the full text of articles. This registration process is almost always free.

Lists of open access/delayed open access journals are available at <u>UK PubMed Central</u>, <u>High Wire Press</u>, <u>DOAJ (Psychiatry)</u>, <u>DOAJ (Psychology)</u>, <u>DOAJ (Public health)</u>. DOAJ stands for Directory of Open Access Journals. <u>PsyPlexus</u> specifically lists open access mental health journals. You can <u>search the entire UK PubMed Central database</u> for open access articles.

Libraries

University or college libraries

If you are a student or have a **university or college library** close to you, you may be able to use it as a guest and photocopy or print articles from print copies on their shelves. It's not very likely you'll be able to access the article electronically through their system unless you're a registered student of the university.

Wellcome Trust Library

Anyone can join the <u>Wellcome Trust library</u>, which specializes in medical topics, in central London by showing proof of identity and address to the library reception. Membership gives online access to some electronic journals and on-site access to its paper journals. You can also e-register to search the catalogue and request material from their stores before your first visit. You need to visit in person to convert an e-registration to full membership and obtain online access to electronic journals.

Pay for interlibrary loan from local public library

If you can wait (maybe several weeks) for a copy, your **local public library** can help you to obtain access to material nationally and internationally via the Inter-Library Loan (ILL) system. For about £10 per item, you can order an electronic scan or a photocopy of an article through your local library. This gives access to the entire collection of the <u>British Library</u>, which can also be visited in person to view an item, although it encourages people to try other avenues before applying for a <u>Reader Pass</u>.

5. ABOUT THE NIHR MENTAL HEALTH RESEARCH NETWORK

The National Institute for Health Research (NIHR) works to create a health research system in which the NHS supports outstanding individuals, working in world class facilities, conducting leading edge research focused on the needs of patients and the public.

One part of the NIHR is the Mental Health Research Network (MHRN, <u>www.mhrn.info</u>), which helps make research about mental health happen in the NHS in England.

MHRN Service Users in Research

The MHRN runs Service Users in Research, a network of people with experience of mental health problems who are interested in research. If you join Service Users in Research, we will regularly inform you about the research we support, and tell you about opportunities to get involved in projects.

To become a member of Service Users in Research, fill in and submit the membership form online at: www.mhrn.info/pages/join-service-users-in-research-online.html

Or you can download a membership form at: www.mhrn.info/pages/people-with-experience-of-mental-health-problems.html

Please return completed membership forms (no stamp required) to:

FREEPOST Plus RSAY-JJZB-BSLG MHRN Service Users in Research Institute of Psychiatry PO77 De Crespigny Park London SE5 8AF.

Email: mhrnppi@kcl.ac.uk or phone 020 7848 0644

If you would like to get involved in the work of the MHRN at a local level then please do contact your local MHRN hub. A list of the MHRN hubs together with their contact details can be found at: www.mhrn.info/pages/regional-offices.html

6. MHRN FACTOR

Family members, friends, and carers who support people with mental health problems have extensive knowledge and experience that can really make a difference to research projects.

The Mental Health Research Network runs a network of family members, friends, and carers that are interested in mental health research called FACTOR.

To become a member of FACTOR please fill in and submit the membership form online at: www.mhrn.info/pages/become-a-member-of-factor.html

Or you can download a membership form at: www.mhrn.info/pages/family-members-friends-or-carers.html

Please return completed membership forms (no stamp required) to:

FREEPOST Plus RSCK-GSTZ-TJYY MHRN FACTOR PO77, Institute of Psychiatry 16 De Crespigny Park London SE5 8AF

Email: mhrnppi@kcl.ac.uk or phone 020 7848 0644

If you would like to get involved in the work of the MHRN at a local level then please do contact your local MHRN hub. A list of the MHRN hubs together with their contact details can be found at: www.mhrn.info/pages/regional-offices.html

7. GLOSSARY

Abstract A formal summary of the contents of a research paper

Acknowledgements A section at the end of a research paper where the authors thank

organisations or individuals for support

Case report A report of a single case with unique features

Citation A reference to another research paper, or where the research paper

has been referred to elsewhere

Commentary A short article containing the author's opinion on a topic or another

research paper

their judgement.

Delayed open access (See open access) Available to all, for free, a certain time after first

publication

Discussion What the authors think their research results mean

Editorial An article giving the editor/guest editor's opinion on a topic or a short

overview of the content of an issue of a journal

Grey literature Non-peer reviewed research published by e.g. a government agency

or charity

Impact factor The average number of times articles in a particular journal are cited

by an article in another journal the following year

Journal A magazine specialising in research papers on a particular topic

Letter to the Editor Also called correspondence, a short article made up of a letter

received by the journal editor

Method What the authors did

Open Access Available to all, for free, with no subscription required. (Usually, the

authors or their funders have paid for the costs of publication)

Peer review Quality check of published research by other respected researchers

in the same field

References List of other research papers referred to in the text

Research paper Peer-reviewed article in a specialist magazine describing the

authors' research

Results What the authors found

Review article A detailed analysis of recent developments on a specific topic

8. USEFUL LINKS

Useful sources of information

Libraries

British Library

British Library Reader Pass application

Wellcome Trust Library

Charities

MIND Mental Health Research Network

Rethink

Wellcome Trust

Mental Health Research News

Centre for Mental Health publications

Department of Health publications

MedScape Psychiatry and Mental Health News

The Mental Elf Mind publications

NHS Choices (Behind the Headlines) One in Four magazine list of mental health

publications

http://www.bl.uk/

http://www.bl.uk/reshelp/inrrooms/stp/register/stpr

eaister.html

http://library.wellcome.ac.uk/

http://www.mind.org.uk http://www.mhrn.info

http://rethink.org

http://www.wellcome.ac.uk/

http://www.centreformentalhealth.org.uk/publicatio

ns/publications list.aspx

http://www.dh.gov.uk/health/category/publications

/reports-publications/

http://www.medscape.com/psvchiatrv/resource

http://www.thementalelf.net

http://www.mind.org.uk/shop/booklets

http://www.nhs.uk/News/Pages/NewsIndex.aspx http://www.oneinfourmag.org/index.php/list-of-

mental-health-publications

Examples of types of research article

Original article example: Mood Induction in Depressive Patients: A Comparative

Multidimensional Approach

http://www.plosone.org/article/info%3Adoi%2F10.

1371%2Fjournal.pone.0030016

Case report example: Generalized Seizure in a

Mauritian Woman taking Bupropion

http://www.plosmedicine.org/article/info:doi/10.13

http://www.plosmedicine.org/article/info%3Adoi%

71/journal.pmed.0010015

Review article example: Schizophrenia and

Violence: Systematic Review and Meta-Analysis

Editorial example: Are women a different group

of HIV-infected individuals?

http://www.springerlink.com/content/w807r65392v

10250/

Letter to the Editor example: Symptoms of anxiety and depression in adolescent students:

a perspective from Sri Lanka

http://www.capmh.com/content/4/1/10

2F10.1371%2Fjournal.pmed.1000120

Commentary example: Facts, values, and Attention-Deficit Hyperactivity Disorder (ADHA):

an update on the controversies

http://www.capmh.com/content/3/1/1

Academic search engines and their help pages

PubMed http://www.ncbi.nlm.nih.gov/pubmed/

http://www.ncbi.nlm.nih.gov/books/NBK3827/ PubMed help http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/ PubMed tutorial

UK PubMed Central http://ukpmc.ac.uk/

http://scholar.google.co.uk/ Google Scholar

http://scholar.google.com/intl/en/scholar/help.html Google Scholar help

http://www.scirus.com/ **Scirus**

http://www.scirus.com/html/help/index.htm Scirus help

http://www.science.gov/ Science.gov

http://www.science.gov/helpNew.html Science.gov help

WorldWideScience http://worldwidescience.org/

http://worldwidescience.org/help.html WorldWideScience help

http://psychspider.com/ Psychspider

http://www.zpid.de/PsychSpider Hilfe.php?lang=EN Psychspider help

Useful lists of open access journals

http://www.plos.org/publications/journals/ PLoS family of journals

UK PubMed Central http://ukpmc.ac.uk/journalList

High Wire Press http://highwire.stanford.edu/lists/freeart.dtl http://www.doaj.org/doaj?cpid=128&func=subject DOAJ (Psychology) DOAJ (Psychiatry) http://www.doaj.org/doaj?func=subject&cpid=31

DOAJ (Public Health) http://www.doai.org/doai?func=subject&cpid=21&uiLangu

age=en

PsyPlexus http://www.psyplexus.com/plexus/open access.html

A subscription is needed to access the full text of research articles in many journals in the following sections.

Top general science/medicine research journals

The Lancet http://www.thelancet.com http://www.nature.com Nature New England Journal of Medicine http://www.neim.org Proceedings of the National Academy of http://www.pnas.org/

Sciences of the USA

Science http://www.sciencemag.org

Useful lists of psychiatry-related journals

List of all psychiatry journals http://ip-science.thomsonreuters.com/cgi-

bin/jrnlst/jlresults.cgi?PC=D&SC=VE

List of psychiatry journals by topics http://www.psychiatrynet.eu/links/4007 Journals and im

(scroll down)

pact_factors#Top_psychiatric_journals_ranked_by_2008

Impact Factor 4373

Medscape list of Psychiatry and Mental

Health journals

http://www.medscape.com/psychiatry/journals

Top ten psychiatry journals by 2008

impact factor (two rival lists)

http://sciencewatch.com/dr/sci/09/aug16-

09_1/http://tinyurl.com/c6o4noh

Top psychiatry journals (high 2008 impact factor)

http://www.addictionjournal.org/ Addiction

http://aip.psvchiatrvonline.org/iournal.aspx?iournalid=13 American Journal of Psychiatry

http://archpsyc.jamanetwork.com/journal.aspx Archives of General Psychiatry

http://www.elsevier.com/wps/find/journaldescription.cws **Biological Psychiatry**

> home/505750/description http://bjp.rcpsych.org/

British Journal of Psychiatry Journal of the American Academy of http://www.jaacap.com Child and Adolescent Psychiatry

http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN% Journal of Child Psychology and Psychiatry 291469-7610

http://www.psychiatrist.com/ Journal of Clinical Psychiatry

http://www.elsevier.com/wps/find/journaldescription.cws Journal of Psychiatric Research

> home/241/description#description www.nature.com/mp/index.html

Molecular Psychiatry Neuropsychopharmacology http://www.nature.com/npp/index.html

Psychological Medicine http://journals.cambridge.org/action/displayJournal?jid=P

SM

http://schizophreniabulletin.oxfordjournals.org/ Schizophrenia bulletin

Other research journals with research on mental health issues

Alcohol and Alcoholism

http://aje.oxfordjournals.org/ American Journal of Epidemiology American Journal of Public Health http://ajph.aphapublications.org/ http://www.medscape.com/viewpublication/21030

BMC Psychiatry

Brain

British Journal of Mental Health Nursing British Journal of Neuroscience Nursing

British Medical Journal (BMJ)

Child and Adolescent Psychiatry Online

Community Mental Health Journal

Evidence-based Mental Health

Infant Mental Health Journal

http://priory.com/psychild.htm

http://www.bjmhn.co.uk/ http://www.bjnn.co.uk/

http://alcalc.oxfordiournals.org/

http://brain.oxfordjournals.org/

http://www.springer.com/medicine/psychiatry/journal/105

Current Opinion in Psychiatry http://journals.lww.com/co-psychiatry/Pages/default.aspx

http://www.bmj.com

http://ebmh.bmj.com/

Expert Review of Neurotherapeutics http://www.expert-reviews.com/loi/ern **Future Neurology** http://www.futuremedicine.com/loi/fnl Health and Social Care in the

http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%

291365-2524

http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%

291097-0355

http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%

291447-0349

http://www.ijmhp.co.uk/

International Journal of Mental Health

Nursing

International Journal of Mental Health

Promotion

Community

Journal of Mental Health Journal of Pediatric Psychology

Journal of Public Mental Health

Mental Health Practice

Mental Health Review Journal

Mental Health and Substance Use Occupational Therapy in Mental Health http://informahealthcare.com/jmh

http://jpepsy.oxfordjournals.org/

http://www.emeraldinsight.com/journals.htm?issn=1746-

5729

http://mentalhealthpractice.rcnpublishing.co.uk/

http://www.emeraldinsight.com/products/journals/journals

.htm?id=MHRJ

http://www.tandf.co.uk/journals/rmhs http://www.tandf.co.uk/journals/WOMH PLoS Medicine Psychiatry Online Social Cognitive and Affective

Neuroscience World Psychiatry http://www.plosmedicine.org/home.action

http://www.priory.com/psych.htm http://scan.oxfordjournals.org/

http://www.world-psychiatry.com/

Other links

BBC News article on depression and living alone

BBC Feature article on ibogaine and

addiction Grey literature

Wikipedia article on research papers/

scientific journals

http://www.bbc.co.uk/news/health-17475240

http://www.bbc.co.uk/news/magazine-17666589

http://www.ncl.ac.uk/library/resin/finding_information/grey

literature.php

http://en.wikipedia.org/wiki/Scientific_journal

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