

Research Bulletin

May 2010

This is the seventh edition of the Research Bulletin produced by the National Suicide Research Foundation (NSRF). The main objective is to provide regular updates of our research findings to a wide range of relevant agencies and professionals in the health and community care services, thereby helping to provide an evidence base for suicide prevention programmes and related work.

Temporal variation of deliberate self harm in Ireland

The National Registry of Deliberate Self Harm (NRDSH) recorded 63,154 deliberate self harm (DSH) presentations to hospital emergency departments in the period 2003-2008. The Registry has shown consistent variation in DSH presentations by weekday (Figure 1). Mondays and Sundays saw the highest numbers of presentations whereas the lowest numbers presented on Wednesdays, Thursdays and Fridays. The pattern was evident for both genders but more pronounced for women.

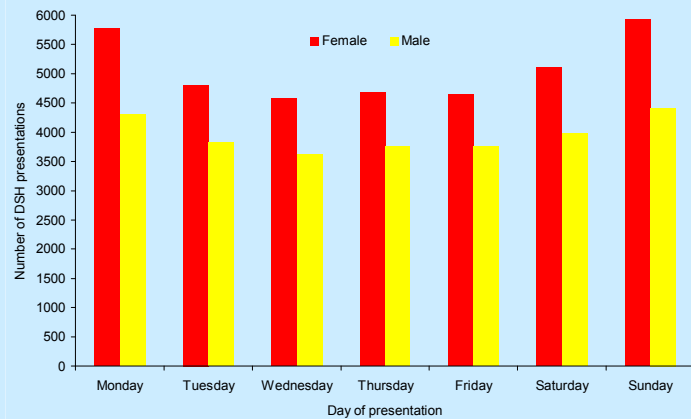


Figure 1. DSH presentations to hospital by day of the week and gender

There is striking variation in DSH presentations over the course of the day (Figure 2). The numbers increase over the course of the day and peak in the hours around midnight. The pattern is similar for both genders but the higher number of female DSH presentations is pronounced from noon to 2am.

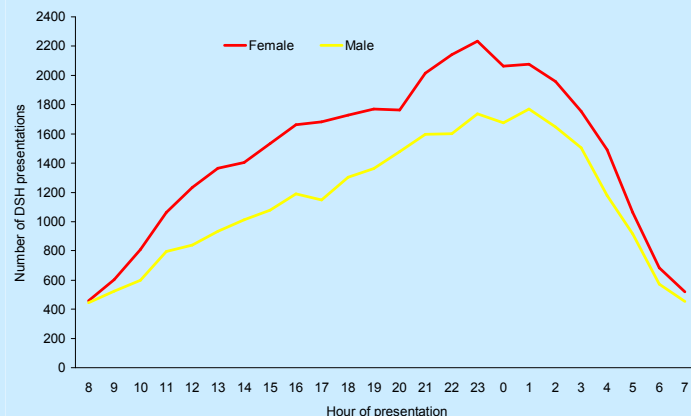


Figure 2. DSH presentations to hospital by hour of the day and gender

Figure 3 illustrates the pattern of DSH presentations to hospital in Ireland by hour for each day of the week and by gender. The increasing numbers over the course of the day and the peak near midnight is evident for each weekday. The peak in presentations near midnight on Mondays, Saturdays and Sundays is significantly higher than the peak at the same time on Tuesdays to Fridays and this is especially so for female DSH presentations.

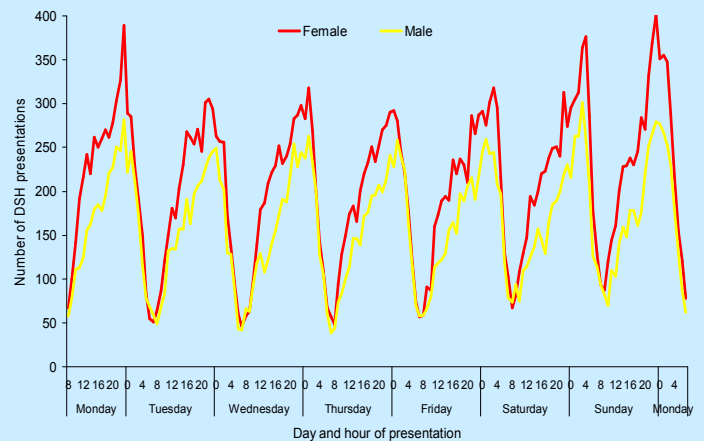


Figure 3. DSH presentations to hospital by hour, weekday and gender

The higher peaks of DSH presentations to hospital Emergency Departments on Saturdays, Sundays and Mondays may be associated with increased substance abuse during the weekend, such as binge drinking. The consequences of excessive alcohol consumption are reduced cognitive and behavioural control and increased levels of depressive symptoms which still may be present on Mondays. The 2008 Annual Report of the NRDSH showed that 46% of men and 38% of women who engage in an act of DSH had taken alcohol before and/or during an act of DSH (NSRF, 2009).

Similar weekday patterns of DSH have been observed in other European countries (Jessen et al, 1999), and in a more recent study in Finland the presence of substance use disorders also best explained deliberate self harm occurring at weekends (Valtonen et al, 2006). For many self harm patients, substance abuse complicates immediate management either by impairing judgement and capacity, or by adding to the toxic effects of ingested substances.

Considering the midnight DSH peaks and relatively high numbers of DSH presenting to Hospital Emergency Departments at weekends, it is recommended to review the adequacy of staff numbers available for self harm management and psychiatric consultations at the DSH peak times. We would recommend conducting this review in conjunction with the development of uniform guidelines for the assessment and aftercare of DSH patients in Ireland.

Suicide and employment status during Ireland's Celtic Tiger economy

International studies examining the association between suicide and unemployment status have generally demonstrated unemployment to be a risk factor. The aim of this study was to examine Irish suicide by employment status during the Celtic Tiger economy years, 1996-2006. Mortality data relating to all suicide deaths and undetermined deaths (UDs) were obtained from the Central Statistics Office.

The highest male suicide rate was in 15-34 year olds but in 2005 their rate converged with that of men aged 35-54. Older men had a far lower suicide rate. Women aged 35-54 had the highest rate and younger women had the lowest. Unemployment was a stronger risk factor for suicide in men aged 35-54 and with increasing age in women. Retired persons aged >55 had a similar risk to their employed counterparts.

Suicide rates and UD in men and women were relatively stable during 1996-2006, though suicide among unemployed men increased. Unemployment was associated with 2-3-fold increased risk of suicide and UD in men and generally a 4-6-fold increased risk in women. Unemployment was linked with a greater increased risk of suicide and UD when its level was low (2001-2006) than in the period of decreasing unemployment (1996-2000). The outcomes of this study suggest that people dealing with unemployment should be made aware of relevant support services. During an economic recession, it is especially important that policy makers increase investment in a range of appropriate social policy responses to alleviate the potential impact of unemployment on suicide.

Reference: Corcoran P, Arensman E (2010). Suicide and Employment Status during Ireland's Celtic Tiger Economy. *The European Journal of Public Health*. Jan 27. doi:10.1093/eurpub/ckp236.

Factors associated with deliberate self-harm among Irish adolescents

Deliberate self-harm (DSH) is a major public health problem, with young people most at risk. The aim of this study was to identify the psychological, lifestyle and life event factors associated with self-harm in Irish adolescents.

A cross-sectional study was conducted with 3,881 adolescents in 39 schools completing an anonymous questionnaire as part of the Child and Adolescent Self-Harm in Europe (CASE) study. There was an equal gender balance and 53.1% of the adolescents involved were 16 years old.

Nine percent of the adolescents involved had harmed themselves at some point in time, and nearly half of them reported repeated episodes. Important factors associated with DSH among both genders were drug use and knowing a friend who had engaged in self-harm. Specific factors associated with DSH among girls were sexual abuse, knowing a family member who engaged in self-harm, fights with parents and problems with friendships. Among boys, experiences with bullying, problems with schoolwork, impulsivity and anxiety were associated with DSH.

Given that DSH and suicide are common among adolescents, schools have an important role to play in their prevention. Prevention strategies should aim to modify factors associated with self-harm through promoting positive mental health among students and through equipping students with the skills to effectively manage stress and interpersonal conflict. The findings of this study point to the importance of anti-bullying initiatives and alcohol and drugs education. Schools are also an important setting in which the stigma surrounding mental health problems must be tackled.

Reference: McMahon E M, Reulbach U, Corcoran P, Keeley H S, Perry I J and Arensman E (2010). Factors Associated with Deliberate Self-harm among Irish Adolescents. *Psychological Medicine*. doi: 10.1017/S0033291709992145.

Problem-solving ability and repeated deliberate self-harm

Despite promising findings from trials of problem-solving therapy in the treatment of deliberate self-harm (DSH), the problem-solving characteristics of DSH patients associated with repeated self-harm lack systematic investigation. Data were used from the Repetition-Prediction part of the WHO/EURO Multi-centre Study on Suicidal Behaviour to examine the associations between past history of self-harm and each of the motives for self-harm (N=146) and habitual problem-solving style (N= 836).

Repeaters reported a significantly wider range of motives than first timers, and they more often reported motives aimed at escape, revenge and appeal to others. *Passive-avoidance* was the problem-solving dimension most strongly associated with repetition although this association was attenuated by self-esteem. These findings could be thought to provide an evidence base for the use of problem-solving skills training programmes with self-harm patients. However, in a large randomised controlled trial comparing group interpersonal problem solving skills training with standard care (N=443), repetition rates at follow-up were similar in both treatment groups. Self-harming patients and particularly repeaters are motivated by a desire to escape aversive thoughts and situations, responding to problems in a passive and avoidant manner. Psychotherapeutic interventions with repeaters should target passive problem orientation and enhance self-esteem. Given that problem-solving therapy was significantly more positively evaluated by participants than standard care, a more intensive problem-solving skills training programme, including more sessions and individual sessions, should be tested.

Reference: McAuliffe C. (2009). Problem-solving ability and repeated deliberate self-harm. In: U. Kumar and M. K. Mandal (Eds.). *Suicidal behaviour: Assessment of people at risk*. New Delhi: Sage (pp.65-90).

Optimising Suicide Prevention Programs and their Implementation in Europe (OSPI-Europe): an evidence-based multi-level approach

Fatal and non-fatal suicide acts are significant public health issues in Europe requiring effective preventive interventions. Every year more than 58,000 persons die by suicide in the European Union. The rate of non-fatal suicidal acts is estimated to be about 10 times higher than that of suicides. Therefore, every global strategy to prevent suicide should also include the prevention of non-fatal suicidal acts.

OSPI-Europe comprises of a 5-level intervention including 1) training and support for primary care physicians, 2) informing the general public about depression, 3) community facilitator training (e.g. Gardai, youth services, social workers, priests, 4) overtures to high risk groups (persons after non-fatal suicidal acts) and 5) restricting access to lethal means. The groundwork for the OSPI-Europe project was established through a community based multifaceted intervention programme for improving care of people with depression and for preventing suicidality that was implemented in Nuremberg, Germany, and which showed a 24% reduction in suicidal acts 2 years after the intervention. The OSPI 5-level intervention programme will be implemented in four regions in Ireland, Portugal, Hungary and Germany. The OSPI intervention programme is currently being implemented in County Limerick in collaboration with the Suicide Prevention Office, Limerick.

Reference: Hegerl U, Wittenburg L, Arensman E, Van Audenhove C, Coyne JC, McDaid D et al. (2009) Optimising Suicide Prevention Programs and Their Implementation in Europe (OSPI-Europe): An Evidence-Based Multi-Level Approach. *BMC Public Health* 2009, 9:428. doi:10.1186/147-2458-9-428

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