

What happens after self-harm? An exploration of self-harm and suicide using the Northern Ireland Registry of Self-Harm

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Background

Suicide is a major public health concern and Northern Ireland (NI) has the highest rate of both self-harm and suicide in the UK and Ireland. In order to target prevention strategies effectively, it is vital to understand who is most at risk.

Aim

To explore the risk factors for completed suicide following presentation with self-harm.

Methods

The Northern Ireland Registry of Self-Harm (NIRSH) collects information on all self-harm and suicide ideation presentations to all Emergency Departments in NI. NIRSH data from 2012-2015 was linked to centralised electronic data relating to primary care, prescribed medication and mortality records. Logistic regression was employed to quantify the likelihood of mortality with adjustment for factors associated with mental ill health and suicide risk, and Cox regression was used to explore which characteristics of those who self-harm are most associated with risk of suicide.

Results

The cohort consisted of all 1,483,435 individuals born or resident in NI from 1st January 1970 until 31st December 2015 (maximum age in 2015, 45 years). During the follow-up period, 12,327 (0.8%) individuals presented with self-harm and 892 (0.1%) died by suicide. Rates of self-harm were equivalent for males and females with highest rates observed in the 18-24 years age group, and more common in deprived than affluent areas (OR=3.42, 95%CI 3.21, 3.65). Most individuals self-harmed via self-poisoning with psychotropic medications (71.5%), followed by self-injury with a sharp object (21.7%).

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Although only 162 (1.3%) of those who presented with self-harm went on to die by suicide, those who presented with self-harm were 24 times more likely to die by suicide compared to those who did not present with self-harm after adjustment for age and sex (HR=24.3, 95%CI 20.46,28.76).

Conclusion

This constitutes the first population-wide study of self-harm in the UK and could be utilised to inform suicide prevention strategies.

