MORTALITY RISK FOLLOWING SELF-HARM IN YOUNG PEOPLE: AN EXPLORATION OF SELF-HARM AND SUICIDE USING THE NORTHERN IRELAND REGISTRY OF SELF-HARM

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Background Suicide is the second leading cause of death in young people worldwide. Self-harm is a recognised predictor of future suicide and is most common in young people under the age of 24 years. The aim of this study was to estimate the risk of mortality following self-harm in adolescents, including death by suicide, and to examine the factors associated with this outcome.

Methods The Northern Ireland Registry of Self-Harm (NIRSH) collects information on all self-harm presentations to all Emergency Departments (ED) in NI. NIRSH data from 2012–2015 was linked to centralised electronic data relating to primary care registration, prescribed medication and death records. Logistic regression was employed to examine the factors associated with increased likelihood of self-harm and Cox regression to estimate mortality risk following self-harm and to examine the factors associated with the greatest risk of mortality.

Results The cohort consisted of all 395,771 individuals aged 10–24 years who were resident in NI on 1st April 2012 followed up until 31st December 2019. During the study 4,513 (1.14%) young people presented with self-harm, 116 (2.6%) of whom died during follow-up with 49% (n=57) of those deaths being by suicide. Rates of self-harm were highest in females, those aged 20–24 years (OR=3.47, 95% CI 3.23–3.73), and those living in the most deprived areas (OR=3.10, 95% CI 2.80–3.42). Most individuals self-harmed via self-poisoning with psychotropic medications (68.6%), followed by self-injury with a sharp object (24.1%). Although only 57 of those who presented with self-harm went on to die by suicide they accounted for 28.8% of all deaths by suicide in this cohort. Those who presented with self-harm were 27 times more likely to die by suicide compared to those who did not present with self-harm after adjustment for age and sex (HR=27.20, 95% CI 19.86–37.25).

Conclusion This constitutes the first population-wide study of self-harm and suicide in young people in the UK and provides valuable information to inform suicide prevention strategies. Additional analysis is underway exploring variation in mortality risk based on ED care intervention and will be complete by the time of the conference.

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