To investigate the rates of self-harming among adolescents in Northern Ireland, recent there has been little information on rates of self-harm in this region. Compared to other parts of the British Isles, until recently there has been little information on rates of self-harm in this region. The relative association of gender with self-harm was higher compared to other countries. Males reported much higher rates compared to females. Females were 84% more likely to self-harm than males (OR 2.51 95% CI 1.93 to 2.78), but were also 70% more likely to seek help before self-harming (OR 1.70 95% CI 1.12 to 2.57). Smoking, using illegal drugs, and poorer mental health were more likely to be associated with those reporting self-harm.

**Methods**

A deterministic reweighting methodology assigns probabilities of respondents from the 2004–6 annual Health Survey for England (HSE) to live in small areas (Lower Super Output Areas, or LSOAs) based on matching sociodemographic attributes available in both the HSE and the 2001 Population Census. These attributes are chosen because they are strong predictors of CMD (measured by GHQ-12). Gender, social class, economic activity and marital status were used to create estimates of people reporting CMD for each LSOA. These estimates were correlated to LSOA indicators composing the “health domain” of the Index of Multiple Deprivation 2007 (IMD2007) and to other socio-economic information. LSOA estimates were then aggregated at the Local Authority (LA) level and proportions of people reporting CMD were computed; these were then compared to observed prevalence of CMD at the LA level (based on 50,504 HSE respondents nested in 352 LA).

**Results**

LSOA CMD estimates were correlated at 0.68 (p<0.001) with adults suffering from mood or anxiety disorders and at 0.83 (p<0.001) with comparative illness and disability ratio. Significant positive correlations between CMD estimates and overall, and domain specific, scores of the IMD2007 were observed. In 90.6% of LA, discrepancies between microsimulated and observed prevalence of CMD were less than 10%. LA where discrepancies were greater than 10% were mostly characterised by small HSE sample size, which may explain why estimates were more inaccurate in these localities.

**Conclusion**

The findings indicate that spatial microsimulation might be an appropriate methodological approach for replicating social and demographic patterns of mental health in order to create a small-scale spatial data set. The validation of simulated area-based estimates of mental health presents a viable and cost-effective alternative to local level surveys.

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**PREVALENCE OF SELF-HARM AND HELP-SEEKING BEHAVIOURS AMONG YOUNG PEOPLE IN NORTHERN IRELAND**

**Methods**

Two large scale surveys based on the Northern Ireland adolescent population were undertaken that contained questions on self-harm: the 2006/07 Belfast Youth Development Study (BYDS), a school-based longitudinal study of adolescents, and the 2008 Young Life and Times survey, a postal survey of 16-year olds using the Child Benefit Register to identify the target population. Both surveys included questions asked in the CASE (Child and Adolescent Self-harm in Europe) study. Logistic regression models were used to analyse the association of personal characteristics with the odds of reporting having self-harmed. We also assessed the association between these characteristics and help seeking behaviour for those participants who had self-harmed.

**Setting/participants**

In total there were 3178 respondents. The 2249 (71%) BYDS respondents were 17 or 18 years of age at the time of the study. The 929 (29%) YLT respondents 16 years old when surveyed. Around 59% were female, 99% had used alcohol, 57% had used drugs, and 22% had mental health problems.

**Results**

333 (10.4%) respondents reported self-harm, with similar proportions in both surveys. Females were 84% more likely to self-harm than males (OR 2.51 95% CI 1.93 to 2.78), but were also 70% more likely to seek help before self-harming (OR 1.70 95% CI 1.12 to 2.57). Smoking, using illegal drugs, and poorer mental health were more likely to be associated with those reporting self-harm. People who reported having smoked (OR 3.41 95% CI 2.66 to 4.37) or having used illegal drugs (OR 2.40 95% CI 1.97 to 2.94) were more likely to self-harm than those who did not. Poor mental health was associated with a greater likelihood of seeking help before self-harming (OR 1.81 95% CI 1.11 to 2.93).

**Conclusion**

The association of gender with self-harm was less compared to other countries. Males reported much higher relative rates of self-harm compared to other regions of the UK, suggesting there may be risk factors for poor adolescent mental health specific to Northern Ireland. Reasons for these differences should be further investigated.