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Time-trends in hospital admissions for violent, self-inflicted, and drug-related or alcohol-related injury for adolescents in England and Scotland, 2005–11: observational population-based study

Annie Herbert, Arturo Gonzalez-Izquierdo, Janice McGhee, Leah Li, Ruth Gilbert

Population, Policy and Practice Programme, Institute of Child Health, University College London, London, UK (A Herbert MSc, A Gonzalez-Izquierdo PhD, L Li PhD, Prof R Gilbert MD); and School of Social and Political Science, University of Edinburgh, Edinburgh, UK (J McGhee BSc)

Correspondence to:

Ms Annie Herbert, Room 5.09, Institute of Child Health, University College London, 30 Guilford Street, London, WC1N 1EH, UK
annie.herbert.12@ucl.ac.uk

Abstract

Background In England, a third of emergency admissions of adolescents for injury are adversity related (violent, self-inflicted, drug-related, or alcohol-related). A comparison of time trends of the incidence of admissions for violent injury between England and Scotland revealed steeper declines in 2005–2011 in Scotland. We aimed to determine whether incidence of admissions for any adversity-related injury varied substantially between the two countries.

Methods We conducted time-series analyses of emergency admissions between 2005 and 2011 for adversity-related injury (defined by the 10th revision of the International Classification of Diseases) to National Health Service hospitals in England (Hospital Episode Statistics) and in Scotland (Scottish Morbidity Records) in 10–18 year olds. Analyses were stratified in groups by sex and age (10–12 years, 13–15, 16–18) and were adjusted for background trends in admissions for any injury.

Findings In 2005, rates of admissions per 100 000 for adversity-related injury ranged from 48.9 for girls aged 10–12 years in Scotland (95% CI 0–98.9) to 978.2 for boys aged 16–18 in Scotland (764.0–1184.3). Rates for 10–12-year-old girls and boys respectively were similar between the two countries, but were higher in Scotland for 13–15 year olds and 16–18 year olds. From 2005 to 2011, rates decreased in both countries for all groups by –1.5% per year (95% CI –3.2 to 0.21) to –10.0% per year (–15.2 to –4.4), except for 16–18-year-old girls and boys in England, where rates increased by 0.25% per year (0.09–0.41) to 2.5% per year (1.2–3.7). Decreases in all groups were greater in Scotland than in England after adjustment for trends in admissions for any injury. By 2011, though incidences of admissions for adversity-related injury in adolescents aged 13–15 years and 16–18 remained higher in Scotland, differences between England and Scotland were smaller than in 2005.

Interpretation Our finding that rates of admissions for adversity-related injury decreased more steeply in Scotland than in England raises questions about the factors driving these discrepancies. Initiatives within each country that might have been influential are discussed in this presentation. For example, the English government attempted to tackle incidence of violence and gangs through targeting high crime areas with higher levels of policing. The Scottish government set up contracts with local gangs to exchange a ‘clean slate’ for psychosocial support. Further research into potentially successful practices in Scotland could

be used to develop future initiatives to reduce harm in adolescents in both countries and further afield. More research is needed, especially into why the incidence of admissions for adversity-related injury increased for older adolescents in England.

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Contributors

RG and AG-I conceived and designed the study. RG and AG-I acquired the data. AH analysed the data and drafted the first version of this abstract. All authors contributed to the interpretation of the data, critically assessed the abstract, and approved the version to be published.

Declaration of interests

We declare no competing interests.

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