Homicides involving knives and other sharp objects in Scotland, 1981–2003

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ABSTRACT

Background Homicide rates have been increasing in Scotland, and homicides involving knives are of particular concern.
Methods and results We use mortality and population data from 1981 to 2003 to calculate smoothed, standardized mortality rates for all homicides and homicides involving knives and other sharp objects, for all of Scotland and separately for Glasgow. Over half of homicides where the victim was male involved the use of a knife. Over 20 years, the homicide rate rose 83%, whilst that involving knives increased by 164%.
Conclusion The rapid increase in homicide involving knives is becoming a public health problem. Proposed changes to legislation are unlikely to halt this rise.
Keywords assault, homicide, knife

Introduction

Assault involving knives is a recognized problem in Scotland, resulting in proposed changes to legislation in the Police, Public Order and Criminal Justice (Scotland) Bill. Here, we consider the epidemiology of homicide and homicide involving knives. Although restricted to homicides, for each death there may be a further five individuals who survive stablings following admission to hospital.

Methods and results

The data comprise homicides in Scotland between 1981 and 2003, in which the underlying cause of death or any of the contributory causes was homicide and injury purposely inflicted by other persons (ICD9 E960-E969), assault or sequelae of assault (ICD10 X85-Y09 & Y87.1). Of these, assault by a cutting or piercing instrument (ICD9 E966) and assault by sharp object (ICD10 X99) were highlighted. (As such our results are not strictly limited to homicide involving knives.) Deaths occurring in 2003 but not registered until 2004 were not included; the number of such deaths is likely to be small (in previous years these constituted 2.5% of all homicides). Corresponding mid-year population estimates were obtained from the General Register Office of Scotland. Smoothed, age-standardized mortality rates were calculated by aggregating over 3-year periods and standardizing to the European standard population.

Of the 2151 homicides, 1012 (47%) involved the use of a knife or similar: 53.7% of homicides where the victim was male and 28% where the victim was female. Among male victims, the highest use of knives was in early adulthood (66.6% of those aged 15–34 as opposed to 47.7% of those aged 35–64; \( P < 0.001 \)); among female victims, there was little gradient by age (34.9% aged 15–34, 31.5% aged 35–64; \( P = 0.464 \)). Homicide was more common at the weekends (Friday, Saturday or Sunday), with 54.6% of male homicides (\( P < 0.001 \)) and 46.6% of female homicides (\( P = 0.077 \)) occurring on these 3 days. A higher proportion of male homicides at the weekend involved knives (57.8%, \( P < 0.001 \)).

Between 1982 and 2002, the standardized mortality rate for all male homicides rose by 83% from 1.88 to 3.44 per 100 000, whilst the homicide rate involving knives increased by 164% from 0.77 to 2.03. Fig. 1 shows the smoothed homicide and knife homicide rates for men aged 15–34. The increase in homicide rates at these ages was principally in the 1980s and early 1990s, with this increase attributable to a 213% increase in homicides involving a knife. Also shown in Fig. 1 are homicide rates for Glasgow, which are considerably higher than those for Scotland as a whole. The 83% increase in homicide...
rates in Glasgow at these ages is mostly attributable to a 66% increase in homicides involving knives.

Discussion

Main finding of this study
Homicide rates in Scotland have increased considerably over the past 20 years, particularly amongst young men, with the increase largely attributable to homicides involving knives. Although homicide rates in Glasgow have increased at a slower pace than in the rest of Scotland, this increase has been from a higher base and in 2002 rates in Glasgow (14.01 per 100 000) were nearly three times those in Scotland as a whole (5.38). This phenomenon is not a feature of cities; Aberdeen, Dundee and Edinburgh all have below average homicide rates. It is likely that the higher rate in Glasgow is linked to the deprivation of the city, although the slower increase in homicide in Glasgow is contrary to recent findings for deprived areas in Britain.3

What is already known on this topic?
The contribution of homicide to the rising death rate among young men in Scotland has previously been noted.4 Legislation in progress before the Scottish parliament seeks to extend the current ban on the sale of knives to those under 16 to those under 18.1 Notably excluded from the ban are knives designed for domestic use; the success of such a partial ban must be questioned, given the suggestion that kitchen knives may be used in at least half of all stabbings.5 This may reflect the homicide location, with recent figures suggesting that 64% of homicides between 2000 and 2005 were residential.6 This is not to suggest that all action or legislation will be ineffective; Strathclyde Police’s four week ‘Operation Blade’ initiative in 1993 appeared to result in a short-term decrease in the number of stabbings admitted to the resuscitation room of the Accident and Emergency Department of the Glasgow Royal Infirmary.7

What this study adds
We have shown the increase in homicide rates in Scotland to be largely attributable to an increase in homicides using knives and other sharp objects. In the most at-risk group—men aged 15–34—the increase in homicide rate of 2.95 per 100 000 between 1982 and 2002 should be seen in context of an increase of 2.88 in homicides using knives. The preventive measure proposed in new legislation—restricting sale of knives to those aged over 18—is unlikely to be effective, given the continued availability of kitchen knives. Even proposals not included in current legislation—such as...
licensing the sale of non-domestic knives and banning the purchase of non-domestic knives other than from a licensed seller—may not be sufficient to halt the rise in homicides using knives.

**Limitations of this study**
We have used routine data sources on homicides, and as such, are unable to distinguish between homicides using knives and other ‘cutting and piercing instruments’ or ‘sharp objects’. Moreover, the figures for homicide represent a fraction of all assaults using knives, albeit they obviously cover the most serious cases.

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**References**