



RESEARCH NEWS

Under 16s are at highest risk of being stabbed going home from school, UK study finds

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Children under 16 are at the highest risk of being stabbed when going home from school, a large UK study has found.¹

“The period immediately after school accounts for a large proportion of [stabbing] incidents in children, and these predominantly occur close to home and school,” said the researchers, led by Paul Vulliamy, from the Centre for Trauma Sciences at Queen Mary University of London.

“This represents an opportunity for targeted preventive strategies,” they said.

The study retrospectively analysed data on all patients aged under 25 presenting to the emergency department of a large trauma centre in London from 2004 to 2014 after deliberate stabbing.

To investigate the epidemiology of knife violence in specific age groups, researchers combined incident level data on the location and timing of assaults with demographic data and clinical outcomes.

Published in *BMJ Open*,¹ results from 1824 patients aged under 25 showed that most stabbings occurred in males from deprived communities, including a sharp increase in incidence at ages 14-18.

In children under 16 the data showed a significant peak in injuries resulting from stabbing between 4 pm and 6 pm, accounting for 22% (38/172) of stab injuries in this age group. The rate was lower during these hours in over 16s (11% (182/1652); $P < 0.01$) than in younger children.

Child patients were significantly more likely than young adults to have been stabbed 1 km to 5 km from home (48% v 35%; $P = 0.002$).

Hypothesising that the pattern of stabbing injuries in children was related to school attendance, the researchers subdivided incidents into those occurring on school days and those occurring at weekends or during holidays.

The results showed that under 16s were more likely to have been stabbed on a school day than older teenagers (58% v 50%; $P = 0.06$), and a greater proportion of stabbings in children were within 5 km of home on a school day (90% v 74%; $P = 0.02$).

Mapping individual incidents showed that the spike in stabbing injuries among children in the late afternoon was attributable to attacks occurring on school days. Most occurred within 5 km of home, which encompasses the average distance from home to school for children living in London.

On non-school days, stabbing incidents in children followed a similar pattern in time and location to those in young adults, occurring later in the day and further from home.

Commenting on the implications for targeted strategies to reduce violence, the researchers said, “Given the peak in incidents at the end of the school day, an attractive option is staggered release times from school, which could be coupled with a visible deterrent by law enforcement at transport hubs, eateries, and other areas of pupil congregation after school.”

Latest figures from nine of the NHS’s 11 regional major trauma centres in England, reported by the *Guardian*,² showed that the number of patients with life threatening injuries due to stabbing increased from 1697 in 2015-16 to 2278 in 2017-18. Cases in under 18s increased by 24.4% over that time.

Rural hospitals have reported more young people arriving at emergency departments with injuries from violence associated with illegal drug trading.³ The increase has been linked to “county lines drug dealing,” in which urban gangs pay young people to sell drugs in locations out of town.

The study authors warned, “Long term, multi-agency interventions are essential to drive sustained reductions in interpersonal violence and will be better informed by the recognition of knife crime as a pressing public health issue.”

- 1 Vulliamy P, Faulkner M, Kirkwood G, et al. Temporal and geographic patterns of stab injuries in young people: a retrospective cohort study from a UK major trauma centre. *BMJ Open* 2018;8. <https://bmjopen.bmj.com/content/8/10/e02311410.1136/bmjopen-2018-023114>.
- 2 Campbell D. Trauma doctors reveal horror of knife crime “epidemic.” *Guardian* 31 Oct 2018. <https://www.theguardian.com/uk-news/2018/oct/21/trauma-doctors-knife-crime-epidemic-nhs-hospitals>.
- 3 Marsh S. County lines drug trade puts rural hospitals on knife crime frontline. *Guardian* 7 Nov 2018. <https://www.theguardian.com/uk-news/2018/nov/07/county-lines-drug-trade-puts-rural-hospitals-on-knife-frontline>.

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