Violence-related ambulance call-outs in the North West of England: A cross-sectional analysis of nature, extent and relationships to temporal, celebratory and sporting events

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Abstract

Objective: The aim of this study was to explore the potential of ambulance call-out data in understanding violence to inform about prevention activity. Method: This cross-sectional (2013-2015) study examined the nature, extent and characteristics of violence-related ambulance call-outs (n=15 687) across North West England and relationships with temporal, celebratory and sporting events. Results: The majority of call-outs were for men, with a mean age of 33 years. Most call-outs were to deprived (64.4%) and urban (65.4%) areas and occurred at night (18:00-5:59; 75.2%). Three-quarters (77.3%) were recorded as assault/sexual assault and 22.7% stab/gunshot/penetrating trauma. Significant differences in call-out characteristics were identified between the two violence types. Generalised linear modelling found that call-outs significantly increased on weekends, New Year's Eve and weekday bank holiday eves (except for stab/gunshot/penetrating trauma). No significant associations between all violence call-outs, the two violence categories and sporting or celebration events were identified. Two-thirds (66.1%) of the call-outs were transferred to another health service for further assessment and/or treatment. The odds of being transferred were significantly higher among men (adjusted OR (AOR) 1.5, 95% CI 1.4 to 1.6), those aged 13-24 years (AOR 1.2, 95% CI 1.0 to 1.4), call-outs for stab/gunshot/penetrating trauma (AOR 1.4, 95% CI 1.3 to 1.5) and call-outs on Fridays/Saturdays (AOR 1.1, 95%CI 1.0 to 1.2) and lower for call-outs on New Year's Eve (AOR 0.6, 95%CI 0.4 to 0.9). Conclusion: Ambulance call-out data can provide a wealth of information to understand violence and subsequently inform about violence prevention and response activity. Ambulance services and staff could play a key role in preventing violence through sharing data and identifying and supporting victims. Web link

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