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Department of Sociology, Social Policy and Criminology,
University of Liverpool, in partnership with Centre for Criminal
Justice Studies, School of Law, University of Leeds

The Role of Deprivation and Alcohol Availability in Shaping Trends in Violent Crime



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Research Report

*Dr Carly Lightowlers,
Dr Jose Pina-Sánchez and
Fiona McLaughlin*

The role of deprivation and alcohol availability in shaping trends in violent crime

Carly Lightowlers¹, Jose Pina-Sánchez², Fiona McLaughlin²

¹ Department of Sociology, Social Policy and Criminology, University of Liverpool

² Centre for Criminal Justice Studies, School of Law, University of Leeds

It is well established that alcohol availability impacts violent crime. However, less is known about whether that impact is experienced uniformly across different areas. Here we make use of longitudinal police data to examine inequalities in violent crime across small level geography (LSOAs) for the whole of England, and the impact of deprivation and alcohol availability on the observed trends in recorded violent crime.

There exist pervasive inequalities and predicted widening regional disparities in the UK (UK2070 Commission, 2019) as well as increased austerity measures - including policing cuts, which have not been uniformly experienced across the country (National Audit Office, 2018). Moreover, the UK government is increasingly pursuing self-regulation and industry partnerships in terms of on-licensed premises and alcohol (Hadfield and Measham, 2015). Given further insights from the study of the alcohol-harm paradox¹, regional differences in alcohol related harm across Great Britain (Robinson et al., 2015), and the non-uniform way in which alcohol related violence and anti-social behaviour victimisation are distributed according to socioeconomic status more generally (Bryant, 2020), we sought to examine the extent to which violent crime is experienced uniformly across areas, and whether the availability of alcohol and the deprivation profile of local areas affect this. We hypothesised that rates of

¹ The phenomenon in which those of low socio-economic status are more susceptible to and suffer a disproportionate share of the harm associated with alcohol consumption - despite drinking less or similar amounts.

change will be steeper and affected more so by alcohol availability in deprived areas.

This study combined data from several sources: (i) open police recorded crime data (2011-2018); (ii) indices of local alcohol availability derived from consumer data for 2016 on licensed premises; and (iii) items comprising the English Index of Multiple Deprivation (2015). Specifically, 66,788,377 violent crimes were examined using negative binomial growth curve models, to account for changing trends in violent crime across LSOAs conditional upon deprivation and alcohol availability.

Our findings confirm an upward trend in recorded violence in England between 2011 and 2018; with the number of violent crimes having more than trebled (an increase of 13,390,318 crimes over this period). We also established substantial between area variability in recorded violent crime; importantly, the inequalities in recorded violent crime across LSOAs increased during the period of analysis. For example, there were LSOAs where violent crime is estimated to have increased by 24% per year, with others where it decreased by a rate of 4% per year. On the whole, recorded violent crime was higher in areas with increased deprivation and alcohol availability, especially in the form of on-licensed premises (as opposed to off-licensed premises).

Interestingly, deprivation was found to be a stronger contributor of recorded violent crime, explaining a larger share of area-level variability than alcohol availability. It also moderated (amplified) the impact of alcohol availability; with more deprived areas seeing a stronger impact of alcohol availability on recorded violent crime. Deprivation is thus an important contextual factor when considering rates and the social ecology of violence; as has also been identified in individual-level analysis of the socio-economic distribution of alcohol related violence (Bryant, 2020).

The positive associations found between both on- and off-license availability and violent crime suggests restricting availability of such retail outlets represents an effective way to prevent violent crime. Restricting availability can be addressed through planning and licensing decisions and restrictions,

subsequently freeing criminal justice agencies and health organisations from some of the burden of alcohol related violence.

However, given the key role played by deprivation in driving violence, we also identify a need to respond to unequal distributions of alcohol related harm and the disproportionate impact of violence on areas with higher levels of deprivation (and availability of on-licensed premises). For example, by considering the density of licensed premises as well as the deprivation profile of an area in making decisions about licensing with a view to minimising violence. We also advocate tackling the structural drivers of socio-economic deprivation in order to ameliorate alcohol related violence, especially as initiatives for addressing the unequal distribution of such harm remain rare.

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[Dr Carly Lightowers](#)

C.Lightowers@liverpool.ac.uk



[Dr Jose Pina-Sánchez](#)

J.PinaSanchez@leeds.ac.uk



[Fiona McLaughlin](#)

F.McLaughlin@leeds.ac.uk