

## **The impact of neighbourhood deprivation on adolescent violent criminality and substance misuse: A longitudinal, quasi-experimental study of the total Swedish population.**

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## **The impact of neighbourhood deprivation on adolescent violent criminality and substance misuse: A longitudinal, quasi-experimental study of the total Swedish population.**

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### **Source**

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### **Abstract**

#### **BACKGROUND:**

A number of studies suggest associations between neighbourhood characteristics and criminality during adolescence and young adulthood. However, the causality of such neighbourhood effects remains uncertain.

#### **METHODS:**

We followed all children born in Sweden from 1975-1989 who lived in its three largest cities by the age of 15 years and for whom complete information was available about individual and contextual factors (N = 303 465). All biological siblings were identified in the sample (N = 179 099). Generalized linear mixed-effects models were used to assess the effect of neighbourhood deprivation on violent criminality and substance misuse between the ages of 15 and 20 years, while taking into account the cross-classified data structure (i.e. siblings in the same families attending different schools and living in different neighbourhoods at age 15).

#### **RESULTS:**

In the crude model, an increase of 1 SD in neighbourhood deprivation was associated with a 57% increase in the odds of being convicted of a violent crime (95% CI 52%-63%). The effect was greatly attenuated when adjustment was made for a number of observed confounders (OR 1.09, 95% CI 1.06-1.11). When we additionally adjusted for unobserved familial confounders, the effect was no longer present (OR 0.96, 95% CI 0.84-1.10). Similar results were observed for substance misuse. The results were not due to poor variability either between neighbourhoods

or within families.

**CONCLUSIONS:**

We found that the adverse effect of neighbourhood deprivation on adolescent violent criminality and substance misuse in Sweden was not consistent with a causal inference. Instead, our findings highlight the need to control for familial confounding in multilevel studies of criminality and substance misuse.

**KEYWORDS:**

Violence, confounding factors, multi-level analysis, residence characteristics, socio-economic factors, substance-related disorders

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