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Predicting psychosis admission rates in Wales using neighbourhood deprivation

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Background

Socioeconomic deprivation has been identified as a risk factor for psychosis and admission rates for psychosis are higher in deprived areas than more affluent areas. However, social gradients exist in many mental health conditions and it is unclear if this relationship is particularly important for psychosis.

Objectives

The present study assesses whether there is a stronger relationship between the socioeconomic deprivation of an area and its rate of psychiatric admissions for psychosis than there is for other mental health diagnoses.

Methods

We linked a large dataset of routinely recorded psychiatric admissions from the Welsh National Health Service to small area indices of socio-economic deprivation (the Welsh Index of Multiple Deprivation). Poisson generalised linear mixed effects models were applied to stratified admission count data to test whether the relationship between deprivation and admission rates was stronger for psychosis admissions than for non-psychosis admissions. Data from Betsi Cadwaladr University Health Board (19,437 patients) were used as a discovery sample and an analysis protocol was pre-registered before being applied to data from the rest of Wales (116,641 patients).

Findings

In both samples, admission rates were higher in more deprived areas. In the discovery sample, this relationship was stronger for psychosis admissions than for other types of admission. However, in the larger replication dataset, this was not the case and the social gradient in admissions was equivalently steep for the two diagnosis categories.

Conclusions

Although socio-economic deprivation was a risk factor for admission with psychosis, it is not a stronger risk factor for psychosis than for other psychiatric categories. Theoretical accounts of the relationship between psychosis and poverty should focus on factors common across mental health, rather than factors specific to psychosis.

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