

# research snapshot

summarize | mobilize



## Living in a disadvantaged neighbourhood may increase the risk of disordered gambling

### What this research is about

Disordered gambling is persistent gambling behaviour that causes harm and distress. Neighbourhood quality has been linked to disordered gambling.

Neighbourhood quality is measured as the average level of socioeconomic disadvantage of people living in a neighbourhood. People who live in the most disadvantaged neighbourhoods are at 2.5 to 8 times higher risk for disordered gambling than people who live in the least disadvantaged neighbourhoods. However, it is not known if living in a disadvantaged neighbourhood increases the risk of disordered gambling. It is possible that people with disordered gambling are more likely to remain living in or move to disadvantaged neighbourhoods. Alternatively, other factors could affect both the risk of disordered gambling and where one lives.

The goal of this study was to understand the link between neighbourhood disadvantage and disordered gambling. The researchers compared twins who lived in neighbourhoods with different levels of disadvantage. This allowed them to test within pairs of twins whether neighbourhood disadvantage was associated with an increased risk of disordered gambling. If neighbourhood quality affects disordered gambling, then the twin living in the more disadvantaged neighbourhood would likely have more symptoms of disordered gambling.

### What the researchers did

The researchers selected participants from the Australian Twin Registry Cohort II. A total of 3450 twins (from 1725 pairs) between 32-43 years old participated. Most of the two twins from a pair lived in different post codes. The researchers matched the

### What you need to know

People who live in neighbourhoods that are poorer in socioeconomic terms, are more likely to experience disordered gambling. However, it is not known if neighbourhood disadvantage itself increases the risk of disordered gambling, or if both are influenced by other factors like education level. This study examined the relationship between neighbourhood disadvantage and disordered gambling. It looked at twins who lived in neighbourhoods of different disadvantage levels. Within pairs of twins, the twin who lived in the more disadvantaged neighbourhood had more symptoms of disordered gambling. The link between neighbourhood disadvantage and disordered gambling remained even after accounting for other factors like education level, personality and income. Therefore, living in a disadvantaged neighbourhood could increase the risk of disordered gambling.

post codes of the participants to census data. This allowed them to quantify the neighbourhood disadvantage where each participant lived using the index of relative socioeconomic disadvantage (IRSD). The IRSD looks at the number of households in an area that have low income, low education, unskilled employment or unemployment, etc. Half of all of the post codes in Australia were represented in the study.

The participants were given a structured psychiatric telephone interview. The researchers used the National Opinion Research Center DSM Screen for Gambling Problems and the South Oaks Gambling Screen to measure disordered gambling. They also asked the participants about their symptoms of

alcohol use disorder. The participants filled out a questionnaire that they returned by mail within a month after the interview. The questionnaire included the Multi-dimensional Personality Questionnaire (MPQ). The MPQ measures the “Big Three” traits related to positive emotionality, negative emotionality, and constraint. Positive emotionality includes traits such as social competence and social closeness. Negative emotionality includes traits such as aggression and reacting negatively to stress. Constraint includes traits such as ability to control one’s impulses.

### What the researchers found

Within pairs of twins, the twin living in the more disadvantaged neighbourhood had more symptoms of disordered gambling. Importantly, this link remained after taking education level, household income, and personality traits into consideration. Therefore, living in a poorer neighbourhood might directly increase the risk of gambling disorder. In contrast, neighbourhood disadvantage was not associated with alcohol use disorder within pairs of twins. Therefore, the level of neighbourhood disadvantage does not cause differences in alcohol use disorder.

People with lower incomes had more symptoms of disordered gambling. Additionally, people who scored high on negative emotionality and low on constraint, were more likely to live in disadvantaged neighbourhoods and have more symptoms of disordered gambling. Therefore, income and personality traits contribute to both living in disadvantaged neighbourhoods and risk of disordered gambling.

### How you can use this research

Since neighbourhood disadvantage is a potential risk factor, public health officials could develop gambling harm preventions and interventions that focus on neighbourhood quality. Researchers could explore how neighbourhood quality contributes to disordered gambling. It is possible that people who live in poorer neighbourhoods face more chronic stress and have less access to resources. They may gamble to escape from stress and in the hope of a big win.

### About the researchers

**Wendy S. Slutske** and **Thomas M. Piasecki** are affiliated with the Department of Psychological Sciences at the University of Missouri in Missouri, USA. **Arielle R. Deutsch** is affiliated with the Sanford School of Medicine at the University of South Dakota in South Dakota, USA. **Dixie J. Statham** is affiliated with the Sunshine Coast Mind and Neuroscience-Thompson Institute at the University of the Sunshine Coast in Queensland, Australia. **Nicholas G. Martin** is affiliated with QIMR Berghofer Medical Research Institute in Brisbane, Australia. For more information about this study, please contact Wendy S. Slutske at [slutskew@missouri.edu](mailto:slutskew@missouri.edu).

### Citation

Slutske, W. S., Piasecki, T. M., Deutsch, A. R., Statham, D. J., & Martin, N. G. (2019). Potential causal influence of neighborhood disadvantage on disordered gambling: Evidence from a multilevel discordant twin design. *Clinical Psychological Science*, 7(3), 582–596. <https://doi.org/10.1177/2167702618812700>

### Study funding

This work was supported by National Institute of Mental Health grant MH66206. Preparation of this article was also supported in part by a Center of Excellence award from the National Center for Responsible Gaming.

### Gambling Research Exchange (GREO)

Gambling Research Exchange (GREO) has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. GREO is an independent knowledge translation and exchange organization that aims to eliminate harm from gambling. Our goal is to support evidence-informed decision making in responsible gambling policies, standards, and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

Learn more about GREO by visiting [greo.ca](http://greo.ca) or emailing [info@greo.ca](mailto:info@greo.ca).

