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Investigating associations between health-related quality of life and problem gambling

What this research is about

Problem gambling, along with its associated harms (e.g., mental health and suicide), poses a significant public health concern. As such, there is interest in developing cost-effective methods of intervention to prevent or mitigate gambling harms.

The cost-effectiveness of an intervention can be calculated by estimating the cost per quality-adjusted life year (QALY) gained compared with do-nothing and other interventions. A health-related quality of life (HRQoL) instrument, like the EuroQol-5D (EQ-5D), is used to estimate QALYs. The EQ-5D assesses five domains: mobility, self-care, usual activity, pain/discomfort, and anxiety/depression. The assessment of HRQoL generates a profile of a health condition (e.g., problem gambling), which is then evaluated to derive the health state utility. Health state utility measures how people value different health conditions on a scale from worst to best health. It can be used to compare the benefits and costs of healthcare treatments or interventions.

There are different ways to estimate the health utility associated with low-risk, moderate-risk, and problem gambling. The Problem Gambling Severity Index (PGSI), a measure commonly used to assess gambling severity, has been used in various studies to estimate the health utility of gambling. In this study, the researchers aimed to indirectly estimate health state utilities using the EQ-5D for varying levels of problem gambling based on the PGSI and associated harms.

What the researchers did

The researchers analyzed data from the 2018 Health Survey for England (HSE). The HSE is an annual large representative study of adults and children in England. In the 2018 HSE, the PGSI was used to assess levels of problem gambling and the EQ-5D was used to measure HRQoL. As well as looking at the PGSI categories and the PGSI score, to quantify gambling harm, the authors summed up the seven PGSI items measuring gambling harms to derive a PSGI harm variable. For this study, the initial sample size included 6,810 participants aged 16 and older.

Following an indirect elicitation approach, the researchers split the sample into two groups: those affected by gambling (with a PGSI score 1 or more) and those unaffected by gambling (PGSI score = 0). Key risk factors and co-occurring health conditions were also identified.

What you need to know

Problem gambling is a worldwide public health concern. As such, researchers and regulators are interested in developing cost-effective interventions to prevent and reduce gambling-related harms. In this study, the researchers explored the impact of problem gambling and its associated harms on health-related quality of life (HRQoL) using data from the 2018 Health Survey for England. The researchers used the Problem Gambling Severity Index (PGSI) and the EuroQol-5D (EQ-5D) to assess problem gambling severity and HRQoL, respectively. No significant association was found between varying levels of problem gambling and HRQoL after adjusting for key co-occurring health conditions. However, a significant link was observed between gambling-related harms and higher scores in the EQ-5D domain of anxiety and depression.

Participants in the two groups were matched based on their risk factors (e.g., age, highest qualification achieved and sex). Then, the researchers estimated EQ-5D scores using the PGSI scores, PGSI categories, and PGSI harm variable. The models were run with or without adjusting for key co-occurring health conditions. These conditions included the presence of a long-term mental disorder, receiving disability allowance, alcohol use, and cigarette smoking. Age, sex, and ethnicity were also included. An analysis was also conducted to investigate the connection between problem gambling and specific domains of the EQ-5D.

What the researchers found

No significant decreases in health state utility, as measured by the EQ-5D, were found at varying levels of problem gambling after adjusting for key co-occurring health conditions. The authors propose several potential explanations for this finding. It is possible that the results genuinely reflect a lack of relationship between problem gambling and HRQoL. However, the findings of previous studies dispute this. Other explanations include that the sample size is too small to detect a significant association; the PGSI is not an adequate measure of gambling harms; and the EQ-5D is not sensitive enough to detect changes in HRQoL due to gambling. In particular, the EQ-5D does not assess impact on social relationships. But relationship problems have been identified as gambling harms. Further investigation is warranted to gain deeper insights into the relationship between problem gambling severity and HRQoL.

A significant link was found between the 7-item PGSI-derived harm variable and higher scores in the anxiety/depression domain of the EQ-5D, even after adjusting for co-occurring health conditions. In other words, people who experienced more harms from gambling also had more anxiety/depression symptoms. The moderate-risk gambling category (PGSI score = 3–7) was associated with a higher score in the pain domain.

How you can use this research

This research can be used by gambling treatment providers, policy makers, and regulators. Treatment providers can tailor interventions to address not only the gambling behavior itself but also associated harms, particularly focusing on mental health aspects like anxiety and depression. Policy makers can develop more targeted policies aimed at preventing and mitigating gambling harms. Finally, gambling regulators can implement measures to reduce harms. This may include enforcing safer gambling initiatives and promoting mental health support services for people affected by gambling-related issues.

About the researchers

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Citation

Moore, E., Pryce, R., Squires, H., & Goyder, E. (2024). The association between health-related quality of life and problem gambling severity: A cross-sectional analysis of the Health Survey for England. *BMC Public Health*, *24*(1), 434. https://doi.org/10.1186/s12889-024-17816-3

Study funding

This study was funded by the University of Sheffield and the Wellcome Trust.

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