What this research is about

Slightly over one-third of Australian adults engage in some form of gambling in a typical month. Gambling can lead to significant harms for some people. A public health approach looks at the impact of gambling harms at a population level. This approach views harms in terms of a continuum, ranging from mild to severe harms. In this regard, it is possible for people who do not meet the clinical criteria of gambling disorder to experience harms.

The Problem Gambling Severity Index (PGSI) is a commonly used scale to assess problem gambling in the general population. The PGSI assesses both gambling behaviours and negative consequences of gambling. Initial analyses of the PGSI supported a one-factor structure that reflects the extent of problem gambling. However, in some later studies, a two-factor structure was found to have a better fit. The aim of this study was to examine the factor structure of the PGSI to explore the merit of separating the behavioural aspects from the negative consequences.

What the researchers did

The researchers used data from the 2018 Northern Territory Gambling Prevalence and Wellbeing Survey. In this survey, 5,000 Australian adults living in the Northern Territory were randomly selected to participate through random dialling of mobile and landline phones. Quotas were also set for gender, age, and region. A total of 1,260 participants did not gamble and, thus, did not complete the PGSI; their data were removed from the analyses. The remaining 3,740 participants had gambled at least once in the last 12 months and were included in the study. Slightly over half of them were female (53.6%).

What you need to know

The Problem Gambling Severity Index (PGSI) consists of nine items: four items assess problem gambling behaviours, and five items assess negative consequences of gambling. There is ongoing debate regarding whether it is helpful to separate the behavioural aspects from the negative consequences. The aim of this study was to examine the factor structure of the PGSI. The researchers analysed data from 3,740 Australian adults who had gambled in the past 12 months. They found that a two-factor structure of the PGSI provided a better fit to the data than a one-factor structure. The two factors were highly related to each other. These results suggest that problem gambling behaviours are related to negative consequences of gambling. However, the two are not necessarily the same. Separating the PGSI into two factors may be beneficial for research and intervention, depending on the objective.

The PGSI consists of nine items: four items assess problem gambling behaviours, and five items assess negative consequences of gambling. Based on the PGSI, the majority of participants were classified as non-problem gambling (86.3%; score 0). About 9.1% of participants had low-risk gambling (score 1–2); 3.5% had moderate-risk gambling (score 3–7); and 1.1% had problem gambling (score 8–27).

The survey included a measure that asked about harms in the past 12 months because of one’s own gambling. This measure had 18 items asking about harms in the following domains: financial harms, psychological/emotional harms, relationship harms,
work/study harms, and crime. This measure was completed by participants with some risk of problem gambling; those who gambled monthly on electronic gaming machines; and those who gambled regularly.

A total of 752 participants completed the measure on gambling-related harms. For each participant, the researchers summed up the number of harms that were present in the past 12 months.

**What the researchers found**

The researchers analysed the participants’ responses to the PGSI to determine its factor structure. Data from all 3,740 participants were used in these analyses. In the two-factor structure, items measuring problem gambling behaviours loaded onto one factor, and items measuring negative consequences loaded onto a second factor.

The two-factor structure fitted the data better than the one-factor structure. The two factors were highly related to each other; people who reported more problem gambling behaviours also reported more negative consequences.

The researchers then examined if each of the two factors could uniquely predict gambling-related harms. Data from 752 participants were used in these analyses. Both factors uniquely predicted gambling-related harms. That is, people who reported more problem gambling behaviours on the PGSI also reported more gambling-related harms. Similarly, people who reported more negative consequences on the PGSI also reported more gambling-related harms.

These results suggest that problem gambling behaviours are related to negative consequences of gambling. However, the two are not necessarily the same. Separating the PGSI into two factors may be beneficial for research and intervention, depending on the objective.

**How you can use this research**

This research could inform research and intervention. For example, it may be beneficial for public health to separate problem gambling behaviours from negative consequences. Doing so may help to identify people who experience negative consequences even though their gambling behaviours do not meet the clinical level.

**About the researchers**

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