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Using the NORC Diagnostic Screen for Gambling Problems (NODS) to assess gambling disorder based on DSM-5 criteria

What this research is about

Gambling is a popular pastime for many adults. However, it can develop into gambling disorder for some people. There are several measures used to assess gambling problems. The National Opinion Research Center (NORC) Diagnostic Screen for Gambling Problems (NODS) is one such measure. The NODS is a 17-item diagnostic interview based on DSM-IV criteria for pathological gambling.

In 2013, the DSM-5 renamed pathological gambling to gambling disorder and grouped it in the same category as substance use disorders. In addition, the DSM-5 removed illegal acts as a criterion for diagnosis. As a result, a person would need to meet only four instead of five criteria to be diagnosed with gambling disorder. To date, no measure has been developed to reflect the changes in the DSM-5. The aim of this study was to evaluate an online self-report version of the NODS to assess past-year gambling disorder based on the DSM-5 (i.e., NODS-GD).

What the researchers did

The researchers recruited participants via Amazon's TurkPrime from February to June 2021. Participants must have been adults over the age of 18 and living in the United States. They must also have gambled in the past year. People who met the eligibility were directed to Qualtrics to complete a survey.

The first part of the survey was a screening. Filters were used to check for eligibility and to prevent people from completing the survey more than once. A reCAPTCHA screener blocked fake responses from internet bots. People also had to answer two questions randomly selected from the Problem Gambling Severity Index (PGSI). The PGSI was presented again at the end of part one. People with non-matching answers were excluded from the main survey. Part one also asked participants about their gambling habits, including number of hours spent gambling, and net amount of money won or lost per month and per session over the last three months.

The second part of the survey was the main survey. It included the following measures:

- The NODS-GD, which assesses gambling disorder in the past year based on DSM-5 criteria.
- The Composite International Diagnostic Interview gambling module (CIDI-GM), which assesses pathological gambling based on the ICD-10.
- The Screener for Substance and Behavioural Addictions (SSBA), which is a measure of 10 addictions in the past year, including gambling.

What you need to know

The National Opinion Research Center (NORC) Diagnostic Screen for Gambling Problems (NODS) is a diagnostic interview based on DSM-IV criteria for pathological gambling. The researchers adapted the NODS to be an online self-report measure of gambling disorder in the past year, based on DSM-5 criteria. This version was called the NODS-GD. The researchers evaluated the NODS-GD using survey data from 959 participants. The results suggest that the NODS-GD is a reliable and valid measure. The accuracy of the NODS-GD was found to be generally good with respect to the Problem Gambling Severity Index and the ICD-10 pathological gambling criteria. All items of the NODS-GD loaded onto one factor. This suggests the NODS-GD measures a single construct.

- The Patient Health Questionnaire-9 (PHQ-9), which asks about depressive symptoms over the past two weeks.

Participants were invited to complete a follow-up survey one week later, which included the NODS-GD.

What the researchers found

A total of 959 participants completed the main survey. Their average age was 39.4 years. Slightly over half of participants were men (52.6%). About half of participants completed the follow-up survey.

Reliability and validity of the NOGS-GD

The average score on the NODS-GD was 3, with a range from 0–10. Two-thirds of participants scored as low-risk (score of 0–1) or subthreshold (score of 2–3). About 17% scored as mild gambling disorder (score of 4–5), 10% met the criteria for moderate gambling disorder (score of 6–7), and 7% met the criteria for severe gambling disorder (score of 8–9).

The NODS-GD was found to have good internal consistency; participants who scored higher on one item also scored higher on the other items. Reliability over the one-week period was also good; participants with a higher total score on the NODS-GD also scored higher when they completed the measure again.

The NODS-GD was strongly associated with other direct measures of gambling problems; participants who scored higher on the NODS-GD also scored higher on the PGSI and SSBA gambling scale. The NODS-GD was moderately associated with other related but distinct measures, including depression (PHQ-9), money and hours spent gambling, and other addictions (SSBA non-gambling scales).

All items of the NODS-GD loaded onto one factor. This suggests the NODS-GD measures a single construct. When comparing the NODS-GD to the PGSI and CIDI-GM, the researchers found the NODS-GD to have good accuracy in identifying gambling disorder. The NODS-GD identified more participants as qualifying for gambling disorder (34%) than the PGSI (25%). It identified fewer participants compared to the CIDI-GM (40%). Percent agreement was 83% with the PGSI and 78% with the CIDI-GM.

How you can use this research

The results suggest that the NODS-GD is a reliable and valid measure of gambling disorder, based on the DSM-5. Further research is needed to confirm its reliability and validity. Currently, there is no gold standard self-report measure of gambling problems. The researchers suggested a need to establish a gold standard measure for use in psychometric evaluation.

About the researchers

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Citation

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