

Assessment and screening measures used in gambling studies with military populations

What this research is about

Research has shown that some populations are at greater risk of experiencing gambling harm, such as military populations. It is important that research uses an instrument that is valid and reliable for assessing gambling harm in military populations. This systematic review identifies the assessment and screening tools used in studies with military populations. It then evaluates the psychometric properties of six most commonly used tools. Due to the lack of studies with military populations, the second aim is achieved by examining studies that involve the general population. Finally, the review includes a gap analysis to identify limitations in current research.

What the researchers did

The researchers followed the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. The researchers completed the search strategy in two stages. First, they identified studies that measured gambling behaviour or gambling-related harm in military populations. Medline/PubMed, ProQuest, and PsycINFO databases were searched for studies published between 2013 and 2023. Studies had to be peer-reviewed and measure gambling behaviour and/or gambling-related harm within a military or veteran population. A total of 46 studies met the inclusion criteria.

During the first stage of the review, the researchers identified six screening tools or measures that were commonly used in gambling studies with military populations. These screening tools included the Problem Gambling Severity Index (PGSI), the South Oaks Gambling Screen (SOGS), the Brief Biosocial Gambling Screen (BBGS), the Massachusetts

What you need to know

Some populations, such as military populations, are at greater risk of experiencing gambling harm. It is important that research on military populations uses an instrument that is valid and reliable for assessing gambling harm. This systematic review evaluates the assessment and screening tools used in studies with military populations. This article highlights the need for the development of military-specific screening and assessment tools.

Gambling Screen (MAGS), the National Opinion Research Centre Diagnostic Screen – Loss of Control, Lying, and Preoccupation Screen (NODS-CLIP), and the Gambling Related Cognitions Scale (GRCS).

In stage two, the researchers identified studies that validated these six screening tools. They searched Medline/PubMed, ProQuest, and PsycINFO databases for studies published between 2013 and 2024. Studies were eligible for inclusion if they discussed the validity, reliability, sensitivity, or specificity of any of the six screening tools. Due to the lack of studies with military populations, studies that involved the general population were reviewed. In this second stage, a total of 16 articles were identified.

For both stages, studies had to be published in English from 2013 onwards. Studies were excluded if they discussed statistics reported in other studies, validated translated or adapted scales, or validated new scales in relation to the six identified tools.

What the researchers found

Stage one: A total of 28 measures or scales were identified, including 22 standardized measures and 6 novel screening tools developed for specific studies.

Of the 28 tools, only one combined measure was developed for veterans.

The most commonly used tools included the SOGS (9 studies), PGSI (8 studies), BBGS (6 studies), MAGS (4 studies), GRCS (3 studies), NODS-CLiP (3 studies), and the ICD-9/ICD-10 (3 studies). The SOGS was more frequently used in US-based studies. The PGSI was more common in the UK and Australian studies. Three of these tools were brief gambling measures consisting of 5 items or fewer (BBGS, NODS-CLiP, and the Brief Problem Gambling Scale). None of these tools had been designed or validated for use with military populations.

The researchers also identified five measures that assessed both gambling behaviour and co-occurring substance misuse or mental health conditions.

Stage Two: This second stage identified studies that examined the validity, reliability, sensitivity, or specificity of the six most used screening tools. Overall, most of the scales had high specificity and sensitivity. This suggests that they are good at correctly identifying people with gambling disorder while avoiding wrongly labelling someone as having gambling disorder when they do not. However, the MSGS was found to have low sensitivity and may not be best for identifying people experiencing gambling harm at a sub-clinical level. The BBGS had poor specificity, suggesting that it has a high rate of incorrectly identifying a person as having gambling disorder. The researchers suggest that future research should review the cut-off thresholds of these tools to be specific for military populations.

Gap analysis: The researchers suggest the development of a standardized and validated measure for use with military populations. This can be informed by further research on both individual and contextual factors linked with gambling harm in military populations. They also note that it would be important to identify the optimal cut-off thresholds for such a measure. There is also the possibility of combining various assessment modes and measures to have a more well-rounded assessment of gambling in military populations.

How you can use this research

This study is intended for researchers and clinicians working with military or veteran populations.

About the researchers

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About Greo Evidence Insights

Greo Evidence Insights is an independent, non-profit organization specializing in research, knowledge mobilization, and evaluation in the health and well-being sectors. Greo transforms research and insights into actionable strategies to prevent and reduce harm related to gambling, gaming, technology use, and substance use. To learn more about funding for Research Snapshots visit [our website](#).

