

# The WAGER, Vol. 20(5) - Continuing validation of the Brief Biosocial Gambling Screen

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Brief screens for health problems can provide a quick, low-cost way to identify people who need treatment. Such tools are especially useful for problems associated with poor treatment-seeking<sup>1</sup>, like Gambling Disorder. Many brief screens, such as the 3-item Brief Biosocial Gambling Screen ([BBGS; Gebauer et al., 2010](#))<sup>2</sup> use well-know diagnostic tools, such as the Diagnostic and Statistical Manual of Mental Disorders (DSM), to establish their psychometric validity. Changes to diagnostic tools require revisiting the psychometric foundation of brief screens. This week, The WAGER reports upon a re-evaluation of the BBGS with respect to DSM-5 ([Brett et al., 2014](#)).

## Method

- The researchers completed a secondary data analysis of information obtained from 2,750 callers to a problem gambling helpline.
  - This sample excluded callers who were not calling for themselves (n=42), incomplete calls (n=541), and those who did not have complete data related to gambling-related diagnostic symptoms (n=162).
- During calls, helpline staff members completed a guided semi-structured interview that assessed demographic information, DSM-IV Pathological Gambling, current gambling behavior, help-seeking experience, suicidal ideation, and psychiatric history.
- To evaluate the psychometrics of the BBGS against DSM-5 criteria, the researchers calculated the sensitivity, specificity, positive predictive value, and negative predictive value of endorsing one, two, and three BBGS items.

## Results

- BBGS sensitivity—the ability to detect true positive cases—was highest for

a cut-off of one item (see Table 1).

- BBGS specificity —the ability to detect true negatives— was highest for a cut-off of three items.
- Among those who had a positive screen, the probability of having Gambling Disorder was 91.3%.
- Among those who had a negative screen, the probability of no having Gambling Disorder was 90%.

Number of BBGS items endorsed	Sensitivity	Specificity	Positive Predictive Value	Negative Predictive Value
≥ one BBGS item	.998	.258	.913	.900
≥ two BBGS items	.898	.831	.980	.467
≥ three BBGS items	.491	.993	.998	.173

Figure. Psychometric Characteristics of the BBGS using DSM-5 Criteria

## Conclusion

The research suggested that the BBGS, which was originally validated against the DSM-IV, remains a psychometrically valid screening tool, even with the changes to DSM-5. As with the original publication, a single-item endorsement cut-off yields the most favorable testing parameters. This study also provides evidence that the BBGS, originally developed using a general household population, maintains good predictive power among people seeking help for their gambling.

- Debi LaPlante

*What do you think? Please use the comment link below to provide feedback on this article.*

## References

Brett, E. I., Weinstock, J., Burton, S. Wenzel, K. R., Weber, S., & Moran, S. (2014). Do the DSM-5 diagnostic revisions affect the psychometric properties of the Brief Biosocial Gambling Screen? *International Gambling Studies*, 14(3), 447-456.

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classification accuracy: A brief biosocial screen for detecting current gambling disorders among gamblers in the general household population. *Canadian Journal of Psychiatry*, 55, 82-90.

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<sup>1</sup>Research by Wendy Slutske suggests that only 7%-12% of people with gambling disorder had ever sought either formal treatment or attended self-help meetings.

<sup>2</sup>An electronic version of the BBGS in 22 languages is available at [http://www.divisiononaddiction.org/bbgs\\_new/](http://www.divisiononaddiction.org/bbgs_new/).