Game Addiction Scale Assessment Through a Nationally Representative Sample of Young Adult Men: Item Response Theory Graded–Response Modeling

# Details

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5990 men

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# Abstract

Background: The 7-item Game Addiction Scale (GAS) has been validated under standard confirmatory factor analysis and exhibits good psychometric properties. Whether this scale satisfies the necessary conditions for consideration by item response theory (IRT) modeling remains unknown. However, the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) recently proposed criteria, in its section 3, to define internet gaming disorder (IGD) to promote research on this possible condition. Objective: The objective of our study was to (1) analyze GAS in the context of IRT (graded-response) modeling; (2) investigate
differential item functioning (DIF), a feature of IRT modeling, in 2 subsamples; and (3) contribute to the ongoing (IGD) debate related to the validity of the DSM-5 criteria using GAS items as a proxy. Methods: We assessed 2 large representative samples of Swiss men (3320 French-speaking and 2670 German-speaking) with GAS. Results: All items comprised high discrimination parameters. GAS items such as relapse, conflict, withdrawal, and problems
(loss of interests) were endorsed more frequently in more severe IGD stages, whereas items related to tolerance, salience (preoccupation), and mood modification (escape) were endorsed more widely among participants (including in less severe IGD stages). Several DIF effects were found but were classified as negligible. Conclusions: The results of the analyses partly support the relevance of using IRT to further establish the psychometric properties of the GAS items. This study contributes to testing the validity of the IGD criteria, although cautious generalization of our findings is required with GAS being only a proxy of the IGD criteria.

# Outcome

All items comprised high discrimination parameters. GAS (game additcion scale) items such as relapse, conflict, withdrawal, and problems (loss of interests) were endorsed more frequently in more severe IGD stages, whereas items related to tolerance, salience (preoccupation), and mood modification (escape) were endorsed more widely among participants (including in less severe IGD stages). Several DIF effects were found but were classified as negligible.