New review finds benefits of widely used treatment for gambling problems may be overstated

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A new meta-analysis published in the journal *Addiction* presents important findings that shed light on the effectiveness of psychological

treatments for gambling problems. The analysis provides both positive and negative insights, including uncovering potential overstatements of the benefits associated with using cognitive-behavioral techniques (CBTs). Significantly more funds are essential to increase the rigor of studies and to improve understanding of treatment impact among individuals experiencing gambling problems.

The analysis pooled the results of 29 randomized controlled trials of CBTs on reducing gambling problems and gambling behavior, representing almost 4,000 participants. The analysis revealed that participants receiving CBTs had larger reductions in the severity of gambling problems, the number of times gambled, and the amount of money gambled than minimal or no treatment at posttreatment. However, the analysis revealed some concerning factors that may have led to an overestimation of the treatment's impact. There was also no evidence that reductions in outcomes endured in the months and years after participants terminated CBTs.

The meta-analysis found evidence of publication bias, which occurs when the outcome of a research study affects the decision to publish it. Studies with small sample sizes and large treatment effects overpopulate the literature, and few studies have been conducted that comprise large sample sizes of individuals completing CBTs. Of course, such studies may not exist, but if they do exist, they have not been published—perhaps because the results are not as dramatic—and their data are thus not available to counterbalance the effects of the studies that have been published.

Across the 29 trials, only three studies (10%) had implemented designs to minimize risk of bias, which is the likelihood that the design or conduct of a study will give a misleading result. Most studies had a high attrition rate, meaning lots of participants dropped out of the study partway through, so that posttreatment results were based on incomplete

data, perhaps concentrated among people for whom the treatment worked well.

Less than half of the 29 studies (48%) reported results beyond the posttreatment assessment. That means the estimate of how well participants sustained their improved gambling outcomes beyond treatment was based on a comparatively small amount of data.

Lead author Dr. Rory Pfund of the University of Memphis suggests that some of the shortcomings of the 29 gambling studies can be blamed on the overall lack of funding for gambling research across several countries. For example, in the U.S.: "No US federal agency funds programs to address gambling disorder. Total state funds for gambling treatment centers and program evaluations were limited to $14 million in 2016. That amount is about 4,000 times smaller than the $550 million of federal funds available for alcohol research and about 13,000 times smaller than the $1.8 billion available for drug research in 2022," he said.

  More information: Effect of Cognitive-Behavioral Techniques for Problem Gambling and Gambling Disorder: A Systematic Review and Meta-Analysis, *Addiction* (2023). DOI: 10.1111/add.16221

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