Review: psychological treatments improve pathological gambling in the short and long term

Robert David Rogers

Evid. Based Ment. Health 2006;9:44-

Updated information and services can be found at:
http://ebmh.bmj.com/cgi/content/full/9/2/44

These include:

Rapid responses
You can respond to this article at:
http://ebmh.bmj.com/cgi/eletter-submit/9/2/44

Email alerting service
Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article

Topic collections
Articles on similar topics can be found in the following collections

Systematic reviews (incl meta-analyses): examples (361 articles)
Other Psychiatry (900 articles)

Notes

To order reprints of this article go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to Evidence-Based Mental Health go to:
http://journals.bmj.com/subscriptions/
Review: psychological treatments improve pathological gambling in the short and long term


Do psychological treatments improve pathological gambling in the short and long term?

METHODS

Design: Systematic review with meta-analysis.

Data sources: PsycINFO and Medline, 1966 to 2004; reference lists from these studies; requests for unpublished research data.

Study selection and analysis: Studies were included if they assessed the effect of psychological interventions on pathological gambling behaviour, and provided enough data to calculate effect sizes. Exclusion criteria: case studies, non-English language publication. Effect sizes were calculated as treatment minus control means for RCTs, and post-treatment minus pretreatment means for before and after studies, divided by the pooled standard deviation, and weighted by sample size. For studies with more than one gambling behaviour outcome, the average of effect size for each measure was used. A regression model was used to assess the effect of selected factors on the effect size—for example, diagnosis (DSM-IV criteria met v not met), study design, number of treatment sessions, and time since end of treatment.

Outcomes: Mean effect size post-treatment and at last recorded follow up (mean follow up 17 months).

MAIN RESULTS

The review included 22 studies (10 RCTs and 12 before and after studies), with a total of 1434 participants. Psychological interventions significantly improved gambling outcomes at the end of treatment and at follow up (mean effect size at the end of treatment 2.01, 95% CI 1.90 to 2.13; p<0.01; mean effect size at follow up 1.59, 95% CI 1.48 to 1.69; p<0.01). There was heterogeneity in the analyses for both time points. For the post-treatment analyses some of the heterogeneity was accounted for by diagnosis (greater improvement in groups that did not use DSM-IV diagnostic criteria), number of treatment sessions (larger effect size associated with longer treatment duration), and study design, although significant unexplained variance still existed after accounting for these factors. The heterogeneity in the follow up analyses could not be accounted for by any of the a priori factors tested.

CONCLUSIONS

Psychological interventions are successful in treating pathological gambling in the short and long term.

Commentary

Recent meta-analysis of randomised controlled trials (RCTs) indicates that psychological treatments can be helpful interventions for pathological gambling.1 In their study, Pallesen et al qualify this conclusion by describing a further quantitative meta-analysis of RCT studies in combination with other studies that did not include formal control groups (but used pre- v post-treatment designs) and that did not employ formal diagnosis of pathological gambling according to standard criteria.

Analysis of data provided by 1434 participants indicated large treatment effect sizes both post-treatment (2.01) and at follow up (1.59). Post-treatment, regressions indicated significant variability in the single study effect sizes with some indication that the use of between-subject study designs and formal diagnostic criteria were associated with smaller effect sizes, while RCT designs and increasing number of treatment sessions were associated with larger effect sizes. Interestingly, at follow up, there was no indication that variable single trial effect sizes were mediated by any of the above variables or by the number of months elapsed since end of treatment. On the one hand, the substantial effect sizes reported in this meta-analysis are unsurprising given the inclusion of pre- versus post-treatment designs and the absence of comparisons between active treatments.

However, Pallesen et al’s results also highlight that substantial research is needed to clarify the wide variance in treatment effects both post-treatment and, especially, at follow up. Relapse of gambling activity tends to be common but episodic in character.2 Relatively little is known about the natural history of individuals’ problem or pathological gambling from its development through to controlled gambling or even attempted abstinence, leaving considerable uncertainty about which factors might be most directly related to renewed gambling. There is evidence that reported reasons for relapse involving, for example, the interdiction of depressive episodes or revived desire to succeed at gambling activities, mirror the motivations of different kinds of gamblers.3 Further research is needed to explore whether such factors explain the variance in treatment effects across clinical trials.

Robert David Rogers PhD, CPsychol
University Department of Psychiatry, Oxford, UK


For correspondence: Ståle Pallesen, Department of Psychosocial Science, Christiesgt, 12, 5015 Bergen, Norway; stale.pallesen@psysp.uib.no
Sources of funding: none stated.