Addictive Behaviors 58 (2016) 21–30

Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh

Interventions for comorbid problem gambling and psychiatric disorders: Advancing a developing field of research

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HIGHLIGHTS

- Few treatment recommendations for gamblers with psychiatric comorbidity are available.
- We highlighted gaps in the available evidence base using two systematic searches.
- Research exploring the effect of sequenced interventions is required.
- Research aimed at identifying moderators of change would enhance treatment efficacy.
- Studies exploring efficacy of interventions matched to client comorbidity are needed.

ARTICLE INFO

Article history:
Received 19 September 2015
Received in revised form 4 February 2016
Accepted 7 February 2016
Available online 10 February 2016

Keywords:
Problem gambling
Intervention
Treatment
Psychological
Pharmacological
Gambling disorder

ABSTRACT

Despite significant psychiatric comorbidity in problem gambling, there is little evidence on which to base treatment recommendations for subpopulations of problem gamblers with comorbid psychiatric disorders. This mini-review draws on two separate systematic searches to identify possible interventions for comorbid problem gambling and psychiatric disorders, highlight the gaps in the currently available evidence base, and stimulate further research in this area. In this mini-review, only 21 studies that have conducted post-hoc analyses to explore the influence of psychiatric disorders or problem gambling subtypes on gambling outcomes from different types of treatment were identified. The findings of these studies suggest that most gambling treatments are not contraindicated by psychiatric disorders. Moreover, only 6 randomized studies comparing the efficacy of interventions targeted towards specific comorbidity subgroups with a control/comparison group were identified. The results of these studies provide preliminary evidence for modified dialectical behavior therapy for comorbid substance use, the addition of naltrexone to cognitive-behavioral therapy (CBT) for comorbid alcohol use problems, and the addition of *N*-acetylcysteine to tobacco support programs and imaginal desensitisation/motivational interviewing for comorbid nicotine dependence. They also suggest that lithium for comorbid bipolar disorder, escitalopram for comorbid anxiety disorders, and the addition of CBT to standard drug treatment for comorbid schizophrenia may be effective. Future research evaluating interventions sequenced according to disorder severity or the functional relationship between the gambling behavior and comorbid symptomatology, identifying psychiatric disorders as moderators of the efficacy of problem gambling interventions, and evaluating interventions matched to client comorbidity could advance this immature field of study.

Contents

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http://dx.doi.org/10.1016/j.addbeh.2016.02.012
0306-4603/

1. Introduction

The evidence base for problem gambling interventions supports the use of cognitive and/or behavioral therapies (CBT), motivational interviewing (MI), and opioid antagonists (Cowlishaw et al., 2012; Thomas et al., 2011). The treatment of problem gambling is, however, complicated by substantial comorbidity with other psychiatric disorders (Dowling et al., 2015a; Dowling et al., 2015b; Lorains, Cowlishaw, & Thomas, 2011). Moreover, there is growing empirical support for the presence of subtypes of problem gamblers that may respond preferentially to certain treatments (Milosevic & Ledgerwood, 2010; Rodda, Lubman, Iyer, Gao, & Dowling, 2015; Suomi, Dowling, & Jackson, 2014), as proposed by recent theoretical typologies of problem gambling, such as the pathways model proposed by Blaszczynski and Nower (2002) and the clinical typology proposed by Dannon, Lowengrub, Gonopolski, Musin, & Kotler (2006). Psychiatric comorbidity in problem gambling is associated with more complex clinical presentations (Pietrzak & Petry, 2005; Stinchfield, Kushner, & Winters, 2005) and may introduce a source of variance that interacts with delivered interventions (Toneatto & Millar, 2004).

The problem gambling treatment outcome literature has, however, generally ignored psychiatric comorbidities, excluded individuals with comorbidities, or employed small samples that preclude the detection of comorbidity subgroup differences in treatment responses. At present, most evidence regarding the identification of particular treatment strategies best suited to particular comorbid psychiatric disorders of problem gamblers is derived from post hoc analyses of treatment delivered to heterogeneous groups of problem gamblers. The existence of problem gambling sub-populations based on psychiatric comorbidity may, however, also have implications for individually tailored intervention approaches (Winters & Kushner, 2003) that could maximize treatment response, enhance client satisfaction, reduce attrition, and lower treatment costs (Grant, Williams, & Kim, 2006).

In this mini-review, we aim to highlight the gaps in the literature that preclude the identification of treatment recommendations for sub-populations of problem gamblers with comorbid psychiatric disorders. We identify: 1) studies examining the influence of comorbid psychiatric disorders and problem gambling subtypes on gambling treatment outcomes, and 2) randomized trials evaluating the efficacy of intervention approaches for problem gamblers with specific psychiatric comorbidities. We conclude with a discussion of the gaps in the current evidence base and suggestions for further research to advance this developing field of research.

2. Method

This review drew upon two separate systematic literature searches. The first search was designed to explore the influence of client characteristics on gambling treatment outcomes; but it did not emphasise the types of treatment that produced these outcomes (Merkouris, Thomas, Browning, & Dowling, submitted for publication). The second search was designed to explore the efficacy of pharmacological interventions for problem gambling; but it did not emphasise the efficacy of psychological or pharmacological treatments for problem gamblers with comorbid psychiatric disorders (Dowling et al., in preparation). Studies from the first search were considered eligible for this mini-review if they examined the influence of pre-treatment psychiatric disorders or problem gambling subtypes on gambling treatment outcomes, while studies from the second search were considered eligible if they compared the efficacy of an intervention for problem gamblers with a comorbid psychiatric disorder with a control/comparison group (see Fig. 1 and Supplementary Data). Included were 21 studies from the first search (Table 1) and 6 studies from the second search (Table 2).

3. Results

3.1. Alcohol and substance use disorders

Treatment-seeking problem gamblers display high rates of alcohol use (21.2%) and substance (non-alcohol) use (7.0%) disorders, specifically alcohol abuse (18.2%), alcohol dependence (15.2%), substance abuse (6.6%), substance dependence (4.2%), and cannabis use disorder (11.5%) (Dowling et al., 2015b). Problem gamblers with comorbid substance use, even cigarette smoking, generally have higher gambling severity, problem gambling durations, gambling frequency and expenditures, craving, psychiatric symptoms, other psychosocial difficulties, and perceived control difficulties than those without these comorbid disorders (Feigelman, Wallisch, & Lesieur, 1998; Kausch, 2003; Ladd & Petry, 2003; Petry & Oncken, 2002; Stinchfield et al., 2005; Toneatto et al., 2002). Retrospective age of onset data suggests that alcohol and substance use disorders most often begin at an earlier age than problem gambling (Kessler et al., 2008). This data suggests that although there are significant time-lagged predictive associations for alcohol and substance use disorders predicting subsequent onset of problem gamblers, there are stronger associations for problem gambling predicting subsequent onset of alcohol and substance use disorders (Kessler et al., 2008). Longitudinal research confirms that problem gambling predicts the subsequent onset of many alcohol and substance use disorders (Chou & Afifi, 2011), but that alcohol and substance use problems are also prospectively associated with the development of problem gambling (Dowling, Merkouris, et al., 2015).

Eleven articles exploring whether alcohol and substance use disorders influence treatment efficacy were identified. There is some evidence that these disorders are associated with poorer gambling outcomes following CBT (Milton et al., 2002), imaginal desensitisation plus MI (Grant et al., 2011), and internet-based CBT self-help (Carlbring et al., 2012). There is, however, more evidence that these disorders are unrelated to gambling outcomes following CBT (Dowling, 2009; Manning et al., 2014; Milton et al., 2002; Toneatto et al., 2002), behavioral treatments (Blaszczynski et al., 1991a; Smith, Battersby, et al.,