**RESEARCH QUESTIONS**

With regards to pathological gambling (PG), what is known to date about relapse in this patient population? How is relapse operationally defined in pathological gambling research?

**PURPOSE**

Few studies have examined the processes that contribute to relapse in gamblers attempting to quit gambling, and relapse is not consistently defined across gambling studies. This review assessed the few studies of relapse in PG that do exist as well as gambling treatment studies (where participants are presumably attempting to avoid relapse) to propose a definition of relapse in PG and identify factors potentially related to relapse in PG worthy of further exploration.

**HYPOTHESIS**

None stated.

**PARTICIPANTS**

None stated.

**PROCEDURE**

A review of a limited number of pathological gambling studies was conducted. Literature that examined substance abuse relapse was also examined because findings in substance abuse relapse literature may have relevance to problem gambling relapse.

**MAIN OUTCOME MEASURES**

The survey contained three sections. The first section assessed behaviourally oriented variables, including past-year frequency of gambling, game choice, gambling medium(s). The second section measured motivations of casino gamblers in an attempt to evaluate the motivations of UK gamblers as a holistic sample. The third section gathered data on demographic characteristics.

**KEY RESULTS**

Definition of relapse in PG: The authors suggested, as a preliminary definition, the distinction between a lapse (involving breaking some goal with respect to gambling) and a relapse (loss of control over gambling behaviours following abstinence or change in gambling) may help researchers establish a common framework. They suggest the best definition of relapse in PG involves perceived loss of control over this behaviour or an extended period of resurgence of the problem behaviour; thus, relapse does not involve only a single instance of the resumption of gambling.

Direct examinations of relapse in PG: Studies that have directly examined rates of relapse among those abstaining from gambling are high (in one study, only 8% of problem gamblers remained abstinent throughout the duration of one year). Reasons reported for relapse included the need to make money, boredom, cravings, stress, the need to fit in, and excitement-seeking. However, studies that have indirectly examined rates of relapse (e.g., treatment studies) have suggested rates of relapse are (sometimes much) lower.

Predictors of relapse in pathological gambling: Predictors of relapse include psychological factors (e.g., the inability to cope in high risk situations, faulty beliefs about gambling odds, and impulsivity and sensation-seeking characteristics), psychobiological factors (e.g., genetics or differences in physiological responses to gambling between gamblers and non-gamblers), and environmental and social factors (e.g., accessibility of gambling, acceptability of gambling among one’s social group).

Treatment and prevention of relapse: Studies on cognitive behavioural therapy (CBT; in which therapists and gamblers work together to overcome thoughts and behaviours that promote gambling) suggest many participants do not relapse, at least when assessed at various follow up assessment points (e.g., 6 months, 1 year). Gamblers Anonymous is the most popular treatment for pathological gamblers, and some studies suggest it can be effective in preventing relapse; however, at the time of this research, no controlled studies had been conducted.
conducted to assess its efficacy, so it is unclear whether the lower relapse rate in GA participants was due to the treatment or some other factor (e.g., socializing). Some pharmacological treatments have also demonstrated success in reducing gambling urges and behaviour (e.g., fluvoxamine and naltrexone), but no drugs have been approved for treating problem gambling.

LIMITATIONS
A definition of relapse in pathological gambling by the authors is based on a limited number of studies. Research is needed to examine differences in relapse processes in non-treatment seeking populations because relapse processes in these participants may be different than those experienced in treatment seeking populations. In general, the gambling treatment literature has a number of limitations with regard to the study of gambling relapse. Many studies are hampered by small sample sizes, lack of rigorous experimental controls, limited pre- and post-treatment assessment data, high attrition rates (and it is often not known whether participants who dropped out of treatment relapsed and if so, why), substantial missing follow-up data, and relatively short term follow up data (e.g., 6 months, 1 year).

CONCLUSIONS
No consistent operational definition of what constitutes relapse in PG exists; the authors suggest a definition that distinguishes between a lapse (breaking a goal with respect to gambling) and relapse (loss of control over gambling after setting a goal for abstinence). This review suggests most pathological gamblers who are trying to quit experience relapse (according to their definition) but again, studies need to maintain a consistent definition of relapse and address limitations discussed above to more accurately conclude rates of relapse in gamblers attempting to quit. The authors examined research which focused on the role that variables considered precipitants of relapse in drug and alcohol abuse could also be potential contributors to relapse in gambling. This included: psychological factors (coping in high-risk situations, cognitive errors, and personality); psychobiological factors (genetic influences, functional differences in the brain, and physiological responses) and social/environmental factors (high risk situations, gambling exposure and opportunities, and social support networks). However, because very few studies have been conducted to examine the processes that contribute to or result in relapse in pathological gambling, further study is warranted. The authors recommend theory based research which examines the interrelationship between these psychological, social and biological factors.

KEYWORDS: pathological gambling, relapse, coping, personality, environment, physiology, arousal

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