

# Library Watch on gambling

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## **The relation between types and frequency of gambling activities and problem gambling among women in Canada.**

Afifi TO; Cox BJ; Martens PJ; Sareen J; Enns MW. *Canadian Journal of Psychiatry* 55(1): 21-28, 2010. (46 refs.)

Objective: Canada experienced large-scale growth of the gambling industry during the 1990s. Clinical data have indicated that substantial proportions of people seeking help for gambling problems in Canada are women. A population health model was used to understand the relation between types and frequency of gambling activities and problem gambling among women in Canada. Method: Data used for the analysis were from the nationally representative Canadian Community Health Survey: Mental Health and Well-Being (CCHS 1.2; n = 10 056, women aged 15 years and older; data collected in 2002). Results: The types of gambling associated with the highest odds of problem gambling among women in Canada were video lottery terminals (VLTs) outside the casino (OR 2.37 to 53.73;  $P < 0.01$ ), VLTs inside the casino (OR 2.84 to 36.19;  $P < 0.001$ ), and other casino games (OR 4.01 to 24.15;  $P < 0.001$ ). Conclusions: These observations further our understanding of problem gambling among women in Canada and confirm that problem gambling among women is an important public health concern. Frequent VLT gambling, both outside and inside casinos, and other casino games are associated with the largest odds of problem gambling, which highlights an area of gambling in Canada that needs to be reassessed if problem gambling is to be prevented or reduced. Evidence-based research is necessary to inform healthy public policies on gambling in Canada. Findings from the current research have important research and policy implications. Copyright 2010, Canadian Psychiatric Association.

## **Taking chances: The experience of gambling loss.**

Avery J. *Ethnography* 10(4, Part 1 Special Issue): 459-474, 2009. (11 refs.)

This article conceives of heavy gambling loss as a phenomenon driven by situational antecedents located in the foreground of the experience itself, rather than being deeply determined by background factors like

biological inclinations or psychological pathologies, as the prevalent biomedical model of pathological gambling assumes. Drawing on naturalistic accounts from first-hand observation, this analysis focuses on the internal states of players as they move through distinct stages endemic to gambling, and, specifically, gambling loss. I argue that structuring the experience in this way plays an important role in showing how ethnographic methods that attend to experiential processes and their situational dimensions enable us to reconceptualize what are seen as individual problems or, in this case, pathologies. Copyright 2009, Sage Publications.

## **Gender differences in genetic and environmental influences on gambling: Results from a sample of twins from the National Longitudinal Study of Adolescent Health.**

Beaver KM; Hoffman T; Shields RT; Vaughn MG; DeLisi M; Wright JP. *Addiction* 105(3): 536-542, 2010. (33 refs.)

Aims: To examine the extent to which genetic factors and shared and non-shared environmental factors are implicated in the development of gambling behaviors and to examine whether there are gender differences in the genetic and environmental contributors to gambling behaviors. Design: A genetically informative analysis was performed by using DeFries-Fulker (DF) analysis. Setting: Analysis of secondary data drawn from the National Longitudinal Study of Adolescent Health (Add Health). Participants A total of 324 monozygotic (MZ) twins and 278 same-sex dizygotic (DZ) twins were included in the analysis. Of these twins, there were 150 male MZ twins, 144 male DZ twins, 174 female MZ twins and 134 female DZ twins. Measurements: Gambling behavior was measured through eight self-reported questions that tapped a range of items designed to measure problems related to gambling. Self-reported measures of self-control and delinquent involvement were also included to examine the degree to which these factors covaried with gambling behavior. Findings: The results of the DF analysis indicated that when male and female twin pairs were analyzed simultaneously, genetic factors explained approximately 70% of the variance in gambling and non-shared environmental factors

explained the remaining variance. When gender-specific models were calculated, substantial gender differences emerged. For males, genetic factors explained approximately 85% of the variance in gambling, with the non-shared environment accounting for the remaining variance. For females, genetic factors explained none of the variance in gambling behaviors, while the shared environment explained 45% of the variance and the non-shared environment explained 55% of the variance. Conclusions: Analysis of twins from the Add Health data suggests that there are significant gender differences in the genetic and environmental underpinnings to gambling behaviors. Copyright 2010, Society for the Study of Addiction to Alcohol and Other Drugs.

### **Lay and scientific conceptualizations of impaired control at electronic gambling machines.**

Cantinotti M; Ladouceur R; Jacques C. *Addiction Research & Theory* 17(6): 650-667, 2009. (79 refs.)

How do experts in the field of gambling and lay people represent the notion of impaired control (IC) on electronic gambling machines? This study included 37 international experts on gambling, 34 non-pathological gamblers and 32 pathological gamblers. Participation took place in the form of focus groups for gamblers and on the Internet for experts. The mixed methodology of concept mapping was used for comparing the representation of IC by the different groups. It relied on multidimensional scaling and cluster analysis. Qualitative and quantitative analysis revealed an important similarity between experts' and gamblers' representation of IC. When respondents were asked about IC, they referred essentially to excessive gambling, irrational cognitions surrounding gambling and negative consequences following excessive gambling. Although considered as central in the conceptualization of problem gambling and often relied upon in clinical practice, IC is not a straightforward and unidimensional concept. Therefore, it needs to be explicitly operationalized and clearly articulated when used in research. Copyright 2009, Taylor & Francis.

### **Decision-making during gambling: An integration of cognitive and psychobiological approaches. (review).**

Clark L. *Philosophical Transactions of The Royal Society. B: Biological Sciences* 365(1538): 319-330, 2010. (112 refs.)

Gambling is a widespread form of entertainment that may afford unique insights into the interaction between cognition and emotion in human decision-making. It is also a behaviour that can become

harmful, and potentially addictive, in a minority of individuals. This article considers the status of two dominant approaches to gambling behaviour. The cognitive approach has identified a number of erroneous beliefs held by gamblers, which cause them to over-estimate their chances of winning. The psychobiological approach has examined case-control differences between groups of pathological gamblers and healthy controls, and has identified dysregulation of brain areas linked to reward and emotion, including the ventromedial prefrontal cortex (vmPFC) and striatum, as well as alterations in dopamine neurotransmission. In integrating these two approaches, recent data are discussed that reveal anomalous recruitment of the brain reward system (including the vmPFC and ventral striatum) during two common cognitive distortions in gambling games: the near-miss effect and the effect of personal control. In games of chance, near-misses and the presence of control have no objective influence on the likelihood of winning. These manipulations appear to harness a reward system that evolved to learn skill-oriented behaviours, and by modulating activity in this system, these cognitive distortions may promote continued, and potentially excessive, gambling. Copyright 2010, Royal Society.

### **Aces and eights: Why the unlawful Internet Gambling Enforcement Act resides in "dead man's" land in attempting to further curb online gambling and why expanded criminalization is preferable to legalization. (editorial).**

Conon J. *Journal of Criminal Law and Criminology* 99(4): 1157-1193, 2009. (78 refs.)

The legalization of Internet gambling is a hotly contested issue among its various supporters and detractors, despite the topic remaining in relative obscurity within criminal law scholarship. Advocates for online poker are particularly vocal in the belief that their activity should be exempt from any form of a gambling ban. Recent academic articles, as well as current legislative proposals, have in fact advocated for an environment where Internet gambling is regulated and taxed by the federal government. This Comment is intended to balance the Internet gambling debate by presenting economic and social arguments against a legalization regime. It also seriously questions whether Internet poker is deserving of an exemption from a gambling ban. Before reaching these issues, this Comment surveys the current focal point of Internet gambling law, the Unlawful Internet Gambling Enforcement Act, as well as other existing and proposed gambling legislation. Ultimately, this

Comment concludes that clearly defining "unlawful Internet gambling" and then broadening the criminalization of the activity to reach both operators and participants is a preferable approach to proposals that call for regulation and taxation. Copyright 2009, Northwestern University.

### **Disulfiram, an option for the treatment of pathological gambling?**

Mutschler J; Buhler M; Grosshans M; Diehl A; Mann K; Kiefer F. *Alcohol and Alcoholism* 45(2): 214-216, 2010. (29 refs.)

Aim: Pathological gambling and comorbid alcohol dependence often occur in combination. Disulfiram is one of the proven drugs for alcohol dependence. In addition to its inhibiting acetaldehyde dehydrogenase, disulfiram inhibits dopamine beta-hydroxylase and may thereby increase dopamine and decrease norepinephrine cerebral concentrations. Because there may be common neurochemical substrates and neuronal circuits for pathological gambling and addiction, we explored the effect of disulfiram in gambling. Method: Outcome described. of a patient with alcohol dependence & pathological gambling, treated with disulfiram D. Results: During treatment with disulfiram, the patient reported his desire to gamble disappeared entirely. Follow-up indicated that he has not gambled for > 12 months. Conclusions: Although uncontrolled case observations should be interpreted with caution, disulfiram deserves further investigation in pathological gambling. Copyright 2010, Oxford University

### **Gambling pathology is associated with dampened cortisol response among men and women.**

Paris JJ; Franco C; Sodano R; Frye CA; Wulfert E. *Physiology & Behavior* 99(2, special issue): 230-233, 2010. (45 refs.)

Pathological gambling has many similarities to pharmacological addiction. Notably, both pathological gambling and drug addiction are characterized by aberrations in hypothalamic-pituitary-adrenal (HPA) axis responding. As well, there are indications that gender differences may play a role in these processes. Whether gender and/or HPA response are associated with pathological gambling was of interest.

Recreational and pathological gamblers (15 men and 6 women per group) had the HPA factor, cortisol, assessed in saliva before and after watching a video of their preferred mode of gambling (slot machines, horse race betting, scratch-off tickets, blackjack, video poker, craps, sports betting, online casino games, or lottery tickets), and a video of neutral stimuli (a

rollercoaster ride). Basal levels of salivary cortisol did not significantly differ among recreational and pathological gamblers. However, recreational gamblers demonstrated significantly increased salivary cortisol levels after the gambling and rollercoaster videos, whereas pathological gamblers demonstrated no salivary cortisol increase in response to either video stimulus. There was also a nonsignificant trend for women to have a greater cortisol response to video stimuli compared to men. These data suggest that pathological gambling is associated with hypoactive HPA response to gambling stimuli, similar to chronic drug exposure, and gender may contribute to this effect. Copyright 2010, Elsevier Science.

### **Social support is associated with gambling treatment outcomes in pathological gamblers.**

Petry NM; Weiss L. *American Journal on Addictions* 18(5): 402-408, 2009. (34 refs.)

Poor social support is a contributory factor in development of addictive disorders, but it has rarely been evaluated in pathological gamblers. This study examined social support in pathological gamblers and its relationship with treatment outcomes. Low baseline social support was associated with increased severity of gambling, family, and psychiatric problems and poorer post-treatment outcomes. Further, social support assessed post-treatment was significantly related to severity of gambling problems at the 12-month follow-up. This suggests that social support plays an important role in moderating outcomes, and enhancing social support may be an important aspect of effective gambling treatments. Copyright 2009, American Academy of Psychiatrists in Alcoholism and Addictions.

### **Characteristics of pathological gamblers with a problem gambling parent.**

Schreiber L; Odlaug BL; Kim SW; Grant JE. *American Journal on Addictions* 18(6): 462-469, 2009. (35 refs.)

This analysis compares the characteristics of adult pathological gamblers with and without a problem gambling parent. A sample of 517 individuals with current DSM-IV pathological gambling was categorized based on presence of a parental problem gambler. Groups were compared on clinical characteristics, gambling severity, gambling-related problems, and psychiatric comorbidity. Although the groups were similar on most measures, pathological gamblers with at least one problem gambling parent were more likely to have a father with an alcohol abuse/dependence problem; have financial and legal problems; and report daily nicotine use. Females with

a problem gambling parent had significantly earlier onset of gambling behavior, were significantly more likely to have a father with an alcohol use disorder, and were significantly more likely to have financial problems secondary to gambling than females without a problem gambling parent. Males with a problem gambling parent were significantly more likely to have a father with an alcohol use disorder and have legal problems secondary to gambling compared to males without a problem gambling parent. Treatment approaches may need to be tailored for specific problems secondary to gambling and gender issues based on having a problem gambling parent. Copyright 2009, American Academy of Psychiatrists in Alcoholism and Addictions.

### **Community treatment for problem gambling: Sex differences in outcome and process.**

Toneatto T; Wang JJ. *Community Mental Health Journal* 45(6): 468-475, 2009. (36 refs.)

This study compared sex differences in related treatment outcomes and processes in a community sample of outpatient problem gambling treatment-seekers. Participants attended approximately seven sessions of cognitive-behavioral treatment. Women were more likely to have a history of psychiatric comorbidity, prefer non-strategic/non-skill forms of gambling, and have a more rapid progression towards a gambling problem than did men. At the 6-month post-treatment follow-up, men were found to have improved to a significantly greater degree on measures of gambling severity and rates of abstinence in comparison to women. Moreover, men rated treatment components to be more helpful, whereas women found specific gambling-related treatment interventions (e.g., identification of high-risk situations, gambling beliefs and attitudes) to be less helpful. Implications for identifying treatment needs of women seeking problem gambling treatment are discussed. Copyright 2009, Springer.

### **A psychological autopsy study of pathological gamblers who died by suicide.**

Wong PWC; Chan WSC; Conwell Y; Conner KR; Yip PSF. *Journal of Affective Disorders* 120(1-3): 213-216, 2010. (24 refs.)

Background: Pathological gambling is associated with suicidal ideation and attempt. There is no known report on pathological gambling preceding suicide. By examining a series of 17 suicide cases with evidence of pathological gambling prior to death, we sought to generate hypotheses for further study of this under-researched but rapidly-increasing worldwide public

health problem. Method: Psychological autopsy interviews using a semi-structured format were conducted with proxy respondents for suicide and control subjects aged 15-59 years in Hong Kong SAR, China. Results: Of the 150 suicides and 150 controls examined, 17 suicides (11.3%) and one control case (0.6%) met criteria for the diagnosis of pathological gambling at the time of death or interview. All 17 Suicide cases with pathological gambling had unmanageable debt at the time of death. Fourteen cases (82.4%) had other associated psychiatric disorders, most often major depressive disorders (n = 10, 58.9%) and substance-use disorders (n = 3, 17.6%). None had ever received psychiatric treatment. Conclusions: Along with unmanageable debt, a high proportion of the suicide cases with pathological gambling also experienced other psychiatric illnesses, most often depression, at the time of death. None sought treatment for their addictive behavior or psychiatric illness prior to death. Pathological gambling is a modifiable risk factor for Suicide for which means to enhance case identification and engagement in treatment are urgently needed. Clinicians treating depression should explore the presence of pathological gambling behavior or unmanageable debts among their patients. Addressing pathological gambling should be one important component of a comprehensive suicide prevention strategy especially in countries where gambling activities are legalized and expanding. Copyright 2010, Elsevier Science.

### **Gambling behaviours and motivations: A cross-cultural study of Chinese and Caucasians in Australia.**

Oei TPS; Raylu N. *International Journal of Social Psychiatry* 56(1): 23-34, 2010. (29 refs.)

Background: Research on gambling behaviours among the Chinese, especially compared to Caucasians, is lacking. Aims and Methods: Gambling behaviours and motivations between community-based Chinese (n = 199) and Caucasians (n = 306) living in Australia were compared. Results: There were significant differences between Caucasians and Australian Chinese in relation to gambling behaviours and motivations that could predict problem gambling. Conclusions: The findings provide relevant information in understanding gambling behaviours and motivations among the Chinese, as well as a step towards the development of tailored preventive and treatment interventions for problem gambling in this population.

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