Available online at www.sciencedirect.com
ScienceDirect
Psychiatry Research 152 (2007) 55–61
PSYCHIATRY RESEARCH
www.elsevier.com/locate/psychres

Course of pathological gambling symptoms and reliability of the Lifetime Gambling History measure

Carolyn E. Sartor [a,*], Jeffrey F. Scherrer [a,b], Kamini R. Shah [b,c], Hong Xian [b,c], Rachel Volberg [d], Seth A. Eisen [a,b,c,e]

[a] *Midwest Alcoholism Research Center, Department of Psychiatry, Washington University School of Medicine, 660 South Euclid Ave., Campus Box 8134, St. Louis, MO 63110, United States*
[b] *Research Service, St. Louis VAMC, 915 North Grand Boulevard, St. Louis, MO 63106, United States*
[c] *Department of Internal Medicine, Division of General Medical Sciences, Washington University School of Medicine, 660 South Euclid Ave., St. Louis, MO 63110, United States*
[d] *Gemini Research, Ltd, P.O. Box 1390, Northampton, MA 01060, United States*
[e] *Medical Service, St. Louis VAMC, 915 North Grand Boulevard, St. Louis, MO 63106, United States*

Received 6 December 2005; received in revised form 25 March 2006; accepted 16 May 2006

Abstract

The DSM-IV describes pathological gambling as a chronic condition with an insidious course. However, several extant studies characterize pathological and problem gambling as fluctuating over time. The present analyses expand on previous reports by evaluating changes in pathological gambling symptoms across the lifetime. DSM-IV pathological gambling symptoms were assessed retrospectively to derive diagnoses and capture changes in symptoms over time using the Lifetime Gambling History (LGH) in a sample of 1343 middle aged males from the Vietnam Era Twin (VET) Registry. Two to four weeks after initial assessment, 196 participants were re-assessed to determine test–retest reliability of the LGH. A greater number of lifetime symptoms was associated with a higher number of changes in gambling patterns. Fluctuations in pathological gambling symptoms were common among individuals who reported two or more gambling phases, with decreases in symptoms reported as frequently as increases. Reliability data revealed high reliability in reports of pathological gambling symptom endorsement and age of symptom onset. Results are consistent with findings from community based studies that describe the course of problem gambling behaviors as changing over time. Evidence is also provided for the utility of the LGH in assessing lifetime pathological gambling symptoms.

Keywords: Veterans; Twins; Males; Problem gambling; Middle aged

1. Introduction

Pathological gambling is described in DSM-IV as typically following a chronic course (APA, 1994), but the extant literature on pathological gambling and subthreshold variants of the disorder (i.e., at-risk and problem gambling) is inconsistent in its characterization of the course of gambling-related problems as persistent, ebbing and flowing, or resolving over time. Among volunteers responding to media recruitment of former gamblers, Hodgins and el-Guebaly (2004) observed that only 8% of gamblers attempting to quit remained abstinent over 12 months. A recent study of 40 pathological gamblers, all

* Corresponding author. Tel.: +1 314 747 1415; fax: +1 314 286 2213.
E-mail address: sartorc@psychiatry.wustl.edu (C.E. Sartor).

0165-1781/$ - see front matter © 2006 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.psychres.2006.05.015

of whom who reported continued problem gambling at 3.5 year follow-up, provides additional evidence for persistence in course (Hodgins and Peden, 2005). Yet other studies have reported much better outcomes, with estimates of recovery at one third to one half of all lifetime problem gamblers (Hodgins et al., 1999).

Several longitudinal studies based on community samples indicate that gambling-related problems are transient and tend to decrease over time (Abbott et al., 2004a, b; Shaffer and Hall, 2002; Slutske et al., 2003), which some have suggested reflects a developmental course similar to that of other addictive behaviors (Winters et al., 2005). Abbott et al.'s (2004b) follow-up of a New Zealand cohort between 1991 and 1998 found that of 13 pathological gamblers at baseline, only 5 continued to meet diagnostic criteria in 1998, and of 22 problem gamblers, 19 were non-problem gamblers at final assessment. The investigators also reported that few individuals who were non-problem gamblers at the start of the study developed problem or pathological gambling over the period studied. Shaffer and Hall (2002) assessed gambling behaviors among 1176 casino employees at three points in time over a 36 month period and found that the majority (77.6%) maintained the same classification across all time points. Only 1.3% transitioned to and maintained a more disordered gambling status, but by contrast, 9.2% of the sample transitioned to and maintained a healthier state for two consecutive assessment periods.

The observation that problem gambling frequently resolves without treatment has been made in a number of studies as well. In an investigation of pathological gambling using data from two large-scale national surveys, Slutske (2006) found that among individuals who met lifetime criteria for the disorder, 36%–39% experienced no gambling-related problems in the past year, although only a small minority (7%–12%) had sought treatment. Abbott et al. (2004a) reported similar findings in their review of problem gambling in the United Kingdom, concluding that most gambling-related problems are transient and overcome without treatment.

The prospective longitudinal design is one of the strongest in epidemiology, yet its use is limited by cost and duration of follow-up that rarely covers an adult lifetime. Furthermore, in the case of adult onset disorders, it is unusual to obtain data prior to periods of high risk (i.e., during adolescence). A novel alternative paradigm is the cued, retrospective lifetime history. This approach can be used in cross-sectional studies to derive data across respondents' entire lives, allowing for the collection of information both before and after peak periods of risk. The use of cues (e.g., birthdays, changes in school or job) to orient respondents to particular periods in their lives is employed to address potential inaccuracies in recall that may occur when querying events that span an extended timeframe. Cued retrospective reporting has demonstrated utility in the study of the course of alcohol use disorders. The Lifetime Drinking History (LDH) (Skinner and Sheu, 1982) queries respondents about major changes in their typical drinking patterns. Changes are then defined as phases and counted chronologically, starting with the time that regular drinking began to present drinking status. Respondents are asked to recall significant life events such as changes in career or marital status that act as anchor points to orient participants to their drinking histories. The LDH has been used to assess drinking patterns among alcohol abusers (Sobell et al., 1988) as well as to describe increases and decreases in drinking and in alcohol use disorder symptoms across the life span (Sartor et al., 2003) in community based samples. It has produced similar results when modified into a questionnaire format (Friesma et al., 2004) and has been adapted to collect illicit substance use histories (Czermack et al., 2005) as well. Reliability of the LDH has been established in treatment (Sobell et al., 1988) as well as community samples (Jacob et al., unpublished results) and has demonstrated good construct validity (Skinner, 1982). Because of the utility of the LDH in assessing patterns in the course of disorders that may persist over time, the LDH was used as a model for the creation of the Lifetime Gambling History (LGH).

The objectives of the present study were to demonstrate the convergent validity and test–retest reliability of the LGH and to describe the natural course of pathological gambling symptoms in a sample of 1343 men who responded to a 2002 survey of problem gambling.

2. Methods

Data were drawn from a larger study whose aims included identifying familial influences on the course and consequences of gambling behaviors. Recruitment, study design, and assessment protocol relevant to the current study are outlined below. Additional information about the larger study is reported in previous publications (Eisen et al., 1998).

2.1. Participants

Participants were drawn from the Vietnam Era Twin (VET) Registry, which consists of 7375 male monozygotic (MZ) and dizygotic (DZ) twin pairs born between 1939 and 1955 in which both siblings served on active military duty during the Vietnam era (1965–1975). The characteristics of the VET Registry and method of zygosity determination