Addictive Behaviors 74 (2017) 27–32

Contents lists available at ScienceDirect

Addictive Behaviors

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

Binge-drinking and non-partner aggression are associated with gambling among Veterans with recent substance use in VA outpatient treatment☆

Alan K. Davis[a,*], Erin E. Bonar[a], Jason E. Goldstick[b,c], Maureen A. Walton[a,b], Jamie Winters[a,d], Stephen T. Chermack[a,d]

[a] Addiction Center, Department of Psychiatry, University of Michigan, North Campus Research Complex, 2800 Plymouth Rd. Building 16, Ann Arbor, MI 48109, USA
[b] Injury Center, University of Michigan, North Campus Research Complex, 2800 Plymouth Rd. Building 10, Ann Arbor, MI 48109, USA
[c] Department of Emergency Medicine, University of Michigan, North Campus Research Complex, 2800 Plymouth Rd. Bldg 10-G080, Ann Arbor, MI 48109-2800, USA
[d] VA Ann Arbor Healthcare System, North Campus Research Complex, 2800 Plymouth Rd. Building 16, Ann Arbor, MI 48109, USA

ARTICLE INFO

Keywords:
Gambling
Alcohol
Treatment
Veterans
Substance use problems

ABSTRACT

Background: Gambling is relatively under-assessed in Veterans Affairs (VA) substance use disorder (SUD) treatment settings, yet shared characteristics with substance addiction suggest the importance of understanding how gambling behaviors present in Veterans seeking SUD care.
Method: We evaluated substance use, mental health, and violence-related correlates of past 30-day gambling among 833 Veterans (93% male, M age 48 years, 72% Caucasian) seeking treatment in VA outpatient mental health and SUD clinics who completed screening for a randomized clinical trial.
Results: A total of 288 (35%) Veterans reported past 30-day gambling. Among those who gambled, 79% had cravings/urges to gamble, whereas between 20%–27% of gamblers reported perceived relationship, legal, and daily life problems related to gambling, as well as difficulty controlling gambling. A logistic regression analysis revealed that age, recent binge-drinking, and non-partner physical aggression were associated with recent gambling.
Conclusions: Gambling was associated with binge-drinking and non-partner physical aggression, supporting potential shared characteristics among these behaviors such as impulsivity and risk-taking, which may complicate SUD treatment engagement and effectiveness. Findings support the need to screen for gambling in the VA, and to adapt treatments to include gambling as a potential behavioral target or relapse trigger, particularly among heavy drinking patients.

1. Introduction

Veterans receiving care at Veteran's Affairs (VA) medical centers typically have high rates of co-occurring psychiatric (e.g., depression, anxiety, Post-Traumatic Stress Disorder [PTSD]) and Substance Use Disorder (SUD) diagnoses (Bonn-Miller, Bucossi, & Trafton, 2012; Seal et al., 2011; Stecker, Fortney, Owen, McGovern, & Williams, 2010; Wisco et al., 2016). Additionally, evidence suggests that Veterans with co-occurring conditions are more likely to drop out of treatment before completion (Oliva, Bowe, Harris, & Trafton, 2013). Psychiatric diagnosis, and SUD diagnoses and substance use-related problems, are associated with a greater risk of homelessness, disability, co-occurring biomedical complications, and greater service utilization among Veterans (Bowe & Rosenheck, 2015). Therefore, it is important for VA providers, or civilian providers working with Veterans in non-VA clinics, to identify potential screening and intervention needs as well as factors that might interfere with treatment engagement and retention in this population.

One such factor is the co-occurrence of addictive and/or impulsive behaviors that might impact the course of treatment, therefore contributing to continued SUD/psychiatric problems or potential relapse. For example, problem and pathological gambling share many characteristics with substance addiction (e.g., craving/appetitive urge, repeated engagement despite adverse consequences, reduced self-control; Wareham & Potenza, 2010), and Veterans appear to have a greater prevalence of gambling and gambling-related consequences compared

☆ Disclosures: Funding for this study was provided by VA Merit Review Grant: HX000294. During his work on this study, Dr. Davis was supported by a NIAAA Institutional Training Grant (#007477). During her work on this study, Dr. Bonar was supposed by a NIDA Career Development Award (#036008). The funding sources had no role in the design, data collection, analysis or interpretation of results.

* Corresponding author at: University of Michigan Addiction Center, 2800 Plymouth Road, North Campus Research Complex, Building 16, USA.
E-mail address: alan.kooi.davis@gmail.com (A.K. Davis).

http://dx.doi.org/10.1016/j.addbeh.2017.05.022
Received 30 January 2017; Received in revised form 18 May 2017; Accepted 19 May 2017
Available online 20 May 2017

to the general population (Westermeyer, Canive, Thuras, Oakes, & Spring, 2013). Additionally, such problems appear to be under-assessed and under-treated in VA treatment settings (Drebing et al., 2001; Edens & Rosenheck, 2012), and thus represent an important treatment consideration among this high-risk population.

Although some evidence suggests that recreational gambling can be associated with better health functioning (Desai, Maciejewski, Dausey, Caldarone, & Potenza, 2004), and have a positive impact on life satisfaction (Humphreys, Nyman, & Ruseski, 2016), the majority of evidence suggests that recreational and pathological/problem gambling frequently co-occur with other high-risk problems underscored by impulsivity (Potenza, Maciejewski, & Mazure, 2006; Rash, Weinstock, & Van Patten, 2016). For example, among Veterans, gambling has been associated with suicidal ideation and attempts (Kausch, 2003a,b, 2004), substance use and SUDs (e.g., alcohol use and use disorders; Desai et al., 2004; Edens & Rosenheck, 2012; Kausch, 2003a; Potenza et al., 2006; Rash et al., 2016; Westermeyer, Canive, Garrard, Thuras, & Thompson, 2005; Westermeyer et al., 2008), and with psychiatric disorders (e.g., depression, anxiety; Edens & Rosenheck, 2012; Westermeyer et al., 2005, 2008). Similarly, violence and aggression (e.g., partner and non-partner violence; aggressive behavior; family violence) have been associated with both pathological and problem gambling among civilians (Adachi & Willoughby, 2013; Dowling et al., 2014, 2016; Goldstein, Walton, Cunningham, Resko, & Duan, 2009; Korman et al., 2008; Parke & Griffiths, 2004; Roberts et al., 2016; Suomi et al., 2013), and data from a nationally representative sample in the United States (US) showed that the odds of violent behavior are significantly greater among individuals with gambling problems (Pulay et al., 2008). Further evaluation contextualizing the co-occurrence of violence with gambling and in SUD samples, particularly among Veterans, could inform clinical efforts with such patients.

Given the variety of negative associations of gambling, and the possibility that any of these co-occurring problems could interfere with treatment retention and success, it is crucial to understand the potential gambling-related concerns among treatment-seeking Veterans with SUD problems. Not only could this information help inform treatment planning, but it also has the potential to reduce the risk of negative outcomes associated with multiple high-risk behaviors in a population with complex biomedical and psychiatric needs. The present study begins to address this issue by evaluating the prevalence and correlates of gambling among Veterans with recent substance use seeking treatment at a VA outpatient program. Based on prior research (Adachi & Willoughby, 2013; Edens & Rosenheck, 2012; Goldstein et al., 2009; Kausch, 2003a,b, 2004; Korman et al., 2008; Pulay et al., 2008; Westermeyer et al., 2005, 2008), we expected significant differences between Veterans with and those without recent gambling on the following variables: alcohol consumption, partner and non-partner physical aggression, psychiatric symptoms (e.g., depression and anxiety), and suicidal ideation. Although PTSD is quite prevalent in Veteran populations (Wisco et al., 2016), prior research has shown that gambling is not consistently associated with PTSD symptoms/diagnosis among Veterans (e.g., Biddle, Hawthorne, Forbes, & Coman, 2005; Edens & Rosenheck, 2012; Westermeyer et al., 2005, 2008). Therefore, we included PTSD symptoms as a relevant covariate in this high-risk population, but did not have a specific hypothesis given this inconsistency in the literature.

2. Method

2.1. Recruitment & procedure

The secondary data included in this report were collected as part of screening for a randomized clinical trial (RCT) of a substance use and violence prevention intervention. Details regarding study procedures have been described elsewhere (see Davis et al., 2016; Anderson et al., 2017). To be eligible for the screening, participants had to have recent substance use, be in outpatient treatment (SUD or Mental Health), provide written consent, read/speak English, and must not have active psychosis, suicidal ideation, cognitive problems or a legal guardian, and must not be in another intervention study or live outside the catchment area. Participants earned $10 in gift cards for the screening. Although 839 individuals completed screening for the trial, there was missing data on our primary dependent measure for 6 people; thus, the current analytic sample comprised 833 individuals. The local VA's institutional review board approved all procedures.

2.2. Measures

2.2.1. Gambling characteristics

Past-month gambling and related outcomes were assessed using items we created for this study parallel to items on the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; WHO ASSIST Working Group, 2002). Participants first reported on past-month frequency of gambling on a scale from "0 = Never" to "5 = more than once a day." Those responding more than "Never" also completed past-month items assessing: a) strong desire to gamble; b) health, social, family/relationship, legal, or financial problems as a direct result of gambling; c) failure to fulfill normal expectations because of gambling; d) concern expressed by friend or relative; and e) failed attempts to cut back or quit gambling. All gambling-related items were dichotomized for ease of interpretation and to resolve problems related to residual diagnostics in the model. For the purposes of the present study, we were interested in measuring gambling and potential related problems proximal to treatment entry (i.e., past 30 days). Because most gambling screening measures focus on lifetime or past-year diagnostic criteria for pathological gambling, we created a more specific set of items to assess potential consequences and our measure had significant overlap with constructs included in other screening instruments (Lesieur & Blume, 1987; Wickwire, Burke, Brown, Parker, & May, 2008).

2.2.2. Posttraumatic stress disorder checklist – civilian (PCL-C)

This questionnaire is comprised of 17 items that assess PTSD symptoms (e.g., "Avoid activities or situations because they remind you of a stressful experience from the past," "Repeated, disturbing memories, thoughts, or images of a stressful experience from the past"; Gerrity, Corson, & Dobscha, 2007; Weathers, 1996) based on the criteria described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV-TR, American Psychiatric Association, 2000). Each participant was asked to self-report how much these symptoms had bothered him or her during the 30 days prior to screening on a scale from "1 = Not at all" to "5 = Extremely." Based on recommendations from the National Center for PTSD (2014), we chose to use the conservative cutoff score of 50 to indicate significant symptoms of PTSD in the present study. Because of an error in the screening survey, item 17 (i.e., "Feeling jumpy or easily startled") was not assessed. We adjusted scores using a mean substitution method in order to account for this error. Cronbach's alpha in our sample was.95.

2.2.3. Patient Health Questionnaire – 9 (PHQ-9)

This questionnaire is comprised of nine items assessing symptoms of major depression (e.g., "Feeling down, depressed, or hopeless," "Little interest or pleasure in doing things"). Each participant was asked to rate how often he or she experienced these symptoms during the previous two weeks on a scale from "0 = Not at all" to "3 = Nearly every day." A score of 10 or greater on the PHQ-9 is indicative of clinically significant depression symptoms (Kroenke, Spitzer, & Williams, 2001). Cronbach's alpha in our sample was 0.90. In addition to evaluating overall depression symptoms, we used item nine (i.e., "Thoughts that you would be better off dead or of hurting yourself in some way"), in order to evaluate suicidal ideation as an independent variable.