



Original article

Independent Versus Co-occurring Substance Use in Relation to Gambling Outcomes in Older Adolescents and Young Adults


 Jessica M. Cronce, Ph.D.^{*,1}, Joyce N. Bittinger, Ph.D., Cory M. Di Lodovico, M.S., and Junny Liu

Department of Psychiatry and Behavioral Sciences, University of Washington, Seattle, Washington
Article history: Received June 9, 2016; Accepted October 25, 2016

Keywords: Adolescents; Young adults; Alcohol; Cannabis; Gambling

 See Related Editorial p. 481

A B S T R A C T

Purpose: Gambling is prevalent among college students and can be associated with significant negative consequences. Students who report gambling also tend to report use of alcohol and cannabis, but little research has explored the associated risks of using these substances in relation to gambling episodes. This study explored associations between the independent and co-occurring use of alcohol and cannabis before/during gambling episodes and gambling outcomes.

Methods: Students ($n = 1,834$) completed an online survey that included measures of gambling frequency, amount lost, negative gambling consequences, gambling problem severity, and substance use.

Results: As hypothesized, individuals who reported using either alcohol or cannabis alone or both substances before/while gambling endorsed greater gambling quantity, frequency, negative consequences, and problem severity than individuals who used alcohol and cannabis in general but denied use of either substance before/while gambling. Use of both substances compared to use of alcohol alone was associated with greater gambling quantity, frequency, and negative consequences, although these groups did not differ on gambling problem severity. Cannabis use alone was no different on any outcome than use of both substances, and alcohol use alone was no different than cannabis use alone on any outcome.

Conclusions: Use of cannabis alone before/while gambling may confer the same level of risk for negative gambling outcomes as use of both cannabis and alcohol. Prevention efforts may, therefore, benefit from targeting cannabis use in relation to gambling. Additional investigation is needed in light of recent and upcoming state legislation on the legalization of cannabis.

© 2016 Society for Adolescent Health and Medicine. All rights reserved.

IMPLICATIONS AND CONTRIBUTION

This study builds on the growing literature showing that alcohol use before/while gambling is associated with negative outcomes. The study also examines the temporal relation between cannabis use and gambling outcomes and sets the stage for subsequent experimental cannabis administration studies.

Conflicts of Interest: The authors have no conflicts of interest to disclose.

Disclaimer: The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health, the University of Washington or the University of Oregon.

* Address correspondence to: Jessica M. Cronce, Ph.D., Department of Counseling Psychology and Human Services, 5251 University of Oregon, Eugene, OR 97403-5251.

E-mail address: jcronce@uoregon.edu (J.M. Cronce).

¹ Present address: Department of Counseling Psychology and Human Services, College of Education, University of Oregon, Eugene, Oregon.

Approximately 3.2% [1] to 6% [2] of the U.S. adult population experiences problems related to their gambling. Adverse effects of gambling have wide reach and can include health and social consequences such as family problems, criminal arrests, employment or school difficulties, psychological distress, and suicide [3,4]. U.S. college students appear to be at uniquely high risk for negative gambling-related outcomes. Specifically, rates of disordered gambling in college students have been estimated to be from 7.89% [5] to 18% [6].

Risk for gambling consequences appears to be affected by co-occurring behaviors and conditions. For example, the presence of comorbid mental disorders has been associated with increased gambling problems and severity of associated consequences [7,8]. Substance use problems are especially prevalent for those with disordered gambling [9–11], with lifetime prevalence rates of substance use disorders averaging about 57.5% among those experiencing disordered gambling [11]. Alcohol use disorder is estimated to affect 28.1% of those experiencing disordered gambling [11], with cannabis use disorder being the next most common [12]. Comorbidity may also be an indicator of severity. Those with pathological gambling who have a substance use treatment history have been shown to have more severe gambling and psychiatric problems than those without [8].

Independent of clinical psychopathology, greater frequency of gambling behavior has been reported among youth aged 14–21 years who also report using alcohol or cannabis compared to youth who deny use of these substances [13]. Extant research also suggests that drinking before or during gambling episodes is associated with, or leads to, increased financial loss and negative consequences [14–19]. However, no studies could be identified that assessed the impact of cannabis use immediately before or while gambling on gambling outcomes or the potential effect of the use of both alcohol and cannabis before or during gambling episodes. Given that cannabis use is frequently reported in association with gambling [12], understanding the impact of its use on gambling behavior appears key to prevention of associated harms. Moreover, although most students who drink do not use cannabis, over 65% of those who use cannabis also drink alcohol [20,21], suggesting those who use cannabis may be at greater risk because of greater likelihood of multiple substance use.

The purpose of the present study, therefore, is to examine the associations between the independent and co-occurring use of alcohol and cannabis in relation to gambling behavior on gambling outcomes among college students who report general use of both substances. It was anticipated that individuals reporting use of either (*alcohol only* or *cannabis only*) or both alcohol and cannabis (*alcohol–cannabis*) before or while gambling would report greater negative gambling outcomes (i.e., greater quantity of losses, greater frequency, more consequences, and higher problem severity) than those reporting use of *neither* substance before or while gambling. It was also anticipated that individuals reporting use of both substances before or while gambling would report greater negative gambling outcomes than those reporting use of alcohol only or cannabis only. As limited data are available on the association, an exploratory aim was to evaluate the difference between use of cannabis only and alcohol only on gambling outcomes. The present study represents secondary data analysis of screening data obtained as part of a larger clinical trial assessing the effectiveness of an early intervention for disordered gambling and thus only includes a small subset of the total sample from the original study who reported any gambling and any alcohol and cannabis use in the recent past.

Method

Participants and procedures

All aspects of the research protocol were approved by the university's Institutional Review Board in accordance with federal guidelines for the protection of human subjects and the Health Insurance Portability and Accountability Act. Participants

in the original clinical trial (<https://clinicaltrials.gov/ct2/show/NCT01529047>) were college students from a large west-coast university who were randomly chosen from the entire student body over the course of the study (2010–2014) and invited to participate in an initial online screening survey. Participants were required to confirm their agreement with an online information statement containing all elements of informed consent prior to completion of the survey. Parental consent was obtained for participants aged <18 years. A total of 26,335 were invited to the screening survey, of which 37.5% consented and provided complete or partial data (8,769 complete, 1,097 partial) on measures of gambling frequency and amount lost, negative consequences experienced while gambling, and substance use. As the outcome variables of interest in this study were gambling behavior and related consequences, only data for participants between the ages of 17 and 24 years who reported any gambling in the past 6 months were selected for analysis (N = 4,761). Of these, 84.9% (n = 4,040) reported use of alcohol and 42.4% (n = 2,019) reported use of cannabis in the past 3 months (n = 4,067 total reporting use of one or both substances). Although some forms of gambling are more accessible on a routine basis (e.g., online betting), a 6-month time frame was used to assess whether participants gambled versus a 3-month time frame for substance use as gambling behavior tends to be more infrequent than substance use in the general college student population (i.e., someone may only gamble during school breaks or they may only purchase a lottery ticket when there is a large jackpot). As the purpose of this study was to disentangle the relationship between the use of alcohol alone versus cannabis alone versus the use of both of these drugs in relation to gambling behavior, a final sample of 1,834 students was selected who provided data on their use of both alcohol and cannabis and also provided data on whether they had used these substances in relation to gambling. A co-occurring use grouping variable was created (see section on *Substance use and gambling in relation to substance use* for more information), denoting participants who used neither alcohol nor cannabis before or while gambling (*neither*; n = 1,018; 55.5%), those who only used alcohol before or while gambling (*alcohol only*; n = 559; 30.5%), those who only used cannabis before or while gambling (*cannabis only*; n = 54; 2.9%), or those who reported use of both alcohol and cannabis before or while gambling (*alcohol–cannabis*; n = 203; 11.1%). The final sample had a mean age of 20.01 years (SD = 1.44) and 43.6% identified as women. Most students self-identified as Caucasian (66%), followed by Asian (16.9%) and multiracial (8.9%), with only a minority (between 1.1% and 4.5%) endorsing other racial categories; 7.8% of the sample identified as Hispanic or Latino/a across racial categories. See Table 1 for demographic and other information on the four substance use groups.

Measures

Gambling quantity (losses). A single item from the Gambling Quantity and Perceived Norms Scale [3] was used to calculate gambling quantity in terms of losses over the past 3 months on a 10-point Likert-type scale ranging from <\$5.00 to >\$1,000. This single item was selected to maintain parity with the 3-month time frame used by the measure of gambling frequency and consequences.

Gambling frequency. A single item from the Gambling Quantity and Perceived Norms Scale [3] was used to assess the average

Download English Version:

<https://daneshyari.com/en/article/5121296>

Download Persian Version:

<https://daneshyari.com/article/5121296>

[Daneshyari.com](https://daneshyari.com)