Indicated Prevention of Problem Gambling Among College Students

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This research provides a brief qualitative description of the development of an indicated prevention intervention for college student gamblers. The proposed intervention integrates alcohol prevention strategies with elements of gambling treatment. The intervention combines cognitive-behavioral skills-training and motivational interviewing and includes personalized normative feedback, cognitive correction, discussion of gambling consequences, and relapse prevention techniques. Examples detailing all phases of the intervention are provided from interviews conducted in a pilot of the intervention. Preliminary pilot data suggests the intervention shows promise in reducing high risk gambling among college students.

KEY WORDS: gambling; indicated prevention; college students; intervention development.

Problem gambling is more prevalent among college students than in the general population. Estimates suggest that about 5% of college students have severe gambling problems while nearly 15% exhibit

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symptoms of at least moderate problems (Lesieur et al., 1991; Shaffer et al., 1997). Unfortunately, our understanding of disordered gambling among the college aged is limited and little is known about what might prevent the development of severe problems among students already exhibiting moderate problems with gambling. This report provides a brief qualitative description of the development of an indicated prevention intervention for college student gamblers. As defined by the Institutes of Medicine (IOM, 1990), indicated prevention approaches are designed to 1) identify at-risk students displaying moderate problems behaviors, and 2) prevent the development of a more severe gambling disorder.

While college student gambling has not been extensively examined, alcohol use and abuse have been widely studied in this population. Gambling, like alcohol use, is considered a potentially addictive behavior and the two disorders appear to share a common underlying profile, and perhaps reinforce each other (Griffiths, 1994). These two behaviors co-occur in a variety of populations, including college students (e.g., Lesieur et al., 1991). These similarities between the two disorders have resulted in the adaptation of the Alcoholics Anonymous (AA) program to Gamblers Anonymous (GA), a self-help, 12-step model applicable to gambling behaviors (Browne, 1991). Evidence suggests that effective treatments for disordered gambling may share many common elements of effective alcohol treatment (Spunt et al., 1998). Miller et al. (1995) describe several interventions commonly used with alcohol populations. Two particularly effective approaches for alcohol treatment are 1) brief interventions, usually guided by motivation enhancement strategies (motivational interviewing, MI), and 2) broad spectrum skills training.

Motivational Interviewing (MI; Miller & Rollnick, 2002) assumes that the individual has the knowledge and skills needed to make behavior change, and seeks to enhance motivation to make a change. MI strategies include objective and non-judgmental feedback, enhancement of personal responsibility for change, direct advice, provision of several treatment alternatives, an empathic therapeutic stance, and the development of self-efficacy. Researchers have incorporated MI techniques into gambling treatment with improved outcomes (Sharpe & Tarrier 1992; Hodgins et al., 2001). Broad spectrum cognitive-behavioral skills training, in contrast, assumes the individual is motivated to change, and focuses on the teaching of skills. Therapists offer sugges-

tions for change, teach problem solving strategies, and encourage new behaviors through the use of modeling, directed practice, and feedback.

There is evidence that applying these treatment strategies to the prevention arena with college student drinkers is effective, and both can be effectively integrated in a single session brief intervention (BASICS; Dimeff et al., 1999; Larimer et al., 2001). The BASICS intervention, developed in our laboratory, utilizes non-confrontational MI techniques and provides feedback targeting a number of factors related to the maintenance of high-risk drinking among college students. Elements of the intervention target: 1) Inaccurate perceptions overestimating the normative nature of high-risk drinking, 2) Positive expectations for alcohol's effects, particularly in social situations, 3) Lowered perception of personal risks related to drinking, as compared to general risks or risks to others, 4) Low motivation to change drinking behavior, and 5) Lack of skills for moderating alcohol consumption, including drink refusal skills, Blood Alcohol Content (BAC) estimation skills, and behavioral self-management.

Many of these elements are similar to those found in successful treatments for gambling problems. Common components of gambling treatment include (Blaszczynski and Silove, 1995; Ladoucer et al., 1998; Sylvain et al., 1997): 1) Cognitive correction of dysfunctional beliefs about gambling related to illusory control (i.e. the ability to effect chance—determined outcomes and misconceptions about randomness, 2) Problem-solving training which may include stimulus control techniques to avoid exposure to gambling cues, or developing ways to control autonomic arousal, 3) Social and coping skills training-including stress management skills, development of alternative leisure activities, and the ability to seek emotional support, positive reappraisal, and anger management, and 4) Relapse prevention skills for gambling, substance use, and/or other psychiatric co-morbidity.

Given the common presenting features and the theoretical overlap between alcohol and gambling, the BASICS intervention (Dimeff et al., 1999), known to effectively reduce alcohol use and related harm among college students, was modified for gambling behaviors, and combined with additional cognitive correction skills training to better address gambling. While the modified BASICS shares similarities with other gambling treatments, it also includes unique approaches to addressing problematic gambling (e.g., providing to those who drink and

gamble at the same time, personalized normative feedback comparing alcohol consumption with average or typical alcohol use behavior, and exploring personal expectations of reward from gambling that can be modified). The modified BASICS is also novel in implementing a harm reduction approach (Marlatt & Witkiewitz, 2002) to problem gambling. This report describes this new indicated gambling prevention program and presents pilot results.

METHOD AND PRELIMINARY DATA

Participants

Participants were recruited via flyers, campus newspaper ads, and an introductory psychology course. Three hundred and two students aged 18–21 were screened for gambling problems using the South Oaks Gambling Screen (Lesieur & Blume, 1987). Of these, 32 (10.6%) were identified as at risk for problem gambling, of which 28 were recruited to a baseline assessment and randomly assigned to an experimental or assessment only control group. 21 (75%) students (18 male, 3 female) returned for a 3-month follow-up. Participants were paid $15 to complete the baseline and $20 for the follow-up assessment. All 7 of those participants not returning for follow-up were in the assessment only control group. This may have been because the intervention generated interest in understanding gambling behavior, however we can not rule out the possibility that non-returning students improved on their own and were thus less interested in participating at follow-up.

Baseline and Follow-up Assessment Instruments

At baseline and three months follow-up participants were assessed for frequency and duration of time spent gambling in the previous three months, amount of money spent gambling, type of gambling engaged in, psychosocial functioning in the previous three months, and motivation to change any reported problem behavior. Trained research assistants, who were blind to treatment assignment, administered the individualized interview measures.

Measures

South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987) is a widely used 20-item self-administered questionnaire designed to identify pathological gambling. A score of five or greater is typically used to identify probable pathological gamblers. Scores of three and four have been used to identify sub-clinical problem gamblers (e.g., Lesieur et al., 1991). In this research, students who score above 3 were identified as at risk for problem gambling.

The Gambling Severity Index (GSI) is a modification of the *Addictive Severity Index (ASI)*, a reliable and valid means of evaluating the severity of addiction related symptoms in a number of domains (McLellan et al., 1985). The GSI contains the original ASI with the addition of gambling items and gambling-related legal items. The GSI has high internal consistency and correlates highly with the SOGS as a measure of severity of gambling problems (Lesieur & Blume, 1992).

Gambler's Self-Report Inventory (GSRI) is a comprehensive self-administered questionnaire addressing many aspects of gambling behavior and related issues (Lesieur & Rosenthal, 1995, used by permission). The GSRI was used primarily to generate feedback used in the intervention.

Brief Secondary Prevention Program

Participants assigned to the experimental group were seen within three weeks of the baseline assessment. Personal feedback based on baseline measures was provided during a 45–60 minute individual session. Participants were encouraged to view the feedback as a tool for making informed choices. Evidence suggests that subjects who engage in controlled gambling after treatment fare as well as those who abstain completely (Blasczynski et al., 1991), and we did not impose a requirement to stop gambling. However, it was emphasized that abstaining or gambling in moderation can minimize harm experienced as a consequence of gambling.

Participants were initially provided with a personalized feedback sheet, based on responses to assessment measures, summarizing the issues to be discussed during the intervention. Feedback included all or part of the following five components, depending on how the participant responded to baseline measures. Excerpts taken from taped

interviews during the pilot study are provided for descriptive purposes.

1. Normative information regarding college student drinking was provided, discrepancies between this information and the participant's perception of their level of and drinking were explored. Positive expectancies and negative consequences of drinking were also explored.
   Interviewer (I): So compared to other college students your percentile rank is about 91. That means you drink more than 91% of the people on campus. What do you think about that?
   Participant (P): That's kind of high.

2. Previous and typical gambling behavior (e.g., frequency, type, amount spent) were reviewed.
   I: Maybe you could describe your typical gambling behavior; the way you gamble, how much you gamble, when you gamble.
   P: There's casinos all over that are really, really nice. A lot of my friends would go there, and I'd go. I gambled. I guess I would go back a lot, because it kind of got to me, because it's kind of fun, enjoyable. When I couldn't go to the casino, I play lottery. I'd stop and get a couple of tickets every time I'd get gas. Just kind of like a habit.

3. Positive expectations of gambling were discussed and ability to skillfully predict outcome, overcome objectively uncontrollable odds, or control the game through superstitious behavior was challenged. The concept of randomness was reinforced, and participants were reminded that each gambling event is independent of the next.
   I: It sounds like you have some negative images of some of the things you've seen gambling but there is something appealing about it.
   P: It's exciting, lots of lights, lots of noises. When you hear someone cash out. It sounds like millions of coins falling into a metal tray.
      When chasing behavior was apparent, it was used to segue introduction of the concept of randomness and independence of events.

P: I'd go there (the casino) with my friends but sometimes I'd come back alone the next day to get even, to get it back.
I: Did it work?
P: No. I mean I'd win back some, but I wouldn't win back all I'd lost.
I: You know it doesn't really work that way. It's probability. All events are independent of each other. Even if you lost many, many times in a row, it doesn't mean you're more likely to win on the next try.

4. Self-reported negative consequences of gambling were discussed, in order to elicit from the participant his or her own concerns about gambling and desire to change gambling behavior.
   I: Is there anything about the way you gamble or the results of gambling or just feelings while you're gambling that concern you?
   P: Well I guess it sort of bothers me because I'm not quite sure what direction my gambling is headed. I don't want to turn into a compulsive gambler. I don't want to be someone that feels they can't sleep because they need to be gambling. I've met people like that. I've see people like that. It's a scary thing. I don't want to end up like that.
   I: It sounds like there have been a couple of times when you did violate your budget.
   P: It's hard (sigh). You keep seeing all the people on the wall that are, you know, winning big.

5. If the participant indicated a desire to reduce their gambling, ways to minimize negative consequences were explored (e.g. carry only a limited amount of cash when planning to gamble, do not carry an ATM card, ask a trusted friend to help monitor amount gambled, refrain from gambling and drinking at the same time). Feedback was given on how to be aware of personal high-risk situations and ways to respond to these situations (Marlatt & Gordon, 1985). If relevant to the participant, the connection between social skills and gambling was discussed and role-plays used to model refusal skills in social gambling situations. Alternative social and leisure activities were generated with the participant. Thoughts and feelings

experienced prior to the urge to gamble or actual gambling behavior were discussed as a potential link to behavior.

I: You mentioned with respect to your level of interest in changing your gambling behavior that you think you gamble too much sometimes. Would you say that's true?

P: Yeah, cause I could be doing other stuff, like homework.

I: How have you been able to minimize your losses?

P: I wouldn't take all my money. I would just take what I could afford to lose.

I: What would be your ideal gambling behavior? Are there things you would like to change?

P: I guess do it less, spend less time doing it.

P: Deep down inside I know I have positive self-control that can control anything. It's just not letting it all get to me before it becomes a big problem.

I: Maybe we could talk about some ways to prevent that. It sounds like going with friends is something that you sometimes do, but not always.

P: Sometimes when you have your eyes on the prize and you're not thinking clearly, your friends can tell you, I know I've done that for friends, and say, listen to yourself, you're not thinking clearly. They can stop you. Friends are going to watch out for each other.

I: So maybe that would be a good idea, to bring a buddy.

Pilot Data

A descriptive examination of the data suggested that the intervention shows promise. Overall, both groups showed reductions in gambling behavior, suggestive of a maturational decline and/or an assessment effect (Cronin, 1996). For example, both groups reported a similar reduction in symptoms at follow-up. Of the 10 DSM-IV criteria for pathological gambling, average endorsement for participants in the control group dropped 1.75 from baseline to follow-up. Similarly in the intervention group, endorsement dropped 1.80 from baseline to follow-up. Reported frequency of gambling also diminished for both groups, but somewhat more for the intervention group (68%) than for the control group (57%). Similarly, participants in the intervention group appeared more likely to report a reduction in the num-

ber of episodes of drinking and gambling at the same time (33%) while none of the participants in the comparison group reported a change in drinking and gambling at the same time.

DISCUSSION

The current research suggests that a brief intervention targeting motivation for and skills to reduce problem gambling behavior can feasibly be implemented in a college setting, as 87.5% of students identified as at risk were successfully recruited to participate and all of those randomized to the intervention conditions completed the one-session intervention. Responses within the intervention session suggested students responded positively to the motivational style and informational content of the intervention and 100% of those completing the intervention were retained at follow-up. While this suggests that these individuals perceived some benefit from their participation, additional research is necessary to confirm this interpretation.

As a feasibility/intervention development pilot, the current research was not adequately powered to detect small to moderate treatment effects common to prevention trials. It was also limited by the exclusive use of self-report measures versus obtaining information from collateral informants. Nonetheless, pilot data suggest the intervention may reduce both gambling and gambling while drinking. Given that combining drinking and gambling at the same time is associated with increased persistence when losing and wagering a larger percentage of available credit per bet (Kyngdon & Dickerson, 1999), this finding is encouraging and consistent with the intervention goals and hypotheses. Based on these findings, as well as other ongoing research in our lab, the intervention has been slightly modified to increase attention to normative perceptions of gambling, perceived risks and benefits of gambling, and cognitive correction, and a manual has been developed. Future larger-scale longitudinal research with this program is planned.

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