Effective intervention reduce alcohol consumption in college students nursing ess...

Heavy alcohol consumption among college students remains a concern across colleges and universities in the United States. Approximately 80% of all college students drink, including nearly 60% of students ages 18 to 20 (Johnston, O'Malley, Bachman, & Schulenberg, 2008). Even more troubling, 40. 1% of full-time college students underage for legal drinking engage in binge drinking and 16. 6% of students engage in heavy drinking (National Survey on Drug Use and Health [NSDUH], 2006). Binge drinking is defined as consuming five or more drinks on the same occasion on at least 1 day in the past 30 days, bringing a person's blood alcohol concentration (BAC) to 0. 08 or above (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2004; NSDUH, 2006). Consuming five or more drinks on the same occasion on each of 5 or more days in the past 30 days is considered heavy drinking (NSDUH, 2006). All heavy alcohol users are also binge alcohol users.

Many colleges and universities have implemented numerous initiatives ranging from enhanced enforcement to deferred community-wide celebratory events, but with little or no success (Turner, Perkins, & Bauerle, 2008). College counselors and health education centers have been the main source of counseling for students who consume alcohol. Students have the opportunity to meet with counselors to discuss their alcohol use and their interest in moderating alcohol consumption and receive personalized normative feedback, advice, and behavioral strategies for avoiding alcohol-related harm (Barnett, Murphy, Colby, & Monti, 2007). Although this traditional method is still used by counselors, advances in technology are allowing counselors to use new and innovative methods to educate students

on the dangers of excessive alcohol consumption. Key programs include wireless devices, e-interventions, and cybercounseling.

Wireless devices provide counselors with an interactive method of reducing drinking and alcohol consequences in college students. They range from mobile devices such as cell phones and handheld computers to audience response technology, or ' clickers' (Bernhardt et al., 2009; Killos, Hancock, Wattenmaker McGann, & Keller, 2010; Labrie, Hummer, Huchting, & Neighbors, 2009; LeGreco, Hess, Lederman, Schuwerk, & LaValley, 2010; Turner et al., 2008). Compared to one-on-one counseling sessions, easy accessibility and the ability to assess a group of students during one session are advantages of using this intervention model. The use of such technology varies, but the outcome is the same- providing fast and accurate assessments about college students' own drinking habits and the drinking habits of their peers (Bernhardt et al., 2009; Killos et al., 2010; Labrie et al., 2009; LeGreco et al., 2010; Turner et al., 2008).

Mobile devices would alleviate the need for pen and paper assessments. The Handheld Assisted Network Diary (HAND) is an effective and valid method of evaluating daily drinking among college students (Bernhardt et al., 2009). Rather than counselors expecting a student to complete a daily assessment and have them return it to them after 30 days, counselors can have students record this same data on mobile devices. Although more students are likely to complete a pen and paper assessment than HAND, Bernhardt et al. (2009) found no significant difference between the two methods when students recorded their total drinks, number of drinking days, and drinks per drinking day. This suggests that those students who did complete HAND were

comfortable with using the device and provided accurate information similar to those who completed pen and paper assessments. The difference in completion rates between the two methods is due to the design of HAND; students have a particular time-frame to complete the day's assessment and are locked out of their devices at a predetermined time. This inhibits students from completing missed assessments. The disadvantage of students self-reporting data in the HAND should not diminish its advantage of being able to be completed daily with little deviation from a student's active lifestyle (Bernhardt et al., 2009). Although HAND may sound promising, it should be noted that Bernhardt et al. developed this program and any of their published results may be biased.

Audience response technology, commonly known as ' clickers,' is a second type of wireless device used by counselors and health educators. Clickers are used in group interactive-feedback alcohol education sessions to decrease students' perceived norms of how much other students drink (Killos et al., 2010; Labrie et al., 2009). During these sessions, a counselor or health educator would ask a group of students a series of multiple choice questions pertaining to their own drinking habits and their perception of their peers' drinking habits. Students can then simultaneously respond and have their answers recorded and displayed to the group in graphical form. Killos et al. (2010) found that students who attend at least one of these sessions are more likely to believe that the typical student drinks less alcoholic beverages than perceived; those who do not attend such sessions are more likely to over-perceive the amount of alcohol a typical student consumes. This demonstrates that group clicker sessions are effective in positively

influencing students' beliefs about their peers' drinking behaviors (Killos et al., 2010).

Clicker sessions are practical because they can be designed for any variety of student groups including resident assistants, freshmen orientation groups, and high-risk drinkers such as Greeks and athletes (Killos et al., 2010). Labrie et al. (2009) examined the effectiveness of one type of group intervention, brief live interactive normative group intervention (BLING), on collegiate athletes. During a one-month follow-up after the clicker session, athletes showed evidence of changes in perceived norms, leading to changes in their own drinking habits; no further changes were seen at a two-month follow-up (Labrie et al., 2009). This suggests that clicker sessions are a fast and effective model for educating students.

Clicker sessions have expanded to include two-way communication models promoting health and encouraging dialogue, rather than the original one-way communication from facilitator to student. Let's Talk About It, for example, is a simulation game engaging students about decision-making and drinking on a college campus (LeGreco et al., 2010). It was created to generate, identify, and challenge the social norms that students utilize to construct and reconstruct reality through narrative sharing, facilitated learning, and inter-student dialogue. A scenario prompt about going to a party with a friend was given to a group of students and they were asked what they would do in a particular situation (e. g. your drunk best friend is about to leave with a boy she just met). LeGreco et al. (2010) concluded that facilitators can encourage students to complete the story of a night of drinking, filling the gaps with personal experiences, choices, and narrative details by utilizing

incomplete scenarios. The advantage of using programs like this is that simulations can provide a safe place for individuals to critically examine their more risky behaviors and experiment with different possibilities for healthy changes (LeGreco et al., 2010).

Wireless devices are intended to expose the truth about perceived norms of college drinking. Although the studies mentioned above have shown the effectiveness of these devices, particular limitations cannot go unnoted. The major concern is that these programs only evaluated the short-term effects of the devices, whether it was 30 days or 2 months. More research is needed to examine any maintained changes and long-term effects of using wireless devices as an alcohol intervention in college students. Another concern is attendance and participation rates. During the clicker sessions, the response results that are presented back to the students could be misleading if a handful of students do not respond to any of the questions. Since this is a device that is intended for rapid responses, facilitators would be spending unnecessary time trying to figure out which clickers did not answer any of the questions.

E-interventions

Computer programs are changing the way college students are learning about the dangers of heavy drinking. Aside from changing perceived norms, these programs are increasing students' readiness to change their drinking behaviors (Chiauzzi, Green, Lord, Thum, & Goldstein, 2005; Moore, Soderquist, & Werch, 2005; Murphy, Dennhardt, Skidmore, Martens, & McDevitt-Murphy, 2010; Walters, Miller, & Chiauzzi, 2005). Electronic

interventions, or e-interventions, are directing students away from face-to-face counseling sessions and more towards self-education with personalized feedback and preventative interventions (Chiauzzi et al., 2005; Doumas & Andersen, 2009; Murphy et al., 2010).

Counselors may be wary about assessing students' drinking behaviors outside of a traditional office visit. Moore et al. (2005) addressed this as they studied the feasibility and efficacy of a binge drinking prevention intervention for college students via the internet. Students were sent either four email-based newsletters or four identical print-based newsletters in the mail. In each web newsletter, there was a link to a short process-evaluation survey. Mail newsletters had a hard copy of the survey that would be mailed back. A greater percentage of students receiving the email-based newsletter completed the process-evaluation surveys than did the students receiving the print-based newsletter (Moore et al., 2005). This could be explained by many reasons, including easy accessibility and convenience. Students who are receiving the newsletter via email are already online and can simply click on the links; the other students would have to take the time to complete the surveys and mail them back. Interestingly, Moore et al. (2005) observed that the greatest results in decreasing the number of drinks per occasion and the number of occasions feeling drunk were seen in binge drinkers. Students and counselors alike would benefit from using an email-based intervention. Students are comfortable with internet communications and it is fast and convenient; for counselors, the intervention is cheaper than printing materials, assessment results are easy to enter, and there is a higher response rate from students (Moore et al., 2005).

E-interventions are different from all other types of interventions because they rapidly give students personalized feedback (Bersamin, Paschall, Fearnow-Kenney, & Wyrick, 2007; Chiauzzi et al., 2005; Doumas & Haustveit, 2008; Doumas & Andersen, 2009; Murphy et al., 2010; Thombs et al., 2007; Walters et al., 2005). These programs provide students with personalized information as part of the intervention or the intervention itself. Most programs rely heavily on educational content, providing text information about the physical, social, and behavioral effects of alcohol in the form of interactive games and quizzes (Walters et al., 2005).

Electronic Checkup to Go (e-CHUG) is a 15-minute intervention designed to reduce high-risk drinking by providing personalized feedback and normative data regarding drinking and its consequences. High-risk students who had access to e-CHUG reduced their weekly drinking quantity by approximately 30% compared to a 14% increase in students who did not have access to e-CHUG (Doumas & Andersen, 2009). There was also a 30% reduction in reported alcohol-related problems for high-risk students in the e-CHUG group in comparison with an 84% increase in reported alcohol-related problems for high-risk students in the control group (Doumas & Andersen, 2009).

MyStudentBody (MSB) provides students with tailored motivational feedback about high-risk drinking according to gender (Chiauzzi et al., 2005). Both students having access to MSB and those who did not have access were asked to complete 4 weekly 20-minute sessions. The respective websites was available for 24 hours a day, 7 days a week, so students had flexible access. Chiauzzi et al. (2005) saw a significant decrease in the number of binge episodes in a typical week among all participants and a rapid decrease

in the average consumption among persistent heavy drinkers who had access to MSB.

Thombs et al. (2007) were the first to study normative feedback on the basis of a known blood-alcohol concentration. At night in the residence halls, freshmen's BAC would be measured and recorded. The next day, these students were directed to a website where they found their BAC measure from the night before, the average BAC of the residence hall, and interactive activities. The results, however, were unexpected. BAC levels were lower in the residence hall that just had access to their own BAC level (Thombs et al., 2007). This could have been due to a number of reasons. The most practical reason, though, is that some students may have either increased their drinking on some nights or avoided providing data on nights they did not drink (Thombs et al., 2007).

These automated interventions reflect the contributions of mailed self-help and in-person approaches. However, the advantage of the computer is the ability to provide much more information upon demand (Walters et al., 2005). As new programs are being developed, some questions remain unanswered. Although there is no clear relationship between the length of the intervention and its effectiveness (Walters et al., 2005), it is still unclear as to what type of information makes a difference and which approach is most relevant to college students.

E-interventions have given counselors and students much to enjoy, but there is evidence that computer-based interventions are not as effective as in-person interventions with a counselor (Barnett et al., 2007; Carey, Henson,

Carey, & Maisto, 2009; Croom et al., 2009). These studies compared Alcohol 101 Plus with traditional brief motivational interventions (BMI). Students participating in the BMI were found to reduce drinking and related consequences (Carey et al., 2009). Similarly, at a 12-month follow-up from the initial intervention, students using a computer-delivered intervention were consuming a greater number of drinks per occasion than at baseline (Barnett et al., 2007).

E-interventions focus on preventative measures and providing personalized feedback. Throughout the literature on these programs, researchers have noted a few limitations. The most commonly noted limitation is the inability to generalize the effectiveness of e-interventions. The students that are more likely to use such programs are those who report binge drinking and heavy drinking. Also, some students may find this type of intervention adequate, while others would prefer meeting with a counselor and work collaboratively on how to reduce their drinking habits. A second limitation is similar to that of the wireless devices. These studies on e-interventions only examined immediate and short-term effects of the program on alcohol reduction. Research with longer follow-ups would be ideal to examine the consistency of the students' changed behaviors. Third, consideration should be given to the willingness of the university to invest in these computer programs. Lastly, concern arises with the possibility of computers and the programs either malfunctioning or crashing. This could result in delayed feedback for students and loss of data for counselors.

Cybercounseling

Little, if any, research has examined the use of cybercounseling in reducing college drinking. Cybercounseling is the practice of providing professional counseling and information to clients when both are in separate or remote locations and they utilize electronic means to communicate over the Internet (Maples & Han, 2008). E-mail, electronic bulletin boards, and chat rooms are all forms of cybercounseling.

Counselors and students alike see the disadvantages of cybercounseling as outweighing the advantages. Maples & Hans (2008) make it clear that communication by e-mail could pose a number of potential ethical concerns regarding the protection of students' privacy. For instance, email accounts are prone to being hacked and the information between counselor and student could be compromised. Also, the absence of verbal and nonverbal cues in cybercounseling makes miscommunication between counselor and students more common (Maples & Han, 2008). Proper assessment and interventions become non-existent when there is uncertainty about what is being said. This is especially true for counselors. Counselors are prone to use informal language while instant messaging with students; students are more likely to decrease their perceptions of the counselor as an expert and trustworthy (Haberstroh, 2010). Lastly, instant messaging is time consuming, especially if the student, the counselor, or both are slow typers (Haberstroh, Parr, Bradley, Morgan-Fleming, & Gee, 2008). This creates a time-lag between responses that can lead to being distracted and slowing the pace of the session.

Summary

Excessive college drinking remains a national concern across all college and universities. Technology has made it possible for counselors to expand on the models of interventions used to educate college students and prevent heavy drinking. A few of these new interventions include wireless devices such as cell phones, smart phones, and handheld computers, clickers, and computer programs. Each method provides a unique, interactive experience for both the counselor and the student. Wireless devices are typically used to expose the truth about perceived norms of college drinking, while e-interventions are more focused on preventative measures and providing personalized feedback. With all technology, there exist flaws. One such flaw is seen in cybercounseling. Too many potential problems exist that the disadvantages of cybercounseling outweigh the advantages.

Conclusion

Technology is rapidly advancing and colleges are trying to keep up with it so that it may provide fresh solutions to existing problems such as alcohol consumption among college students. The programs that are available today vary in their purpose and their efficacy. Counselors need to consider what they want to use the intervention model for and then further research how they can get the most out of that particular intervention. E-interventions are the most popular alcohol prevention interventions; thousands of colleges and universities have implemented such programs among freshmen orientation groups and collegiate athletes. The reason for its popularity is that it is inexpensive, fast, and easy to use. Since an array of computer programs and software already exist, researchers today should be focusing on how to use these programs in the most efficient way possible. This includes studying the

required length of the intervention to be effective and when the best time

would be to use such programs.