

Computers less helpful on college drinking

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Colleges have increased use of computer-delivered interventions to provide alcohol counseling because they can reach more students while using fewer resources. But in a new systematic review, researchers found that the impact of CDIs on students was weaker and more short-lived than the effect of face-to-face counseling.

PROVIDENCE, R.I. [Brown University] — Computer-delivered and face-to-face interventions both can help curb problematic college drinking for a little while, but only in-person encounters produce results that last beyond a few months, according to a new analysis of the techniques schools use to counsel students on alcohol consumption.

CDIs — computer-delivered interventions — have gained prominence on college campuses because they can reach a large number of students almost regardless of the size of a college's counseling staff, said Kate Carey, lead author of a systematic review of 48 studies published online in *Clinical Psychology Review* and slated for the December 2012 print edition.

"If your resources are limited, and resources always are, and that's all that you can field for your institution, then offering a computer-delivered intervention is better than nothing," said Carey, professor of behavioral and social sciences in Brown University's Program in Public Health and a researcher at the Center for Alcohol and Addiction Studies.

"But the question is would your resources allow you to do something better if something better existed," she said, "and we do know now that there are intervention modalities that might be better."

In the study, Carey and her co-authors found that both methods of delivering alcohol interventions had positive effects in the first few months, but by 14 weeks after the intervention, computer-delivered methods no longer had any significant effects on drinking habits. The benefits of face-to-face interventions were also stronger from the start, and decayed more slowly over time.

The team also found indications of what kind of content works and doesn't work in each type of intervention and that women are less likely to be helped by CDIs than men.

The prevalence of the CDIs is apparent in the 48 studies Carey and her colleagues analyzed. More than 32,000 students were included in the 26 studies of CDIs while 5,237 were included in 22 face-to-face intervention studies.

But Carey and her colleagues conducted the review to assess what colleges were really gaining by employing computers for student alcohol counseling.

"There has been a real upsurge in popularity and widespread implementation of all these CDIs, and for a long time it seemed the research was lagging," Carey said. "We wanted to know if this upsurge is really a good thing"

Stronger results face-to-face

The studies typically measured weekly and/or daily alcohol consumption, sometimes blood-alcohol levels and other metrics of drinking behavior among students, and were published in years ranging from 1998 to 2010. Most of the studies compared the effects of either face-to-face interventions or CDIs to no intervention at all. A few studies compared the two interventions directly.

By carefully analyzing all 48 studies, the team of researchers at Brown, The Miriam Hospital, and Syracuse University was able to compare the effectiveness of the interventions with much more statistical power than anyone has before. That's important because the effects of either kind of intervention are typically small.

Still, in-person counseling was able to show significant benefits in the first 13 weeks in all of five areas: quantity per week or month, quantity per drinking day (e.g. a Saturday of parties), frequency of heavy drinking, blood-alcohol content, and alcohol-related problems. Computer counseling only moved the needle initially in three areas: per week or month quantity, frequency of heavy drinking, and blood-alcohol content.

The effects from in-person counseling were also stronger in all but one area: blood-alcohol content.

Between 14 and 26 weeks, two of the face-to-face delivered effects remained significant — quantity per drinking day and blood-alcohol content — but none of the computer-delivered benefits were still significant. After 27 weeks, one of the face-to-face benefits — in quantity per drinking day — persisted.

Carey said the weaker effects from CDIs might arise from the inability of a computer to hold a student's attention.

"Many designers have done reasonable jobs trying to make CDIs interactive for participants," she said, "but one thing that might be missing in these



Kate Carey

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interactions, if somebody is tempted to game the system or if they are just getting bored, is someone on the other side to pull them back in and help them stay engaged.”

In addition, Carey found evidence that some CDIs are delivering content that undermines their efficacy. For example, online exercises that attempt to assess values or decision making in high-risk situations appeared to make CDIs less effective.

In contrast, content that included alcohol education, personalized feedback, and moderation strategies helped increase the efficacy of face-to face interventions.

CDIs have value, Carey concluded, but to some extent colleges may be getting what they pay for when they try to save money using computer systems. “You certainly wouldn’t want to spend a lot of money to get an effect that only lasts for three months,” Carey said.

Carey’s co-authors on the study are Lori A.J. Scott-Sheldon and Michael Carey of The Miriam Hospital and Brown, Lorra Garey of Brown’s Center for Alcohol and Addiction Studies, and Jennifer C. Elliott of Syracuse University.

The National Institute on Alcohol Abuse and Alcoholism funded the study with grant R01-AA012518.

Editors: Brown University has a fiber link television studio available for domestic and international live and taped interviews, and maintains an ISDN line for radio interviews. For more information, call (401) 863-2476.

Brown University

Providence, Rhode Island 02912, USA

Phone: 401-863-1000

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