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If You Feed Them, Will They Come? The Use of Social Marketing to Increase Interest in Attending a College Alcohol Program

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Abstract

The authors used social marketing to design and test advertisement components aimed at increasing students' interest in attending an alcohol program focused on reaching students who drink heavily, although the authors offered no such program. Participants were undergraduate students in introductory psychology courses ($N = 551$). Questionnaires included measures assessing demographic information, alcohol use and negative consequences, and interest in attending an alcohol program in response to exposure to 1 of 12 systematically varied advertisements. The authors found that approximately 20% of participants across all ad types indicated some level of interest in attending the alcohol program. Students who use alcohol reported more interest in attending when an informational message was used. Of the participants offered food, 41.9% indicated the food offered in the advertisement impacted their interest in attending. Results suggest market segmentation plays a role in developing effective advertisements to recruit different groups of students based on their reported drinking behavior.

Keywords

alcohol; college students; prevention programs; social marketing

Alcohol use on college campuses has been and continues to be a substantial problem for students, parents, and university administrators. Up to 80% of college students drink alcohol,^{1–3} and 25% to 50% percent are heavy episodic drinkers.^{3–5} Alcohol consumption is directly related to student attrition, violent behavior, damage to residence halls, injuries to self or others, alcohol-related auto accidents and death, acquaintance rape, academic failure, weight gain, unplanned pregnancies, and sexually transmitted diseases.^{6–8} Research suggests short-term alcohol-related negative consequences can be prevented or reduced through effective prevention programs provided by universities.^{9–11} Most campuses offer some form of alcohol prevention programming,¹² with services usually offered within residence halls, fraternities, and sororities. Many of the prevention approaches most heavily used have, unfortunately, not been found to be efficacious or have not been empirically validated.^{13–14} One limitation of efficacious prevention programming is that attendance at

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alcohol programs on college campuses is typically voluntary^{9,12} and those most in need (moderate to heavy drinkers) are often uninterested.¹⁵ Thus, one of the major issues facing universities is how to reach students who drink heavily and increase the likelihood that they will attend and benefit from programs regarding alcohol use.

College health professionals apparently need marketing and advertisement strategies to improve student exposure to information about alcohol and methods of reducing risky behavior. Researchers have used social marketing to assist in the design, implementation, and promotion of programs created to impact a wide variety of health behaviors, including safer sex practices,¹⁶ smoking cessation programs,¹⁷ increases in physical activity,¹⁸ and usage of breast cancer screening services.¹⁹ Social marketing, when applied to alcohol-prevention programming, could improve methods of advertising such that advertisements could be tailored to target students who consume varying amounts of alcohol. In social marketing, program coordinators use specific methods to devise and execute programs aimed at changing behavior or social practices focused toward specific groups in the population.²⁰ When designing advertisements, program coordinators use social marketing theory to consider which incentives will persuade the audience to exchange resources (ie, time lost) for information that might be obtained through attendance at a health promotion program.

Researchers in 2 prior studies have evaluated social-marketing concepts related to college student alcohol programs. In the first study, Black and Smith²¹ developed a questionnaire assessing the “4 Ps” of basic marketing (price, place, promotion, and product) to improve recruitment and enhance the design of comprehensive alcohol abuse prevention programs. They suggested several recruitment and design strategies: (1) altering convenience of time (price) and location (place), (2) offering monetary refunds or university credit for attendance (price), and (3) providing information on limiting consumption to reduce drunk driving (promotion). Conclusions from the study are limited because there was no direct measure of willingness to attend a program using advertisements with the suggested elements, and the researchers made no assessment of the degree to which these elements might increase attendance for target groups.

In a second study, Gries, Black, and Coster²² developed a marketing campaign based on social-marketing theory and evaluated actual attendance at an alcohol program. They developed materials used for advertising based on student feedback obtained through focus groups, and the advertisements highlighted factual information, altruism, and attendance incentives such as food. The following 3 residence hall conditions were compared: (1) a control hall in which they reused advertisements used in prior years; (2) an experimental hall in which they used the newly developed advertisements; and (3) 3 historical control halls, based on attendance figures from previous years when they used prior advertisements. Findings indicated higher attendance in the experimental hall, and moderate to heavy drinking students constituted the highest percentage of students to attend. Out of 700 residents in the experimental hall, however, only 17 students attended the program (as compared with an average of 3 using old advertisements). Hence, although the findings were statistically significant, recruitment still only reached 2% of students. One of the limitations of the study was that it was unclear how many of the 700 students saw the advertisements and chose not to attend and how many students did not see the advertisements. In addition, the advertisements are not available for evaluation, and the sample size too small to evaluate differential impact on light versus moderate versus heavy drinkers (ie, market segmentation analysis).

We designed the current study to expand and extend prior preliminary work on social marketing by systematically manipulating advertising components and evaluating

participants' self-reported levels of interest in attending an advertised alcohol program. The primary aim was to determine which advertisement or advertisement components generated the most interest in an alcohol program among moderate-to heavy-drinking students. Based on social marketing constructs, we theorized that low internal motivation to attend an alcohol program (eg, students feeling that the program was not relevant to them) could be overcome with the right mixture of incentive, message, and location; however, that the combination may differ based on drinker status. We hypothesized that an advertisement containing the promise of pizza and soda for program attendees (price), taking place in the residence halls (place), and containing an altruistic message (promotion) would be most appealing and increase student interest in a potential alcohol program. The potential alcohol program (product) was in all advertisements. We also predicted that drinking level would correspond to advertisement components, such that different advertisement components might have a greater impact on heavy drinkers' interests versus abstainers' or light drinkers' interests.

METHODS

Sample

Participants were undergraduate students in introductory psychology courses at a large west coast US university ($N = 551$). These individuals reported a mean age of 18.4 years ($SD = 1.00$), and 67% of the sample was female. A large majority of the sample (81%) were freshmen, who are typically the primary targets for prevention programming. The sample was 61% white or Caucasian, 32% Asian or Pacific Islander, 2% Hispanic or Latino/a, 1% African American, and 4% of participants endorsed other. Of the participants, 49% reported living in the residence halls, 17% resided in fraternities or sororities, 16% lived off campus, and 18% reported residing with their parents.

Of the sample, 42% reported having never tried alcohol or being current abstainers. An additional 22% were light-moderate drinkers, who reported consuming 1 to 4 drinks on their peak occasion in the past month; and 28% were heavy drinkers, consuming 5 or more drinks on their peak occasion in the past month. Nondrinkers are somewhat overrepresented compared with the campus as a whole, where approximately 30% of students report not drinking in a typical month. The questionnaire stated that any beverage containing half of an ounce of ethyl alcohol is considered a standard drink and provided examples (approximately 12 ounces of beer, 5 ounces of wine, or 1.25 ounces of 80-proof distilled spirits).

Procedure

Prior to the study, we used discussion groups consisting of undergraduate psychology students from the Department of Psychology human subjects pool to develop and test the advertisements designed to enhance interest in the alcohol programs. Sixty-four students participated in the discussion groups. Forty-four percent of these participants were non-drinkers, 31% light-moderate drinkers, and 25% heavy drinkers, suggesting that discussion group participants were generally representative of the target population for the advertisements.

Based on feedback from the discussion groups and prior work in this area,^{21,22} we developed 12 systematically varied advertisements. We held constant the following 2 aspects of the advertisements: the product (consisting of two 1-hour alcohol programs) and the time (7 PM) on both nights of the program. We systematically varied aspects of price, place, and promotion in the advertisements. We varied place based on convenience of location of the program-residence halls and the student union building. We used the following 3 price (ie, time cost of participating) conditions: (1) pizza and soda, (2) mocktails

(cocktail-like drinks that contain no alcohol), and (3) no food (see Figure 1). We varied promotion by using either a basic nonjudgmental informational message or using an altruistic message regarding the content of the program. The basic nonjudgmental informational message was “Learn about your own blood alcohol level and receive a personalized blood alcohol card and get answers to common questions about alcohol: How do you prevent and reduce hangovers? Can you die from drinking too much? How much is too much for you?” The altruistic message was “Maybe a friend’s drinking has begun to cause problems? Are you concerned? Learn interesting things about alcohol and great ways to reduce the negative effects of drinking for a friend or *for you!*” See Figure 2 for an example advertisement.

We distributed questionnaires in a mass-testing format (large survey psychology classes), and students complete the surveys anonymously. Each packet contained the measures and 1 of the 12 systematically varied advertisements. The departmental human subjects committee reviewed all measures and procedures and approved them as exempt research.

Measures

Demographics—We administered a demographic questionnaire to participants to assess gender, ethnic background, year in school, weight, age, residence, and grade point average.

We used the *Quantity/Frequency/Peak Alcohol Use Index*²³ to assess the number of hours spent drinking and the number of drinks consumed on typical and peak occasions within the past month. We based drinker status on students’ self-reported peak drinking occasions within the past month; peak consumption of abstainers was 0, whereas light to moderate drinkers ranged from 1 to 4 drinks, and heavy drinkers reported drinking 5 or more drinks.

Social Marketing Questionnaire—We assessed the dependent variable using the Social Marketing Questionnaire, developed for the purposes of this study to assess level of interest in attending an alcohol program. The full scale consisted of 7 Likert-type scale items and 2 open-ended items regarding aspects of the advertised program most and least likely to contribute to attendance. For the purposes of this study, we were primarily concerned with participants’ interest in attending the program; we therefore dropped 2 items on the scale specific to the convenience of attending (“the time and length of the program would be convenient for me to attend,” “the location would be convenient for me to attend”). We conducted a reliability analysis of the remaining items and found acceptable reliability ($\alpha = .87$), and we constructed the dependent variable (interest) by using a summary of raw scores on these items.

RESULTS

We initially planned to analyze differences in interest based on advertising components of food, location, and message as well as by drinker status. However, 51% of respondents lived off campus, and both program locations in the advertisements were on campus. We could evaluate no off-campus alternatives (possibly more accessible for off-campus commuters). Programming for fraternities and sororities also traditionally occurs in the Greek residence, and this was not an option for those respondents. Limitations in the use of the location variable led us, therefore, to drop location as an independent variable. We used program message, type of food, and drinker status as independent variables in the final analysis.

Overall Interest

Overall, participants’ responses to a single item assessing interest in attending the program (averaged across advertisement conditions) were neutral ($M = 3.47$; $SD = 1.38$). In the total

sample, 21% of participants agreed they might attend the program; only 7% agreed they would definitely attend. Among drinkers ($n = 316$), 23% reported they might attend the program, and 9% reported they would definitely attend.

Advertisement Components by Interest

We conducted a univariate analysis of variance examining interest as a function of price (pizza and soda, mocktails, or no food), promotion (altruistic message or basic nonjudgmental informational message), and drinker status (abstainer, light or moderate drinker, or heavy drinker). There were no significant main effects of food, message, or drinker status on the dependent variable (interest). However, there was a 2-way food $\times$ message interaction, $F(2, 500) = 3.88, p < .05$. We conducted post hoc analyses using Tukey's HSD procedure, which indicated that for those receiving an altruistic message, participants offered pizza and soda reported more interest in attending the alcohol program than did participants offered no food. The informational message appeared sufficient to generate interest, even in the absence of food (see Figure 1). There were no differences in response to either message when mocktails were advertised. There was also a 2-way interaction of drinking level by message on the dependent variable (interest), $F(2, 500) = 6.19, p < .01$. We conducted post hoc analyses using Tukey's HSD procedure, which indicated that in the informational message condition, light or moderate and heavy drinkers reported significantly more interest in attending than did abstainers (see Figure 3).

We compared responses to the Social-Marketing Questionnaire item "I would definitely attend the program" between the least and most effective advertisements for heavy drinkers. Thirty-seven percent of heavy drinkers indicated that they definitely would attend the informational program in the residence halls with mocktails. In contrast, no heavy-drinking participants indicated they would attend the altruistic program in the student union building with no food.

Qualitative Factors Associated With Increased or Decreased Interest in Program Attendance

On the Social-Marketing Questionnaire, respondents answered the following 2 open-ended questions: (1) "What aspects of the alcohol program make it more likely you would attend?" and (2) "What aspects of the program make it less likely you would attend?" We coded responses to the questions based on content. Among participants who responded to the item "What aspects of the alcohol program would make it more likely you would attend?" the 3 most frequently endorsed responses were *content of the program* (39%), *food* (17%), and *location* (13%). The top 3 responses to the item "What aspects of the alcohol program would make it less likely you would attend?" were *I don't drink* (33%), *time* (20%), and *I don't want to attend* (16%).

DISCUSSION

We tested traditional incentives and programming messages to enhance students' interest and to lower barriers to attending an alcohol program, all within the context of social-marketing theory. We assessed whether the addition of food and the use of an altruistic or nonjudgmental informational message in an advertisement would differentially influence students' self-reported interest in attending an alcohol program. In addition, we sought to understand the degree to which food and message interacted to effect students' interest. We also tested whether food and message differentially affected interest based on students' drinking level.

Expressed interest in program attendance varied by incentive type and message as well as by the interaction between drinker status and message. Overall, 20% of students expressed interest in attending a 2-hour voluntary alcohol program. In addition, varying components of advertisements for these programs did lead to differential reports of interest in attending. Drinkers reported more interest when an informational message was used, whereas abstainers reported more interest in an altruistic message. We also found a significant interaction between food and message type. Pizza and soda resulted in the most reported interest for those receiving an altruistic message as compared with an informational message. Mocktails did not affect expressed interest based on message type. When we did not advertise food, those students who received an informational message were much more likely to report interest than were those receiving an altruistic message. Consistent with social-marketing theory, results of the current study suggest that food does play an important role in enhancing interest and impacting the probability that a student would choose to attend a voluntary alcohol program.

Based on these findings, market segmentation (targeting advertising to specific populations) is an important issue to consider in developing program advertising, as different messages and incentives appealed to different segments of the student population based on their drinking habits. This could particularly be of use given the interest in targeting high-risk populations, including members of Greek organizations (fraternities and sororities), student athletes, or first-year college students. Research also suggests that up to 50% of students who enter college as abstainers will initiate drinking during their first year at college²³; therefore, the ability to recruit abstainers to alcohol programs becomes a valuable prevention tool. Recruiting members of the target group in the development of advertisements may be the most effective method of generating interest among different groups of students.

Limitations

Although our results suggest that different advertisements led to different reports of interest in attendance, there were a number of limitations to the study. The data were based primarily on self-reported interest in attending, and no actual alcohol program was made available; it is therefore impossible to evaluate whether these advertisements would impact actual attendance. Advertisements were also not professionally developed, as is typically the case in evaluations of the effectiveness of social marketing. Another limitation was the failure to properly match place (program location) with living group or resident type of the participants. Our ability to evaluate the extent to which convenience of location may have impacted interest was limited because of the lack of matching to living group. This limitation may have contributed significantly to reports of disinterest in attending.

Future Directions

We plan to conduct studies in the future to explore the development and implementation of targeted advertisements and to evaluate the effectiveness of these advertisements in impacting actual program attendance. Future researchers could use longitudinal follow-up with participants recruited to empirically validated alcohol programs through social-marketing outreach strategies and evaluate long-term outcomes.⁹ Because of the prevalence of alcohol use and abuse, strategies other than social marketing, designed to increase attendance at prevention programs, also deserve further study. Additional outreach strategies may be beneficial. For example, Prochaska and DiClemente^{24,25} acknowledge that individuals experience different levels of readiness to change health behaviors, resulting in significant implications for intervention outcomes. Motivational interviewing, or motivational enhancement therapy, uses feedback about one's drinking to attempt to find the hook that will help an individual to begin to contemplate or initiate change.²⁶ Recent researchers indicate that mailing personalized feedback to students results in reductions in

alcohol use and consequences in the absence of other intervention.10:27:28 Research is underway to evaluate whether this type of outreach can act as a hook to increase participant recruitment into more comprehensive in-person programs, specifically for students requiring additional intervention.

Conclusion

An intervention for college student drinkers with empirically demonstrated success in changing behavior will have no impact if not attended by students, particularly if the targets of these programs (often the risky drinkers) are not in attendance. From program providers to intervention researchers and from resident advisors hosting programs to the student affairs professionals requiring such programs be hosted, the quest for what works with college students is arguably matched by the quest for how to get them there. As college student drinking continues to get media attention, frustration accompanying this attention may lead to the conclusion that students are not interested in changing. Perhaps this can be framed differently, with the acknowledgment that students have not yet gotten the message that would prompt such interest. Social-marketing researchers can continue to investigate ways to increase interest and get students into the audience in conjunction with intervention research efforts aimed at reducing the harm associated with college student drinking.

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Figure 1.
Message by food interaction.

Join us for:
FREE
PIZZA & SODA

&

Two 1 hour alcohol programs

Held at 7:00pm in Terry or McMahon Hall

WHY??

Maybe a friends' drinking has begun to cause problems?

Are you concerned?

Learn interesting things about alcohol and great ways to reduce the negative effects of drinking for a friend or for you!

Figure 2.
Example advertisement.

Figure 3.
Message by drinker interaction.