

Social Norms Tactics to Promote a Campus Alcohol Coalition

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ABSTRACT

Background: Social norms posters usually contain a normative message, branding, campaign tagline and sponsoring coalition/contact information. There are limited data on which campaign components promote recognition of Campus Alcohol Coalitions (CAC). **Purpose:** To determine the most effective media channels/incentives to promote recognition of CAC and if time exposed to social norms campaign influenced students' recognition of CAC. **Methods:** A quasi-experimental, time-series design was used with stratified random assignment of 21 residence units to one of three intervention groups and assessment of awareness of CAC at four phases. A sample of 838 campus residents completed intercept interviews across four time phases and three residence groups. **Results:** After introduction of campaign materials, the percentage of students reporting awareness of CAC increased significantly from 25% to 77% and remained high across the later three study phases. Posters/flyers were identified as the major source of CAC information across all phases of campaign. **Discussion:** With limited budgets, it is important to identify cost-saving measures during the implementation of a social norms campaign while providing evidenced-based intervention strategies to address underage/high-risk drinking. **Translation to Health Education Practice:** Students' awareness of CAC can be effectively promoted via social norms campaigns especially through posters/flyers.

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BACKGROUND

Emerging evidence has endorsed individual-level alcohol prevention strategies targeting college students designed to challenge expectancies related to anticipating alcohol use, teaching cognitive-behavioral skills and providing brief motivational enhancement strategies.¹ Data suggest that these strategies hold promise; however, behavior change is limited to a small number of students. Alternatively, group-level interventions using social norms campaigns and community-level interventions advocating coalition building have the potential to impact the behavior of a larger number of students.¹

Social norms theory states that an in-

dividual's behavior is directly influenced by their perceptions of peers' thoughts and actions.² This theory predicts that an

overestimation of unhealthy behaviors by an individual, such as high risk drinking, will increase the likelihood to engage in

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that particular risk-taking behavior.² It is theorized that, if these misperceptions are corrected, health-promoting behavior change will follow.³

Whereas not all researchers agree,⁴ empirical studies generally support campus social norms campaigns in reducing college students' misperceptions of peer alcohol misuse along with decreasing underage drinking and high-risk drinking behaviors.⁵⁻¹³ These interventions incorporate social marketing strategies and multiple delivery channels (e.g., print media, incentive promotional products, technology and classroom presentations) to deliver data-driven messages based on actual social norms versus exaggerated alcohol use.¹⁴

Establishment of social marketing campaigns has relied on marketing strategies based on the five *P*'s of the marketing mix: product, price, promotion, place and partners/people.⁹ In this context, product refers to the specific behavior for the target audience to adopt and the associated benefits related to performance of that behavior.^{9, 15} Price is the cost associated with adopting a new health-promoting behavior. These costs can be actual monetary costs related to tangible goods and/or services or nonmonetary costs associated with perceived physical, social, and/or psychological factors related to behavior change.^{15, 16} Promotion refers to the messages, materials, media channels and activities used in the marketing campaign whereas place is where the social marketing campaign messages are actually located to reach the target audience.^{9, 17} Finally, partners/people are the individuals and organizations that collaborate in the implementation of a social marketing campaign.⁹

From the authors' experiences and from the literature,^{8, 11} college-based social norms campaigns used for substance abuse prevention programs incorporate components of the marketing mix when developing the social marketing message (i.e., product, price and cost) and related marketing materials (i.e., promotion and place). Additionally, individuals from campus entities and local community representatives often form campus-community alcohol coalitions with

the goal to reduce underage drinking and negative consequences from high-risk drinking behaviors (i.e., partners/people). These coalitions support a coordinated approach toward implementing environmental management strategies that support consistent alcohol policies, enforcement of legal drinking age and university infrastructure that eliminates irresponsible alcohol use.^{1, 10}

These college-based social norms campaigns often use posters, flyers, newspaper ads, mouse pads, brochures, white boards, note pads and other incentive promotional products. The content of these marketing materials varies depending on the size of the print material or incentive promotional product. As a rule, social marketing campaigns emphasizing social norms will use posters and flyers that usually include a normative message, branding with campaign tagline, contact information and the logo of the sponsoring campus-community alcohol coalition. Smaller print materials and incentive promotional products usually limit printed information to campaign tagline, contact information, and/or logo of the sponsoring campus-community alcohol coalition.^{8, 11}

PURPOSE

The purpose of this study was to determine what media channels promoted the recognition of a university's Campus Alcohol Coalition (CAC), the entity that sponsored the social norms campaign. Specifically, the researchers wanted to ascertain if posters/flyers, educational brochures, and/or incentive promotional products distributed in campus residential housing accounted for students' ability to recall that the university's CAC sponsored the social norms campaign. The researchers were also interested in establishing if the length of time exposed to social norms campaign media channels influenced the recognition of the university's CAC.

While the literature has reported on outcomes of social norms campaigns based on social marketing principles,^{2, 5, 18-20} there are limited data in the college health literature on which promotional materials of a

social norms campaign are remembered by students and if students recollect the sponsoring agency of the campaign. With limited budgets, it is crucial to determine the most cost-effective approach in implementing alcohol prevention strategies. Additionally, students' recognition of the source of the campaign message may be an important mediating factor in alcohol prevention strategies supporting a healthy campus environment.

METHODS

Development of the Social Norms Campaign Intervention

With approval of the university's Institutional Review Board, a social norms campaign was launched during Fall Semester 2006 at a southeastern public university. Total enrollment during the time of the study was 9,882 students, of which 7,904 were undergraduates and 973 were freshman. The majority of students were Caucasian/White (78%); 40% were male and 60% were female. Approximately 1,490 students lived in on-campus housing.

The conceptual framework of the campaign was guided by *The Montana Model of Social Norms Marketing*, a seven-stage process that incorporates: planning and environmental advocacy; collection of baseline data; development of marketing message; establishment of a market plan; pilot testing and refinement of materials; implementation; and evaluation of the social marketing campaign.^{9, 21} Planning for the social norms campaign was initiated in the Spring 2006 under the direction of two newly formed university entities: (1) CAC with representatives from Student Affairs administration, faculty, student body, university and city/county police departments, campus residential housing, Greek Affairs and local alcohol and drug council; and (2) Behavioral Health Research Collaborative, a group of Student Affairs administrative staff and faculty established to support alcohol prevention program intervention and evaluation. Initial alcohol use data were collected in October 2005 using the CORE Institute Alcohol and Drug Survey (long



form).²² Feedback from the CAC members, Behavioral Health Research Collaborative members, key informants and stakeholder groups provided guidance in the selection of the final social norm campaign factoid: *Belief: 70% of university students age 18 to 24, believe that the average university student drinks three or more times per week. Fact: Less than 20% of university students, age 18 to 24, drink three or more times per week* and tag line: “*Most university students make healthy choices.*” The campaign tag line was also incorporated into the CAC logo.

Study Procedures

The social norms campaign was launched during the fall semester, involving 21 residence hall buildings that housed approximately 1,490 students. While 42% of these students were freshmen, they were not mandated to live on campus.

Residence halls were stratified by residency type (i.e., 15 small dorms, three traditional dorms, and two student apartment dorms) and then each residency unit was randomly assigned to one of three intervention groups that differed in the length of exposure to the social norms campaign. Residence Group A (447 residents) was exposed to a 14-week social norms campaign, with the introduction of campaign materials at the beginning of the Fall Semester. For Residence Group B (549 residents), the social norms campaign was introduced four weeks later (10-week campaign exposure). Residence Group C (490 residents) received all social norms campaign materials after Week 14, being exposed to these materials for less than a two-week time frame.

Campaign exposure included placement of three versions of a social norms campaign poster within designated blocks of campus residence halls in strategic locations identified by residence housing administration. Each version contained a unique picture of current university students along with the above factoid, tag line, and CAC logo. Additionally, three educational brochures (CAC information, detecting alcohol poisoning, law regarding buying alcohol for minors) and incentive promotional products (5” x 8” white boards, chip clips, 3” x 4” self-stick

note pads and pencils) were distributed by resident hall advisors. Graduate students and peer health advisors who did not live in campus housing were involved in the development of the brochures and selection of incentive promotional products. Additionally, all of the brochures and the promotional products had the CAC logo and contact information.

For Residence Group A, equal numbers of each version of the posters were placed in residence halls by research assistants. The total number of posters put up in each residence hall depended on the size of the building. For example, a small dorm housing approximately 20 students was allocated five posters that were placed in the lobby and laundry facilities compared to a larger dorm with 198 students where each hallway had five posters, five posters placed in the lobby area, and two posters in the laundry facilities; totaling 45 posters. Overall, 110 posters were distributed among eight dorms in resident units assigned to Residence Group A.

Additionally, each student received educational brochures and incentive promotional products. A brochure (CAC information) and incentive (white boards) were distributed at Week 1; brochure (detecting alcohol poisoning) and incentive (chip clips) at Week 4, and brochure (law regarding buying alcohol for minors) and incentive (note pads and pencils) at Week 14. All educational brochures and incentive promotional products were distributed by resident hall advisors at hall meetings and/or door-to-door. These advisors were provided with a script for use when passing out the items: *These free materials are from the Campus Alcohol Coalition. I feel that the information in the brochure is important and would appreciate your reviewing the brochure.*

One-hundred-and-forty posters (equal numbers of each version) were distributed in Residence Group B four weeks after Residence Group A. Additionally, Residence Group B received brochures (CAC information and detecting alcohol poisoning) and incentives (white boards and chip clips) at Week 4, and brochure (law regarding buying alcohol for minors) and incentives (note

pads and pencils) at Week 14. For Residence Group C, 110 posters (equal numbers of each version) were distributed at Week 14 along with the three educational brochures and all of the incentive promotional products. As with Residence Group A, Residence Group B and Residence Group C received educational brochures and incentive promotional products from resident hall advisors at hall meetings and/or door-to-door using the script described above when passing out these items. Throughout the course of the intervention, the research assistants monitored the placement of the posters, replacing any posters that were missing or worn due to placement in outdoor locations and checked in with resident hall advisors to ensure the distribution of educational brochures and incentive promotional products.

Measurement and Sampling

Data were collected using intercept interviews performed by 25 undergraduate and graduate students who attended a class on interviewing methodology. Intercept interviews were conducted at four points in time over the course of the social norms campaign. At each point in time, the intercept interviews were carried out within a two-week time frame. Students were asked to complete only one intercept interview during each time period. Locations of the intercept interviews included pre-determined outdoor locations (i.e., dorms, library, student union, recreation center, classroom buildings and academic departments) and common areas inside the student union and recreational center. Regardless of where interviews took place, survey data were analyzed based on students’ residential hall location. Agreement to be interviewed was considered implied consent.

Study Phase 1 (baseline) occurred one week prior to the 14-week campaign, and prior to distribution of any campaign materials. Study Phase 2 occurred at Week 4, after Residence Group A had been exposed to the campaign materials but before distribution of materials in Residence Group B. Study Phase 3 occurred at Week 14, after Residence Group A had been exposed to the campaign for 14 weeks and Residence Group



B had been exposed to the campaign for 10 weeks and just before Residence Group C was exposed to the campaign. This phase provided a delayed exposure for Residence Group C. Study Phase 4 occurred at the end of the Spring Semester (Weeks 15-16), during the last two weeks of class. For sampling purposes, the campus was divided into four geographical zones and intercept interviews were conducted at key locations in each of the four zones at each phase of the study.

A 16-item intercept interview was developed for this study. Only currently enrolled students completed the interview and only resident students were used for analysis. The questionnaire was made up of 14 closed-ended questions asking about residential housing location, attitudes related to drinking, and demographics (i.e., gender, age, ethnicity, GPA, Greek affiliation, student-athlete, and involvement in student organizations). Five of the 14 questions addressed attitudes/behaviors related to drinking (e.g., Choosing not to drink is a way to express independence). Two open-ended questions asked students to describe where they saw information regarding the Campus Alcohol Coalition and recall of the social norm factoid.

RESULTS

Sample Characteristics

A sample of 838 campus residents between the ages of 18 and 31 ($M = 19.5$, $SD = 1.6$) completed the intercept interview across the four study phases (Phase 1, $n = 305$; Phase 2, $n = 223$; Phase 3, $n = 127$; Phase 4, $n = 183$) and three residence groups (Residence Group A, $n = 243$; Residence Group B, $n = 309$; Residence Group C $n = 286$). Overall, the majority of respondents were Caucasian/White and the sample included slightly more women (53.0%) than men (46.3%). These gender, race/ethnicity and class level distributions are comparable to the distribution of these characteristics for resident students on campus, suggesting that the sample is reasonably representative of the population from which it was drawn. Table 1 displays key demographic characteristics of the overall sample obtained.

Table 1. Demographic Characteristics of Sample (n = 838)

	<i>n</i>	%
Gender		
Female	444	53.0
Male	388	46.3
Missing	6	0.7
Race/ethnicity		
Caucasian/White	541	64.6
African American/Black	140	16.7
Asian American/Pacific Islander	54	6.4
Hispanic/Latino/Latina	52	6.2
American Indian/Alaska Native	4	0.5
Other	37	4.4
Missing	10	1.2
Year in college		
Freshman	370	44.2
Sophomore	216	25.8
Junior	152	18.1
Senior	93	11.1
Graduate student	4	0.5
Missing	3	0.4
Greek involvement		
No	712	85.0
Yes	116	13.8
Missing	10	1.2
Athletic participation		
No	737	87.9
Yes	100	11.9
Missing	1	0.1
Club involvement		
No	438	52.3
Yes	398	47.5
Missing	2	0.2

Comparisons of the demographic characteristics of the samples obtained from each of the three residence groups and at each of the four study phases revealed that the samples were comparable on most demographic variables. Chi-Square analyses revealed no significant differences in gender or racial/ethnic distribution as a function of residence group or study phase. Similarly, analysis of variance revealed no significant

differences in self-reported GPA ($M = 3.22$, $SD = .52$) as a function of residence group or study phase.

The residence groups did differ slightly in terms of the age and class level of the respondents. Similarly, the samples drawn at the four study phases differed slightly in terms of age and class level of respondents, as well as the levels of Greek affiliation, athletic participation, and club involvement.



Although the residence groups and study phase samples were not equivalent on all demographic variables, analyses suggest that these characteristics were not related to the level of awareness of the CAC. T-tests revealed that there were no significant age differences between students who reported that they had seen information regarding the CAC and those who had not. Chi-square analyses indicated that there were no significant differences in the proportion of students who reported awareness of the CAC as a function of class level, Greek affiliation, athletic participation, or club involvement. Hence, any differences in the proportion of students who reported that they had seen information regarding the CAC as a function of residence group or study phase is most likely not explained by the demographic differences reported above.

Awareness of Campus Alcohol Coalition

Chi-square analyses were performed in an effort to examine whether there were significant differences in the proportion of respondents who reported that they had seen information regarding the CAC as a function of residence group and study phase. Results revealed a significant effect for study phase, $\chi^2(3, n = 837) = 150.04, P < 0.001$, a significant effect for residence group, $\chi^2(2, n = 837) = 7.25, P < 0.05$, and significant

residence group differences at Phase 1, $\chi^2(2, n = 305) = 7.61, P < 0.05$, and Phase 2, $\chi^2(2, n = 222) = 6.72, P < 0.05$.

Z-tests for differences in proportions indicated that a significantly smaller proportion of respondents reported awareness of the CAC in Phase 1 than each of the other three phases and the proportion of respondents reporting awareness of the CAC at Phase 4 was significantly larger than each of the other three phases (Table 2). Given that the CAC advertisements began after the Phase 1 interviews and before the Phase 2 interviews, this finding suggests that an increase in reported awareness of the CAC coincided with the onset of advertising.

For the residence group effect, Z-tests for differences in proportions indicated that a significantly larger proportion of respondents reported awareness of the CAC in Residence Group A than both Residence Group B and Residence Group C, which were not significantly different from each other (Table 2). Residence Group A was the first residence group to be exposed to the campaign and therefore, had the longest exposure to the campaign. Table 2 presents the percentage of respondents, by residence group, reporting awareness of the CAC at each phase of the study and Figure 1 displays this graphically.

Z-tests indicated that Residence Group A had a significantly larger proportion of respondents who reported awareness of the CAC than Residence Group C at Phase 1 and Residence Group A also had a significantly larger proportion of respondents who reported awareness of the CAC than Residence Group B at Phase 2. Group differences at Phase 1 cannot be easily explained, as the CAC information had not been released until after this phase of data collection. Group differences at Phase 2 may reflect actual differences in exposure to CAC information, as the media materials were posted only in Residence Group A residences by Phase 2.

Tables 3 and 4 display the sources of information about the CAC reported by respondents. Table 3 shows the reported source of information about the CAC at each phase of the study. Although the CAC advertisements were not yet made public by the Phase 1 assessment, nearly 25% of respondents indicated that they had seen CAC information, with the majority of these respondents indicating that a poster or flyer was the source of this information. After the introduction of campaign materials following Phase 1 assessments, the percentage of students reporting a poster or flyer as the source of the information increased tremendously. Branded incentives were infrequently

Table 2. Number and Percent of Respondents, by Residence Group, Who Reported Seeing Campus Alcohol Coalition Information at Each Phase of the Study

	Residence Group							
	Group A (n = 243)		Group B (n = 309)		Group C (n = 286)		Total (N = 838)	
	n	%	n	%	n	%	n	%
Phase 1 (n = 305)	33/96	34.4	25/107	23.4	18/102	17.6	76/305	25.1*
Phase 2 (n = 222)	41/56	73.2	45/87	51.7	45/80	57.0	131/222	60.6
Phase 3 (n = 127)	21/33	63.6	25/42	59.5	38/52	73.1	84/127	65.4
Phase 4 (n = 183)	48/58	82.8	57/73	78.1	36/52	69.2	141/183	76.7**
Total (N = 838)	143/243	63.5†	152/309	53.2	137/286	54.2	432/838	51.6

* significantly different from Phase 2, 3, and 4 ($P < 0.05$)

** significantly different from Phase 1, 2, and 3 ($P < 0.05$)

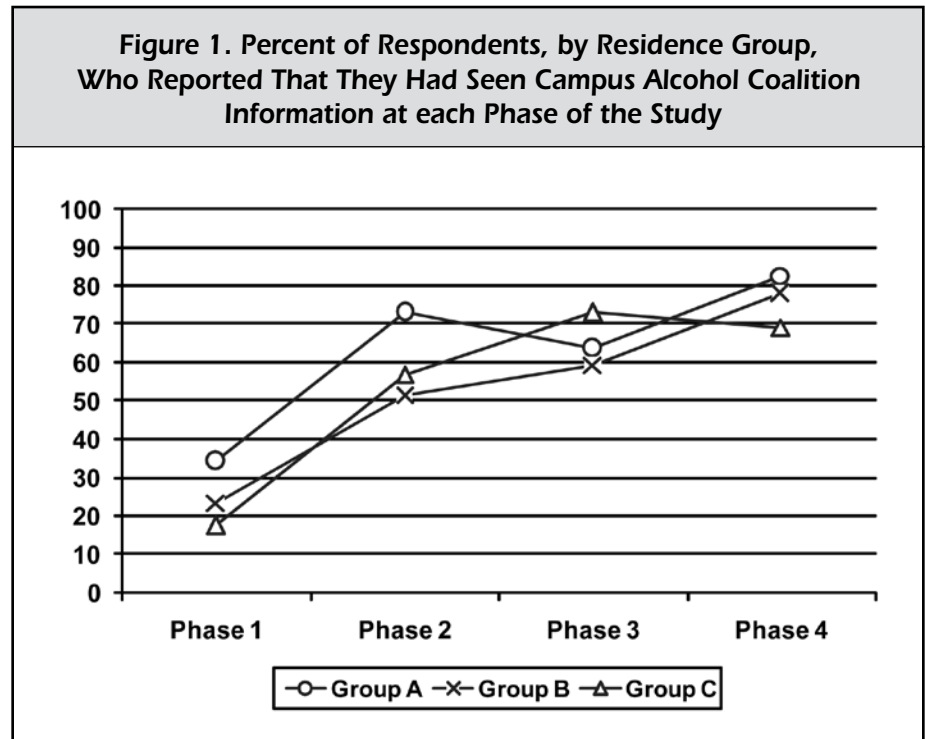
† significantly different from Residence Group B and C ($P < 0.05$)



identified as the source of CAC information across all phases of the study. Similarly, across residence groups with different levels of exposure to campaign materials, posters or flyers represented the most frequently reported source of CAC information, with branded incentives infrequently identified as the source of CAC information (Table 4). Although the majority of results regarding social norm perceptions, attitudes related to drinking and knowledge of campaign will be described in a separate paper, it should be noted that a significantly greater proportion of students who reported an identifiable source of CAC awareness information (e.g., poster/flyer with factoid and branding) were able to accurately recall the factoid than those without an identifiable source (16.2% vs. 8.1% respectively, $\chi^2(1, n = 837) = 12.57, P < 0.001$).

DISCUSSION

This study examined the impact of a social norms campaign on the recognition of the university's Campus Alcohol Coalition (CAC), the sponsoring group of a social norms campaign. Posters, educational brochures and incentive promotional products were designed to prominently display the university's CAC logo. The study was designed to determine if distribution of these items in campus residential housing accounted for students' ability to recall that the university's CAC sponsored the social norms campaign. Results indicated that increased student awareness of the university's CAC was achieved by using a social norms campaign. Specifically, the use of posters/flyers increased the students' awareness of the CAC from 25% to 75% and remained high across all phases of the campaign. Other incentive promotional products (i.e., white boards, chip clips, note pads/pencils) and educational brochures were not identified as a significant source for the awareness of the university's CAC. This may be related to a lack of interest in the incentive promotional products since they were of nominal value and/or the fact that these promotional products did not have a lasting impression compared to the posters/flyers. Furthermore,



the posters/flyers were developed by an experienced graphic artist with trendy graphics and pictures of currently-enrolled students, with several students recognizable since they were in campus leadership positions. The combination of graphics, images of students, campaign tag line, and/or the CAC logo may have contributed to students' recall of the university's CAC.

We were also interested in determining if length of time exposed to social norms campaign media channels influenced recognition of the university's CAC. We determined that awareness of the CAC increased dramatically following the introduction of the social norms campaign and remained high across the latter three study phases (Figure 1). Additionally, the residence group with the longest exposure to the campaign (Residence Group A) had greater awareness levels than the residents of the other two groups in the early stages of the campaign. Furthermore, the dramatic increase in awareness from Phase 1 to Phase 2 was more pronounced among residents of Residence Group A than Residence Group B. By the end of the study, however, awareness of the CAC was high among all residence groups, without significant differences as a function

of length of exposure. This outcome supports the implementation of a social norms campaign across campuses even if it takes an extended period of time to distribute posters/flyers.

An unanticipated finding was that awareness increased across all residence groups following the initiation of the social norms campaign, even among residents whose housing units had not received campaign materials (Residence Group C), suggesting that residential hall students interact with other students living in different on-campus housing. Additionally, one quarter of students reported awareness of the CAC at baseline (Phase 1), prior to the initiation of the social norms campaign and any other substantial marketing of the CAC. This was viewed largely as a combination of social desirability and demand influences on respondents, although it is possible that some students could be legitimately aware of the newly developed CAC.

The college health literature has focused on the benefits of campus-community alcohol coalitions. Zimmerman²³ noted that campus-community coalitions focusing on alcohol prevention provide an opportunity for individuals representing diverse

**Table 3. Source of Information about Campus Alcohol Coalition by Phase of Study**

Source	Phase 1		Phase 2		Phase 3		Phase 4		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
None	229	75.3	91	42.5	43	34.4	42	23.7	405	49.5
Poster/flyer	46	15.1	103	48.1	75	60.0	95	53.7	319	38.9
Branded incentives*	3	1.0	9	4.2	2	1.6	29	16.4	43	5.2
Word of mouth	9	3.0	4	1.9	5	4.0	4	2.3	22	2.7
Don't know	13	4.3	6	2.8	0	0	7	4.0	26	3.2
Sham**	4	1.3	1	0.5	0	0	0	0	5	0.6
Total	304	100.0	214	100.0	125	100.0	177	100.0	820	100.0

*These included whiteboards, notepads/pencils, and educational brochures from this campaign targeting students living in resident halls; and banners, water bottles, and website/computer screens from campus promotions' that occurred during Spring Semester .

** These were sources that did not exist such as housing handbook and student orientation.

Table 4. Source of Information about Campus Alcohol Coalition by Residence Group

Source	Group A		Group B		Group C		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
None	100	42.6	157	51.8	148	52.5	405	49.4
Poster/flyer	105	44.7	111	36.6	103	36.5	319	38.9
Branded Incentives*	14	6.0	19	6.3	10	3.5	43	5.2
Word of mouth	6	2.6	8	2.6	8	2.8	22	2.7
Don't know	8	3.4	7	2.3	11	3.9	26	3.2
Sham**	2	0.9	1	0.3	2	0.7	5	0.6
Total	235	100.0	303	100.0	282	100.0	820	100.0

*These included whiteboards, notepads/pencils, and educational brochures from this study intervention targeting students living in resident halls; and banners, water bottles, and website/computer screens from campus promotions' that occurred during spring semester .

** These were sources that did not exist such as housing handbook and student orientation.

constituencies to come together to address a mutual area of concern. These coalitions also open lines of communication between the university and local communities and publicly acknowledge the importance of collaboration for addressing alcohol problems that impact neighborhoods adjacent to campus. Additionally, coalitions can provide a venue for supporting environmental strategies, including: promoting alternative campus activities that do not include alcohol; creating a health-promoting normative environment; limiting alcohol availability; enforcing campus policies and community laws relating to alcohol use and related activities (e.g., vandalism, driving while intoxicated, disturbing the

peace); and restricting the promotion and marketing of alcohol on campus and in the local community.^{19, 24, 25}

Students' awareness of campus-community alcohol coalitions provides an opportunity to involve students in leadership positions on campus. This sets the stage for grassroots-level representation and involvement on campus-community alcohol coalitions, both key in developing and sustaining coalitions' initiatives.²⁶ Finally, promoting a healthy campus environment supports students' academic success.²⁷

Limitations

It is important to acknowledge the limitations of this study. Data were collected at a single university, without a control or

comparison university; this does influence the ability to generalize findings beyond our campus as well as the ability to make causal attributions. On the other hand, the time-series design and systematic manipulation of length of exposure for different residence groups add support to conclusions of effectiveness. While we were able to control the location and hanging of the social norms posters in the resident halls, we relied on resident hall advisors to distribute incentive materials and brochures at hall meetings and/or door-to-door. We worked closely with resident hall administration and were able to collect items that were not given out. Overall, there was a 91% distribution rate for incentives and brochures with a range of



81% for the brochure on the CAC to 96.5% for the white boards, note pads and pencils. Even though students were involved in the development of brochures and selection of incentives, the main reason that most students declined an item was related to the lack of interest or use.

This study also relied on self-report data collected from intercept interviews. Great care was taken to systematically collect data over the length of the study using trained interviewers at assigned locations on campus. Whereas these interviewers were trained to ask students to complete only one intercept interview during each study phase, there is a possibility that some students were re-interviewed over the course of the study. Finally, during Spring Semester the social norms campaign was extended beyond residential halls to the entire campus so there was a potential for additional exposure of the university's CAC. However, we were able to track this during data collection and determined that only 5% reported their source of information from the campus-wide campaign versus resident hall campaign.

TRANSLATION TO HEALTH EDUCATION PRACTICE

It is important to identify cost-saving measures and, at the same time, provide evidenced-based intervention strategies to address underage and high-risk drinking in a college setting. Social norms campaigns have used multiple delivery channels including posters, educational brochures and incentive promotional products to disseminate normative messages. In our experience, costs associated with the development and printing of educational brochures and purchase of incentive promotional materials were 3.5 times and 4.6 times greater, respectively, than the cost of developing and printing of posters. Poster/flyers were clearly the most economical and most effective delivery channel.

The data also highlight that students can become aware of campus entities that promote health-supporting behaviors through such social norms campaigns. Campus and

community coalitions have been identified as an environmental management strategy in reducing access to alcohol in underage students, preventing high-risk substance use and supporting law enforcement efforts.²³ In the college health promotion setting, coalitions have been instrumental in supporting evidenced-based strategies that address high-risk behaviors associated with underage drinking and alcohol misuse. Social norms interventions used by campus-community coalitions are considered promising in reducing misperceptions of peer alcohol misuse and decreasing at-risk drinking behaviors in college settings. However, further research is needed to explore students' attitudes toward campus-community alcohol coalitions and how to increase students' engagement in these organizations.

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