



Published in final edited form as:

*Am J Health Behav.* 2009 ; 33(1): 91–100.

## Collegiate's Intention and Confidence to Intervene into Others' Drinking

**Bradley Boekeloo, PhD, ScM, FAAHB [Professor] and Melinda Griffin, MS [Faculty Research Assistant]**

*Department of Public and Community Health, School of Public Health, University of Maryland, College Park, College Park, MD*

### Abstract

**Objectives**—To examine variable frequencies and relationships between students' intentions and confidence with their intervention.

**Methods**—Incoming freshmen (509 of 1155 students responded) completed a survey 2 months into college.

**Results**—Most (75.2%) students intervened into others' drinking, usually as a caretaker. Students reported more intention to intervene with others with whom they had more affiliation, and confidence with less intrusive intervention. Intention to intervene ( $b=0.36$ ,  $SE=0.10$ ,  $P<0.001$ ) and intervention confidence ( $b=0.27$ ,  $SE=0.06$ ,  $P<0.001$ ) correlated with intervention.

**Conclusions**—With education to enhance their intention and confidence to intervene, first-year college students might be encouraged to intervene into others' social drinking.

### Keywords

college students; heavy drinking; intervention behaviors; intention; confidence

---

The majority (70%) of college students report recent alcohol use, making it a common element of college social life that affects nondrinkers and drinkers.<sup>1</sup> College student drinkers often report having had a hangover (62.8%), getting nauseated or vomiting (53.8%), doing something they later regretted (35.7%), and forgetting where they were or what they did (29.8%).<sup>1</sup> Nondrinking peers of drinkers report having interruptions to sleep and study (60%), having to take care of a drunk person (40%), being insulted or humiliated (34%), experiencing an unwanted sexual advance (28%), being inconvenienced by vomit (25%), and having property damaged (20%).<sup>2</sup> Most of these alcohol-related problems on campuses are the result of alcohol used in social situations (social drinking) rather than due to students' abuse or chronic use of alcohol when they are alone.<sup>3-5</sup> Social drinking tends to occur on Thursday-Saturday evenings when students feel free of school responsibilities<sup>6</sup> in such venues as bars, off-campus student housing, and dormitory rooms.<sup>4,7</sup>

Given the pervasiveness and the social nature of alcohol use, and the related problems on campuses, peer-to-peer intervention is needed. Reports of college students dying from alcohol poisoning in the presence of peers emphasize the importance of encouraging adequate peer-to-peer alcohol-related intervention.<sup>8</sup> Prior research examines student intervention related to

others' drunk-driving, emergency care, and chronic alcohol problems.<sup>3,9-12</sup> However, peer-to-peer intervention into others' social drinking has not been examined.

Peer-to-peer interventions aimed at preventing all drinking are unlikely to succeed as abstinence has been a notoriously elusive goal on campuses for many years.<sup>13,14</sup> The harm reduction model posits that not all individuals will completely avoid risk by abstaining, but they may be encouraged to adopt ways of drinking short of abstinence that reduce their likelihood of experiencing serious negative effects.<sup>13,15-18</sup> Using this model, the goal of health promotion is alcohol harm reduction for those who do not abstain. Peer-to-peer intervention for harm reduction could prevent overintoxication from social drinking and reduce suffering after overintoxication. Student harm reduction intervention related to social drinking would include such behaviors as encouraging drinkers to limit their alcohol intake, giving a drinker food or drink, helping a drinker to get home safely, keeping a drinker from passing out, or getting a drinker medical assistance when warranted rather than relying on total abstinence to reduce risk.

Incoming freshmen are particularly vulnerable to problems associated with social drinking because of their lack of experience with alcohol in the college social environment and their need to develop social relationships.<sup>19</sup> Many college freshmen reside in on-campus multistory dormitories. Dormitories usually have multiple wings, with a wing consisting of a single hallway and bathroom shared by students living in rooms, often 2 or 3 per room. Wings are usually supervised by a single resident advisor. Given the structural configuration of wings, freshmen wing-mates live in close proximity and are likely to have multiple joint experiences, expectations, and influences regarding daily life. Hence, wings might be especially promising venues for influencing peer expectations regarding social drinking and peer-to-peer social drinking intervention.

The theory of reasoned action posits that intentions predict actual behavior and are, at least in part, the product of perceived expectations regarding the behavior.<sup>20</sup> Hence, intentions to intervene may be greater where expectations of intervention are greater. For example, college students may intend to intervene into drinking risks more with roommates than with strangers, partly because expectations of mutual risk prevention are greater among roommates than strangers. Social cognitive theory posits that a sense of self-efficacy empowers one to execute a desired behavior.<sup>21</sup> Students' confidence may be higher for less intrusive interventions than more intrusive interventions.

As part of a freshman wing-based alcohol risk reduction study, we conducted this substudy on peer-to-peer drinking intervention among incoming freshmen. As there is little research in this area, we developed new measures of intervening into the immediate risks of drinking in social situations and potential attitudinal predictors of intervening. In summary, standardized measures applying theory to peer-to-peer intervention into social drinking do not exist in the literature causing us to develop our own new measures. The harm reduction model has informed our modification of the Social Drinker Intervention measure.<sup>13</sup> The intention construct of the theory of reasoned action has informed our development of the intention-to-intervene measure. The self-efficacy construct of social cognitive theory has informed our development of the intervention-confidence measure. This research into peer-to-peer intervention into social drinking is in its early exploratory stages and is intended to establish groundwork for future investigations.

This study examines the following research questions: (1) What are the type and frequency of behaviors that incoming freshmen use when intervening into other students' social drinking? (2) Do students differentially intend on intervening into the social drinking of peers spanning from friends to strangers? (3) How confident are students that they can intervene into social

drinking in ways spanning from less intrusive to more intrusive? (4) Are overall intervention confidence and intention levels associated with actual intervention into social drinking? Regarding the last question, we hypothesized that increased intervention confidence into wing-mates' social drinking would be associated with actually intervening into others' social drinking and increased intention to intervene into others' social drinking across various types of peers would be associated with actually intervening into others' social drinking.

## METHODS

This study was a substudy of a larger National Institute of Alcohol Abuse and Alcoholism-funded college alcohol problem prevention trial and was approved by the university institutional review board. The larger 3-arm trial (comparing single gender, mixed gender, and control conditions) was conducted to determine whether a series of 3 educational workshops targeted toward freshmen dormitory wings (wings were the unit of assignment) could effectively reduce quantity and frequency of alcohol use as well as problems from alcohol use.

The data for this study came from a sample obtained as part of the larger trial as follows. A purposive sampling frame was used with wings of students living in on-campus, traditional, high-rise, freshman dormitories. Of the 8 on-campus, freshman, high-rise dormitories, with wings supervised by a resident advisor; 4 dormitories had wings with a preponderance of incoming freshmen relative to more senior students and afforded balance across trial arms on number of students per wing and number of wings by student gender and membership in a formally identified group of students who have similar academic interests (living-learning membership). Of 64 wings in the 4 dormitories, 36 were chosen for the trial because they maximized the number of incoming freshmen per wing and balanced dormitory, student gender, and living-learning membership across arms of the trial. Approximately 2 months after the beginning of the school year (Fall 2006) and 2 weeks after the final workshop in the trial, a web-based follow-up survey was conducted with all students in the 36 trial wings. This follow-up web-based survey provided the data for the study described in this manuscript.

There were 1269 students (634 males, 635 females) on the 36 wings (18 male, 18 female) recruited to participate in the trial web-based survey through flyers hung on each wing and up to 5 personalized e-mails. Of these students, only the 1155 incoming freshmen (572 males, 583 females) constituted the targeted sample for this substudy. E-mails included the web-page link and a unique study identification number (ID) for accessing the survey. The unique ID had to be entered and corroborated with a matching student date of birth for student to indicate acceptance of the on-line consent form and access the on-line survey. To increase the survey response rate, a paper survey that exactly mirrored the format and questions in the on-line survey was mailed to nonresponders after 3 e-mail recruitment attempts for the on-line survey. The paper survey respondents were tracked by a unique study ID, and the same consent and incentive policies applied to on-line and paper responses. Incentives included a \$10 bookstore coupon for completion and entry into a lottery to win another \$40 gift coupon at a local department store.

### Survey Questions

Suitable existing scales regarding peer-to-peer intervention into social drinking could not be identified for the study survey. Therefore, new questions were designed with feedback from focus group discussions with 47 first-year students unrelated to this study sample of students. The methods of conducting and analyzing the focus group discussions were explained in depth elsewhere.<sup>22</sup> Motivations and behaviors for intervention into social drinking were identified and organized thematically. Based on focus group findings, a review of the literature, and input from key campus informants, sets of questions were created for the key study variables: social drinker intervention, intention to intervene, and intervention confidence. The resulting

questions were incorporated into a questionnaire with student demographic questions and then pretested in one-on-one, face-to-face administrations with college students for comprehension and acceptability. The survey was then converted for web administration and pilot tested with 245 freshmen college students (92 males, 153 females) unrelated to this study sample of students. Pilot testing enabled refinement of web-based survey administration methods and examination of the psychometric adequacy of the survey questions. The following describes the final key study questionnaire items and their coding in the multivariate analyses.

*Social Drinker Intervention* was a scale created by the researchers to measure the type of intervening behaviors students exhibited toward social drinkers at risk of harming themselves or others. Students were asked how often they did various things for others who had too much to drink in the 2-month period since the beginning of the school year. The items included “took a drink away from someone,” “made someone leave a bar/party,” “drove or walked someone home,” “helped someone use public transportation,” “took someone to the bathroom,” “gave someone water,” “gave someone food,” “got Department of Resident Life staff assistance,” “kept someone from passing out,” “stayed with someone to take care of them,” and “called 911 or got emergency medical assistance.” Coded response options were never=0, 1-2 times=1, 3-5 times=2, 6-10 times=3, and more than 10 times=4. Factor analysis of the 11 items indicated that 2 factors may exist with the first factor explaining 53.25% of the variance whereas the second factor explained 11.46% of the variance. Because the second factor included only 2 items (“got Department of Resident Life staff assistance” and “called 911 or got emergency medical assistance”), the item-total correlations for these 2 variables were high (.39 and .41, respectively), and the Cronbach alpha coefficient for the summed scale was high (0.91), a single factor was retained for this study. All 11 items were summed to create a single continuous variable (Mean=6.07±6.27, Median=5, Mode= 0, Range=0 to 44).

*Intention to Intervene* was a scale created by the researchers to measure intention to intervene into the behavior of drinkers. Students were asked how much they agreed that they would assist the following people who had too much to drink: a stranger, a wing-mate, a roommate, a friend. Coded response options were strongly disagree=1, disagree=2, neither agree nor disagree=3, agree=4, and strongly agree=5. All 4 items were then summed to create a single continuous variable (Cronbach alpha=0.75, Mean=16.69±2.57, Median=17, Mode= 19, Range=4 to 20).

*Intervention Confidence* was a scale created by the researchers to measure how confident students would be in intervening into their wing-mates’ drinking-related behaviors. Students were asked how confident they were that they could do the following things: “prevent a wing-mate from drinking too much,” “take a drink away from a wing-mate,” “make a wing-mate leave a bar/party,” “drive or walk a wing-mate home,” “help a wing-mate who has had too much to drink,” and “confront a wing-mate with a problem.” Coded response options were unconfident=1, somewhat unconfident=2, somewhat confident=3, and confident=4. All 6 items were summed to create a single continuous variable (Cronbach alpha=0.88, Mean=18.51±4.26, Median=19, Mode=24, Range=6 to 24).

A student was identified as a drinker if he or she reported consuming beer, liquor, wine, or alcohol of any type in the prior 30 days (yes=1, no=0). Student race/ethnicity (Hispanic/Latino, Asian/Pacific Islander, Black/African American, Other/Mixed, White), age, gender (male=1, female=2), and living-learning membership (yes=1, no=0) were obtained from university records. Study condition (categorical variables with single gender workshop=1, mixed gender workshop=2, control=9) was an assigned variable based on the parent study assignments.

## Analysis Plan

Data were analyzed using SPSS version 14.0. Descriptive analyses including chi-square associations and student t-test differences in means were used to examine variable distributions

and their differences by gender. Linear mixed model (LMM) analysis was used to examine the relationships between the out-come of interest (social drinker intervention) and the predictor variables (intention to intervene and intervention confidence) while controlling for potential intraclass correlation among members of individual wings. In LMM, fixed factors included the independent variables, gender, condition, living-learning membership, drinking status, race, age, and the interaction effect between gender and study condition. Individual study wing, nested within gender, study condition, and living-learning membership, was treated as a random factor.

## RESULTS

Of the 1155 incoming freshmen targeted for this study, 204 males and 295 females provided useable responses to the web-based survey. Only 2 males and 8 females provided useable paper survey responses administered to web-survey nonrespondents. Results were run both with and without the 10 paper surveys merged into the web-based survey database. As there were no differences in the findings resulting from the merged and web-based-only databases, only results of the merged database are reported. The final sample thus included 206 males (36.0% completion rate) and 303 females (52.0% completion rate). Proportionally fewer male, African American, and non-Living-Learning students completed the survey (Table 1).

Regarding the type and frequency of social drinker interventions since arriving to campus that semester, the majority of students (75.2%) intervened into someone else's social drinking. Students frequently reported that they had given a student who had drunk too much alcohol some water (60.1%), helped a drinker get home (57.3%), or stayed with someone to take care of that person after drinking (52.9%) (Figure 1). More intrusive behaviors such as taking a drink away from someone (42.9%) and making someone leave a bar/party (33.4%) were reported relatively infrequently (Figure 1).

Based on absolute means, students reported that the strength of their intention to intervene with a drinker would increase across the following types of relationships: stranger (Mean=3.30 ±1.06), wing-mate (Mean=4.22±0.82), roommate (Mean=4.55±0.79), friend (Mean= 4.66 ±0.71) (Table 2). Males had higher intention of intervening with a stranger who had too much to drink than did females.

Absolute means were higher for intervention confidence items related to nonintrusive behaviors such as driving or walking someone home (Mean=3.51±0.77) than for intrusive behaviors such as taking a drink away from someone (Mean=2.86±0.98) or making someone leave a bar/party (Mean=2.84±0.96) (Table 2). Females were more confident than their male counterparts in their ability to prevent a wing-mate from drinking too much, take a drink away from someone, and make someone leave a bar/party.

LMM analysis indicated that as intention to intervene ( $b=0.36$ ,  $SE=0.10$ ,  $P<0.001$ ) and intervention confidence ( $b=0.27$ ,  $SE=0.06$ ,  $P<0.001$ ) increased, social drinker intervention increased (Table 3). In the model, being a drinker ( $b=4.81$ ,  $SE=0.52$ ,  $P<0.001$ ) was also correlated with more social drinker intervention. Gender, study condition, living-learning membership, race, age, study wing, and the interaction between gender and study condition were not significant in the model. The model was also run examining the interaction between drinker status and intention to intervene and between drinker status and intervention confidence, but these interactions were not significant.

## DISCUSSION

Over 75% of incoming freshmen living on this campus in freshmen dormitories intervene with a drinker within the first couple of months of beginning college. This attests to the



pervasiveness of drinking-related risk and/or suffering in the social environment of students on this large, mid-Atlantic campus. Around 50% or more of incoming students report giving a drinker water, escorting a drinker home, staying with a drinker all night, and giving a drinker food. Nevertheless, more invasive and restrictive interventions such as taking a drink from someone and getting a drinker to leave a bar or party are reported less often. Overall, it appears that incoming freshmen frequently confront alcohol problems that are social drinking and acute in nature (as compared to private, chronic alcohol dependence in nature) and assume the caretaking burden of helping others reduce risk or suffering from inebriation.

The findings suggest that as student affiliation with the drinker increases, intention to intervene increases. Furthermore, as intention to intervene into others' drinking increases, actual intervention into others' drinking increases. These findings tend to support theory of reasoned action predilections.

On average, students are somewhat confident in their ability to intervene into others' drinking although their confidence is higher for caretaking behaviors than for more intrusive behaviors that restrict another's actions. Confidence to restrict the drinking of others may be lower than confidence to serve as a caretaker because of social acceptance of heavy drinking. Regardless, as confidence about intervening into another's alcohol-related behavior increases, actual intervention increases. This supports the social learning theory notion that a sense of self-efficacy empowers one to act to attain desired outcomes.

There are several potential limitations of this study. First, as survey respondents and nonrespondents differed on gender, race and living-learning membership, and this study was conducted at one university, the generalizability of the results to all incoming freshmen living in dormitories on this and other college campuses warrants confirmation. The results are plausible, however, given what is known about high rates of social drinking among both men and women on many college campuses.<sup>1,23-25</sup> Second, the wording of scale items might not be exactly aligned around the same phenomenon. Specifically, the social drinking intervention scale questions do not identify the drinker in need as drinking in a social context. Given the high rates of social drinking on campuses and the types of intervention examined, however, the social context is implied. The intervention confidence items ask specifically about intervention with wingmates, and the social drinking intervention questions ask about intervening with someone who had too much to drink. For there to be an association between these variables, intervention confidence with wing-mates must generalize to non-wing-mates and/or intervention must be predominantly with wing-mates. It is likely that both of these assumptions are true in the relationship of intervention confidence and social drinking intervention as observed in this study but this cannot be confirmed from the data. Third, the social drinker intervention, intention to intervene and intervention confidence measures were not examined by expert theorists to ensure that they reflected the theoretical construct used to inform their development. For this reason, they should be interpreted as possible, but unconfirmed, measures of the theoretical constructs. Fourth, as the study is cross-sectional, the mixed model findings do not establish directionality of associations between predictor variables and intervention. It is possible that intervening with drinkers subsequently increases intervention confidence and intention to intervene, although the reverse is hypothesized. Fifth, the different frequencies across the intervention items could reflect either varied propensities to offer that intervention or varied needs of drinkers. Nevertheless, it is likely, for example, that someone who benefited from being escorted home could also have benefited from having his or her drinking restricted.

There are a number of implications of this study. These study findings suggest that incoming freshmen living in dormitory wings are often compelled to intervene into others' social drinking but are more likely to provide caretaking than restrictive intervention that could limit drinking.

Freshman training and skill building to confront peer acceptance of heavy drinking could potentially boost freshman confidence and intentions to intervene and thus increase intervention. As freshmen's sense of affiliation with others also appears to increase their intention to intervene, efforts to increase a sense of affiliation among peers may further promote peer-to-peer drinking intervention.

## Acknowledgment

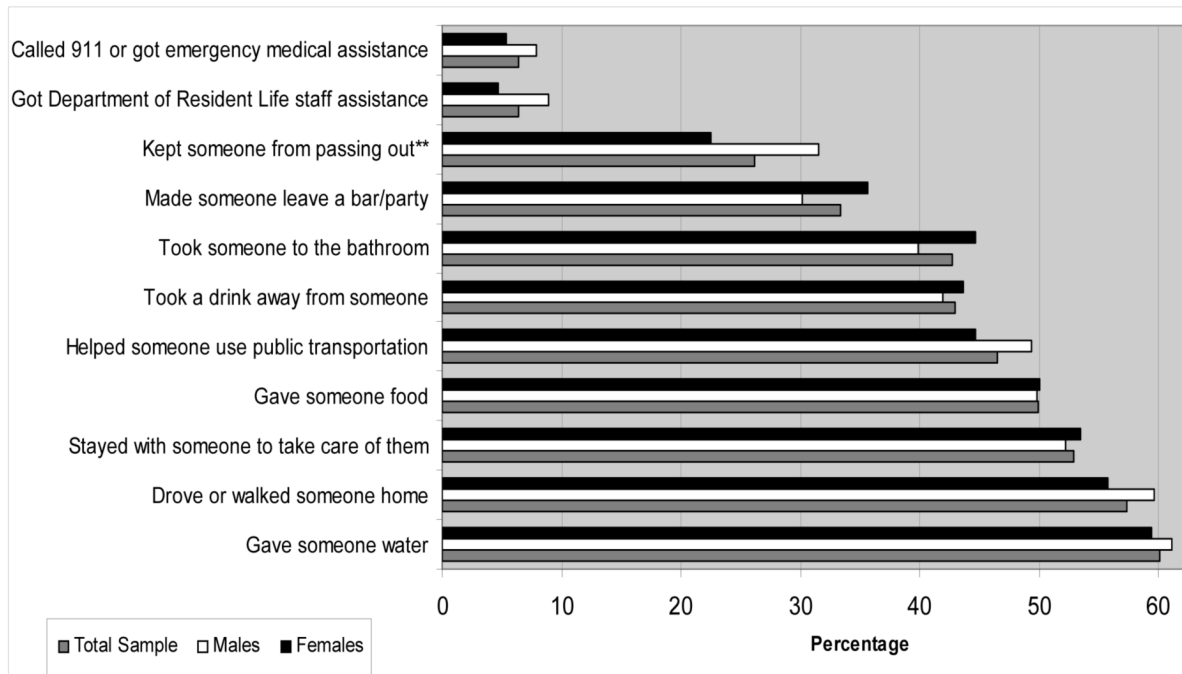
This study was supported by National Institutes of Alcohol Abuse and Alcoholism, Grant # R01AA015139-01A1 to Bradley O. Boekeloo, PhD, ScM.

## REFERENCES

1. American College Health Association. Reference Group Executive Summary (online). 2006 [Accessed February 23, 2007]. Available at: [http://www.acha-ncha.org/docs/ACHA-NCHA\\_Reference\\_Group\\_ExecutiveSummary\\_Spring2006.pdf](http://www.acha-ncha.org/docs/ACHA-NCHA_Reference_Group_ExecutiveSummary_Spring2006.pdf)
2. Langley JD, Kypri K, Stephenson SCR. Secondhand effects of alcohol use among university students: computerised survey. *BMJ* 2003;327(7422):1023–1024. [PubMed: 14593036]
3. LaBrie JW, Pedersen ER, Lamb TF, et al. HEADS UP! A nested intervention with freshmen male college students and the broader campus community to promote responsible drinking. *J Am Coll Health* 2006;54(5):301–304. [PubMed: 16539223]
4. Beck KH, Thombs DL, Mahoney CA, et al. Social context and sensation seeking: gender differences in college student drinking motivations. *Int J Addict* 1995;30(9):1101–1115. [PubMed: 7591351]
5. Wechsler H, Moeykens B, Davenport A, et al. The adverse impact of heavy episodic drinkers on other college students. *J Stud Alcohol* 1995;56(6):628–634. [PubMed: 8558894]
6. Wood PK. College student alcohol consumption, day of the week, and class schedule. *Alcohol Clin Exp Res* 2007;31(7):1195–207. [PubMed: 17451400]
7. Weitzman ER, Folkman A, Folkman MP, et al. The relationship of alcohol outlet density to heavy and frequent drinking and drinking-related problems among college students at eight universities. *Health & Place* 2003;9(1):1–6. [PubMed: 12609468]
8. Argetsinger A. Students find alcohol learning curve a deadly one. *The Washington Post* Apr 16;2002 :B01.
9. Newcomb MD, Rabow J, Hernandez AC, et al. Two varieties of intervening in drunk-driving intervention: personal and situational factors. *J Stud Alcohol* 1997;58(2):191–199. [PubMed: 9065897]
10. Hernandez AC, Newcomb MD, Rabow J. Types of drunk-driving intervention: Prevalence, success and gender. *J Stud Alcohol* 1995;56(4):408–413. [PubMed: 7674675]
11. Monto MA, Newcomb MD. Social status and drunk-driving intervention. *J Stud Alcohol* 1992;53(1): 63. [PubMed: 1556860]
12. Meilman PW. College health services should promote good Samaritan rules as part of university alcohol policies. *J Am Coll Health* 1992;40(6):299–301. [PubMed: 1602099]
13. Marlatt GA, Witkiewitz K. Harm reduction approaches to alcohol use: health promotion, prevention and treatment. *Addict Behav* 2002;27:867–886. [PubMed: 12369473]
14. Carmona RH. Underage drinking debate: zero tolerance vs. teaching responsibility. *Brown University Child & Adolescent Behavior Letter* 2006;22(3):1–7.
15. Marlatt GA, Somers JM, Tapert SF. Harm reduction: application to alcohol abuse problems. *NIDA Research Monograph* 1993;137:147–166. [PubMed: 8289918]
16. Graham JW, Tatterson JW, Roberts MM, et al. Preventing alcohol-related harm in college students: alcohol-related harm prevention program effects on hypothesized mediating variables. *Health Educ Res* 2004;19(1):71–84. [PubMed: 15020547]
17. McBride N, Farrington F, Midford R, et al. The School Health and Alcohol Harm Reduction Project. Early unsupervised drinking: reducing the risks. *Drug Alcohol Rev* 2003;22(3):263–276. [PubMed: 15385220]
18. Single E. Harm reduction as alcohol-prevention strategy. *Alcohol Health Res World* 1996;20(4):239.

19. Upcraft, ML. Today's first-year students and alcohol (online). 2002 [Accessed March 27, 2007]. Available at: <http://www.collegedrinkingprevention.gov/SupportingResearch/upcraft1.aspx>
20. Fishbein, M.; Ajzen, I. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Addison-Wesley; Reading, MA: 1975.
21. Bandura, A. *Social Learning Theory*. General Learning Press; New York: 1977.
22. Howard DE, Boekeloo BO, Griffin MA, et al. Staying safe while consuming alcohol: a qualitative study of the protective strategies and informational needs of college freshmen. *J Am Coll Health* 2007;56(3):247–254. [PubMed: 18089505]
23. Wechsler H, Lee JE, Kuo M, et al. Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies: findings from the Harvard School of Public Health College Alcohol Study. *J Am Coll Health* 2002;50(5):203–217. [PubMed: 11990979]
24. Hingson R, Heeren T, Winter M, et al. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24: Changes from 1998 to 2001. *Annu Rev Public Health* 2005;26:259–279. [PubMed: 15760289]
25. Hingson R, Heeren T, Winter M, et al. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24: changes from 1998 to 2001. *Annu Rev Public Health* 2005;26:259–279. [PubMed: 15760289]





**Figure 1. Rates\* of College Student Interventions Into Others' Social Drinking-related Behaviors During First 2 Months of College**

Note.

\*Percentage of incoming freshmen who "ever" did the behavior since arriving to campus that semester.

\*\*Chi-square differences by gender,  $P < 0.05$ .

**Table 1**  
**Characteristics of the Study Sample of Incoming Freshmen**

Characteristic	Participants	Nonparticipants	$\chi^2$ (P-value)
<b>Sex</b>			
Male	206 (40.5%)	366 (56.7%)	29.83 (<0.001)
Female	303 (59.5%)	280 (43.3%)	
<b>Age (years)</b>			
17	57 (11.2%)	74 (11.5%)	1.43 (0.488)
18	423 (83.1%)	524 (81.1%)	
19+	29 (5.7%)	48 (7.4%)	
<b>Ethnicity/Race</b>			
Hispanic/Latino	38 (7.5%)	48 (7.4%)	36.68 (<0.001)
Asian/PacificIslander	85 (16.7%)	68 (10.5%)	
Black/AfricanAmerican	43 (8.4%)	132 (20.4%)	
White	312 (61.3%)	363 (56.2%)	
Other/Mixed	31 (6.1%)	35 (5.4%)	
<b>Living-Learning membership</b>			
Non-LL	177 (34.8%)	405 (63.8%)	88.77 (<0.001)
LL	332 (65.2%)	241 (36.2%)	
<b>Study Condition</b>			
Control	186 (36.5%)	200 (31.0%)	4.43 (0.109)
Single gender	173 (34.0%)	228 (35.3%)	
Mixed gender	150 (29.5%)	218 (33.7%)	
<b>Used Alcohol in Last 30 Days</b>			
Yes	309 (60.7%)	N/A	N/A
No	200 (39.3%)		

**Table 2**  
**Distributions of Scale Items and Summative Scales Used to Predict College Student Intervention Into Others' Social Drinking-related Behavior**

	Males Range <sup>d</sup> Mean±SD	Females Range <sup>d</sup> Mean±SD	All Sample Range <sup>d</sup> Mean±SD
<b>Intention to Intervene: I would assist a...</b>			
friend if he/she has had too much to drink	1-5, 4.63±0.75	1-5, 4.68±0.68	1-5, 4.66±0.71
roommate if he/she has had too much to drink	1-5, 4.51±0.80	1-5, 4.58±0.78	1-5, 4.55±0.79
wing-mate if he/she has had too much to drink	1-5, 4.25±0.84	1-5, 4.21±0.80	1-5, 4.22±0.82
stranger if he/she has had too much to drink	1-5, 3.42±1.05	1-5, 3.21±1.05 <sup>b</sup>	1-5, 3.30±1.06
<i>Summative Intention to Intervene Scale</i>	4-20, 16.77±2.72	4-20, 16.64±2.47	4-20, 16.69±2.57
<b>Intervention Confidence</b>			
Help a wing-mate who has had too much to drink	1-4, 3.47±0.76	1-4, 3.55±0.70	1-4, 3.52±0.73
Drive or walk a wing-mate home	1-4, 3.51±0.80	1-4, 3.50±0.75	1-4, 3.51±0.77
Prevent a wing-mate from drinking too much	1-4, 2.82±0.97	1-4, 2.99±0.93 <sup>b</sup>	1-4, 2.92±0.95
Confront a wing-mate with a problem	1-4, 2.87±0.93	1-4, 2.91±0.94	1-4, 2.89±0.94
Take a drink away from a wing-mate	1-4, 2.75±1.02	1-4, 2.93±0.96 <sup>b</sup>	1-4, 2.86±0.98
Make a wing-mate leave a bar/party	1-4, 2.71±0.97	1-4, 2.92±0.95 <sup>b</sup>	1-4, 2.84±0.96
<i>Summative Intervention Confidence Scale</i>	6-24, 18.10±4.32	6-24, 18.79±4.21	6-24, 18.51±4.26

<sup>a</sup> Possible and observed ranges are the same.

<sup>b</sup> Student's t-test difference between gender means P < 0.05.

**Table 3**  
**Results of Linear Mixed Model Analysis Examining the Relationship Between Intention to Intervene and Intervention Confidence**  
**With Social Drinker Intervention (N=509)**

Variables	Estimate	SE	P-value
Male	1.35	1.21	0.277
Single Gender Condition	0.77	1.17	0.522
Mixed Gender Condition	0.17	1.23	0.889
Male*Single Gender Condition	-1.78	1.72	0.312
Male*Mixed Gender Condition	1.05	1.81	0.568
Non-Living-Leamingmembership	-0.56	0.74	0.456
<b>Drinker</b>	<b>4.81</b>	<b>0.52</b>	<b>&lt; 0.001</b>
Black/African American	1.17	0.96	0.221
Asian/Pacific Islander	0.76	0.69	0.272
Hispanic/Latino	0.15	0.95	0.874
Mixed/Other	0.16	1.04	0.879
Age	0.59	0.67	0.378
<b>Intention to Intervene</b>	<b>0.36</b>	<b>0.10</b>	<b>&lt; 0.001</b>
<b>Intervention Confidence</b>	<b>0.27</b>	<b>0.06</b>	<b>&lt; 0.001</b>
Wing	3.13	1.85	0.091
Residual	28.06	1.94	< 0.001