Brief individually-focused alcohol interventions that provide personalized feedback (e.g., the BASICS; Dimeff, Baer, Kivlahan, & Marlatt, 1999) have consistently been found effective in reducing drinking among problem drinking college students (Larimer & Cronce, 2002). These interventions typically have a number of components including: a review of the student’s drinking behavior and experienced consequences, risk factors such as family history, expectations regarding potential alcohol effects (e.g., social lubrication, tension reduction, and enhanced sexual performance), and moderation tips such as alternating alcoholic drinks with non-alcoholic drinks, information regarding blood/alcohol concentration, and information designed to correct misperceptions regarding typical college student drinking behavior (Walters & Neighbors, in press).

As a social psychologist, my initial reaction to reviewing multi-component alcohol interventions was to wonder whether the social influence component (i.e., normative feedback) was strong enough to reduce drinking all by itself. In order to answer this question, my colleagues and I recently completed three randomized controlled trials evaluating the efficacy of computer delivered personalized normative feedback (PNF) as a stand-alone intervention (Neighbors, Larimer, & Lewis, 2004; Neighbors, Lewis, Bergstrom, & Larimer, under review; Lewis & Neighbors, in preparation). Personalized normative feedback is individually tailored and tells students: “1) this is how much you drink, 2) this is how much you said you think other students drink, and 3) this is how much other students actually drink.”

Summary of findings and current directions.

We have consistently found medium to large effects of normative feedback on normative misperceptions (i.e., overestimation of how much other students drink), and small to medium effects on subsequent drinking behavior. There is evidence to suggest that the amount by which drinking is reduced is a direct function of the extent to which normative misperceptions are corrected. We have found similar effects at 1-month, 2-month, 3-month, and 6-month follow-up assessments. We have also found that normative feedback works better for students who drink largely for social reasons and for students who are more concerned about the expectations of others. Thus, the answer to the initial question regarding whether PNF as a stand-alone intervention is effective in reducing alcohol consumption among heavy drinking students is clearly, “yes.”

We are currently nearing the end of year one of a five-year NIAAA-funded project designed to evaluate web-based PNF over longer follow-up periods, and to examine moderators of intervention efficacy. Among the specific questions addressed by this investigation are: How long does the effect of normative feedback last? Does repeated exposure to normative feedback reduce drinking significantly more than single exposure? How does framing effect the impact of norms information on abstaining and light drinking students?

Implications for practice and implementation.

In reviewing the work we have done with personalized normative feedback and in comparing the strength and consistency of personalized normative feedback results with results of social norms marketing campaigns, we have come to several conclusions regarding implications for practice, evaluation, and implementation of norms based approaches.

Students have to see the message. Changes in perceived norms will almost certainly be
accompanied by smaller but significant changes in drinking (Borsari & Carey, 2000; Mattern & Neighbors, 2004; Neighbors et al, 2004). If a norms based intervention fails to change perceived norms, it is unlikely to have any impact on drinking. In social norms marketing campaigns, posters, flyers, and newspaper ads may never be seen by many of the students they are intended to target. Evaluating the efficacy of an intervention among students who didn’t actually receive the intervention is tenuous. Alternative methods of delivery (e.g., email, mail, classroom presentations, small group presentations, etc.) can help ensure that students get the information.

Students have to think about how the message compares to their own behavior. Exposure to accurate norms information may not always be sufficient to reduce drinking. An implicit assumption behind norms based approaches is that it is the realization that one is drinking more than other students which causes them to reduce their drinking. Personalized normative feedback facilitates this realization by providing an explicit comparison. With typical social norms marketing ads it is not clear whether students think about how the norms information presented compares with either their preconception of typical drinking or their own drinking behavior. The inclusion of statements or questions that increase the likelihood students will compare the norms with their preconceived estimates and their own behavior (e.g., “Are you surprised?” or “How does your drinking compare?”) may help ensure that students consider how the information relates to them personally.

Students have to care about how they compare with the referent group. A substantial body of basic research in...
social influence supports the conclusion that people are most influenced by others when they identify with those others and when they care about what those others think of them. In general, the more psychologically proximal a referent group is to an individual, the more likely the individual will be influenced by information about the norms of that group. Thus, students are more likely to be influenced by norms of their immediate peers (students on campus, female students, Greek students, and athletes) than they are by norms of the general population. There are two important caveats to the recommendation of incorporating norms from more specific referent groups. First, all other things being equal, lower group norms are preferable to higher group norms. Telling a student that their best friends drink 25 drinks a week is unlikely to have a good outcome versus telling a student that the average student on their campus drinks 4 drinks per week. Second, it is important to keep in mind that the more immediate and specific the referent group is, the less likely there will be a disconnection between how much an individual thinks members of that group drink and how much members of that group actually drink. For example, students have a better idea of how much their best friends drink than how much students on their campus in general drink. Thus, among very specific referent groups there may be no misperception to correct. In sum, we suggest considering

### “Social Norms and Alcohol Prevention” and Other NIAAA-funded Social Norms Studies

“Social Norms and Alcohol Prevention” or SNAP, mentioned in this issue’s feature article, is a $1,338,663 grant (R01AA014576) awarded to the University of Washington by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Clayton Neighbors is the principal investigator of this project, which began in June 2004 and will be funded through May 2009. The first stage of this research will implement a 3-year longitudinal efficacy trial with 800 heavy drinking students. Students will be randomly assigned to a single exposure of personalized normative feedback, repeated biannual exposure to feedback, or a control group. Students in the feedback groups will also be randomly assigned to receive gender specific or gender non-specific feedback. The second stage of this research will evaluate the impact of normative information on 400 never/rarely-drinking students. Students will be randomly assigned to receive social norms marketing messages, personalized normative feedback, or assessment only. Follow-up assessments will determine the impact of normative information at 3-months and 6-months post baseline. All assessments and interventions will be Internet-based.

SNAP is one of at least six NIAAA funded evaluations of social norms interventions currently under way. These include: 1) the “Social Norms Marketing Research Project” (SNMRP), a multi-campus controlled evaluation of social norms marketing campaigns on college campuses directed by William DeJong, which has already produced promising results; 2) the “Social Norms Alcohol Problem Prevention for Youth” project (SNAPPY), a three-year pilot study of school-based media campaigns using an experimental and a control high school directed by Linda Langford; 3) “Fraternity and Sorority Normative Feedback Interventions” at the University of Virginia, directed by Susie Bruce, which will test the small group norms approach with fraternities in combination with personalized normative feedback to individuals; 4) the “Motivating Campus Change” project (MC2), directed by Mary Larimer at the University of Washington, which is a five-year staged intervention that will be implemented sequentially on three different campuses that is testing a combination of social norms marketing campaigns, mailed personalized normative feedback, and peer-led motivational interventions for high-risk drinkers, and 5) “The Effects of Peer-Facilitated Alcohol Interventions” directed by Dolores Cimini at the University of Albany that will test two different peer-led social norms interventions with high-risk drinkers – a peer theater intervention and a group motivational interviewing intervention – and compare them with an education-only control condition.

The projects at the University of Albany and the University of Virginia are funded under the NIAAA’s “Rapid Response” grant initiative described in this month’s “From the Field.”

Outcome data from these interventions, which all utilize rigorous experimental designs with control groups, have the potential to transform the landscape of social norms, providing important evaluation data and addressing methodological concerns about earlier research. (Ed: SNMRP and SNAPPY were reviewed in the February 2005 issue of the REPORT, the University of Virginia Greek intervention is discussed in this issue, and MC2 will be reviewed in the June issue.)
them to underestimate the discrepancy level of campus-wide drinking, leading to correct, Greeks still overestimate the there may not be a chapter misperception al student body (Bruce and Bonday 2003; Greek system than they are for the gener-
els and that they are more accurate in perceiving use in their chapter or the campus. Thus, informing Greeks that the gap between their drinking amounts and the rest of the campus is much greater than they think could serve as an effective social norms intervention.

Another important consideration is student perception of attitudinal or injunctive norms – the individual’s beliefs about behaviors expected by his or her affiliation group (Montaño et al., 1997). Research suggests that fraternity men are more sensitive to the expectations of their fraternity brothers regarding alcohol use and that these expectations are more influential than actual behavior. Thus, correcting misperceptions about attitudinal norms may be indicated for Greeks (Trockel et al., 2003).

Overview of the Project. Beginning in the fall of 2005, each of the 61 chapters in the UVa Greek system will be invited to participate in the project. Half of the chapters will be randomly selected into a treatment condition, with the remaining chapters serving as controls.

In September 2005 and April 2006, all chapter members will be asked to complete a survey of their alcohol use, protective behaviors, negative consequences, readiness to change, and expectations of chapter behavior related to new members. Students will also be asked about their perceptions of chapter and campus-wide behaviors and attitudes. The data will be used to determine program effectiveness and provide information for the social norming interventions. Chapters will receive a monetary incentive toward their local or national philanthropy based on their survey participation rate.

In the first phase of the project, CASE will replicate the small group social norms model (SGSN) program developed by Jeanne Far and John Miller of Washington State University (Far and Miller, 2003). This model trains students within affiliation groups to deliver a scripted presentation that reflects the chapter’s normative behaviors and attitudes as well as campus-wide norms. Up to two students in each treatment chapter will be paid to participate in a two-hour training session and present a 45-minute SGSN presentation to their chapter in the fall of 2005. Chapters will receive a monetary incentive based on their participation rate.

In stage two of the project, during the 2006-07 academic year, we will test the augmentation effect of providing individual-based social norms feedback following a group-level SGSN program. The treatment chapters will participate in the SGSN programs in the fall, while in the spring, individual chapter members will be asked to complete a web-based, personalized, normative feedback program. Chapters will receive monetary incentives based on their participation rates in each component. In the fall of 2007, the control chapters will be invited to participate in the SGSN program. Each control chapter will receive a monetary incentive based on participation rates.

Student support is critical to the project. At UVa there is a high level of student involvement in program design and delivery that builds on campus traditions of student self-governance. UVa’s four Greek governing councils (Black Fraternal Council, Inter-Fraternity Council, Inter-Sorority Council, and Multicultural Greek Council) were involved in the grant planning process and each council president wrote a letter of support. Each council has two representatives on a Grant Advisory Committee, which meets monthly to provide feedback and guidance on project implementation. CASE will also employ focus groups throughout the project period to provide additional feedback on intervention components.

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Previous Research at UVa. UVa has previous experience replicating the SGSN program. In 2001, CASE received a U.S. Department of Education grant to reduce negative consequences of drinking among fraternity and sorority members. CASE used an experimental design, involving two-thirds of all chapters, to test the efficacy of the SGSN model with fraternities and sororities. Post-test results suggest that the SGSN intervention resulted in much safer drinking behaviors (i.e., less negative consequences) even though drinking rates went up for all three groups during the course of the study. (Note: This study was reported on in the November 2003 edition of the Report).

In addition, since 2003, CASE and the Department of Athletics have conducted a variation of the SGSN model with athletic teams through the Student Athlete Mentor (SAM) program. CASE staff worked with a single team’s SAMs to incorporate a discussion of the appropriateness and inclusiveness of team activities. Each team member completed a brief survey asking about the expectations they felt other teammates had of them, their level of comfort during team activities/rituals and their perceptions of their teammates’ responses to these questions.

SAM members have presented the enhanced SGSN program to ten athletic teams. No coaches, athletic staff members or CASE staff are present, which is a key component to eliciting honest discussion and self-reflection from the students. Team discussions of the purpose and appropriateness of team activities led one student athlete to endorse the program by stating, “I believe that more of my teammates will now have the courage to follow their own standards instead of trying to conform to what they previously believed to be the norm of the team.” As a result of these promising results, the Athletics Department is encouraging all teams to participate in this program.

NIAAA’s “Rapid Response” Grants. The NIAAA’s Rapid Response to College Drinking Problems grant competition is intended to support “timely research on interventions to prevent or reduce alcohol-related problems among college students” and grew out of the recommendations in the 2002 report of the NIAAA Task Force on College Drinking. The grants pair a university that has proposed a research project with a team of researchers who will provide advice on the project’s design, implementation, and evaluation. This pairing of schools and academic research teams will ensure that research is rigorous and held to the highest standards of science. UVa is one of eight colleges and universities to receive funding through the NIAAA competition. Other institutions awarded NIAAA rapid response grants include Loyola Marymount University, Ohio State University, SUNY Albany, the University of Michigan, the University of Rhode Island, the University of San Diego and Western Washington University. Most of the grants are designed to assess the effectiveness of social norms or environmental management approaches to reducing high-risk alcohol use.

Summary. UVa has made great strides over the past several years in addressing high-risk alcohol use by student groups through social norms approaches. NIAAA funding will allow the University to refine the SGSN model by adapting the components on team expectations to fraternity and sorority chapters, by providing more rigorous evaluation of the program’s impact on perceptions, behaviors and negative consequences, and testing the augmentation effect of a web-based, personalized, normative feedback program.

Susan Bruce, M.Ed. is the Director and Paige Hawkins is the Assistant Director of the Center for Alcohol and Substance Education (CASE). For more information contact Susan at: sbruce@virginia.edu or Paige at hawkins@virginia.edu.

References


Recent Research

Recent Research on Norm Saliency
By Alan Berkowitz, Ph.D.

An emerging theme in social norms research is the attempt to assess the strength of “proximate” groups, or closer norms in comparison with more “distal” campus norms. Determining which norms are most influential could have important implications for social norms interventions because correcting misperceptions of norms that are more influential is likely to result in greater behavior change. Interest in saliency is also related to a desire to design normative feedback interventions that are tailored to particular groups. Thus, some studies have looked at norms as they pertain to particular identity groups based on gender, fraternity and sorority membership, and other variables. In this “Recent Research” article three studies are reviewed that address issues of salience—two on the saliency of gender-specific norms, and a third on the relative influence of proximal and global norms. These studies confirm earlier research suggesting that closer norms have a stronger influence on behavior and that in some cases men and/or women are more influenced by same-gender norms. An interesting finding from one of the gender studies is that the stronger gender-based influence is not always from the same gender. While all three studies indicate that closer norms are more influential this does not necessarily mean that all social norms interventions should be small group interventions, as some researchers have suggested. As the third study by Maddock and Glantz clearly indicates, campus global norms still influence behavior. Thus, it may be more efficacious to correct weaker campus global norms and thereby reach a much larger population than it would be to correct stronger local group norms and reach a much smaller audience. In the end which norms misperceptions are targeted is a question of strategy that must be evaluated on an individual campus basis.

Social Norms and Gender. The two studies on gender salience set out to answer the same question: are same-gender norms more likely to predict drinking behavior than gender-neutral and/or opposite-sex norms? Answering this question would be helpful when deciding if social norms campaigns should be tailored based on gender and possibly other identities. Although the studies are not directly comparable because they adopted slightly different means of answering this question, the findings from both are of interest.


This study evaluated the relative impact of same-sex, opposite-sex, and gender non-specific campus norms on drinking behavior (n = 126) and determined that students overestimated the quantity and frequency of alcohol use by both same-sex and gender non-specific peers. Same-sex norms were more likely to predict problem drinking for both men and women, and same-sex norms also predicted women’s alcohol consumption but not men’s (i.e. men’s drinking was predicted equally by men’s and gender non-specific norms). The authors concluded that social norms campaigns should provide same-sex specific feedback for women, but that men should receive gender non-specific norms. This finding supports previous research suggesting that gender-neutral messages are desirable in campus marketing campaigns when changes in men’s drinking is a desired outcome. It is also possible to conclude from this study that a sample of problem drinking men might benefit from normative feedback using men’s norms.


This study compared the relative impact of gender-specific norms for both close friends and campus norms, but did not look at gender non-specific norms (n = 895). The findings support previous research suggesting that more proximal, i.e. friends norms, are stronger predictors of behavior than more distant norms. Women over-estimated men’s drinking frequency more than men did, and both men and women perceived themselves to drink less frequently and in less quantity than both male and female friends, and men and women on campus. In contrast to the Lewis and Neighbors study, the authors found that opposite-sex norms were more predictive of drinking frequency for men than same-sex norms, i.e. both men and women’s drinking frequency was more influenced by norms for female friends than norms for close male friends. In contrast, for drinking quantity and drunkenness both men and women were more influenced by close male and female friends, respectively. Norms for both male and female friends were more predictive of drinking quantity and drunkenness than were more global campus norms for men and women.

The study did not differentiate between situations in which men and women drink together, as opposed to men drinking only with other men. It may be that the unusual results for drinking frequency are explained by the fact that men may moderate their drinking in the presence of women, but not when alone with men.

The authors suggest that social norms campaigns would be more effective if they provided normative feedback for close friends’ use as opposed to campus use. While this may be true for targeted or small group norms interven-

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Recent Research

tions, it may still be beneficial to con-
duct media campaigns with campus norms because campus-wide campaigns have the potential to affect more indi-
viduals, even if the intervention is weaker.

What can we conclude from these two studies? First, it may be that the results of either are context specific – i.e. unique to the campuses studied. They both suggest, however, that more proximate norms – either in terms of gender and/or friendship – in most cases are stronger and more likely to leverage change than all-campus norms. How to implement this understanding is complicated, as noted above, because gender-neutral campus norms are still somewhat influential, can be used to impact more people, and were support-
ed for men in the Lewis and Neighbors study. Both studies agree that it is more ideal for women to receive normative feedback with gender-specific norms.

The Relative Influence of Proximal and Global Norms. Local norms are known to be stronger than global cam-
pus norms, but to date there has been no research assessing the relative strength of both in relation to each other. The following study attempts to answer this question.


This study examined the relative strength of local or proximate norms and global norms (n = 433). Thus, it is concerned with similar issues to the studies reviewed above but without a gender focus. The authors found that norms for friends independently accounted for 52-62% of the variance in alcohol consumption, while global norms independently accounted for 16-23% of the variance. Further analysis revealed that the influence of global norms was mediated by the influence of

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proximate norms, i.e. the variance explained by global norms could be accounted for by proximate norms when both were part of a multiple regression. These findings lead to a similar conclu-
sion to the one noted above, i.e. that closer norms are stronger and more likely to leverage change but that global norms are still influential.

Comment from Clayton Neighbors.

“One of the primary determinants relat-
ed to whether more proximal versus less proximal norms should be used is the feasibility of documenting actual proxi-
mal norms. Even if perceptions of best friends drinking are overestimated and are most strongly associated with drink-
ing behavior, it just isn’t feasible to find out what everyone’s best friends are actually doing, at least not on a large scale. Thus, finding the right balance is the key. A better intervention that is unfeasible, unaffordable, and/or can only reach a small number of is not a better intervention.” (personal communication, 4/7/05)

Implications. The choice of whether to correct misperceptions using prox-
mate or global norms remains a tactical choice for prevention specialists to con-
sider. If change is desired in a particular campus sub-population then that sub-
population will respond better to tai-
lored, i.e. proximate norms. If change is desired in the campus population, then global norms may still be a treatment of choice. However, it may be possible to find a compromise to this either/or dichotomy by creating a both/and solu-
tion using a global normative message that also references more local norms, for example: “Most students at our uni-
versity say that their friends disapprove of alcohol use that interferes with their academics and other responsibilities.”

Alan Berkowitz is the Editor of the Report on Social Norms and a co-
founder of the social norms approach. He can be reached at alan@fltg.net.

Feature Article: Implications of Research on Computer-Delivered Normative Feedback for Social Norms Campaigns

more specific referent groups (e.g., females or athletes) when there is reason to expect normative misperceptions for that group and when the norms of that group are relatively low.

You can not reduce drinking among non-drinkers. In evaluating the impact of social norms interventions, one can’t expect a reduction in drinking among non-drinkers. We thank an anonymous reviewer for pointing this out to us in our evaluation of a social norms marketing campaign among residence hall stu-
dents (Mattern & Neighbors, 2004). While it makes sense to evaluate whether perceived norms have been cor-
rected (i.e., reduced) among all students following a social norms intervention, any evaluation of drinking reductions that includes abstainers is potentially misleading. In the best hypothetical case (i.e., all students who are abstainers before the social norms intervention remain abstainers after the social norms intervention) the inclusion of abstainers in the evaluation leads to a greater likeli-
hood of concluding no effect of the intervention. In the more likely scenario (some students who are abstainers before the social norms intervention report drinking after the social norms interven-
tion) inclusion of abstainers increases the likelihood of concluding that drinking goes up after a social norms interven-
tion. It is unclear to what extent inclu-
sion of abstainers in evaluations has been responsible for some of the null findings reported for social norms mar-
keting interventions. At minimum evalu-
ators of social norms interventions should consider evaluating drinking reductions with and without including abstainers.

A little goes a long way. One of the primary strengths of norms based approaches (whether delivered via social

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norms marketing, web-based personalized feedback, or other formats), is their ability to reach a large number of students at a relatively low cost. When an intervention results in a large proportion of students on a given campus reducing their drinking, even if by only a few drinks per week, the impact can be substantial in terms of reduction in negative consequences (e.g., DUI’s, damaged property, academic problems, and sexual assaults).

**Conclusion.**

The “Social Norms Approach” to reducing drinking (Perkins & Berkowitz, 1986; Berkowitz, 2004) has become a dominant approach in alcohol prevention for good reasons. It is based on a solid and rich theoretical foundation. The assumptions underlying the approach have been repeatedly validated in empirical studies. Moreover, it’s inexpensive, it’s novel and interesting, and it works when well implemented. Several keys to successful implementation of social norms marketing campaigns can be derived by considering features of other empirically supported interventions that share the same basic theoretical foundations, such as computer delivered personalized normative feedback. This article was designed to elaborate upon some of these.

**References**


