The Social Norms Approach:

Theory, Research,

and Annotated Bibliography

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Preface – The State of Social Norms

Prevention approaches based on social norms theory are growing by leaps and bounds in popularity, and evidence is mounting that these programs can be effective when correctly implemented. As a result there is a need for a comprehensive review of the literature to provide practitioners with an overview of important research, to summarize the evidence regarding the effectiveness of the social norms approach, and to address questions and concerns. It is my hope that this review will serve this purpose. I am grateful to the Higher Education Center for Alcohol and Other Drug Prevention for allowing me to revise it annually since it was first published in 2000 to keep pace with the important changes and developments in this field.

Interventions that correct misperceived social norms are currently being funded by over five Federal agencies and by dozens of State agencies, non-profit organizations, consortia and, in a few cases, by the alcohol beverage industry. Social norms programs have received numerous awards, including two model program awards by the Center for Substance Abuse Prevention and many from the U.S. Department of Education. More and more research about social norms and its effectiveness is appearing in scholarly journals. This past year as part of a recent comprehensive effort to look at the problem of college drinking the National Institute on Alcoholism and Alcohol Abuse (NIAAA) appointed an expert panel of approximately twenty prevention specialists to make recommendations for the field. Communicating accurate social norms was among the strategies suggested by this panel, which commented in its final report that:

> "Initial results from programs adopting an intensive social norms approach are promising. Several institutions that persistently communicated accurate norms have experienced reductions of up to twenty percent in high-risk drinking over a relatively short period of time…. Together these findings provide strong support for the potential impact of the social norms approach. Although any case report in this literature could be challenged methodologically, the results of each study are remarkably consistent." (NIAAA, p. 13, 2002)

In addition to the addressing alcohol use social norms marketing campaigns noted by the NIAAA panel, other programs have demonstrated the effectiveness of social norms interventions in reducing or preventing cigarette smoking and changing attitudes associated with rape proclivity in men. Positive results have been obtained with college and university students and with high school and middle-school populations. More recently, a number of social norms interventions have been evaluated and found to be successful without parallel changes in control groups. In addition, evaluation research suggests that when programs incorporate social norms as part of a comprehensive intervention using multiple strategies, the social norms component is often one of the important ingredients associated with program effectiveness.

As the social norms approach grows, concerns have been expressed about its efficacy in general and with specific populations in particular. Some of these concerns arise from unsuccessful projects, findings that may be attributable to inadequate exposure to messages, strategies that are not faithful to the model, or other implementation problems.

Others are spurred by debates about important issues in the field – for example, whether social norms should be part of a larger package of interventions or whether it can be implemented by itself, and whether campaigns should be directed at more homogeneous sub-groups rather than larger communities. Finally, other criticisms may be based on misinformation or lack of familiarity with the evidence. Responses to these concerns are incorporated into the text of this review.

The primary purpose of this paper is to summarize *what* we know about social norms by reviewing the published research literature on the social norms model rather than to provide advice on *how* to conduct an intervention. For advice on implementation strategies and successful case studies there are a number of important resources available, including the following:

- The website of the **National Social Norms Resource Center** (www.socialnorm.org)

- The social norms section of the **Higher Education Center for Alcohol and Other Drug Prevention**'s Website (www.edc.org/hec/).

- **The Report on Social Norms**, a monthly newsletter published by PaperClip Communications (www.paper-clip.com) that provides research reviews, examples of model programs, and commentaries on current issues.

- **The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors and Clinicians**, the first book on the social norms approach, containing numerous case studies of successful interventions, theoretical issues, and implementation strategies (to be published in 2003 by Jossey-Bass), and:

- **The National Conference on the Social Norms Model,** an annual conference that meets each summer to provide an intensive collegial opportunity for researchers, theorists, and practitioners to explore the state of the art of the social norms approach (for information go to www.socialnorm.org).

Finally, I hope that this review is helpful and welcome your comments, queries, and suggestions.

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Introduction

Social norms theory provides a model for understanding human behavior that has important implications for health promotion and prevention. It states that our behavior is influenced by incorrect perceptions of how other members of our social groups think and act. For example, an individual may overestimate the permissiveness of peer attitudes or behavior with respect to alcohol, smoking or other drug use, or underestimate the extent to which peers engage in healthy behavior. The theory predicts that overestimations of problem behavior will increase these problem behaviors while underestimations of healthy behaviors will discourage individuals from engaging in them. Thus, correcting misperceptions is likely to result in decreased problem behavior or increased prevalence of healthy behaviors. These assumptions have been validated by extensive research on teenage and young-adult drinking and cigarette smoking and by interventions to promote safe drinking and tobacco cessation on college campuses and in high schools. Other social norms interventions have been developed to prevent sexual assault, improve academic climate, and reduce prejudicial behavior.

Social norms interventions focus on peer influences, which have a greater impact on individual behavior than biological, personality, familial, religious, cultural and other influences (Berkowitz & Perkins, 1986A; Perkins, 2002). These peer influences are based more on what we think our peers believe and do (the "*perceived norm*") than on their real beliefs and actions (the "*actual norm*"). This misperception and the effect it has is the basis for the social norms approach. By presenting correct information about peer group norms in a believable fashion, perceived peer pressure is reduced and individuals are more likely to express pre-existing attitudes and beliefs that are health promoting.

This review summarizes evidence in support of the social norms approach, including studies documenting the existence of misperceptions, their efficacy in predicting behavior, successful interventions targeting individuals, groups and campuses, a brief discussion of unsuccessful efforts, and examples of applications to other health and social justice issues. It concludes with an annotated bibliography of important resources and an extensive bibliography.

History

The social norms approach was first suggested by H. Wesley Perkins and myself (Perkins and Berkowitz, 1986) in an analysis of student drinking. In this study we determined that students regularly overestimated the extent to which their peers were supportive of permissive drinking behaviors, and we found that this overestimation predicted how much individuals drank. Our recommendation that prevention efforts focus on providing students with accurate information on peer drinking attitudes and behavior (Perkins & Berkowitz, 1986; Berkowitz & Perkins, 1987A) represented a radical departure from traditional intervention strategies that provided information on abuse and concentrated primarily on the identification, intervention, and treatment of abusers. When drug prevention focuses exclusively on problems of alcohol and other drug use and emphasizes problem behavior without acknowledging the moderate norm, it may foster the misperception that drinking problems are worse than is actually the case and inadvertently contribute to the problem they are trying to solve. In contrast, interventions

based on social norms theory focus on the healthy attitudes and behavior of the majority and use information about healthy norms to guide interventions with abusers. The theory underlying the social norms approach has been further elaborated by Berkowitz (1997) and Perkins (1997). In many cases, social norms interventions have been successfully combined with other drug prevention strategies such as environmental management.

Michael Haines at Northern Illinois University was the first prevention specialist to apply the theory in a longitudinal intervention in which reductions in misperceptions were associated with increases in safe drinking and abstaining (Haines, 1996; Haines & Barker, 2003; Haines & Spear, 1996). His work was followed by similar efforts at the University of Arizona (Glider, et. al, 2001; Johannessen & Glider, 2003; Johannessen et. al, 1999), Western Washington University (Fabiano, 2003), Hobart and William Smith Colleges (Perkins & Craig, 2002; 2003A), and other campuses in which significant reductions in high-risk drinking were associated with the promotion of accurate social norms about drinking behavior.

Social norms interventions have also been associated with reductions in smoking among adolescents and in college and in delaying the onset of smoking (Haines, Barker & Rice, 2003; Hancock et al, 2002; Hancock & Henry, 2003; Hansen & Graham, 1991; Linkenbach & Perkins, 2003A).

The social norms approach has been described variously as the proactive prevention model (Berkowitz, 1997, 1998), social norming (Hunter, 1998), the perceived norms model (Thombs, 2000), norms correction, and the norms challenging model (Farr & Miller, 2003; Peeler, et al 2000). Currently there is an emerging consensus in favor of the term "social norms theory" to describe the underlying theory and "the social norms approach" to describe interventions based on the theory.

Types of Misperceptions

Individuals may misperceive their social environments in a number of ways that influence their behavior. For example, the majority who engage in healthy behavior may incorrectly believe they are in the minority when they are actually in the majority *(pluralistic ignorance.)* In contrast, people may incorrectly think that they are in the majority when they are actually in the minority (*false consensus)*. Finally, an individual may enjoy thinking that his or her behavior is more unique than it really is (*false uniqueness).* Each of these misperceptions operates in a different way and may affect behavior differently.

The most common misperception occurs when a majority of individuals falsely assume that most of their peers behave or think differently when in fact they are similar. For example, most students drink moderately or not at all but incorrectly assume that other students drink more than themselves and more than they do in reality This phenomenon is referred to as *pluralistic ignorance* (Miller & McFarland, 1987, 1991; Toch & Klofas, 1984). Pluralistic ignorance encourages individuals to suppress attitudes and behaviors that are incorrectly thought to be non-conforming and instead to engage in the behaviors that are incorrectly thought to be normative. It is often motivated by fear of embarrassment. Social norms interventions correct pluralistic ignorance by informing the

majority that their behavior is actually more normative and healthy than they previously thought, thus removing the fear of embarrassment associated with its expression. This provides permission to act on values of moderation or non-use by bringing behavior more closely in line with personal attitudes.

False consensus is the incorrect belief that others are like oneself when they are not (Ross, Greene & House, 1977). For example, heavy drinkers may think that most other students are heavy drinkers when this is not true, or prejudiced individuals may incorrectly believe that they speak for their group. The false consensus misperception functions to maintain an individual's denial that his or her attitudes or behavior are problematic or unusual. For example, heavy drinkers have a personal motivation for believing in exaggerated drinking norms because this misperception allows them to justify their abusive drinking and deny that there is a problem. Studies have found that misperceptions have more influence on the drinking of alcohol abusers than on other drinkers (Page, Scanlan & Gilbert, 1999; Perkins & Wechsler, 1996) and that abusers misperceive more than other students (Agostinelli & Miller, 1994; Pollard, et al, 2000). Correcting the misperceptions of heavy drinkers has been found to reduce their drinking in a number of studies (see later citations). Research has documented similar patterns for smoking, with smokers overestimating smoking prevalence more than non-smokers (Sherman et al, 1983; Sussman et al, 1988).

Finally, the phenomenon of *false uniqueness* occurs when individuals assume that the difference between themselves and others is greater than is actually the case (Suls & Wan, 1987). False uniqueness differs from pluralistic ignorance because individuals experience false uniqueness as a desirable phenomenon that allows the holder to feel special. Like false consensus, it functions as a *self-serving bias*. False uniqueness may occur among abstainers, for example, who underestimate the prevalence of abstinence and falsely assume that they are more unique or special than they really are.

Toch & Klofas (1984) noted that the strongest and most vocally expressed views in a community are often held by those who engage in false consensus. For example, heavy-drinking individuals have a greater stake in believing in their misperceptions and view themselves as "subculture custodians" or guardians of the truth about their reference group. In this imagined role, they speak out actively against enforcement of policy and interventions to combat abuse. The combination of false consensus and pluralistic ignorance allows these heavy drinking "subculture custodians" to have an influence that is greatly disproportionate to their numbers by strengthening their voice and suppressing the voice of the "silent majority" who may favor policy initiatives and interventions to curb abuse. The application of social norms to policy development, termed "normative policy enforcement" can be useful in presenting a community with the true norm that exists in support of various policies and consequences for abuse so that a consensus for action can occur (DeJong, 2003)

Social norms interventions have been found to be effective in changing the behavior of the moderate or non-drinking majority *(pluralistic ignorance)* as well as confronting and changing the behavior of the heavy drinking minority *(false consensus).*

Studies Documenting Misperceptions

Misperceptions have been documented in over thirty-seven published studies. Alcohol use misperceptions have been found in studies with small samples of college students from an individual campus (Agnostinelli & Miller, 1994; Agostinelli, Brown & Miller 1995; Baer, 1994; Baer, Stacy & Larimer, 1991; Baer & Carney, 1993; Barnett et. al. 1996; Beck & Treiman, 1996; Bourgeios & Bowen, 2001; Carter & Kahnweiler, 2000; Clapp & McDonnell 2000; Page, Scanlan & Gilbert, 1999; Peeler et al, 2000; Prentice & Miller, 1993; Schroeder & Prentice, 1998; Sher et al 2001; Steffian, 1999; Thombs, 1999; Thombs, 2000; Thombs et. al. 1997; Werch et. al, 2000), in larger surveys of individual campus populations (Fabiano, 2003; Glider et al, 2001; Haines & Spear, 1996; Jeffrey et. al. 2003; Perkins, 1985; Perkins, 1987; Perkins & Berkowitz, 1986; Perkins & Craig, 2003A), and in multiple campus studies analyzing data from the CORE survey (Perkins et. al., 1999; Pollard et al, 2000) and the College Alcohol Study (Perkins & Wechsler, 1996). Some of these studies are discussed in recent reviews by Perkins (2002, 2003A).

Misperceptions of alcohol use are held by all members of campus communities including undergraduate and graduate students, faculty and staff, students and student leaders (Berkowitz, 1997, Berkowitz & Perkins, 1986B; University of Michigan, 1993). They have been documented in a statewide sample of young adults both in college and not in college (Linkenbach & Perkins, 2003B) and among middle and high-school students (Beck & Trieman, 1996; Botvin et al, 2001; D'Amico et al, 2001; Haines, Barker & Rice, 2003; Perkins & Craig, 2003B; Thombs, et al, 1997). Thombs et. al. (1997) reported misperceptions for DWI (driving while intoxicated) and RWID (riding with someone who is intoxicated).

Other studies have reported misperceptions for cigarette smoking (Haines, Barker & Rice, 2003; Hancock & Henry, 2003; Linkenbach & Perkins, 2003A; Perkins & Craig, 2003B) and for marijuana and other illegal drug use (Hansen & Graham, 1991; Perkins, 1985; Perkins & Craig, 2003B; Perkins et al, 1999; Pollard et al, 2000; Wolfson, 2000). In addition to alcohol, tobacco and other drugs, misperceptions have been documented for homophobia, attitudes about sexual assault, and eating behaviors in studies reviewed by Berkowitz (2003) and cited later in this paper.

Misperceptions are formed when individuals observe a minority of individuals engaging in highly visible problem behavior (such as public drunkenness or smoking) and remember it more than responsible behavior that is more common but less visible (Perkins, 1997). These misperceptions are assumed to be normative and are spread in "public conversation" by all members of the community (Perkins, 1997). Research suggests that the meaning and extent of these misperceptions may vary among individuals with different drinking styles (Pollard, et. al, 2000) and that correcting misperceptions may have different effects on individuals at different stages of change (Werch et al, 2000).

Misperceptions have been found among fraternity members (Baer, 1994; Baer, Stacy & Larimer, 1991; Carter & Kahnweiler, 2000; Far & Miller, 2003; Sher et al, 2001), athletes (Thombs, 2000), student leaders (Berkowitz, 1997; Berkowitz & Perkins, 1986B), and among students of different religious backgrounds (Perkins 1985, 1987). In

addition there are over fifteen studies of pluralistic ignorance documenting misperceptions for topics such as white's attitudes towards desegregation, gang behavior, and student radicalism (see Miller and McFarland, 1991 and Toch & Klofas, 1984 for reviews of this literature).

Some studies have noted gender differences in misperceptions (Agnostinelli & Miller, 1994; Berkowitz & Perkins, 1987B; Marks, Graham & Hansen, 1992; Prentice & Miller, 1993; Schroeder & Prentice, 1998), with women usually misperceiving more than men. Some research suggests that women may be more influenced by environmental influences than men (Berkowitz & Perkins, 1986A; Berkowitz & Perkins, 1987B; Crandall et al, 2002), which may explain why some social norms campaigns have reported a greater impact on women in their earlier phases (Odahowski & Miller, 2000; Usdan, 2003).

There is only one published study that calls into question the existence of misperceptions (Wechsler & Kuo, 2000) and which claims that students accurately perceive campus norms for binge drinking. In a critique of its methodology DeJong (2000) noted that the survey did not provide respondents with a clear definition of binge drinking when asking students to estimate the on-campus rate and then used arbitrary cut-off ranges to determine whether these estimates were accurate or not. For example, respondents were asked: "Based on what you have heard or experienced, approximately what proportion (of all students) do you think are binge drinkers at your school?" Response alternatives with a ten percent range were provided (0%, 1-9%, 10-19%, etc.) In response to another question, 50% of the respondents chose a higher number of drinks to define a "binge" than was used by the researchers to estimate campus-wide binge drinking rates. Thus, while students and researchers used two different definitions of "binge drinking", the similar percentages derived from these two different definitions were interpreted by the study's authors as evidence that student perceptions are accurate.

Thus, with only one exception that has serious methodological flaws, misperceptions have been consistently documented for a variety of behaviors and social contexts and in a variety of student and adult populations and sub-populations.

Which Norms Are Salient?

Individuals have friends, are members of groups, may live in residence halls on college campuses, and are parts of a larger academic community. Each of these overlapping groups have norms that may be similar or different, and some or all of these norms may exert an influence on an individual's behavior. Thus, one critical issue is to evaluate the saliency of these different norms when designing a social norms intervention. For example, on most campuses students have a general idea of the "average" student and are influenced by this campus norm (Perkins, 2003B) even when the norms of friends and more immediate groups are more influential. In other cases, group identity may supplant campus or community identity, especially if the community is very heterogeneous or diffuse (for example, on a commuter campus).

It is well-documented that misperceptions increase as social distance increases. Thus, most individuals perceive that friends drink more than they do and that students in

general drink more than their friends (Baer, 1994; Baer, Stacy & Larimer, 1991; Beck & Treiman, 1996; Carter & Kahnweiler, 2000; Thombs, et.al., 1997; Thombs, 2000). Among college students, others in a living unit are thought to drink more than friends but less than students in general, and students who live together tend to develop similar patterns of misperceptions over time (Bourgeois & Bowen, 2001). One exception to this phenomenon appears to be fraternity members, who often think that the drinking of other Greeks is greater than it really is but who correctly believe that Greeks drink more than non-Greeks (Baer, 1994; Baer, Stacy & Larimer, 1991; Carter & Kahnweiler, 2000; Larimer, et al, 1997). Misperceptions thus tend to increase as social distance from the misperceiver increases, but social groups that are "closer" are more influential in shaping behavior.

Misperceptions of fraternity drinking by fraternity members may not be universal, however. Both Larimer et al (1997) and Carter & Kahnweiler (2000) found that in some heavy-drinking houses Greeks misperceived either very little or accurately perceived the heavy drinking of their housemates. As a result, Carter & Kahnweiler (2000) suggested that social norms interventions may not be appropriate in such cases. However, on other campuses where misperceptions have been documented for Greeks and corrected, social norms interventions have been successful (Bauerle, Burwell, & Turner, 2002; Far & Miller, 2003).

Both "global" and "local" norms predict behavior and operate simultaneously (Prentice & Miller, 1993) even when they may be of unequal strength, though which norms are "salient" may vary by group and setting. Thus, Thombs (2000) found that athletes on one campus were more influenced by non-athlete norms than athlete norms. In contrast, on campuses with very strong athletic cultures, athlete norms may be more salient than non-athlete norms. Thus, the question of whether closer "local" norms of a group or more distant "global" campus norms should be addressed in a particular initiative is a complex one, being a function of both the group in question and the context and social ecology of the campus. Ideally both can be addressed together through a combination of primary and secondary prevention strategies such as small group norms interventions (Farr & Miller, 2003) and campus-wide social norms media campaigns. In most cases either general campus-wide campaigns or more local group norms challenging interventions can result in behavior change, although there may be some groups who are resistant to campus-wide interventions. Selecting the most relevant and salient norms for a particular intervention and the appropriate strategy for changing those norms is an important part of the planning process of a social norms intervention.

Do Misperceptions Predict Behavior?

There are at least fourteen published studies in which misperceptions are positively correlated with drinking behavior or predict how individuals drink (Beck & Trieman, 1996; Botvin, et al, 2001; Clapp & McDonnell, 2000; D'Amico et al, 2001; Marks et al, 1992; Page et al, 1999; Perkins, 1985; Perkins 1987; Perkins & Wechsler, 1996; Prentice & Miller, 1993; Scher et al, 2001; Steffian, 1999; Thombs, 1999; Thombs et al, 1997).

In some of these studies, perceptions of drinking norms were positively associated drinking behavior. For example,

- Perkins and Wechsler (1996) found that the perception of campus drinking climate explained more of the variance in drinking behavior than any other variable.

- Clapp and McDonnell (2000) found that perceptions of campus norms predicted drinking behavior and indirectly influenced drinking-related problems,

- In two different studies conducted on the same campus, Perkins (1985; 1987) found that misperceptions predicted alcohol use (Perkins, 1985) and problem use (Perkins, 1987) for students from different religious backgrounds.

- Thombs, Wolcott and Farkash (1997), and Beck and Trieman (1996), in two different studies, found that the best predictors of alcohol use were misperceptions of alcohol use and social climate/context, which predicted heavy drinking and negative consequences, and

- Page, Scanlan and Gilbert (1999) found that overestimations of binge drinking were directly correlated with rates of binge drinking. Thus, higher rates of binge drinking were found among college men who had greater overestimations of binge drinking prevalence.

In other studies examining drinking behavior over time, perceptions of drinking norms at time one predicted drinking behavior at time two. For example:

- In a longitudinal study of fraternity drinking patterns, Sher et al (2000) found that misperceptions accounted for all differences in Greek drinking behavior during college,

- Prentice and Miller (1993) conducted a study of college freshmen in which men were found to adjust their drinking over time to fit the misperceived norm, and

- Steffian (1999), in a test of a small group norms intervention, found that misperceptions helped to discriminate between college students who decreased their drinking and those who didn't.

Similarly, in studies of high school and middle school populations, perceptions of norms have accurately predicted behavior change at a later point in time. Thus,

- In a longitudinal study of over 1500 high school students, only perceived intensity of student alcohol use predicted behavior change so that "higher peer perceptions of alcohol use were associated with subsequent escalations of personal drinking" (D'Amico et al, 2001),

- Two years after a multi-component controlled school-based intervention to reduce binge drinking, accurate perception of peer norms was the only outcome variable associated with continued reductions in binge drinking (Botvin, et al, 2001), and

- In a prevention program for middle school students, participants' estimates of the prevalence of alcohol use predicted their level of use one year later (Marks, Graham & Hansen 1992).

Finally,

- Thombs (1999) tested four different models of driving while intoxicated (DWI) or riding with someone who was intoxicated (RWID), and found that misperceptions for DWI and RWID had the greatest predictive value in explaining both DWI and RWID.

In summary, a substantial body of research suggests that misperceptions exist, that misperceptions are associated with increased drinking, and that drinking behavior is often best predicted by both perceptions and misperceptions of drinking attitudes/or and behaviors. This includes correlational studies, longitudinal studies, and outcome studies with experimental and control groups.

What Is the Effect of Correcting Misperceptions? Successful Interventions Utilizing the Social Norms Approach

Social norms theory can be used to develop interventions that focus on three levels of prevention specified as universal, selective, and indicated (Berkowitz, 1997). These categories, developed by the Institute of Medicine, replace what was formerly called primary, secondary, and tertiary prevention (Kumpfer, 1997). *Universal prevention* is directed at all members of a population without identifying those at risk of abuse. *Selective prevention* is directed at members of a group that is at risk for a behavior. *Indicated prevention* is directed at particular individuals who already display signs of the problem. Interventions at all three levels of prevention can be combined and intersected to create a comprehensive program that is theoretically based and has mutually reinforcing program elements.

Berkowitz (2003) suggested that there are certain questions that must be answered in order for the social norms model to be applied effectively:

- What misperceptions exist with respect to the attitude or behavior in question?
- Are there over or under-estimations of attitudes and/or behavior?
- What is the meaning and function of misperceptions for individuals and groups?
- Do the majority of individuals in a group or community hold these misperceptions?
- Does the target group function as a group with respect to the behavior in question? That is, are the group norms "salient," and are the individuals in the group an influence on each others behavior?

- What is the hypothesized effect of these misperceptions?

- What changes are predicted if protective behaviors that already exist in the population are supported and increased?

A variety of successful social norms interventions have been developed that provide answers to these questions and address universal, selective, and indicated prevention. Interventions in each of these categories are reviewed below.

Universal Prevention – Social Norms Marketing Campaigns. A number of campuses have successfully reduced drinking by developing campus-wide electronic and/or print media campaigns that promote accurate, healthy norms for drinking and non-use. This includes Western Washington University (Fabiano, 2003), the University of Arizona (Glider et al, 2001, Johannessen & Glider, 2003; Johannessen, et al, 1999), Northern Illinois University (Haines, 1996, 2003; Haines & Barker, 2003; Haines & Spear, 1996), and Hobart and William Smith Colleges (Perkins & Craig, 2002, 2003A). These campaigns use social marketing techniques to deliver messages about social norms and can be described as "*social norms marketing campaigns*." At these schools, a reduction of 20% or more in high risk drinking rates occurred within two years of initiating a social norms marketing campaign, and in one case resulted in reductions of over 40% after four years. Haines, Barker and Rice (2003) reported similar results for both tobacco and alcohol in social norms marketing campaigns conducted in two Mid-western high schools.

The website of the Social Norms Center (www.socialnorm.org) presents data from these and other schools documenting a 20% or more reduction in heavy drinking within one or two years of initiating a social norms marketing campaign. Monographs developed by Haines (1996), Johannesen et al (1999), and Perkins and Craig (2002) and chapters by Fabiano (2003) and Linkenbach (2003) outline the stages of developing a social norms marketing campaign, provide guidelines for creating effective media, and present evaluation data in support of the effectiveness of social norms marketing campaigns.

Perkins and Craig (2002) recently completed the most thorough and comprehensive evaluation of a social norms marketing campaign to date. Their intervention combined a standard poster campaign with electronic media, an interactive web site, class projects that developed parts of the campaign, and teacher training for curriculum infusion. The intervention began in 1996 at a college with higher than average alcohol use. A number of evaluations were conducted to determine the effectiveness of the campaign. Results included: 1) a 21% reduction in drinking increases during the freshman year; 2) a campus-wide decrease in high risk drinking during the previous week from 56% to 46%; and 3) successive decreases in alcohol-related arrests over a four-year time period. Corresponding reductions were also found in misperceptions of use, heavy drinking at a party, and negative consequences associated with alcohol use. Surveys conducted at three time periods over a five-year period indicate successive linear decreases in all of these measures over time.

More recently, social norms marketing campaigns have been successful in reducing smoking prevalence and delaying smoking onset. For example, in a seven county

campaign directed at 12-17 year olds in Montana, only 10 percent of non-smokers initiated smoking following the campaign, while 17 percent in the control counties began smoking. This represents a 41% difference in the proportion of teens initiating smoking in the intervention counties as compared with those in the rest of the state (Linkenbach & Perkins, 2003A). At the University of Wisconsin at Oskosh, a 29% decrease in smoking rates was achieved from a multi-component intervention including a social norms media campaign, while rates at a control campus did not change significantly (Hancock, et al, 2002). Finally, at Virginia Commonwealth University use remained stable as perceptions became more accurate while the number of cigarettes smoked per month at a control campus increased (Hancock et al, 2002; Hancock & Henry, 2003). In addition to providing strong support for the effectiveness of social norms campaigns for smoking, these studies all used control groups, thus strengthening the scientific literature in support of the model. In an overview of some of these campaigns Hancock et al (2002) discussed the differences between smoking and alcohol use behaviors that need to be considered when designing a social norms marketing campaign for smoking.

In summary, these interventions using social norms marketing provide strong evidence that the social norms approach can be effectively applied as a universal prevention strategy for alcohol to reduce high-risk drinking and promote moderate use, and for smoking to reduce smoking prevalence and delay its onset.

Selective Prevention – Targeted Social Norms Interventions. Targeted interventions focus on members of a particular group, such as first-year students, fraternity and sorority members, athletes, or members of an academic class. Misperceptions of close friends' behavior are highly correlated with personal use, a finding that has led to the development of selective social norms interventions on a number of campuses. In most of these, information about the actual norms for the group are provided in small interactive group discussions, workshops, or academic classes. Due to their smaller size and more manageable format, many of these interventions have been evaluated using control groups.

The following successful targeted small group norms interventions have been reported:

- Schroeder & Prentice (1998) designed an intervention for first-year students that assigned participants to one of two discussion groups during their first term. In the *norm-focused condition* students were introduced to data showing systematic misperception of drinking norms on campus and participated in a facilitated discussion about actual norms and the social dynamics of drinking. In the *individual-focused condition* students participated in a discussion of how to make responsible drinking decisions. In a follow-up questionnaire six months later students in the norm focused condition consumed significantly fewer drinks each week than students in the individual condition.

- Washington State University has pioneered the development of selective interventions with groups such as athletes, fraternities, sororities, and first-year students (Barnett, et. al, 1996; Far & Miller, 2003, Peeler et al, 2000). The "Small Group Norms Challenging Model" provides group members with feedback about their group's actual and perceived drinking patterns in a 45-minute workshop.

Discussion focuses on the nature and causes of misperceptions in a talk show format using slides with data on actual and perceived norms for the group. This approach has produced reductions in drinking among first-year students, Greeks, and athletes who received the intervention and was sustained enough to create campus-wide reductions in drinking over a number of years (Far & Miller, 2003). For example, over a nine-year period students who drink 5 or more drinks on an occasion decreased from 59% to 30% of students, and abstainers increased from 12% to 20%.

- Peeler et al (2000) designed an intervention as part of a course at Washington State University in which the experimental group received a class module on drinking norms. At the end of the term the male students in the experimental group reported significant changes in their perceptions of campus drinking and also reported consuming less alcohol per occasion than students in the control group.

- Steffian (1999) assigned college men to either a normative education group (experimental group) or a traditional alcohol education program (control group). The experimental group participated in a group consensus exercise in which the group made predictions about campus drinking norms and then were presented with actual data, evidence of their own misperceptions, and a discussion of social norms theory. The control group watched a film on the physiological effects of alcohol. The author reported that "Participants in the normative education groups demonstrated more accurate perceptions of campus drinking norms and a significant reduction in the consequences of alcohol use while those in the control group did not. Changes in normative perception were among the strongest contributors to a function discriminating between those who decreased their drinking and those who did not."

Another way of delivering social norms messages to groups is through the use of interactive peer theater. Scripts for such performances are available from BACCHUS (2002) or can be developed locally. For example:

- At the University of Albany social norms data were integrated into interactive scenarios presented to students in a freshman seminar class (Cimini, Page & Trujillo, 2002). Students in the control condition were enrolled in the same class but received an academic lecture on substance abuse instead. Students in the theater intervention reported a significant decrease in frequency of use, DWI, and regretted behavior, and an increase in the incidence of protective behaviors in comparison with the control group. The intervention group also reported a reduction in high-risk drinking rates at the same time that these rates increased in the control group.

Other selective interventions have utilized more focused media campaigns directed at a particular group of students in combination with other strategies:

- The University of Virginia designed a targeted social norms marketing campaign for first-year students by placing posters in bathroom stalls in first-year

residence halls. In its first year (1999-2000) the campaign was successful in reducing the drinking of women and non-Greek men but not Greek men (Ohahowski & Miller, 2000). In the next two years of the campaign, which also incorporated environmental management strategies, these improvements continued and the drinking of Greek men also improved (Bauerle, Burwell & Turner, 2002). Thus, over a period of three years the number of drinks per week for first-years went down from 3 drinks a week to 1, the median number of drinks per week for Greek first year men went down from 15 to 7, and the percentage of abstainers went up from 35% to 49%. These results serve as an important reminder that social norms campaigns may not affect all groups equally (especially at first) and that sustained effort is required over a period of years to normalize improvements and extend them to all students.

- At Rochester Institute of Technology, a social norms marketing campaign was developed for Deaf and Hard-of-Hearing students to reduce the incidence of sexual assault (White, Williams, & Cho, 2003). In this intervention, a campus-wide generic social norms marketing campaign to prevent sexual assault that had been offered to all students (including Deaf and Hard-of-Hearing) was re-designed and tailored to the culture and communication styles of Deaf and Hard-of-Hearing students. While the all-campus campaign did not have an impact on Deaf and Hard-of-Hearing students, the tailored campaign was successful in changing attitudes and perceptions, and resulted in fewer sexual assaults.

These examples provide strong support for the effectiveness of selective social norms interventions directed at particular groups of at-risk students when used alone or in combination with other strategies. Targeted social norms interventions such as these appear to be more effective when the normative data are tailored to the group in question and when they are presented in more extended, interactive formats. As noted earlier, it is extremely important to determine the most salient and relevant influences on the target group before designing an intervention to make sure that the norms being corrected are influential. These influences may differ by gender and membership in groups such as athletics and fraternities or sororities and may vary by campus. When offered in the context of a campus-wide media campaign, the two interventions should be designed so that they are compatible with each other.

Indicated Prevention – Individualized Social Norms Interventions. Normative data about drinking can be presented to high-risk drinkers and abusers as part of individual counseling interventions. These interventions are theoretically sound because abusers tend to adhere strongly to misperceptions that serve to rationalize their abuse. Sharing normative data is also a non-judgmental way to create cognitive dissonance in heavy drinkers and catalyze change.

The most well-known and scientifically supported individualized intervention that includes a norms correction component has been developed by Alan Marlatt and his colleagues at the University of Washington (Dimeff, et. al. 1999). The Alcohol Skills Training Program (ASTP) uses an eight-session motivational interviewing approach based on stages of change theory to provide heavy drinkers with non-judgmental feedback about their drinking. Data collected prior to the interview are used to provide

comparisons between the individual's drinking and actual rates of peers' drinking on campus. This information presents heavy drinkers with the fact that their drinking is much more extreme than that of peers on a variety of measures. ASTP has been condensed into both a one-hour intervention (BASICS) and a correspondence course in which subjects use a manual. All three interventions have been successful in reducing drinking at follow-ups as long as 1-2 years (Dimeff, et. al. 1999; Larimer & Cronce, 2002), including with high-risk drinkers (Murphy et al 2001).

Agostinelli, Brown & Miller, 1995 were able to produce similar reductions in drinking by mailing participants personalized graphic feedback following their completion of a mailed survey. Similar results were found in a larger population study, in which a normative feedback pamphlet was mailed to over 6,000 households. In a follow-up general population survey a month later, respondents from households receiving normative feedback reported significantly lower alcohol use than controls (Cunningham et al. 2001).

These results are extremely promising because they are efficient and cost-effective, produce measurable results, and can be combined with other social norms interventions. For example, both Western Washington University (Fabiano, 2003) and the University of Washington (Larimer, et al, 2001) have successfully combined universal interventions with indicated interventions providing specific information about campus drinking norms to individual high-risk drinkers.

In addition to individual personalized feedback, high-risk drinkers and smokers may also be influenced by campus-wide media campaigns. For example, Perkins and Craig (2002) reported four-fold reductions in the typical increase in high-risk drinking among first-year students and a 21% reduction in weekly heavy drinking among students in general at a small private college in the Northeast. Pryor (2001) reported a decrease from 20% to 13% from 1999-2000 in the number of students drinking ten or more drinks at a sitting at a different small Northeastern college. Similarly, a social norms marketing campaign at University of Wisconsin at Oshkosh that was directed at smokers with the theme "96% of smokers want to quit before graduating" resulted in a 29% decrease in smoking rates in one year. As noted earlier, social norms interventions at Washington State University (Far & Miller, 2003) and the University of Virginia (Bauerle, Burwell & Turner, 2002) have also been successful in reducing high-risk drinking.

In summary, norms corrections interventions with heavy drinkers are theoretically sound and can be effective both in individual contexts as part of a motivational interviewing strategy or as part of campus-wide media campaigns.

Social Norms Interventions with Multiple Levels of Prevention

The social norms approach can be used to provide a guiding framework for interventions that are universal, targeted, and indicated to create synergy between these levels of prevention. For example, the University of Arizona combined a universal social norms marketing intervention and other environmental management interventions with a moderation skills program for high-risk drinkers and a targeted campaign directed at sorority members (Glider et al, 2001; Johannessen & Glider, 2003; Johannessen et al,

1999). Efforts were also made to educate stakeholders who were likely to be "carriers of the misperception" about the goals and purposes of the intervention by providing specialized training and developing literature specifically designed for faculty and staff. Thus it is possible to combine social norms interventions at all levels of prevention to create a comprehensive change environment with mutually-reinforcing, synergistic messages delivered through a variety of channels to a variety of audiences.

Such programs are comprehensive, relevant, intensive, and promote positive messages, characteristics that are components of effective prevention programs (Berkowitz, 1997). This integrated approach is more likely to succeed than the common practice of developing multiple individual interventions that are not compatible or programmatically linked and that are often inconsistent with each other.

Norms Correction as Part of A Multi-Component Intervention

A number of community-wide and school-based comprehensive interventions have incorporated norms correction into classroom or workshop activities. Because the social norms activity was only one of multiple interventions used, it is not possible to specifically evaluate its impact. In these cases, revealing accurate norms to participants may have served as a catalyst that increased their receptivity to other program components, such as skill-training, information, and strengthening resiliency.

For example, a comprehensive middle-school intervention with a norms correction component that had previously been effective among white students was offered in a minority inner-city school. The experimental group demonstrated binge-drinking rates over 50% lower than the control group in follow-up assessments. Two years after the intervention, corrected perceptions remained correlated with reductions in binge drinking (Botvin et al, 2001.) In a similar example for smoking, norms correction strategies were incorporated into a multi-component intervention to reduce smoking among high-school students that resulted in a rate of 14% of students smoking weekly in comparison with 24% in the control group (Perry et al, 1992). Finally, in a literature review of comprehensive community interventions to address alcohol, cigarettes, other drugs, and/or cardiovascular health, the authors suggested that norms correction strategies may be particularly appropriate for adolescents and young adults (Hingson & Howland, 2002).

These studies suggest that social norms activities can effectively be included in comprehensive intervention that are multi-faceted and incorporate a variety of compatible strategies.

When Social Norms Interventions Are Unsuccessful

As interventions based on the social norms model become more prevalent there are more examples of unsuccessful interventions. This is natural as the field evolves and grows and is especially likely in light of the many ways in which the implementation process can be flawed.

Johannesesen (1999), Haines (1996) and Linkenbach (2003) provide a detailed overview of the phases of implementing a social norms media campaign, which Fabiano (1999) has condensed into six stages:

- assessment (collection of data),
- selection of the normative message
- testing the message with the target group
- selecting the normative delivery strategy
- dosage of the message
- evaluation of the effectiveness of the message.

Berkowitz (2001) outlined the types of mistakes that can occur at any of these stages. For example, participants are likely to initially question the validity of survey data because of misperceptions they hold, but will rethink their assumptions if the data are reliable and presented in an open manner. In contrast, unreliable or confusing survey data may be rejected and in the end undermine the campaign and reinforce misperceptions. In addition, media that are confusing or unappealing, presented by unreliable sources, or not presented in sufficient doses will not have an impact. Key stakeholders can also undermine campaigns through negative comments and criticisms or by sharing their own misperceptions. The following examples illustrate some of these reasons for campaign failure.

Werch et al (2000) outlined a failed campaign in which social norms messages were sent through the mail to a small sample of freshmen with subsequent mailed follow-ups. This campaign may have failed because the doses were inadequate, the message was not strong enough, and the target subjects were exposed to campus-wide misperceptions that may have undermined the campaign's messages.

Clapp, Russell and DeJong (2001) reported on a failed social norms media campaign in which students did not understand the message, the message and image were incongruent, and the image overpowered the message.

Granfield (2002) provided a case study of a well-designed social norms media campaign that failed because the message source was not believable to students. The campaign took place on a campus with a strong fraternity presence at a time when fraternities perceived themselves to be under attack by the administration. Due to this feeling, students rejected the social norms messages because the campaign was perceived to be part of an administration-led effort to undermine fraternities.

These findings suggest that when social norms campaigns are unsuccessful, it is important to assess what went wrong and why, rather than to assume automatically that the model is flawed.

Unsuccessful interventions and philosophical/theoretical disagreements have led some to question the overall validity and effectiveness of social norms. These criticisms include: concerns about unsuccessful interventions, theoretical disagreements about the assumptions of the social norms approach, questions about the compatibility of norms correction campaigns with the underlying mission of higher education, and debates about definitions of high-risk drinking. Berkowitz (2002) has provided an extensive response to each of these concerns, suggesting that some may be based on misunderstandings and overgeneralizations about the implications of failed interventions, while others reflect important theoretical and methodological issues that need to be addressed as part of the evolution of the model. In the same article, Rice (2002) reviewed common questions and concerns based on methodological issues.

Social Norms Interventions for Other Health Issues and Social Justice Issues

Many of the normative influences that affect health behaviors such as alcohol and tobacco use are also operative for a wide variety of issues, including sexual assault and violence, disordered eating and body image disturbance, academic climate, and prejudicial behaviors. Berkowitz (2003) suggested that social norms efforts be used to address these problems, reviewed research documenting misperceptions for different health and social justice issues, and provided examples of innovative programs. These included a social norms marketing campaign designed to change male attitudes associated with rape proclivity (Bruce, 2002), a social norms marketing campaign addressing sexual assault prevention among Deaf and Hard-of-Hearing students (White, Williams, & Cho, 2003), and a homophobia prevention workshop that incorporates a small group norms challenging activity (Smolinsky, 2002). Heterosexual individuals were found to overestimate the homophobia of their peers in two studies (Bowen & Bourgeois, 2001; Dubuque et al 2002). Berkowitz (2003) suggested that these misperceptions might discourage individuals who are uncomfortable with prejudicial remarks from speaking out against these comments.

In preliminary studies, predictions based on social norms theory have been confirmed for beliefs about masculinity, body ideal, prayer, and honesty in paying taxes. For example, Gottfried (2002) found that men misperceived other men's beliefs about how men should behave, with men overestimating the extent to which other men hold stereotypical beliefs about masculinity. Greater disparities between men's perceptions of themselves and of other men were correlated with lower self-esteem. In another study of body image, women significantly overestimated the degree of thinness that male and female peers identified as ideal. These overestimations were found to positively correlate with measures of body dissatisfaction, disturbed eating, and concern with appearance (Kusch, 2002). Hancock (2003) documented misperceptions of prayer, reporting that individuals who pray underestimated the prevalence of praying among their peers and suggested that this misperception may cause individuals to reduce or hide prayer behavior in academic environments. Finally, Wenzel (2001) documented taxpayer misperceptions of willingness to be honest on income tax forms (i.e., most people thought that others were less honest than themselves) and found that correcting these misperceptions increased honesty in the reporting of some deductions

With respect to academic success, a pilot project at Ball State University documented misperceptions indicating that students perceived their peers to be less academically motivated than themselves on a variety of variables. The "Academic Success Norming Campaign" corrected these misperceptions with the goal of encouraging behaviors that are associated with academic success and retention (Abhold, Hall & Serini, 1999). A similar campaign is currently being employed at Northern Illinois University to foster the involvement and success of women in academics (National Social Norms Resource Center, 2002).

Finally, Linkenbach, Perkins, and DeJong (2003) documented the misperceptions among parents regarding others' parenting attitudes and behaviors and discussed how correction of these misperceptions can be utilized to strengthen effective parenting.

Although these projects are preliminary and have not yet produced strong outcome data, they suggest the applicability of the social norms approach to a broad range of behaviors related to health, social justice, and fostering community.

Conclusions and Recommendations

The effectiveness of prevention approaches addressing misperceived social norms have been validated in numerous research studies and campus and school interventions since they were first proposed by H. Wesley Perkins and myself in 1986. Programs designed to reduce alcohol and tobacco use have been implemented successfully at all levels of prevention using a variety of media and presentation techniques. There are a number of challenges facing the prevention field at present as we continue to develop new and improved social norms interventions. These include the following:

- how to meaningfully integrate universal, selective, and indicated social norms interventions in a synergistic, mutually reinforcing manner,
- how to effectively combine social norms interventions at all three levels of prevention with other strategies such as environmental management and policy enforcement,
- to determine whether tailored social norms interventions based on gender, ethnicity and other group identities are appropriate and effective,
- to determine if social norms interventions can be successfully applied in community settings,
- to utilize our knowledge about successful social norms interventions to address other problems such as sexual assault, social justice issues, eating behaviors, academic climate, and issues of spirituality, and adapt the model accordingly,
- to learn from unsuccessful interventions to develop an inventory of common mistakes, problems, and implementation failures, and
- to develop a set of conditions and criteria for successful implementation.

The social norms approach provides an excellent example of how theory and research driven interventions can be designed, implemented and evaluated to successfully address health problems. The model incorporates recent understandings about the important role of the environment in prevention, the nature and impact of peer influence, the need for interventions that are tailored to their audience, and the design of comprehensive environments that can foster change. We look forward to new successes and innovative applications of this approach in the years to come.

Note: Please contact the author if you have information about a social norms intervention or study that you would like to see included in a future revision of this paper.

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Appendix

Annotated Bibliography of the Social Norms Literature

This annotated bibliography provides brief summaries of notable resources for social norms theory, case studies and implementation issues, other applications, and significant research

Theory

Berkowitz, AD (2002) *Responding to the Critics: Answers to Common Questions and Concerns About the Social Norms Approach*. The Report on Social Norms: Working Paper #7. Little Falls, NJ: PaperClip Communications. Answers to commonly asked questions and criticisms about the social norms approach, including theory, methodological issues, and reasons for program failure.

Berkowitz, AD (1997) *From Reactive to Proactive Prevention: Promoting an Ecology of Health on Campus*. In P. Clayton Rivers and Elise R. Shore (Eds) Substance Abuse on Campus: A Handbook for College and University Personnel. Westport, CT: Greenwood Press. This chapter presents an overview of social norms theory in the context of other approaches to drug prevention, reviews relevant research, and presents examples of primary, secondary and tertiary interventions in the form of case studies.

Linkenbach, J. (2001). *Cultural Cataracts: Identifying and Correcting Misperceptions in the Media*. The Report on Social Norms: Working Paper #1. Little Falls, NJ. PaperClip Communications. An overview of how the media fosters misperceptions of health and other behaviors and the effects of these media distortions. Strategies are provided for recognizing and correcting them.

Miller, DT & McFarland, C (1991). *When Social Comparison Goes Awry: The Case of Pluralistic Ignorance*. Chapter 11 in Suls, J & Wills, T (Eds) Social Comparison: Contemporary Theory and Research, Hillsdale, NJ: Erlbaum. An excellent overview of the theory of "pluralistic ignorance" and citations of earlier work in this area.

Perkins, HW (1997). *College Student Misperceptions of Alcohol and Other Drug Norms Among Peers: Exploring Causes, Consequences and Implications for Prevention Programs*. In: Designing Alcohol and Other Drug Prevention Programs in Higher Education: Bringing Theory into Practice. Newton, MA: The Higher Education Center for Alcohol and Other Drug Prevention. A comprehensive overview of the theory and assumptions of the social norms approach which concludes with implications for prevention programmers.

Case Studies and Implementation Strategies

Dimeff, L, Baerk J, Kvilahan, D & Marlatt, AG. (1999). Brief Alcohol Screening and Intervention for College Students: A Harm Reduction Approach (BASICS). NY: Guilford Press. A thorough overview of the excellent research conducted at the University of Washington on harm-reduction interventions for abusers and a curriculum for implementing the model.

Fabiano, P & Lederman, LC (2002). *Top Ten Misperceptions of Focus Group Research.* The Report on Social Norms: Working Paper #3. Little Falls, NJ. PaperClip Communications. An introduction to the role of focus groups in generating and evaluating media for social norms campaigns, and answers to some common misconceptions about them.

Haines, Michael P. (1996). A Social Norms Approach to Preventing Binge Drinking at Colleges and Universities. Newton, MA: The Higher Education Center for Alcohol and Other Drug Prevention. (Available at www.edc.org/hec). A thorough presentation of the steps taken at Northern Illinois University to implement a comprehensive social norms marketing campaign.

Johannessen, KJ, Collins, C, Mills-Novoa, BM & Glider, P. (1999) A Practical Guide to Alcohol Abuse Prevention: A Campus Case Study in Implementing Social Norms and Environmental Management Approaches. The University of Arizona Health Service, www.health.arizona.edu. An excellent guide to the development of social norms media and for combining social norms marketing campaigns with other individual and environmental interventions. Available from www.edc.org/hec or www.socialnorms.CampusHealth.net.

Linkenbach, J. (2002). The Main Frame: Strategies for Generating Social Norms Media. Available from www.socialnorm.org or from www.edc.org/hec. This is a practical guide to writing media stories about social norms interventions, along with guidelines and talking points for interacting with the media to shift the "frame" of the discussion to positive, health-promoting behaviors.

Perkins, HW (2003). (Ed). The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors, Clinicians, San Francisco, Jossey-Bass. This book on the social norms model contains case studies of successful social norms interventions at a variety of colleges and universities for smoking and alcohol, including both social norms media campaigns and small group interventions. Successful campaigns with high school and adolescent populations are also provided. Guidelines for effective implementation are provided in a number of the chapters (see www.socialnorm.org for a Table of Contents.)

Perkins. HW & Craig, DA (2003). A Multi-faceted Social Norms Approach to Reduce High-Risk Drinking: Lessons from Hobart and William Smith Colleges. Newton, MA: The Higher Education Center for Alcohol and Other Drug Prevention. (Available at www.edc.org/hec). One of the most comprehensive evaluations of a social norms media

campaign, presenting evaluation data collected over a five-year period demonstrating changes on a number of dimensions of behavior.

Research

Perkins, HW (2002). *Social Norms and the Prevention of Alcohol Misuse in Collegiate Contexts*. Journal of Studies on Alcohol, Supplement 14:164-172. A review of the literature on the effects of norms on drinking behavior. Research on parental, faculty, resident advisors and peer norms are reviewed, with the conclusion that peer norms are the strongest influence on student drinking. A brief overview of the social norms approach is presented.

Perkins, HW and Berkowitz, AD (1986). *Perceiving the Community Norms of Alcohol Use Among Students: Some Research Implications for Campus Alcohol Education Programming.* International Journal of the Addictions, 21(9/10): 961-976. This is the original study providing data for student misperceptions of attitudes towards alcohol, along with a discussion of the effects of these misperceptions.

Perkins, HW, Meilman, PW, Leichliter, JS, Cashin, MA & Presley, CA (1999) *Misperceptions of the Norms for the Frequency of Alcohol and Other Drug Use on College Campuses*. Journal of American College Health, 47:253-258. Reviews data documenting the prevalence of misperceptions of alcohol and other drug use in all sizes and types of schools, and in all regions of the country.

Perkins, HW, and Wechsler, H (1996). *Variation in Perceived College Drinking Norms and Its Impact on Alcohol Abuse: A Nationwide Study.* Journal of Drug Issues, 26(4):961-974. An analysis of Harvard's College Alcohol Study data set documenting the importance of misperceptions in predicting alcohol abuse, especially for heavy users.

Scher, K, Bartholow, BD & Nanda, S (2001). *Short- and Long-Term Effects of Fraternity and Sorority Membership on Heavy Drinking: A Social Norms Perspective*. Psychology of Addictive Behaviors, 15:42-51. An excellent longitudinal study examining the alcohol use of Greek members during and after college. Greeks consistently drank more than non-Greeks during the college years but Greek status did not predict post-college drinking levels. Variations in Greek drinking during the four years of college were predicted by perceived peer norms for alcohol use among Greeks.

Toch, H & Klofas, J. (1984). *Pluralistic Ignorance, Revisited*. GM Stephenson and JH Davis (Eds), Progress in Applied Social Psychology, Volume 2. New York: Wiley & Sons. An excellent review of studies of pluralistic ignorance from 1935-1982 in a variety of settings with important theoretical and research implications for social norms practitioners.

Other Issues

Berkowitz, AD (2003). *Applications of Social Norms Theory to Other Health and Social Justice Issues*. To be published as Chapter 16, H. Wesley Perkins, Ed. The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors, Clinicians, San Francisco, Jossey-Bass. Explores applications of social norms theory to sexual assault prevention for men, eating disorders, and bystander behavior with respect to second hand effects of high-risk drinking and prejudicial behavior.

Bruce, S. (2002). *The "A Man" Campaign: Marketing Social Norms to Men to Prevent Sexual Assault*. The Report on Social Norms: Working Paper #5, Little Falls, NJ: PaperClip Communications. A case study of a social norms media campaign to address men's role in preventing sexual assault. An overview of the campaign and the process used to develop media is provided.

Dubuque, E, Ciano-Boyce, C & Shelley-Sireci, L. (2002). *Measuring Misperceptions of Homophobia on Campus*. and Smolinsky, T (2002). *What Do We Really Think? A Group Exercise to Increase Hetersexual Ally Behavior*. Both in: The Report on Social Norms: Working Paper #4, Little Falls, NJ: PaperClip Communications. A study documenting misperceptions of homophobia, and a model workshop in which evidence of these misperceptions are used to foster heterosexual ally behavior.

White, J, Williams, LV and Cho,D. (2003). *A Social Norms Intervention to Reduce Coercive Behaviors among Deaf and Hard-of-Hearing College Students.* In The Report on Social Norms, Volume 2(4). Little Falls, NJ, PaperClip Communications. A sexual assault prevention social norms media campaign tailored to the culture of Deaf and Hard-of-Hearing students was successful in reducing the incidence of sexual assault in this population.

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