Feature Article: Is Normative Feedback the "Active Ingredient" of Effective, Universal School-Based Prevention Programs?

By Holly Clemens, MEd, Cuyahoga Community College, and Dennis Thombs, PhD, Kent State University

> "The U.S. Department of Education (1999) has developed a set of "Principles of Effectiveness" to evaluate all types of substance abuse prevention programs... Using these criteria, an expert panel has identified nine 'exemplary' programs. Of these, four are universal school-based programs and all of them provide normative feedback in some fashion."

Universal substance use prevention programming in middle schools is an important method of delivering anti-drug messages to youth, with over 85% of middle schools requiring some form of substance abuse prevention programs and curricula (Kann et al, 2001). Most of these programs are designed to provide knowledge, change beliefs, and develop social skills to resist peer pressure. However, among these approaches, prevention programs focusing mainly on knowledge enhancement (teaching about pharmacological effects and medical and legal consequences) and/or affective change (building self-esteem, decision-making, values clarification) have not been found to be effective in deterring ATOD, i.e. alcohol, tobacco and other drugs use (Hansen, 1992; Tobler et al., 2000). Thus, if knowledge enhancement and affective change are not effective, what are best practices for universal prevention in middle schools, and is social norms one of them?

A reason that some prevention programs may not deter substance use is the lack of alignment between program goals/objectives and the known risk and protective factors. For example, peer norms are strongly correlated with adolescent substance abuse (e.g., Kumar et al., 2002; Thombs et al., 1997), so that individual perceptions that substance use is prevalent in one's environment and peer approval of substance use are both risk factors for teen involvement in ATOD use. In contrast, lower levels of perceived substance abuse in one's school or community may serve as a protective factor (D'Amico et al, 2001).

Thus, it is reasonable to speculate that effective universal prevention programs would include strategies to strengthen conservative peer norms in a school or a community.

The U.S. Department of Education (1999) has developed a set of "Principles of Effectiveness" to evaluate all types of substance abuse prevention programs. The evaluation criteria include: (a) evidence of efficacy, (b) quality of program, (c) educational significance, and (d) usefulness to others. Using these criteria, an expert panel has identified nine "exemplary" programs. Of these, four are universal school-based programs and all of them provide normative feedback in some fashion.

Components of Exemplary Universal School Prevention Programs
U.S. Department of Education (2001)

- **Life Skills Training** (Botvin, 1998). School intervention. Includes focus on normative beliefs and perceptions of prevalence of use, decision-making, effective communication, and resistance skills.

- **Project ALERT** (Bell et al., 1993). Building school-wide norms against drug use. Includes focus on normative beliefs and perceptions of prevalence of use, decision-making, effective communication, and resistance skills.

- **Project Northland** (Perry et al., 2002). School, parent, peer, and community interventions. Includes focus on normative beliefs and perceptions of prevalence of use, decision-making, effective communication, and resistance skills.

- **Project T.N.T.** (Sussman, et al., 1993). School intervention. Includes focus on normative beliefs and perceptions of prevalence of use, decision-making, effective communication, and resistance skills.

from *the* field

A Review of "The Truth About Teen Alcohol Use 101" — A Social Norms Video for High Schools

Reviewed by Linda Langford, ScD, Deborah Peterson MBA, MEd, and Lisa Stone, MD, MPH

High school students stopped in a hallway are asked the question "What percentage of students drink?" Each responds with confidence: "99.9%," "85%," "90%, at least…they drink all the time," "70, 75%" and "that's all everyone talks about, I would think it was up in the 90's." A statement appears on the screen, white block letters printed on a black background: "Actual Survey Results: 70% of Riverfront Students DO NOT DRINK." The camera captures the students' incredulous reactions: "70%? Don't drink? Here?," "No, there's no way," "I know it's more than 70%, it has to be," "Are you sure?," "I can't believe it, everyone always talks about drinking, you'd think everyone would do it," and "I always thought it had to be the other way around…"

Overview. Through scenes such as these, this twenty-five minute video vividly illustrates the rationale for a social norms approach to teen drinking. The video is designed to introduce viewers to the social norms approach and to encourage them to implement a similar program in their own schools. In our role as staff members for an NIAAA-funded study of a high school social norms marketing campaign we watched this video to reflect on its value for our project as well as its usefulness to others considering high school social norms projects. It describes the social norms approach in the context of one school's experience, Riverfront High School. The opening scene shows students from the school's Task Force on Student Drinking discussing how talk on Monday morning tends to exaggerate the weekend's drinking. One student says, "People are talking about how all the cheerleaders were drunk and the football players were in the back yard throwing up…but that didn't actually happen….two or three of the football players were drinking, but the majority of them weren't..." They point out that, even though some students may know the stories are exaggerated, they don't object. Instead they'll agree or stay silent.

We then hear the background leading up to this discussion: recently several Riverfront students were caught drinking in a parking lot. Due to community concern the principal appoints a student task force and invites Dr. David Craig, co-director of the Alcohol Education Project and Professor of Biochemistry at Hobart and William

Editor's *notes*

Welcome to 2004! I am sure that this will be another year of exciting developments and challenges for the social norms approach. This issue, which focuses on the application of social norms to secondary schools, provides new evidence of these successes and challenges. Social norms interventions in middle and high schools are one of the rapidly growing cutting edges of social norms. In these pages you will find a partial overview of what is happening in this area through summaries of recent studies and resources.

In the *Feature Article* Holly Clemens and Dennis Thombs review the evidence for effective primary prevention programs in middle schools and suggest that the provision of normative feedback is one of the critical ingredients, or possibly the critical ingredient, that accounts for the success of these programs. This is an important conclusion because the programs reviewed have all received best-practice awards, have been extensively evaluated, and were developed by experts not considered to be partisan to social norms.

This issue's *From the Field* contains a review of a video developed by David Craig for use in high school social norms campaigns. In it Linda Langford and her colleagues provide suggestions for how this video can be used and share valuable insights gained from their experiences in an NIAAA-funded social norms high-school study.

As the social norms approach continues to gain visibility, with more and more articles published in respected scholarly journals, there is a parallel growth in superficial or misinformed presentations of the approach. This was the case in a study reported in this issue's *Gathering Place* in which student mis-estimations of the amount of alcohol in a standard drink were presumed to discredit social norms campaigns. It is important that those of us who are familiar with social norms be vigilant and make efforts to correct these "misperceptions" of our work.

Best wishes for a joyful and productive year.

Sincerely,

Alan D. Berkowitz, Ph.D.

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Smith Colleges, to work with it. Dr. Craig is the only non-student participant in the group session, serving as facilitator by posing questions and highlighting key points offered by the students.

As task force members continue their discussion one student asks, "Why do we do this to ourselves, why do we want to fit in and make drinking a big deal?" Another replies that teens want to appear older and more mature, and even holding a drink can make them look and feel that way. A student cheerleader points out that teenagers often are portrayed in movies as "alcoholic, rowdy, uneducated, sex-obsessed people," when actually she and her friends take difficult classes, get good grades, and don't drink all the time. A football player agrees, noting that the behavior of one cheerleader or football player often becomes associated with the whole group. Another student remarks that football players and cheerleaders are very visible and therefore represent the school, both to other students and outsiders. Dr. Craig summarizes by proposing that it may be a few students drinking in a very visible way that leads students to overestimate the amount of alcohol consumed and the number of students who drink.

We learn that the school is administering an anonymous survey to assess students' perceptions and behaviors related to alcohol. Next come the scenes described above: random students are polled on campus, revealing their belief that the vast majority (75-99%) drink, followed by their surprise at the actual survey finding that 70% don't. When asked about their own drinking, most state that they are not drinkers themselves. The students reflect on their own behavior and what they now know about exaggerations of drinking behavior and eventually begin to acknowledge that the statistic might be true.

Back at the task force meeting, Dr. Craig asks why young people might

have exaggerated perceptions about peer use. The students are articulate with their responses: you see a few people with drinks, so when you hear talk later about "everybody drinking," you believe it; no one wants to hear about people at a party who were sober; discussing the flamboyant people spices up the stories. The students then discuss the possible consequences of these exaggerations, for example, others will be encouraged or pressured to get drunk to fit in, especially younger students who look to older teens as role models. Several students mention potential negative outcomes of excessive drinking.

Dr. Craig states that Riverfront High will implement an educational program to provide information to students about the actual social norm at their school: most students are making healthy choices about alcohol. He explains that this information frees students to act on their own positive values rather than choosing behavior based on a myth.

Some of the students reflect on their learnings. One student states she used to think alcohol was fun and harmless, but now she knows it is more serious, that you can die or harm other people. Another reflects on his realization that his actions may influence others to "make stupid decisions."

Dr. Craig then raises the issue of alcohol poisoning and describes how deliberately drinking to an overdose level can result in tragic lethal events. Students need to know how risky alcohol use can be. Warning signs of overdose and actions students should take in this situation are described and listed on the screen. He then states, "If we can just figure out a way to communicate powerfully to the student body what the

"this video is an excellent overall introduction to the basic concepts of a social norms approach that can be beneficial to multiple audiences in high school settings..."

actual attitudes and practices are, we can give freedom to those who have healthy attitudes to act on those attitudes, to back away from using alcohol."

The video ends with student task force members making a direct appeal to viewers with comments such as "Make the healthy choice – don't drink," and "It's okay to admit you don't drink... just be yourself."

Usefulness. This video provides an excellent introduction to key social norms concepts, which proved very useful to our project, the Social Norms Alcohol Problem Prevention for Youth (SNAPPY). SNAPPY involves two high schools, one intervention and one comparison school. While the intervention is primarily media-based, we did deliver one classroom session about the campaign to 10th grade students this fall as part of a four-session alcohol curriculum in a required health class. The students have seen SNAPPY messages (primarily posters and flyers) since last spring, so our goals for the class session were to explain the rationale behind the campaign and answer student questions about the project.

During the classroom session, we showed students the first fifteen minutes of the video, up through the segment where students guess the percentage of drinkers at their school, react to the actual statistic, and eventually begin to accept it. Showing other high school students discussing their beliefs about drinking was a clear and effective way of illustrating the theory behind social norms without being dry or academic. The content on misperceptions, how they develop, and how they affect behavior was important for our classes. After the viewing, students comfortably used the words "misperceptions" and "exaggeration" to describe the take-home message. These

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students already have some familiarity with the social norms approach, yet this material helped them to conceptualize and clarify the approach.

One of the strongest aspects of the video is the use of student voices. The student task force members are terrific – they are poised and articulate, yet appear to be speaking honestly from their own experiences rather than parroting adult messages. Comments by task force members are supplemented by interviews with other students in the hallways, creating a sense that the views expressed are broadly representative of the school as a whole. Our students clearly were engaged with their counterparts in the video and especially identified with their incredulous reactions to the "70% don't drink" statistic. The task force members represent a variety of student "groups" on campus – athletes, cheerleaders, academic achievers, and others, although one of our classes thought the task force members might have been skewed towards the "good kids." Also, the students in the video are racially diverse, which makes it useful for schools with similar diversity.

Placing student voices at the center of the video also conveys the important point that social norms is based on collecting and reporting factual information about students themselves, rather than having adults create a message *for* students. Dr. Craig is the only adult we see in the video; no school officials, parents, or community members ever appear. While these partners must be involved in order to achieve a successful social norms campaign, their absence from the video is not problematic. In our campaign, we have worked hard to explain to our students that the purpose of SNAPPY is to convey facts from the survey rather than to tell them what to do. It was useful to us that the video's use of students largely underscored this message. The one exception was during the very last segment, when student task force members speak directly to the

camera. In contrast to their early statements, which seemed to be spontaneous descriptions of their own experiences and feelings, their statements at the end were quite directive and felt almost scripted. We did not use this segment of the video in our class sessions, in part because we thought the didactic tone might undermine the credibility of the students' earlier remarks.

One element that raised questions was the statistic "70% of students don't drink." We knew our students would want to compare this number with their own use, but because the statistic does not reference a timeframe or particular survey question we were unclear which SNAPPY statistic would be comparable. This is more than a factual question and reflects a key issue for our project. As the campaign has unfolded students have questioned the SNAPPY numbers, expressing suspicion that we are lying or modifying the statistics to suit our agenda. We feared that the vagueness of the "70% don't drink" message would play into these concerns. To complicate matters, a query to Dr. Craig revealed that the video producers decided on their own to round the number and wording of the statistic provided to them (67% never or rarely drink, i.e., drank 1-2 times per year or less) based on their sense that many of the students reporting 1-2 times would be drinking for religious purposes. While we are not familiar enough with the questions to determine whether this change is scientifically defensible, our experiences with campaign implementation have led us to conclude that messages will not be credible unless we are explicit about the drinking behavior and timeframe for each statistic. When we used the video in class sessions, we simply stated that we don't have a comparable statistic for the 70% (which is true) and also pointed out that we have chosen to be more explicit about the behavior and time period in SNAPPY messages. In a related issue, it was notable to us that the

video does not address our students' single biggest concern, which is the nearly universal belief that the campaign statistics are not credible because students lie on the survey. Those planning to use this video, especially with students, should be prepared to address this issue proactively in the discussion afterwards.

> "The Truth About Teen Alcohol Use 101"
> 25-minute video and resource guide
> Discover Films (888 649-6453)
> www.discover-films.com

In contrast to the strength of the material about social norms, we thought the section about alcohol poisoning and other serious consequences was less effective. This information clearly is critical, however, this portion of the video seemed out of sync with the earlier material. In showing the video to students, our concern was that the vivid details about alcohol poisoning positioned near the end of the video could overwhelm or even contradict the earlier material about positive majority behaviors. Because we had multiple class sessions devoted to alcohol, our students received information about alcohol poisoning during a separate class session and we did not show this portion of the video during the class on social norms. We bridged these topics during our session by discussing how tragedies and serious consequences are very real but can also contribute to the misperception that "everybody" is drinking. As specialists viewing the video, our concern was that this content might lead some viewers to make an error commonly found in social norms campaigns, which is to try to incorporate "scare tactics" into their social norms messages. The typical result is materials in which positive majority statistics are undermined by images or text about rare tragic consequences.

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Another challenge for those utilizing this video is the absence of concrete information about developing or implementing a social norms program. As the field progresses, it has become increasingly apparent that campaign implementation is a key determinant of success. The video was clearly not designed to be a "how-to" resource, however, even a very brief overview of the steps in campaign development or some examples of messages from other schools would have been useful. Unfortunately, the accompanying booklet also provides little guidance, consisting almost entirely of CSAP's Underage Drinking Prevention Action Guide and Planner, which was not designed to assist practitioners in creating a social norms campaign. No explanation is provided to connect the video content and the action guide except for a brief video summary and three-page overview of the social norms approach. However, Dr. Craig does list resources on social norms programs.

Critical to the success of any community-based intervention is widespread support for the program among community members. When we brought the idea for the SNAPPY project to our communities this video was not available. If it had been, we certainly would have used it to introduce the approach to school officials, parents, town government, law enforcement officials, and other stakeholders. Using one school's experience with teen alcohol problems is a very engaging approach, and the fact that Riverfront became involved in this issue in response to a visible incident is a typical scenario that will resonate with many communities. We would recommend using the entire video with community members, since the caveats described above are not as critical with these audiences.

The need for building community support touches on another issue, which is how we as a field justify new prevention approaches to a community. Two years ago we clearly believed that a

high-school trial of a social norms approach was justified based on existing research. In approaching our communities, we tried to strike a balance between describing the evidence supporting potential effectiveness and providing a realistic statement about the absence of social norms research at the high school level (although more recently, some high schools have begun to report positive results). Based on our concern about striking this balance, we felt that the statement on the cover of the video that "implementing social norms strategies into high school alcohol awareness programs is a proven and effective prevention method" overstated the empirical support available at the time of the video's release. Even if the statement is proven to be true, in the interim, such statements may create unrealistic expectations about program outcomes among community members and undermine the legitimacy of serious empirical work in this area.

Summary. In summary, this video is an excellent overall introduction to the basic concepts of a social norms approach that can be beneficial to multiple audiences in high school settings, including students, prevention practitioners, and community members. Those considering its use are encouraged to consider how to benefit from using it in different settings and for different audiences. Practitioners undertaking a campaign should supplement it with the many resources available on best practices for campaign design and implementation.

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The Gathering Place"

the *Gathering Place*

brings together news, announcements, and important developments in the field of social norms.

More support for the social norms approach is provided by results of a successful social norms marketing campaign at the University of North-Carolina-Chapel Hill conducted by Robert Foss and his colleagues. As predicted, campus alcohol use was reduced following an intensive social norms marketing campaign. In this study however, the normative message was based on breathalyzer data reporting the number of students coming home with a zero BAC on traditional party nights. Thus, this study provides evidence against the criticism that social norms campaigns change the way that students respond to surveys without impacting actual drinking. For more information go to: www.hsrc.unc.edu/pressrelease/collegealcohol.htm.

Student mis-estimations of drinking size are not a problem for social norms campaigns. In a recent article in *Alcoholism: Clinical and Experimental Research* (see Vol. 27(11):1750-1756) researcher Aaron White and colleagues reported that student definitions of a standard drink contain much more alcohol than in the definition commonly used by researchers. One of the implications of this finding, according to the authors, is that social norms campaigns may be promoting dangerous amounts of alcohol use (i.e., if students' think that "0-4 drinks" contain much more alcohol than researchers do, then social norms campaigns may inadvertently promote dangerous drinking). This, however, is a misguided criticism of social norms. Whether or not students mis-estimate the amount of alcohol in a standard drink, misperceptions exist, and social norms campaigns

Recent Research

Editors Note: In keeping with the theme of this issue, Recent Research focuses on studies evaluating norms misperceptions and their correction among middle and high school students. In particular, The Social Norms Approach to Preventing School and College Age Substance Abuse *(Ed. H Wesley Perkins, Jossey Bass, 2003) contains three chapters on this subject that are summarized below, along with one other study.*

The Imaginary Lives of Peers: Patterns of Substance Use and Misperceptions of Norms Among Secondary Students, by H. Wesley Perkins and David Craig (Chapter 12).

This chapter presents research gathered by the authors using a web-based social norms survey that was used to collect data from twenty-eight middle and high schools from fall 1999 through spring 2002, with a total of 8,860 respondents. The authors found that abstaining from tobacco was the norm for almost all of the schools surveyed, and that students commonly overestimated the actual rate of use in their grades, with even greater overestimations for student perceptions of junior's and senior's use. Similar results were obtained for marijuana use with greater overestimations than for cigarettes. For alcohol, data reported was similar to cigarettes and marijuana for estimates of getting drunk in the last month, while the actual norm for consuming alcohol was once or twice a year for high school students and abstinence for middle school students. Misperceptions for all substances were greater in larger schools.

Most of Us are Tobacco Free: An Eight-Month Campaign Reducing Youth Initiation of Smoking in Montana, by Jeffrey Linkenbach and H. Wesley Perkins (Chaper 13).

This chapter presents results of a four-month statewide social norms marketing campaign correcting misperceptions of tobacco use that targeted 23,000 teens in a seven county region in Montana. It was successful in reducing the initiation of smoking in the experimental group while use in the control group went up during the same time period, with the authors reporting "a 41% lower rate of teens initiating smoking during the year compared to the rest of the state." *(Editor's Note: A longer presentation of this study was published in* The Report on Social Norms *in March 2003).*

Using Social Norms to Reduce Alcohol and Tobacco Use in Two Midwestern High Schools, by Michael Haines, Gregory Barker and Richard Rice (Chapter 14).

The authors report on a study funded by the Illinois Department of Human Services that attempted to replicate the successful social norms marketing campaign from Northern Illinois University in a community setting. Specifically, the goal was "to reduce parents', teachers' and students' overestimations of student alcohol and cigarette use, and to determine whether this resulted in actual reduction in student alcohol and cigarette use." The campaign was successful, with significant reductions after two years in alcohol use, heavy alcohol use in the past two weeks, and getting drunk in the last month, as well as in the percentages of students who smoked in the last month. Since this chapter was published the intervention has been successfully replicated in another school district (see "Websites" sidebar in this issue). *(Editors Note: A longer presentation of this study and its replication was published in* The Report on Social Norms *in December 2003).*

Effects of School-Level Norms on Student Substance Abuse. (2002) R. Kumar, P. O'Malley, L. Johnston, J Schulenberg and J. Bachman, in *Prevention Science*, 3(2):105-124.

Data from the Monitoring the Future Project were analyzed to determine the impact of school-level, or aggregate norms on substance use while controlling for individual norms and school demographics. The authors found that school-wide norms that disapproved of use were associated with lower use, and that a school-wide environment of disapproval created a protective environment for students in the eighth and tenth grades. Although the study did not assess if school-wide norms were misperceived, it provided indirect support for the social norms approach by establishing the importance of school-wide norms that, if misperceived, could be corrected as part of a drug-prevention strategy.

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continued from page five

correct them. Even if students and researchers have different definitions of the amount of alcohol in a "drink" misperceptions can be corrected and use subsequently reduced. In addition, students at all drinking levels consume less alcohol after successful social norms campaigns, and therefore drink more safely. In addition, the study's methodology may have been misleading because the size drink that the researchers asked about was 30 ounces. This is far in excess of a normal size drink and students taking the survey may not have been aware of this difference.

College and university presidents receive HEC mailing. Earlier this year college presidents received a letter from Henry Wechsler that questioned the validity of the social norms approach. This letter was referenced in a November 14 mailing from the Higher Education Center to these same presidents, questioning Dr. Wechsler's criticisms of social norms and providing a variety of materials, including an interview with William DeJong previously published in *The Report on Social Norms* that is sharply critical of the most recent Wechsler study.

The National Conference on the Social Norms Model will take place July 21-24, 2004 in Chicago. For more information, go to www.socialnorm.org.

Normative Feedback

Prevention researchers have tried to determine the common "active ingredients" of these programs (e.g., Botvin, Sussman, & Biglan, 2001). Questions to consider include "What are the common features or strategies that make these programs effective?" and "To what extent do they rely on normative feedback to instill conservative peer norms?"

Both the Life Skills Training and Project TNT programs include an emphasis on changing normative beliefs and perceptions of prevalence of use, as well as teaching decision-making, effective communication, and resistance skills (Botvin, 2002; Botvin, 1998; Sussman, et al., 1993.). In one study with a sample of minority, inner-city, middle school youth, those who participated in Life Skills Training reported more conservative peer drinking norms than those in a control group at a two-year follow-up assessment (Botvin et al., 2001). The lack of significant differences on drinking knowledge and pro-drinking attitudes in this study suggests that normative feedback may produce relatively durable effects. Project ALERT also focuses on developing resistance training skills, but varies slightly by focusing on building school-wide norms against drug use (Bell et al., 1993). Finally, Project Northland provides training to develop skills to communicate with parents about alcohol and to deal with peer influence as well as correcting normative beliefs about alcohol (Perry et al., 2002). Project Northland and Project ALERT differ from Life Skills Training and Project TNT in that their curriculum combines classroom-based interventions with parent (Project ALERT) and parent, peer, and community (Project Northland) interventions (U.S. Department of Education, 2001).

The common components of these four prevention programs are normative education and resistance skills training. Normative education addresses the tendency that many youth have to overestimate the prevalence and acceptability of substance use among their peers. The feedback provided, preferably based on local data, challenges the belief that substance use is prevalent and normative. It focuses on correcting biased perceptions and on establishing conservative group norms.

In contrast resistance skills approaches seek to teach behavioral skills for resisting external peer pressure to smoke, drink, or use other drugs and concentrates on helping adolescents identify health-compromising social influences and pressures. Role-playing and assertiveness training are relied upon to promote the adoption of these behavioral skills with the goal of providing resistance skills and the confidence to use them.

When Hansen and Graham (1991) directly compared normative education to peer resistance training to test their ability to deter ATOD use in youth, normative education was found to be more effective than resistance skill training. To our knowledge there has been no replication of this study. A more recent study involving college students demonstrated that normative feedback *alone* can moderately reduce alcohol use among heavy drinkers for up to six months (Neighbors et al., in press). While additional evidence is lacking to support the decomposing of normative feedback from other prevention program components, an important question is raised by these studies: If youth believe that ATOD use are atypical behaviors and they disapprove of these practices in the first place, do they need to be taught resistance skills at all or is normative feedback enough? It is also possible that resistance skill training itself provides a means of instilling conservative norms. These gaps in knowledge merit further investigation.

" ...normative feedback may be an important component of successful universal, school-based programs and it may in fact be the critical ingredient"

A current study being carried out by researchers at the University of Akron with support from the Robert Wood Johnson Foundation may help to decompose the active ingredients of successful prevention programming through the evaluation of a revised DARE curriculum that includes normative feedback (University of Akron, 2003).

In summary, normative feedback may be an important component of successful universal, school-based, prevention programs (Botvin et al., 2001) and it may in fact be the critical ingredient. When providing such feedback, prevention specialists need to pay particular attention to the *quality* of the feedback given to students. Feedback based on local data from one's school or community will likely be perceived as more personally relevant than feedback based on data from national probability samples. In addition, classroom exercises for delivering normative feedback must establish the credibility of the data on peer drug use and anticipate that some students will challenge its accuracy. While much remains to be learned about how to best provide normative feedback to adolescents in classroom settings, the research suggests that it is a critical ingredient of successful universal prevention programs in middle schools.

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Normative Feedback

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