

Service-Learning and the Liberal Arts

How and Why It Works

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Learning about Student Alcohol Abuse and Helping to Prevent It through Service-Learning Initiatives: The HWS Alcohol Education Project

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Educators have long argued that making strong connections between academic work and the lives of students achieves ever-greater learning. Engaging students more fully in academic interests through service-learning has become an increasingly popular strategy in this regard. In a large study of undergraduates attending forty-two institutions nationwide with community service programs, Astin and Sax¹ demonstrated that participation in community service significantly enhanced students' academic development, life skill development, and sense of civic responsibility. Service-learning most commonly brings up images of students' involvement in working on social problems addressing areas of basic human need or helping to bring about societal or environmental change. Usually what comes to mind are course-related or co-curricular internships where students work in organizations and programs providing assistance to socioeconomically disadvantaged populations such as in soup kitchens, homeless shelters, literacy programs, and child and elder care; in health care provider arenas; in political action groups and legislative assistance positions; or in environmental advocacy organizations.

It is less common to think of the topic of alcohol abuse as a service-learning opportunity for college students. If it is considered at all, it is usually in the context of student internships working with homeless individuals, teenage dropouts, or runaways in a social service agency. There are tremendous opportunities for expanding the vision and application of service-learning to study and work experience regarding alcohol abuse, however, for at least three reasons.

First, greater opportunity is there simply because the topic is so important and of broad interest to students. Alcohol abuse is a major social problem and health concern. Alcohol misuse is one of the largest health hazards contributing substantially to mortality rates, for example, and violence is often associated with heavy alcohol use. Courses on alcohol and other drugs are routinely popular topics typically producing high enrollments when offered.

Second, alcohol abuse is not just something "out there" in society. Rather, it affects many students in their own families, many friends, and sometimes themselves personally. One in five students, for example, is the child of an alcoholic, and that number narrows to one in four if grandparents are included.² Furthermore, alcohol use is at its highest levels among young adults of traditional college age, and the highest levels of alcohol use occur in college populations compared to other same-age counterparts.³ College students also report experiencing a wide range of negative consequences of alcohol misuse at substantial rates.⁴ So the topic provides for the possibility of extensive service-learning experiences in students' own backyards. Thus, unlike service-learning experiences on many other topics, service-learning experiences can and should take place directly within the college environment as well as in outside organizations and larger community settings.

Third, the last decade has experienced increased calls for faculty involvement in addressing college drinking problems and for expanded learning about alcohol issues through curriculum infusion in higher education.⁵ In addition to concern about the generally destructive effects of problem drinking, faculty have an added stake in efforts to reduce the problem among students because heavy alcohol use is strongly associated with lower student engagement and poorer academic performance.⁶ On close examination one can find many connections to traditional academic disciplines. The effects of alcohol use on the brain, tolerance, and alcohol metabolism is a focus of biochemistry; motivations for alcohol use, expectancies for alcohol effects, and personality differences predicting problem use invoke psychological perspectives; the influences of group dynamics, demographic variation in drinking, and cultural norms call up sociological perspectives; policies to reduce harm are a direct purview of public policy studies; alcohol abuse prevention through health services are a direct concern of medical and allied health fields; biographies in literature accounting the influence of alcohol use on an individual's life can be a focus for courses in the humanities; and film entertainment, commercial advertising, and public service prevention announcements portraying alcohol use are fertile ground for students working in media studies. Indeed, there is potential for the study of alcohol use in almost every academic discipline.

These basic elements—the intense personal interest of students, the campus setting as a high-risk environment itself, and the diverse academic

curriculum that can be linked to alcohol concerns—provide especially fertile ground for engaging faculty and staff in the development of service-learning initiatives that can enhance students' education about alcohol and simultaneously engage the students in the prevention of alcohol-related problems. This latter point about engaging students in prevention work and promoting learning in the process of this work in their own immediate peer community is especially important. As Osborn, Thombs, and Olds⁷ remark, "although undergraduates often have been the subjects of alcohol research (i.e., passive recipients of investigational services), they seldom have been regarded as collaborators in campus research endeavors seeking to reduce alcohol-related harm. . . . For too long, research on college student drinking has been seen as something to do to students rather than with them. Partnerships with student allies must therefore be developed if progress is to be realized in creating healthier campus communities." Students so engaged can simultaneously learn academic theories and research methodology while potentially contributing a service of helping prevent alcohol abuse in the local campus community. This model of using service as a strategy for teaching about research has been used in other settings with students investigating health promotion to simultaneously enhance student learning while providing beneficial service as well.⁸ Moreover, from the service perspective, traditional college-age students are still forming health behavior patterns that will persist into later adulthood. This service, then, is of particular importance given that college interventions in health may be the last developmental opportunity to significantly promote healthy behaviors for many individuals in the process of their education.⁹

Simply engaging students in the process of research and prevention work on campuses as a service-learning experience does not, however, by itself assure a successful outcome in the effort to reduce alcohol abuse in collegiate populations. One has to consider what research is being conducted and what information is being discussed as a result of the research. Education about the biomedical aspects of alcohol and harm caused by heavy drinking may be important for generating concern about the problem in some quarters of the community. But this type of education alone, whether delivered by faculty or peers, has generally not led to significant reductions in either use rates or resulting harm.

In contrast, an alternative educational strategy we have relied heavily upon to effect reductions in student alcohol abuse incorporates the social norms approach to substance abuse prevention¹⁰ into our research, teaching, and the service-learning experiences of our students. Social norms prevention theory provides a framework that relates accurate perceptions of what most people think is acceptable regarding drinking and what they do (how much alcohol they actually consume and how

frequently they actually consume) to prevent harmful alcohol misuse. A large body of research has demonstrated that youth and adults perceive that peers consume alcohol more frequently and in greater quantities than is actually the case and that they think their peers are more permissive in their attitudes about drinking than is actually the case. In addition, research has shown that perceived frequency and quantity of peer alcohol use is the strongest predictor of actual personal use among college students.¹¹ In other words, erroneous and exaggerated perceptions about peer alcohol use potentially give rise to greater levels of use than would be the case if perceptions were more accurate. Thus, social norms prevention theory predicts that as populations are provided with credible accurate information about actual attitudes and alcohol use levels, perceptions about peer use of alcohol will become more accurate and excessive use and risky behavior will decline.

Numerous applications of this social norms approach to prevention using mass media campaigns, curriculum infusion, co-curricular programs, and small group interventions to feed back normative information in college as well as other populations have demonstrated its effectiveness in reducing actual alcohol use and resulting harm.¹² Programs that are persistent in providing large doses of the truth in creative and convincing ways about the positive norms of the majority of students succeed in creating an environment where students who do not want to engage in high-risk drinking do not feel as pressured to do so. Students who routinely choose to drink in abusive ways, thinking they are just like everyone else, must then reevaluate their own drinking as they see it represents an extreme behavior among peers. Thus, the social norms approach to prevention provides a natural relationship between academic research about alcohol use and a way to reduce problem drinking in a college setting.

Our contention here is that students can and should be engaged as allies in this process of promoting the truth about the real norms of peers to maximize the potential of this social norms approach. The Hobart and William Smith Colleges (HWS) Alcohol Education Project is a broad collection of education and research initiatives developed and implemented during the last decade to better inform students, faculty, and staff in higher education and secondary school settings nationwide and on our local campus about alcohol and other drugs and address problems of abuse, especially by addressing misperceptions of norms in innovative ways.¹³ Furthermore, several initiatives introduced or directly supported by the HWS Alcohol Education Project over this time period have engaged students in service to the local campus in programs designed to reduce alcohol misuse and harm. Indeed, designing service-learning initiatives that provide various opportunities for student engagement in alcohol abuse prevention efforts on campus has been an important mission of our project.

The remainder of this chapter describes a variety of service-learning initiatives of the project that have been developed and implemented over the course of the past decade in its efforts to produce an effective alcohol education and prevention plan. Space limitations of this article prevent our providing a detailed description of each program and practice. Thus, this chapter is not intended as a step-by-step checklist of programs to implement. Rather, our intention is to help generate ideas for the reader by providing brief examples of how service-learning about student alcohol use might be introduced with positive result. Although the work described here focuses on programs and service-learning strategies primarily related to alcohol abuse prevention, similar approaches might be applied to prevention of tobacco use and other drug problems as well. Each of the program elements described here combine an academic teaching and research activity investigating some aspect of alcohol use connected with a service-learning prevention initiative in the form of a social norms intervention designed to correct student misperceptions about drinking norms. The service-learning initiatives include (1) course-based service-learning, (2) independent study research service-learning, (3) pre-professional training service-learning, and (4) co-curricular opportunities for service-learning. Detailed information about each of these initiatives can be obtained from the HWS project website.¹⁴

COURSE-BASED SERVICE-LEARNING

Two courses were developed allowing students to pursue issues of alcohol use while requiring them to expand their expertise beyond any one disciplinary specialty. Service-learning experience was provided through communication of the results of this research to the larger community outside the classroom as a component of campus-wide alcohol abuse prevention efforts. The interrelationships between academic learning and service are described below for these courses. The design of these courses integrated academic learning and service into one seamless enterprise. Service was the vehicle and logical conclusion of the academic work with the objective of helping prevent harm caused by alcohol abuse in the local college setting.

Each of these courses is described by addressing four key questions:

1. What were students learning?
2. How were students learning?
3. How was what students learned communicated to peers and others?
4. How did the service-learning activities of the course contribute to dispelling misperceptions about alcohol and the norms regarding its use in the larger campus community?

COURSE 1: ALCOHOL USE AND ABUSE CAUSES AND CONSEQUENCES

This course has been team taught by a biochemist and sociologist contributing academic credit toward majors and minors in public policy and sociology. It brought together undergraduates from the social sciences, natural sciences, and humanities to look comprehensively at the phenomenon of alcohol use in our society from a variety of academic perspectives.

What Were Students Learning?

The learning objectives for this course included (1) further development of research skills by pushing students into literature and research methodologies within and beyond their disciplinary majors, (2) further development of skills to integrate a multiplicity of disciplinary perspectives to solve complex problems, (3) development of team as well as individual approaches to working on complex problems (team members typically brought different academic perspectives and expertise to bear on the problem), and (4) development of creative communication strategies to educate a large and disparate audience on the results of their course research. Study of complex interdisciplinary questions about alcohol use and abuse was ideally suited to achieve these learning objectives.

Topics presented by faculty in the course included epidemiological scope of use and misuse, biochemical mechanisms of alcohol metabolism and its action on the brain, health consequences of alcohol use, psychological and biological aspects of addiction, aspects of alcohol use and misuse in the college environment, and theories of prevention, to name a few. Students in the course pursued interdisciplinary research projects usually in teams that brought these topics and perspectives to bear on a particular research question. Two sample research topics are presented below to illustrate how questions about alcohol use and abuse invoked a multiplicity of disciplinary perspectives to answer.

Sample Research Topic 1: Gender Differences in Alcohol Use among College Students

Students investigating this research have examined the comparative patterns of alcohol use among men and women. Research questions have included, What are the biological differences between men and women that influence how alcohol consumption affects their bodies? What differences in health risks exist for women in comparison with men? How are health risks related to the quantity and frequency of alcohol consumption levels? What are the distributions of alcohol consumption among men and women in college? Do the pat-

terns of consequences that men and women experience as a result of alcohol use differ? What are the biological explanations for these differences? What are the sociocultural explanations for these differences? What are the gender-specific patterns of perceived/misperceived drinking norms among college students?

Sample Research Topic 2: Alcohol Use and the Intercollegiate Athlete

Research questions that students have pursued while investigating this topic have included, How does the distribution of alcohol use among student athletes compare with the general student body? What are the sociological explanations for these differences? What is the impact of alcohol use on athletic performance? What levels of alcohol consumption lead to impairments in performance and health? What proportion of student athletes experience increased risk of impaired performance due to alcohol consumption? What kinds of education and programming might be developed to reduce the harm caused by alcohol abuse among student athletes?

How Were Students Learning?

Each of these sample research projects engage students to think more broadly about how their disciplinary specialties contribute to important questions of alcohol abuse and how at the same time they must consider the insight of other disciplinary perspectives. This multidisciplinary approach to teaching and problem solving creates greater integration and complex research skills among students so that they can approach problem-solving situations at a deeper and more "real world" level. In the pursuit of answers to their research questions, students participated in two primary data collection activities: (1) as individuals or small groups they conducted a detailed interdisciplinary literature review on their topics, and (2) they assisted in conducting a campus-wide survey of student alcohol use. Each of these course activities are described below in more detail.

How Was What Students Learned Communicated to Peers and Others?

The results of literature reviews and of the campus-wide survey contributed important information to student research projects. Another important learning objective for this course included the development of strategies to communicate more broadly with the campus community as a service that extended student dialogue and presentation of results beyond the course. Communication methods developed by faculty and students in this course are described below.

Research Poster Displays

Students created posters presenting the results of their research topic. These posters have been designed to emphasize the scientific nature of the data collection as well as the principle findings. Posters were displayed in the high traffic first floor entrance of the library near the bibliographic search stations and in display cases placed in academic buildings and residence hall recreation lounges around campus.

The Alcohol Inquirer

A website was designed with a newspaper format reporting the results of research projects conducted by students and faculty in this course. Student contributions included articles on children of alcoholics, fetal alcohol syndrome, gender differences in perceived norms among students and how to estimate blood alcohol concentration, to name a few. In addition, the electronic web format gave the added capability to deliver video presentations. Students in this course produced short video clips on topics such as health and alcohol use, the influence of alcohol on sleep, health issues for women, student misperceptions of peer alcohol use, and the results of correcting peer misperceptions on actual use. The content of faculty lectures was also posted to this website describing the action of alcohol on the brain and the results of the campus-wide survey. Finally, copies of posters reporting the results of student research have been percolated throughout the simulated newspaper site in an advertisement format providing additional material that students and faculty in this course had put together.¹⁵

Multimedia Campus Factoids™ and Screen Saver

A screen saver and interactive program, Campus Factoids™ (for the entire student body), and a similar program, MVP Factoids (for student athletes), have been developed by faculty directors of the Alcohol Education Project as an electronic communication mechanism to give the entire campus access to information from data collected about students, including data collected by students in this class and elsewhere. The screen saver software was installed in open computer laboratories and on computer kiosks in high-traffic areas displaying information rotated every twenty seconds. The database of images and facts are updated periodically on a campus server that automatically distributes the data to each computer running the software on campus. The Campus Factoids™ multimedia interactive program allows students to search the database by topic and to see relevant informational factoids, poster results of research, and even multimedia video presentations. Electronic versions of student posters and other student material

from the course have been displayed in this medium along with messages prepared by campus professionals.

A diversity of information has been posted to the Campus Factoids™ and MVP Factoids databases. Data topics range from campus life and academics to career goals, graduates, and current student health. This diversity of information has helped to draw large numbers to the database for a variety of reasons. Students may be interested in career paths of graduates; they might be interested in awards received by a particular athletic team. Whatever the reason an individual has for browsing the database, they eventually encounter the health information and research data from students in this course. Student research data have included information on alcohol consumption norms for the campus, the majorities that don't experience negative consequences due to drinking, protective behaviors used by students, the fact that the majority do not drive while alcohol impaired, intervention strategies when a friend drinks to excess, and many more.

Newspaper and Radio

These media channels were used by students and faculty to communicate timely information broadly to readers and listeners. One important use of these channels has been communication of information on a topic related to a heavily publicized campus incident. When an alcohol-related incident reaches the press, the students and faculty in this course respond with information about how the majority of students do not engage in or experience the reported consequence, be it drinking to dangerous excess, drinking and driving, or some other consequence of excessive drinking.

Data Sharing with Health Professionals

The large mass of data collected by students in this course has served as a tremendous resource to campus alcohol and other drug-program professionals for integration into educational programming. Distillations of facts about the frequency and quantity of alcohol use as well as the frequency of consequences experienced have been shared regularly with staff who provide educational and counseling services for the student body. This information has been incorporated into programming described below.

How Did the Service-Learning Activities Contribute to Dispelling Misperceptions about Alcohol and the Norms Regarding Its Use in the Larger Campus Community?

All of the data-sharing activities described above were, at least in part, conducted to provide the campus with accurate local information about

what students think and do about alcohol. By providing scientifically collected, credible information about the majority of students exhibiting healthy norms regarding drinking, and by broadly disseminating that information, misperceptions and myths surrounding campus alcohol use were challenged. Thus, the activities of this course provided the campus community with scientifically collected data about alcohol use demonstrating that the majority of students use alcohol moderately or not at all and do not experience negative consequences due to its use. Many students found these results very surprising given their misperceptions. The dissonance students feel with the apparent contradiction between what they perceived was the situation with alcohol use on campus and the results of scientific studies conducted or communicated by their peers has sparked many debates and discussion in the classroom and among students and faculty all over campus. These discussions have contributed to dispelling myths about alcohol and provided them with more accurate perceptions of peer alcohol use.

It is also important to consider the role of peers in collecting and delivering information about student alcohol use. Peer health education has grown in recent years as it has been found that peers can credibly communicate information to students and engage in discussion with students in ways that professional staff cannot. The added credibility of students communicating data on alcohol use without perceived hidden agendas has contributed powerfully to the credibility of the messages delivered through the activities described above.

Finally, the information that students have provided to campus health professionals has been used in residence hall education programs and in brief counseling interventions for alcohol policy offenders. In each program, information about local student alcohol use was presented demonstrating that, again, majorities of students have moderate responsible attitudes with regard to alcohol and consume only moderately or do not drink at all. Campus professionals that have delivered these programs with this credible student-collected data have been provided with more effective information than what health professionals could provide by themselves alone.

COURSE 2: ALCOHOL IN COLLEGE: WHAT IS TRUTH? WHAT IS MYTH?

This first-year seminar course guided a group of first-term students through a scientific exploration of alcohol use and misuse in college from a variety of academic perspectives. Students reviewed the social science, public health, and biomedical literature on this topic and conducted research on the local campus community serving as a laboratory for the course.

What Were Students Learning?

The learning objectives for this course served as an introduction to the approach scholars take to understanding a complex problem. In this case, the problem of college alcohol abuse was used to illustrate the components of a focused scholarly research project, taking students through a literature search, theories of prevention, experimental design, protections of human subjects in research, Institutional Review Board (IRB) requirements for research involving human subjects, and presentation of research to the broader campus community. Research topics pursued by students in this course were similar to those in *Alcohol Use and Abuse: Causes and Consequences*, but more focused attention was given to how data collection can support interventions in the college setting. This course gave special emphasis to the responsibility of researchers to share the results of their research with the larger community for its benefit.

How Were Students Learning?

Two different types of data collection activities were conducted by students in this course as they pursued their research questions. First, students collected data on late-night blood alcohol concentrations. Second, they collected alcohol-use survey data in the residence halls and presented research results while collecting additional information in interactive evening floor meetings in residence halls. Each of these two activities is described in more detail below.

Students participated in the design of a research protocol for collecting late-night, double-blind blood alcohol measurements with a paired anonymous survey on a randomized sample of students returning to their residence halls between 11pm and 3am every night of the week. This protocol was submitted for IRB approval early in the term and then students conducted the research following IRB approval for the remainder of the term. By combining a blind blood alcohol measurement with a short survey about alcohol use that night, protective behaviors practiced, consequences experienced when drinking, and demographic background characteristics, students in the course were able to answer a host of questions related to their research projects. They were also able to see first hand through systematic observation that in contrast with the common stereotypes, although some students exhibit seriously problematic drinking patterns, the majority of peers consumed alcohol moderately or not at all. Their data demonstrated to them that the majority of peers did not experience negative consequences as a result of their drinking and that peers frequently engaged in protective behaviors reducing risks.

Students in this course also collected data during interactive, thirty-minute presentations in residence hall floor meetings using remote response devices

commonly called "clickers." These devices allow students to answer multiple-choice questions anonymously in a group and the results are displayed in a bar chart on a Microsoft PowerPoint slide. Students can answer the question with the click of a button on their response device. The response devices transmit a radio signal to a receiver mounted in a USB port of the presentation computer. Software facilitates display of the results as soon as students have answered the question. This technology allows students in this course to collect anonymous survey data at the same time as being able to share results of the survey to everyone in the room.

In these interactive sessions, students confirmed the results of their late-night breathalyzer testing that the majorities consume alcohol moderately or not at all. In addition, through conversations with students in the sessions they were able to see how strongly students held their misperceptions about peer alcohol use and the surprise peers experienced when they saw how the responses turned out.

How Was What Students Learned Communicated to Peers and Others?

Results from the late-night blood alcohol measurements were incorporated into the interactive campus residence hall presentations communicating to students the results of the research in which they participated as subjects. In addition, during the residence hall presentations, the "clicker" technology (described above) enabled the results of the questions to be immediately displayed to the audience. Poster presentations of the research were prepared and presented by students in the class in the context of a larger research symposium put on by and for students enrolled in a variety of first-year student seminars. These research posters about student alcohol use were subsequently displayed on bulletin boards in the science center reporting the results of this student-conducted research. Finally, results from the late-night breathalyzer testing were posted on the Campus Factoids™ database. Results were also posted on the MVP Factoids database by selectively analyzing the student athletes in the sample. Finally, results of the data collection activities were also shared with campus health professionals for inclusion in their educational programming, counseling, and brief interventions for alcohol policy offenders, as described above.

How Did the Service-Learning Activities Contribute to Dispelling Misperceptions about Alcohol and the Norms Regarding Its Use in the Larger Campus Community?

The results of research conducted by students in this course were communicated broadly across campus through methods described above. In each of the communication activities, students reported results of local re-

search, providing peers with accurate information about the reality of positive student norms for alcohol use. Results of the late-night blood alcohol measurements had confirmed that the overwhelming majority of students were using alcohol either moderately or not drinking at all on a given night, even on weekends. Confidence in the data was bolstered by the 85 percent participation rate among selected participants.¹⁶ These results greatly surprised many students as they corroborated findings of self-report surveys. In addition, questions were developed in the "clicker" presentations that ask students about the believability of a particular finding at the beginning of the presentation and then again at the end after students were shown the results of campus-wide survey data as well as specific data for the group present in the room. Significant improvements in the believability of social norms messages were achieved within the thirty-minute sessions delivered by students in the course.

The breathalyzer data shared with health professionals has been of particular interest to these professionals. These data represent another set of scientifically valid research evidence collected in a completely different way than the survey data they have used in the past. The data can be used in complementary ways to help break down denial among heavy-using skeptics in counseling and brief intervention sessions.

INDEPENDENT STUDY IN BIOCHEMISTRY

What Were Students Learning?

Students interested in pursuing focused research on college alcohol use elected to pursue independent study research projects advised by an HWS Project faculty member. Students assisted in the design of a human subjects research protocol that protected the rights of voluntary subjects participating in blood alcohol measurements by breath test in campus residence halls. When the first-year student seminar course described above was being offered during the same term, advanced independent study students collaborated with first-year seminar students in protocol design and survey design. Many of the same research questions described above were pursued by independent study students at a more in-depth level.

How Were Students Learning?

Students conducting independent research conducted data-collection activities on college populations on the local campus. This included participation in the late-night breathalyzer data collection activities as well as conducting anonymous surveys on attitudes, amounts and lengths of time

drinking, perceptions of norms, and consequences experienced as a result of alcohol use on campus. Data on physical characteristics (e.g., weight and gender) were also collected so that peak BAC levels could be estimated from the survey data and compared to the biological measurements.

How Was What Students Learned Communicated to Peers and Others?

Independent study students wrote papers on their results and designed scientific poster presentations that were delivered at scientific meetings both on and off campus. The distinction in this case, compared with the mechanisms for sharing information above, was that these data were shared largely through scientific poster presentations in the science complex and at public science poster presentations of student research that took place periodically throughout the academic year. Data from their studies were also made available to campus prevention specialists to incorporate into their programming in residence halls and in policy-offender workshops.

How Did the Service-Learning Activities Contribute to Dispelling Misperceptions about Alcohol and the Norms Regarding Its Use in the Larger Campus Community?

The independent study participants made a crucial contribution to the collection of anonymous BAC data. Their work added to the broader prevention efforts of faculty and student life staff and students in other courses that were communicating information to the larger community about the actual moderate and responsible levels of alcohol consumed by the majority of students. It likely boosted the credibility of the evidence as it came from upper-level student peers who were responsible for collecting the anonymous data with a rigorous sampling method. Discussions at scientific poster presentations and oral presentations on campus of data-collection methodology and research results helped to build a larger group of individuals on campus that could challenge the common stereotype of the typical student as frequently drunk.

TEACHER EDUCATION TRAINING

Teacher certification requires substance abuse training for all candidates in preparation of their certification to teach in public schools. Infusion of alcohol education workshops into teacher certification programs can provide student teachers with new information that has been used to assist local

school districts in refining and enhancing their substance abuse prevention programs.

Faculty from the Alcohol Education Project have occasionally conducted seminars on alcohol use among secondary school students and social norms prevention theory for student teachers in the undergraduate program. Students participating in these seminars have, during student teaching, participated in the delivery of school programs in alcohol abuse prevention. Training in this area has given teaching candidates an additional service that they are capable of delivering to schools in which they work. In addition to this service, they are also equipped with the knowledge from these workshops that has enabled them to participate as peer educators on our campus in its prevention efforts as described below.

PEER EDUCATORS AND SERVICE-LEARNING

What Were Peer Educators Learning?

Directed by the Office of Alcohol and Other Drug Programs and supported with data and trainings provided by the HWS Project, peer health educators have taken on the communication of accurate information about peer alcohol use on campus in both formal and informal settings as a crucial task. Peer educators have been trained in principles of social norms prevention theory and provided the results of research on actual alcohol use gathered on this campus. The HWS project has most recently focused on a peer program targeting intercollegiate athletes, and this program is described below.

How Were Students Learning?

The goal of the MVP PEP (Peers Educating Peers) program working in conjunction with the Office of Alcohol and Other Drug Programs was to educate student-athlete peers through programming and mentoring. Each year, newly selected MVP PEP members received six to ten hours of training about alcohol use, healthy lifestyles, and social norms theory and research. Student-athlete peer leaders assisted in conducting an online survey of peers. Surveys were conducted using a web-based instrument in computer labs monitored by peers. They were trained by HWS Project staff in the research protocol and clearly communicated the data collection activities in the computer labs with student-athletes. Following data collection activities, MVP PEP peer members met with HWS Project directors to help identify the most useful messages coming from the data.

How Was What Peer Educators Learned Then Communicated to Other Students?

During the fall semesters, MVP PEP members would facilitate forty-five-minute interactive presentations to athletic teams. Student-athlete peers promoted healthy living by providing accurate information through interactive presentations geared toward fostering dialogue among participants. They worked collaboratively with the Office of Alcohol and Other Drug Programs to produce and disseminate accurate social norms messages focusing specifically on HWS student-athlete characteristics identified through survey data collection. Each MVP PEP member is paired with an experienced facilitator so that no individual has to present alone.

How Did This Service-Learning Activity Contribute to Dispelling Misperceptions about Alcohol and the Norms Regarding Its Use among Student Athletes?

During the interactive team presentations, MVP PEP members provided accurate information to student athletes about actual peer norms regarding alcohol use and clarified and challenged any misperceptions peers might have had. Peers could discuss with authority and knowledge to student athletes the validity of the data since they had participated in the data collection activities and assisted in the formulation of the messages.

IMPACT OF HWS PROJECT ON CAMPUS ALCOHOL PREVENTION

The HWS Project has documented significant progress in alcohol prevention in assessment analyses over that last decade.¹⁷ The initiatives described in this chapter have contributed substantially to the outcomes of this project by providing avenues for reducing misperceptions of peer alcohol use and promoting healthy behaviors among Hobart and William Smith Colleges' students. As a result of this work, the HWS project has been twice selected by the U.S. Department of Education in 1999 and in 2005 as a model program. The 1999 recognition was for outcomes achieved in its campus-wide efforts and in 2005 for efforts focusing on student athletes. Highlights of the HWS Project accomplishments are described below.

Early results from the HWS Project in 1999 demonstrated significant campus-wide impact. In just the first 18 months of the program's implementation, the *Alcohol Use and Abuse* class survey revealed a 15 percent reduction in the frequency of perceived heavy drinking, and problematic rea-

sons for drinking were also reduced, including a 16 percent reduction in drinking to get drunk, a 34 percent reduction in drinking to break the ice, and a 31 percent reduction in drinking to relieve anxieties. At the same time, actual heaving drinking at parties and bars declined by 15 percent and frequent heavy drinking declined by 21 percent. Student-reported consequences of drinking also declined with a 36 percent reduction in property damage, 31 percent reduction in missing classes, 25 percent reduction in inefficient in work, 40 percent reduction in unprotected sex, and 25 percent reduction in memory loss. The results of this project have been published by the U.S. Department of Education¹⁸ and have led to its recognition as a model program by the United States Department of Education Office of Safe and Drug-Free Schools.

In 2005 the HWS Project was recognized again as a model program for its progress in preventing dangerous levels of alcohol use among intercollegiate athletes. Outcomes between 2001 and 2003 included a (1) 45 percent reduction in the proportion of student athletes misperceiving drinking more than once per week as the teammate norm, (2) 46 percent reduction in the proportion of student athletes drinking more than once per week, (3) 30 percent reduction in the proportion of student athletes reaching an estimated BAC of .08 percent or greater when drinking at parties and bars, (4) 34 percent reduction in the proportion of student athletes experiencing frequent negative consequences due to drinking during the academic term, and (5) an average 2.5-hours-per-week increase in time spent in academic activities.

In conclusion, students have many opportunities to collaborate with prevention specialists on campus to assist with program delivery. Those that have enrolled in one or more of the courses described here or have participated in independent study research are particularly well suited to serve the local campus community. The work students do has included media design and creation, serving as peer educators in residence halls and for various groups on campus, and assisting faculty in research activities. The campus coursework opportunities combined with these opportunities have created a rich learning environment that expands learning beyond the classroom by applying academic theoretical work toward resolving an important campus problem. Having a critical mass of students well versed on the issues, attitudes, and experiences of peers' alcohol use and abuse can contribute significantly to countering detrimental misperceptions. Their service in these research and educational endeavors can give them special insight and motivation to engage in campus conversations in classes as well as in social contexts of student life. These peer conversations are essential in helping to grow a more healthy campus culture.

NOTES

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