

A Preliminary Investigation of College Students' Alcohol Consumption at Two Universities With Limited Greek Systems

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Abstract:

At 2 moderately sized, public, urban universities with limited Greek systems, 1,246 college students completed the CORE Survey (C. A. Presley, R. Harrold, E. Scouten, R. Lyerla, & P. W. Meilman, 1994). Serious alcohol-related behaviors and concerns were noted. implications of findings and suggestions for addictions counselors are presented.

Article:

The number of Americans abusing alcohol is staggering. Approximately 1 out of 10 Americans experiences significant problems with alcohol (e.g., alcohol abuse, alcohol dependence; Miller & Brown, 1997). Thirty-two million Americans are binge drinkers (National Institute on Drug Abuse [NIDA], 1997). These individuals consume five or more alcoholic drinks in a single sitting, one to four times per month. Eleven million Americans are heavy drinkers (NIDA, 1997). NIDA reported that heavy drinkers consume five or more alcoholic drinks during a single sitting on five or more occasions per month.

American college students are not immune to dysfunctional alcohol consumption and related drinking behaviors (Presley & Meilman, 1992; Wechsler, Issac, Grodstein, & Sellers, 1994). The dysfunctional consumption of alcohol by college students was reported even during the early periods of American history and is recognized as a tradition in European American culture (Rorabaugh, 1981). These same behaviors of dysfunctional consumption of alcohol by college students have been demonstrated consistently throughout the last 20 years (Engs, 1977; Engs & Hanson, 1987; Igra & Moos, 1979; Johnston, O'Malley, & Bachman, 1988; Presley & Meilman, 1992; Wechsler, Davenport, Dowdall, Grossman, & Zanakos, 1997; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994; Wechsler & Dowdall, 1995; Wechsler & Issac, 1992; Wechsler & McFadden, 1979). This prevalence of collegiate alcohol abuse was summarized succinctly in Steenbarger's (1998) literature review in the *Journal of College Counseling* and is again noted in the 1999 CORE Institute Survey (CORE Institute, 2000a).

The CORE Institute's 1999 survey contains data obtained from 65,033 undergraduate students attending 2- and 4-year colleges in the United States (CORE Institute, 2000a). These data indicate that 85% ($n = 55,343$) of students surveyed by CORE had used alcohol at least once within the preceding 12-month period and that 72% ($n = 40,061$) of those who used alcohol within the preceding 12-month period had used alcohol one or more times within the preceding 30-day period. Forty-seven percent ($n = 30,435$) of all 1999 CORE Survey participants had consumed five or more drinks, in a single sitting, within 2 weeks of their survey participation (CORE Institute, 2000a). Participants who had used alcohol in the 12 months prior to their participation in the 1999 survey also reported that their alcohol use in that time period had directly resulted in (a) hangovers, 63% ($n = 34,755$); (b) nausea or vomiting, 54% ($n = 29,774$); (c) arguments or fighting, 31% ($n = 16,934$); (d) loss of memory, 33% ($n = 18,907$); (e) missing class, 33% ($n = 18,152$); and (f) being taken advantage of sexually or being injured, 20% ($n = 11,068$). Additional problematic behaviors in the preceding 12 months that resulted

from alcohol use were also reported. For example, 31% ($n = 17,156$) of these students drove a car while being under the influence, and 39% ($n = 21,583$) had done something they later regretted.

Dysfunctional consumption of alcohol by college students and related drinking problems were also noted in the recent Harvard School of Public Health 1999 College Alcohol Study (Wechsler, Lee, Kuo, & Lee, 2000). This study surveyed 14,000 students enrolled at 119 colleges and universities across the United States (Wechsler et al., 2000). Two out of 5 survey participants (44%) exhibited behavior that met the criteria for binge drinking (Wechsler et al., 2000). Binge drinking in this study was defined as consuming five or more alcoholic drinks in a row, for men, and four or more drinks, for women, at least one time in the 2 weeks prior to participation in the survey (Wechsler et al., 2000, p. 199). Twenty-three percent of these students were frequent binge drinkers (i.e., students who binge drank three or more times in the 2-week period before participation in the survey; Wechsler et al., 2000). Frequent binge drinkers "were 5 times as likely as nonbinge drinkers to report they had experienced 5 or more of 12 different alcohol-related problems" (Wechsler et al., 2000, p. 205). These incidents ranged from minor alcohol-related problems (e.g., missing a class or getting behind in schoolwork as a result of drinking) to severe (e.g., requiring medical treatment for an alcohol overdose or getting into trouble with campus or local police).

Such current general findings further support previous research that demonstrated both the frequency and negative consequences of dysfunctional alcohol consumption by college students and related behaviors (Abbey, 1991; Meilman, 1993; Perkins, 1992; Presley, Meilman, Cashin, & Lyster, 1996; Presley, Meilman, & Lyster, 1994; Wechsler, 1995). Some of the most frequently cited negative consequences associated with dysfunctional alcohol consumption by college students included fights, acquaintance rape, unprotected sex, and poor academic performance (Abbey, 1991; Meilman, 1993; Presley et al., 1996; Wechsler, 1995). Both the frequency of alcohol consumption by college students and the gravity of its consequences warrant the attention of all addictions counselors.

However, because researchers have tended to combine data from multiple, heterogeneous colleges and universities (e.g., large, small, private, public, rural, suburban, urban institutions; CORE Institute, 2000a; Wechsler et al., 2000), the existing addictions counseling literature does not accurately describe alcohol consumption by college students and related drinking behaviors at the 35 moderately sized, public, urban universities with limited Greek systems (i.e., fewer than 10% of students having active fraternity or sorority memberships) that serve more than 311,000 full-time undergraduate students (The Very Best College for You, 2000). These universities have full-time undergraduate enrollments between 6,500 and 11,000 students and are located in urban areas within "a 25-mile radius of a major metropolitan area" (The Very Best College for You, 2000, p. 98). The overwhelming majority of these moderately sized, public, urban universities with limited Greek systems demonstrate noteworthy differences in comparison with other American institutions of higher education (Individual College Campuses Reports, 2000; The Very Best College for You, 2000). The major differences include four explicit areas: (a) a significant number of commuter students relative to the total number of students, (b) limited or nonexistent campus housing, (c) small or absent Greek systems, and (d) greater enrollment of nontraditional, undergraduate degree and nondegree-seeking students (Individual College Campuses Reports, 2000; The Very Best College for You, 2000). To better understand alcohol consumption by college students and related behaviors on moderately sized, public, urban campuses, we describe alcohol consumption by college students, binge drinking, and alcohol-related problems experienced by students at two of these universities and provide suggestions for addictions counselors serving this distinct population.

Method

Participants

The 1,246 volunteer participants in our study were enrolled in one of two moderately sized, public, urban universities with limited Greek systems. The first university had a total full-time undergraduate enrollment of 10,128 students (The Very Best College for You, 2000). The university is located in a southeastern United States city with a population of approximately 200,000 (U.S. Bureau of the Census, 2000) and a standard metropolitan statistical area (SMSA) of approximately 1.4 million persons (Money Magazine's Places Rated,

2000). The second university had a total full-time undergraduate enrollment of 6,744 (The Very Best College for You, 2000) and is located in a midwestern U.S. city with a population of 92,000 (U.S. Census Bureau, 2000) and an SMSA of approximately 4.3 million persons (Money Magazine's Places Rated, 2000). Approximately 49% ($n = 608$) of the survey participants were 20 years of age or younger and under the legal drinking age. The participants' mean age was 20.7 years ($SD = 1.6$ years, range 17 to 69 years). The following totals do not equal the total number of participants in our study because some participants did not respond to all the demographic questions. Of the respondents, 789 (63%) were female; the majority were single ($n = 1,028$, 83%); 169 participants (14%) were married; and 42 participants (3%) were separated, divorced, or widowed. Of the participants, 973 (78%) were White, 114 (9%) were Black, 51 (4%) were "other," 45 (4%) were Asian/Pacific Islander, 29 (2%) were Hispanic, and 11 (1%) were American Indian. Two hundred eighty-six participants (23%) were freshmen, 271 (22%) were sophomores, 293 (24%) were juniors, and 360 (29%) were seniors; 35 participants (3%) indicated they were nondegree-seeking students. Regarding housing, 911 participants (73%) resided off campus; 234 (20%) lived on campus. Only 4 participants (less than 1%) reported living in a fraternity or sorority house.

Instrumentation

The CORE Survey (Presley, Harrold, Scouten, Lyerla, & Meilman, 1994) is a 39-item, forced-choice response survey that has received wide acceptance by researchers. The instrument's name is not an acronym; instead it reflects the authors' intent for the survey to serve as "the core or heart of any campus drug and alcohol evaluation process" (J. Whitting, personal communication, February 21, 2001). The CORE Survey has been extensively used at 157 institutions, including both 2-year and 4-year institutions, with more than 65,000 students (CORE Institute, 2000a). Test—retest reliability for most items range between .61 and 1.00 (CORE Institute, 2000d). In addition, test—retest correlations for certain items such as the last year of alcohol, tobacco, marijuana, cocaine, and amphetamine use ranged between .98 and 1.00 (CORE Institute, 2000b). Given that most Cronbach alpha and item-to-test-correlations performed on the CORE Survey fell between .3 and .7, an acceptable level noted by Henryson (1971), item reliability is noted as acceptable (CORE Institute, 2000d). According to content-related validity, interrater agreement for item inclusion was .90, suggesting significant agreement on the inclusion of survey items by experts (CORE Institute, 2000d). The instrument also demonstrates strong intercorrelations for alcohol and drug use and consequences of such alcohol and drug use (CORE Institute, 2000c). Such intercorrelations indicate the existence of construct validity. On the basis of students' self-reports, the CORE Survey describes behaviors that are directly related to alcohol use. It includes items related to areas such as (a) demographics, (b) working and living arrangements, (c) academics, (d) average number of drinks consumed per week, (e) frequency of binge drinking, and (f) age of first use. Furthermore, the instrument contains questions regarding the perceived consequences of alcohol use and the locations where alcohol was consumed.

Procedure

At the first university, survey packets were mailed to a random sample of 1,800 undergraduate students. These packets included the CORE Survey, a letter from the university's chancellor encouraging participation, a letter from the first author that provided instructions regarding the survey, and a statement explaining that respondents would remain anonymous. Approximately 10 days later, reminder postcards encouraging completion of the materials were sent. From this initial mailing, 471 (27%) completed surveys were returned. A second survey packet was sent approximately 30 days later, and a second reminder postcard was sent 10 days after the second packet mailing. The second mailing yielded a response of 159 returns (9%).

The total of completed, usable, and returned packets was 630; thus, the total response rate at the first university was 35%. This number exceeded the minimal sample return size of 600 established by the CORE Institute (Presley, Harrold, et al., 1994).

To increase the overall response rate and to address financial constraints related to the costs of mailing the survey packets, a revised distribution and collection procedure was used at the second university. Through stratified random sampling, the Office of Institutional Research and the Registrar's Office at the second

university identified courses that had significant enrollments of specific student populations. For example, to ensure an adequate number of responses from freshmen, courses and course sections primarily composed of freshmen (e.g., English 101) were pooled. Courses and course sections from these pools were then randomly selected. Faculty members who were teaching these randomly selected courses and course sections were notified of the research project through e-mail messages and telephone contacts.

All faculty members who were contacted agreed to provide us 30 minutes in their classes to describe the project to students and to distribute CORE Surveys. Once individual faculty members agreed to cooperate, students in the course or course section were informed of the upcoming research project and the anonymity of responses. Students in randomly selected courses and course sections were again reminded of the research project, anonymity of responses, and the voluntary nature of their participation prior to the distribution of the survey packets. At the time of classroom distribution of the research packets, students who wished to be excused were then free to leave the classroom or silently remain and observe. In addition, after standardized directions were given to the students who voluntarily remained, they were again offered the opportunity to leave and were reminded that their participation or nonparticipation would not result in either rewards or penalties. The number of completed, usable, and returned packets at the second university was 616. The number of students enrolled in courses and sections invited to participate was 679; thus, the total response rate at the second university was 91%. As was the case with the first university, the number of volunteer participants at the second university again exceeded the minimal sample size of 600 established by the CORE Institute (Presley, Harrold, et al., 1994). The final sample, then, comprised 1,246 undergraduate students from two institutions.

Results

Alcohol Consumption

More than three quarters ($n = 947$) of the participants had consumed alcohol within the 12 months preceding participation in the survey. Within the preceding 30 days, 61% ($n = 756$) had consumed alcohol. More than half ($n = 380$) of the students who had consumed alcohol within the preceding 30 days were under the legal drinking age of 21. More than one quarter ($n = 330$) of the total number of participants had exhibited binge-drinking behavior as established by the Harvard School of Public Health. Therefore, 142 male participants (11%) had consumed five or more alcoholic drinks and 188 female participants (15%) had consumed four or more alcoholic drinks during a single sitting within 14 days of participating in the survey.

Of the participants, 3% ($n = 41$) had consumed six or more alcoholic drinks in a single sitting in this same time period, and 13% ($n = 166$) of the participants had consumed an average of three or more alcoholic drinks 3 or more times a week. More than 10% ($n = 135$) of the participants had consumed alcoholic drinks 10 or more times within the preceding 30 days, and 28% ($n = 344$) of the participants had experienced peer pressure to consume alcohol on 1 or more occasions within the preceding 30 days.

Alcohol-Related Behaviors Within 12 Months Prior to Survey

More than 2 out of 5 participants ($n = 549$) reported experiencing hangovers, and nearly 40% ($n = 460$) reported vomiting or becoming nauseated as a direct result of their excessive alcohol use within the preceding 12-month period. Nearly one quarter ($n = 301$) of the participants reported driving while under the influence, and 22% ($n = 272$) reported doing something they later regretted as a direct result of their consumption of alcohol. Approximately 1 out of 5 participants ($n = 242$) reported getting into an argument or fight because of their alcohol use. Of the participants, 17% ($n = 212$) reported loss of memory and more than 10% ($n = 138$) reported missing a class as a result of their alcohol use. Moreover, 13% ($n = 159$) of the participants reported being taken advantage of sexually or being injured as a result of their alcohol use.

Locations Where Alcohol Was Consumed

More than half of the participants consumed alcohol at private parties ($n = 788$, 63%), bars or restaurants ($n = 680$, 55%), or their campus residence (e.g., residence hall rooms, apartments; $n = 678$, 54%). Twenty-two percent ($n = 276$) consumed alcohol at fraternities or sororities; 19% ($n = 242$) consumed alcohol in residence

hall locations other than their rooms. Eighteen percent ($n = 221$) consumed alcohol in their cars, and 7% ($n = 90$) consumed alcohol at on-campus events.

Discussion

The percentage of student participants at the two universities in our study who consumed alcohol, binge drank, or reported alcohol-related problems was notably less than the percentage of student participants who consumed alcohol, binge drank, or reported alcohol-related problems in studies with combined data from more heterogeneous colleges and universities (CORE Institute, 2000a; Wechsler et al., 2000). This was consistently true for the data collected from the two universities in our study, regardless of whether the data were considered independently for each university or collectively for both. For example, 13% fewer of the participants in our survey had consumed alcohol within 30 days of the survey, 20% binge drank less, and 17% fewer had done something under the influence of alcohol that they later regretted (CORE Institute, 2000a; Wechsler et al., 2000). Notable differences in percentages between the responses of participants in our survey and the responses of participants in the CORE Survey were also demonstrated when the consequences of alcohol use were compared. Differences were also noted when the academic consequences of alcohol use were compared. Related to class attendance and performance, 18% fewer of the student participants attending moderately sized, public, urban universities with limited Greek systems had missed one or more classes, and 12% fewer had performed poorly on a test or other academic project within the preceding 12 months because of their alcohol use (CORE Institute, 2000a; Wechsler et al., 2000). Notable differences in percentages were again identified when the physical consequences of alcohol use were compared. Here, 18% of the participants at the two universities in our study had fewer hangovers, 16% fewer had memory loss, and 16% fewer had nausea or vomiting directly attributed to their alcohol use when compared with the percentages of students reporting similar physical concerns resulting from alcohol use in the surveys with combined data from the more heterogeneous colleges and universities (CORE Institute, 2000a; Wechsler et al., 2000). These data reflect distinct differences in alcohol consumption, binge drinking, and alcohol-related problems between this specific student subset and other students in American higher education.

Despite reduced alcohol use and alcohol-related problems noted by this survey's participants compared with combined participants' responses from heterogeneous colleges and universities, results suggest that dysfunctional alcohol consumption is a problem at moderately sized, public, urban universities with limited Greek systems and warrants interventions specific to this student population. Following are suggestions for addictions counselors who work at this type of university.

First, given the significant percentages of students commuting to moderately sized, public, urban universities with limited Greek systems, it is critical to provide prevention, assessment, and intervention services close to major areas of commuter students' residences. Commuting students may come directly from work to school and may be reluctant to travel to campus on days when they are not attending classes to participate in alcohol treatment following evening classes. Thus, satellite locations off campus and close to areas of students' residences could provide increased opportunities to commuter students to participate in alcohol abuse counseling.

Alternative suggestions to the idea of off-campus satellite locations include establishing satellite locations near commuter parking lots on campus and implementing online counseling resources and services. Commuter students, especially at night, may be unwilling to walk to unfamiliar or distant campus areas for counseling. Providing services near major commuter parking areas would encourage students to participate at convenient locations before or after classes. Implementing online computer assessment instruments (e.g., the Substance Abuse Subtle Screening Inventory-2; F. Miller, personal communication, July 3, 2001) would enable students to participate at their convenience from their homes or elsewhere off campus.

With the needs of commuter students in mind, addictions counselors could also implement the establishment of 12-step support group meetings such as those held by Alcoholics Anonymous, Al-Anon, and Narcotics Anonymous. Overeaters Anonymous and Rational Recovery also could be established specifically for

commuting students. Such support groups could easily be facilitated at off-campus satellites or locations near major commuter parking areas.

Addictions counselors can also help faculty infuse alcohol education and addiction prevention materials into class-related topics and assignments. Faculty are sometimes receptive to such infusion into the curriculum during National Alcohol Awareness Week. In a basic English writing course with weekly writing projects, some faculty might require students to research and compose one written project related to students' personal experiences with alcohol at their university and the social costs of alcoholism in their communities. Other faculty may request class presentations related to the Alcohol Abuse Criteria noted in the *Diagnostic and Statistical Manual of Mental Disorders* (4th edition, text revision; American Psychiatric Association, 2000) in their undergraduate psychology and social work courses. Still others may lecture about or show educational movies in biology courses related to the biophysical effects of alcohol on humans.

Furthermore, addictions counselors who work at universities such as the ones described in the present study need to inform students, faculty, and staff of symptoms and criteria that would suggest dysfunctional drinking (e.g., five or more alcoholic drinks in a single sitting for men, four or more alcoholic drinks in a single sitting for women, driving under the influence, missing classes as a result of alcohol use). Thus, students, faculty, and staff who note such behaviors can encourage students who abuse alcohol to participate in both assessment and treatment. Addictions counselors also need to inform students of the availability of services for the treatment of alcohol abuse. This could be done through campus newspaper advertisements and brochures specific to commuting students and through sending e-mail messages to all students, faculty, and staff. This information could include a checklist of commonly occurring alcohol behaviors and a brief description of the available counseling services specifically available to commuters and nontraditional students.

Given the limited number ($n = 912$) of fraternity and sorority members at both institutions, and the limited number of on- and off-campus Greek houses (i.e., one on-campus sorority and five off-campus fraternities; S. Crissman, personal communication, October 5, 2000; S. Gajda, personal communication, October 1, 2000), it is quite surprising that 22% of the participants in this investigation had consumed alcohol at their respective campus fraternities and sororities. These data suggest that although Greek systems may be small on moderately sized, public, urban universities with limited Greek systems, they remain a significant influence on the campus drinking culture. It is imperative, therefore, to provide in-service training to Greek leaders regarding alcohol abuse criteria and to establish efficient referral links between Greek systems and addictions counselors on staff at university counseling centers. Addictions counselors may wish to identify specific liaisons to work directly with campus sororities and fraternities. These liaisons would be not only referral sources, but could make regular and frequent invited visits to Greek social engagements and festivities. The intent would be to increase the liaisons' visibility among all members of sororities and fraternities and promote addictions counseling as an effective and helpful treatment option.

Limitations

The results of this preliminary investigation of alcohol consumption by students at two moderately sized, public, urban universities with limited Greek systems should be interpreted in light of several important limitations. First, although the instrumentation used to obtain participants' responses at the two universities was identical, two different data collection procedures were used (i.e., mailed surveys and in-class participation). Despite the overall similarities between the participants at these two universities and their responses, the two groups of participants may be different; therefore, the results may not accurately reflect a true relationship between this investigation's participants and their alcohol consumption, binge drinking, and alcohol-related problems. Second, the extent to which these results can be generalized to students at other similar universities may be limited. This was a preliminary investigation in which only two universities were involved. These two universities, therefore, may have student populations that responded quite differently to the survey questions in comparison with student populations at other moderately sized, public, urban universities with limited Greek systems. Third, although the number of respondents exceeded the minimal sample return size of 600 participants per institution established by the CORE Institute (Presley, Harrold, et al., 1994), results are based

on 1,246 respondents to the survey. These respondents may not consume alcohol, binge drink, or experience negative alcohol effects in the same manner as other students at either their home university or at other moderately sized, public, urban universities with limited Greek systems. In addition, students who drink heavily may not have participated in this survey; thus, results found in this survey may be based only on the responses of drinkers who do not drink heavily. Furthermore, although the instrument used in the present study has been widely used at colleges in the United States, it may not completely address the needs of students enrolled in moderately sized, public, urban universities with limited Greek systems. Despite these limitations, this preliminary investigation initiated a first step in understanding alcohol consumption by students and related behaviors among students enrolled in this subset of American higher education. The intent was to learn if distinctions exist between alcohol consumption by students and related behaviors on moderately sized, public, urban universities with limited Greek systems in comparison with other universities. This preliminary investigation accomplished this purpose and has increased awareness regarding the possibility of such important differences.

Conclusion

Findings from this investigation have clear implications for addictions counselors. Dysfunctional alcohol consumption and binge drinking at two moderately sized, public, urban universities with limited Greek systems are notably present, although at a lower level than previous researchers have reported. The negative consequences of dysfunctional alcohol consumption and binge drinking range from mild (e.g., missing classes or performing poorly on tests or academic assignments) to severe (e.g., being taken advantage of sexually or being physical injured). These preliminary investigation results suggest that differences among alcohol consumption, binge drinking, and the frequency of negative alcohol-related behaviors at moderately sized, public, urban universities with limited Greek systems vis-à-vis other institutions may exist. Specifically, results based on our investigation's survey of participant students suggest that students who attend moderately sized, public, urban universities with limited Greek systems may consume less alcohol, binge drink less, and experience fewer alcohol-related problems when compared with the students attending more traditional universities and colleges. Clearly, further investigation that is related to these findings is warranted, and the effects of the suggested interventions contained in this article need to be evaluated.

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