Problematic Drinking Among College Athletes

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Abstract

Martens, O’Connor, & Beck (2006) reported problematic drinking on college campuses to be a considerable concern and that athletes have more binge drinking episodes and alcohol-related problems than non-athlete students. Wechsler, Davenport, Dowdall, Grossman, & Zanakos (1997) reported that athletes in NCAA Division I have the most alcohol related issues as evidenced by 29% of male and 24% of female athletes reported binge drinking three or more times in a two week period. To address this concern, this study incorporated a 12-month, NCAA (2008) Choices alcohol responsibility program at a NCAA II university which involved peer mentoring, education, and alcohol-free activities. The results indicated a significant decline in binge drinking and associated problems among athletes after treatment.
Problematic Drinking Among College Athletes

Introduction

Problematic drinking on college campuses remains a significant concern for students in general and a growing concern for athletes in particular (Hingson, Heeren, Winter & Wechsler, 2005). While problematic drinking among adults in general showed a slight decline to involve 20% of the population in the past year (Stuckey, D., & Snider, J., 2008), the prevalence among college student-athletes has not followed this pattern, and in fact has increased (Doumas, Turrisi, & Wright, 2006). Doumas et al. (2006) further examined this concern in a study of 249 college freshmen. Their findings confirmed the frequent problem of binge drinking among students and an even greater problem among athletes, and even former high school athletes that were currently attending college, yet not playing a varsity sport. They found that college athletes consumed an average of 5.07 drinks per weekend, former high school athletes 4.19 and non-athlete students 3.5 drinks per weekend. O’Malley and Johnston (2002) supported athlete consumption patterns by noting that athletes drink more than non-athletes and the average college student drinks more that the average non-college student of the same age. Thompson and Sherman (2007) reported that between 1989 and 2005 the number of collegiate student-athletes who reported drinking six or more drinks in one setting and the number reporting drinking 10 or more drinks in one setting during the past 12 months significantly increased. They further reported that at least 75% of collegiate student-athletes consumed some alcohol during the 12-month period of their study. This consumption pattern was consistent among both males and females.

Among athletes in particular, Brenner and Swanik (2007) supported the elevated consumption pattern of athletes over non-athletes with their research. They also examined the consumption patterns based on National Collegiate Athletic Association (NCAA) classification. The NCAA classifies schools into one of three categories based on the number of intercollegiate sports that a university offers, with Division I supporting the largest number of athletic teams, followed by NCAA II and lastly, NCAA III. Brenner and Swanik found that Division I schools reported more high risk drinking athletes (78%) as contrasted to NCAA II athletes (76%) and NCAA III athletes (67.5%). Nativ, Pubber and Green (1997) found that NCAA I athletes involved in contact sports, such as ice hockey and football, consumed alcohol at a greater frequency and quantity than their non-contact sport counterparts in the NCAA I classification.

Wechsler, Davenport, Dowdall, Grossman, and Zanakos (1997) did however find distinctions between athletes and non-athletes when based on sport and gender. He noted that 29% of male college athletes and 24% of female college athletes reported binge drinking three or more times in the past two weeks. Wechsler et al. defined binge drinking as five or more drinks at one sitting.
for men and four for women. In a subsequent study, Wechler, Lee, Kueo, Seibring, Nelson, and Lee (2002) reported that student-athletes were more likely to be occasional and frequent binge drinkers than non-athletes and that college students in general were more likely to be problematic than non-college students. DeHass (2006) reported the prevalence of alcohol consumption among college athletes being notably high, with male athlete’s alcohol consumption during a designated 12-month period ranging from a high of 94% of ice hockey and lacrosse players, to a low of 73% of basketball players, with the other sports falling in between. He also reported that women athletes had similar patterns. Women’s ice hockey players reported that 93% consumed alcohol in the recent 12 months, while field hockey was at 88% and the lowest reported sport was track and field at 65%. Like their male counterparts, the other sports fell in the middle of the range in regards to consumption of alcohol. DeHass also noted problematic drinking has been shown to increase among athletes while they are out of their respective competitive season. Martin (1998) earlier brought attention to this finding by reporting that 56% of college athletes reported binge drinking while they were not in season, while 35% reported binge drinking in season.

Green, Uryasz, Petr, and Bray (2001) illustrated the concern over problematic drinking among athletes by noting the number of alcohol education programs in college athletic departments. Green et al. reported that 76% of NCAA I schools, 50% of NCAA II, and 41% of NCAA III athletic departments offer specific educational programs aimed at curbing alcohol issues. Ironically, even with more educational opportunities than the other classifications, the NCAA I schools exhibited a greater incidence of problematic drinking the NCAA (2006) study of alcohol and drug abuse.

The definition of problem drinking among college students has itself been a debatable issue, one that generates continued discussion. Hanson (2007) defined problematic drinking in the college setting as five drinks for males and four drinks for females during one drinking experience. Although some consider this to be the problematic drinking threshold, alcohol experts, Lederman, Stewart, and Travis (2007) pointed out that the size of the drink, the body weight of the drinker, gender, and the length of time during the drinking experience are major factors that should be taken into consideration when defining problem drinking. Hanson supported this questioning of the accepted threshold based solely upon number of drinks.

Theories for Abuse

Martens, O’Connor, and Beck (2006) theorized that many of the possible environments a college athlete faces could lead to alcohol abuse. Stainbeck (1997) suggested that college athletes travel more and are exposed to more social settings that promote alcohol abuse than non-athlete students. He speculated that travel to other colleges and environments where alcohol use may be
more acceptable or available could be an encouragement for abuse. Athletes, as a result of their
success, may also gain status in certain social settings where alcohol is present that may not be
available to non-athlete college students. To support this perspective, Crompton (1993); Neal,
Sugarman, Hustad, Caska, and Carey (2005); and Madden and Grube (1994) presented theories
noting a historical cultural link between alcohol and sporting events, frequently supported by the
documented increase in personal consumption habits among spectators when attending sporting
events. Martens et al. (2006) speculated that the demands for college athletes to focus on both
athletics and academics, adapt to social challenges, manage athletic successes and failures,
minimize physical injury, and find their identity may also be part of the problem. He noted that
the high demands to attend class, go to study halls, team meetings, tutoring appointments,
practice sessions, games, and participating in therapy and strength and conditioning programs
can become overwhelming, thus leading to alcohol abuse. Martens et al. (2006) noted the
possibility of social isolationism as athletes are often separated from their non-athlete peers. He
noted possible psychological pressures athletes feel as they experience demands to excel and to
live up to coaches, fans, and family expectations. Physically, they also speculated that when
athletes are injured, they may feel stressed about recovery. Lastly, Martens et al. noted another
possible problem as a college athlete’s career ends; he or she may find it hard to define an
identity outside of athletics which could also lead to alcohol abuse.

There is also research that indicates problematic drinking among athletes may be over estimated
by the athletes themselves. Leeper (2006) for example, identified studies which showed that
college athletes overestimate the normal drinking rates both on campus and among their
teammates. Leeper also suggested that this inaccurate social norm, in and of itself, may lead to
an increase in personal alcohol use as the athlete tries to keep up with the perceived, yet false
norm. Clark (2008) agreed that college athletes are more likely to drink than non-athletes;
however Clark also argued that the social norm regarding alcohol consumption is not accurate.
Clark defined a social norm as the belief about what is normal. Clark found that only 20% of
students reported drinking the previous night, yet they believed 50% of their student peers drank
the previous night. Martens et al. (2006) suggested that the theory of inaccurate social norms
suggests that the tendency to abuse alcohol may frequently be perception motivated, as
contrasted to intrinsically driven.

Associated Problems

Frequently it is the associated problems with excessive drinking that have lasting impacts on
students. Howard et al. (2007) identified issues which may have lasting effects such as the
500,000 unintentional injuries, 600,000 assaults, and 70,000 cases of sexual assault and
acquaintance rape, all of which were associated with alcohol abuse among college students.
Mantel (2006) noted a variety of potential negative consequences, including blackouts, injury,
unintended and unprotected sex, impaired driving, poor grades, property damage, fights, arrests and sexual violence. Wechsler et al. (2002) documented that non-binge drinkers and abstainers who lived on-campus experienced negative effects from their peers who were drinking. For example, 60% of the students surveyed experienced having their study or sleep interrupted by drinking peers, 48% reported having to take care of a drunken student, and 29% reported being insulted or humiliated.

Leeper (2006) noted that college student athletes tend to self-report more negative consequences from alcohol use than their non-athlete peers. Leeper cited the consequences more likely to appear among athletes are driving under the influence of alcohol, increased risk for sexually transmitted diseases, and higher rates of sex-related crimes. He also noted that alcohol abuse may lead to the loss of a scholarship or intense public scrutiny.

When questioning the chief of campus police at The University of West Georgia, an NCAA II university (T. Mackel, personal communication, February 4, 2008), Mackel indicated that 100% of the reported sexual assault cases on campus since 2000 were associated with alcohol. He documented an increase in under age offenses and an apparent increase in the quantity of alcohol consumed related to alcohol violations since 2000.

Programs

The NCAA Committee on Competitive Safeguards and Medical Aspects of Sports (2006) conducted a survey to see how many institutions provided drug education or drug testing programs. The committed found that 71% of the institutions had a drug/alcohol education program for their students. The NCAA noted that most of the programs were funded by the Health and Safety Speakers Grant Program, the NCAA Champs/Life Skills programs, or the NCAA CHOICES alcohol education grant. Most addressed referral issues and used guest speakers to conduct educational sessions on alcohol or drug abuse. Forty-six percent of the institutions held sessions once a semester, 39% annually, and 6% twice a semester.

Mantel (2006) reported that some colleges are using online courses to help reduce the excessive drinking among students. Mantel indicated that over 2,400 campuses are offering an Alcohol 101 Plus educational course to promote responsible drinking and over 500 campuses are requiring students to take the course. This course details the risks of drinking and driving, chugging and playing drinking games. In the course, students are shown videos and taught how to make good decisions related to alcohol. Mantel also noted that these programs have been effective in reducing the rate of alcohol abuse on campuses.

Other college campuses are adopting a strategy called environmental management. Mantel (2006) noted that some schools offer alcohol-free housing and alcohol-free social events, which
have been reported to reduce the number of drinking incidents on campus. Mantel further noted that one in three schools now ban alcohol on campus for all students, regardless of age. And more than 40% of colleges restrict alcohol use at athletic contests, homecoming, tailgate parties, dances, concerts and other events.

Others such as Rapaport, Minelli, Angera, and Thayer (1999) have suggested that college administrators should focus on responsibility and consequences, not abstinence from alcohol or environmental controls. Howard, Griffin, Boekeloo, and Bellow (2007) noted that many college students say they were never taught the necessary skills to know the limits or to identify and properly care for someone who has had too much to drink or to know when to intervene and stop a peer from drinking. This supports the concept to educate for responsibility theory, not control of environment.

Austin (1997) reported that Woodson College administrators experimented to see if certain intervention strategies would decrease the use of alcohol among students. The college implemented a social norms campaign and a peer education program. The school increased opportunities to participate in alcohol-free social events and enhanced environmental support for light drinking or abstinence among students and student athletes. Austin noted the success of the program as student’s perceptions of the binge drinking rate on campus decreased and the reported number of drinks consumed per week decreased.

Welschler, Seibring, Chao Liu, & Ahl (2004) confirmed the success of addressing responsible drinking concerns with social norm campaigns. In a nationwide study of students at four-year colleges, they found that 64% of students believed social norm campaigns were the most effective treatment to encourage responsible drinking.

The NCAA (2008) has implemented and funded alcohol education program in the name of “Choices” grants, aimed at encouraging social responsibility, not merely abstinence. The NCAA encourages expansion beyond education into the areas of social norms and provision of responsible activities along with the use of peer mentoring and referral training.

Brown (2008) reported on another program titled, “myplaybook”. The effort was initiated by researchers at the University of North Carolina, Greensboro in 2007, and was aimed at correcting erroneous social norms and equipping athletes with the tools to make better choices regarding alcohol. Brown reported that the program will be initially directed at NCAA II institutions. It was designed to supplement the NCAA Choices effort.

To summarize, there have been many approaches, including restrictions from alcohol, social norm campaigns, peer mentoring, and educational programs, all established with an attempted to
alleviate alcohol related problems among college students and athletes. The National Institute on Alcohol Abuse and Alcoholism (2002) summarized the research findings and programs and placed efforts into one of three tiers, based on student’s perception of effectiveness and on empirical data related to prevalence of alcohol related problems among students. The first tier represented programs that had the best documented success rate when it came to reducing alcohol-related problems and consumption on college campuses. These programs focused on cognitive-behavioral skills with norms clarification and motivational enhancement; brief motivational enhancement interventions; and programs that challenged alcohol expectancies. The NIAAA found that tier 2 programs, which focused on rules and sanctions and tier 3 programs, which focused on policy and education were both less effective.

Very similar to the trial undertaken by Woodson College and following the tier 1 programs suggested by the NIAAA (2002), the purpose of this study, with the funding support of the NCAA, was to incorporate a NCAA Choices program at a public, regional NCAA II university. The impact of the program was evaluated by examining the self-reported attitudes and behavior of athletes regarding alcohol responsibility using a nationally recognized instrument. The focus of the intervention involved a combination of a social norm campaign, athlete peer mentoring and referral training, opportunities for non-alcohol parties, and educational seminars regarding alcohol responsibility. The hypothesis of this study was that a 12-month NCAA Choices program would have a significant impact on the alcohol related decisions and reported behaviors of collegiate athletes in an NCAA II institution.

Methods

The intent of this study was to measure the impact of the incorporating a NCAA grant sponsored, Choices program on the alcohol consumption, attitudes, and related issues among athletes attending an NCAA II university.

Intervention

The specific focus of this study was to examine the impact of a 12-month treatment program, funded by an NCAA grant, on the 275 scholarship athletes at a public, regional, NCAA II institution. The NCAA Choices program was the treatment. It consisted of four components. One, a social norm campaign was established which used athletes as poster models to depict social activities that were free of alcohol. This was to combat the student perception that alcohol was a requirement for fun and that everybody wanted alcohol at parties. Second, three alcohol and substance abuse educational sessions for athletes were presented to the entire athlete population over the treatment period. Third, an athlete-peer mentoring and referral training program was created with two athletes from each team selected by their coaches to be
participants. This group was trained in recognition of problems in the personal lives of athletes and then in appropriate referral of their peers if necessary. Lastly, the incorporation of three, campus-wide alcohol-free tailgate parties on campus was utilized to demonstrate the possibility of a fun party without alcohol. The tailgate parties included free food, professional music, gifts, and were associated with rivalry, home athletic contest during football and basketball season.

**Instrumentation**

To measure the impact of the programs, the short form of the CORE Drug and Alcohol Survey (Core Institute, 2006) was given as a pre-test in the spring of 2007 and then as a post-test in the spring of 2008. The survey was designed for use by universities and colleges to determine the extent of substance use and abuse on their campuses, including problematic drinking. The instrument generated responses that were categorized into one of six broad-based areas, which the researcher analyzed. The areas examined were: (a) any alcohol use in past 12 months; (b) more than one binge occasion within past two weeks; (c) serious personal problem related to alcohol; (d) public misconduct in past 12 months; (e) belief that peers drink weekly; and (f) prefer no alcohol at parties.

For this particular study, problematic drinking was defined the same as binge drinking or as five or more drinks or beers at one setting. Serious alcohol associated problems were defined as concerns such as suicidal tendency, being hurt or injured, trying to unsuccessfully stop sexual assault. Public misconduct was defined as some form of undesirability activity such as trouble with police, fighting, excessive argument, vandalism, or driving while intoxicated.

**Participants**

The subjects agreeing to participate consisted of 150 athletes who were administered the survey by the academic compliance officer of the institution during the spring of 2007 and then another 150 were selected again during the spring of 2008. The total population of athletes was 270 in 2007 and 282 athletes in 2008, while the university population was 10,500 and 10,700 respectively. The institutional research board of the host university approved the administering of the student surveys. All participants were assured of anonymity and agreed to provide informed consent for participating.

**Data Analysis**

The findings from the 2007 CORE Survey of subjects were compared to the findings of the 2008 CORE Survey to measure the impact of the NCAA Choices treatment program on the varsity athletes. For purposes of this study, a one-tailed $t$ test was used to determine if a significant
difference existed between the responses of the pre- and post-test group on the responses in the six categorical areas of the test instrument. The 0.05 level of confidence was used.

Results

The self-reported, problematic drinking and associated behaviors of athletes were significantly impacted during the treatment period of this study in two of the six categorical areas. The subjects, collegiate student-athletes enrolled in a state supported, regional NCAA II university, were exposed to a systematic 12-month program, modeled from the NCAA Choices initiative, beginning in the spring, 2007. The program was designed to increase social responsibility related to alcohol use, encourage wise choices, and to correct erroneous social norms. The treatment program focused on education, peer mentoring and referral training, social norm campaigns, and alcohol free, tailgate opportunities.

As seen in Table 1, the findings indicated a statistically significant improvement in two of the six categorical areas measured by the short form of the CORE Survey. First, there was a significant decrease ($t=2.093, p=.041$) in the number of athletes reporting binge drinking occasions within the two weeks prior to the administration of the evaluation instrument. Second, there was a significant decrease ($t=2.093, p=.039$) in the reported serious personal problems related to alcohol during the 12 months preceding the evaluation instrument administration.

As seen in Table 2, the decrease in binge drinking episodes during a two-week reporting period went from 65% in 2007 to 42% of athletes in 2008. The reported serious personal problems related to alcohol dropped from 41% to 18% during the 12-month treatment period. Even though they were not statistically significant, there was some evidence of a decrease in all issues and concerns associated with problematic drinking during the treatment period. Also, the number of athletes indicating a preference for no alcohol at parties increased from 22% to 28% during the 12 months of the treatment.

Discussion

There was a significant decline in reported alcohol use, binge activity, and serious personal problems related to alcohol during the 12 months of this study. Perhaps the NCAA Choices program made an impact on the alcohol responsibility of the athletes at the subject university. Perhaps coaches at other institutions can implement programs related to alcohol responsibility that involve education, peer mentoring and referral training, social norm campaigns, and alcohol free, social opportunities in an attempt to address alcohol related issues. Even though this particular study demonstrated success in improving responsibility related to alcohol use, there
were many uncontrolled variables, such as new coaches, new athletes, a growing student body, and an increasing presence of student activities in general makes it difficult to make a direct inference. Nonetheless, the NCAA Choices program appeared to be effective in bringing about a more responsible college athlete population. The continued high prevalence of alcohol related issues among athletes mandates continued attention by coaches and athletic administrators to address alcohol related issues. Alcohol abuse problems are varied and are frequently documented distractions to the overall educational mission of the institution and the well being of the student-athlete.

What is it about athletes that generate a higher level of problematic drinking both in this particular study and in previous studies? Is it the innate, risk-taking personality of athlete that may be required to be a college athlete? Is it the basic competitive nature that lends itself to drinking games as suggested by Martens, et al. (2006)? Martens, et al. suggested that it is the competitive nature of athletes which transfers over to social activities, such as drinking games where athletes become competitive in how many and how fast. Is it the pressure associated with competitive, college athletics or the isolation from other students experienced by college athletes that are the cause of the problem? Or, as Stainbeck (1997) questioned, is it the social setting associated with athletics that is the invitation to excessive alcohol use? No single theory may explain the greater prevalence of problematic alcohol behaviors among athletes.

Adding a complicated twist to the attempt to understand the problem among college athletes is the theory suggested by Doumas, et al. (2006), which proposed that the problem may already be ingrained by the time the athlete graduates from high school and may not be the result of any collegiate influence, opportunities or pressures. Doumas et al.(2006) supported this theory by documenting that collegiate non-athletes, who were former athletes in high school, exhibited a greater prevalence of problematic drinking than the general student population. This finding suggests that athletes, at any level, are inherently more likely to be problematic drinkers. If this is the case, the research population needs to change to a much younger age and the emphasis of intervention programs needs to shift to the high school athlete population.

Doumas et al. (2006) also suggested that the attachment avoidance which has been documented among college athletes may be part of the reason this group exhibits more problematic behaviors. Doumas et al. noted that the detachment from non-athlete, “regular” students contributed toward a feeling of isolation on campus. This isolation which could be the result of the demanding practice hours of athletes could be the stimulus that encourages athletes to turn to alcohol. If this theory is valid, specific efforts to allow for attachment opportunities with fellow, non-athlete students should be presented. This theory could even be the problem in high schools, as the demands on athletes are now frequently year-around and very time consuming. The impact of these time demands among high school athletes deserves examination and analysis.
The finding that 28% of athletes in this study indicated a preference to not have alcohol at parties while the subjects of this study believed that 82% of their peer athletes consumed alcohol weekly presents a dichotomy. In general, there appears to be an inaccuracy between what athletes assume is normal for a social life and what they prefer, related to alcohol. Student-athletes assume a greater number of their college peers drink weekly than actually do so. In fact, all the subjects of this study drank an average of 3.7 drinks or beers per week. The national average of college students was 5.7 drinks or beers per week in the 2008 CORE Survey. This finding suggests that the subjects of the study were actually less dependent on alcohol for social occasions than the national norm and perhaps it is the false norm perceptions that may indeed be the variable that leads to irresponsible alcohol use among college athletes or the illegal use among high school athletes.

There are some general implications from the findings of this study that may be applicable for coaches and administrators at both the high school and college level. First, an active alcohol responsibility initiative involving education, awareness, peer influence and opportunities for alcohol free activities can have an influence on problematic drinking and related episodes among students and athletes. Additionally, the value of correcting erroneous social norms cannot be underestimated and is deserving of more investigation.

To better understand and identify the sources of the problems related to alcohol abuse, it appears that studies aimed at the high school level, or younger, might reveal possible explanations for the higher than normal rate of problematic drinking among athletes. Perhaps the culture of linking sports to alcohol, both form a spectator and competitor viewpoint, is learned at the high school level or earlier and should be a target for study. This researcher supports the theory of the cultural influence in general and the specific culture which associates alcohol with sporting events as an overriding influence on alcohol responsibility. Or, it may be the influence of the culture in general which appears to socialize one to expect challenging and competitive entertainment venues, some of which are defined by alcohol misuse and games. Regardless of the reason, attention to the high prevalence of problematic drinking among college athletes is important as coaches try to assist in the total development of their protégés. The study of problematic drinking needs constant attention and studies both among collegiate and high school athletes.
References


Table 1

Significant Change in Athletes Reporting of Alcohol Consumption, Related Problems, Perceptions 2007 vs 2008 (N=150)

<table>
<thead>
<tr>
<th>serious some use in last 12 mos</th>
<th>&gt;1 binge occasion in recent 2 weeks</th>
<th>personal problem related to alcohol</th>
<th>&gt;1 public mis-conduct</th>
<th>believe peers drink weekly</th>
<th>prefer no alcohol at parties</th>
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<tbody>
<tr>
<td>.214</td>
<td>.041*</td>
<td>.039*</td>
<td>.269</td>
<td>.272</td>
<td>.371</td>
</tr>
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</table>

p-value for one-tailed t test

Note. *p< .05.
Table 2

Athletes Reporting of Alcohol Consumption, Related Problems, Perceptions (N=150)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
</tr>
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<tbody>
<tr>
<td>Some use in last 12 mos</td>
<td>88%</td>
<td>73%</td>
</tr>
<tr>
<td>&gt;1 binge occasion in recent 2 weeks</td>
<td>65%</td>
<td>42%</td>
</tr>
<tr>
<td>Serious personal problem related to alcohol</td>
<td>41%</td>
<td>18%</td>
</tr>
<tr>
<td>&gt;1 public misconduct</td>
<td>56%</td>
<td>39%</td>
</tr>
<tr>
<td>Believe peers drink weekly</td>
<td>100%</td>
<td>82%</td>
</tr>
<tr>
<td>Prefer no alcohol at parties</td>
<td>22%</td>
<td>28%</td>
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</table>