Journal of Athletic Training 2015;50(9):977–980
doi: 10.4085/1062-6050-50.5.09

www.natajournals.org

Exploring the Athletic Trainer's Role in Assisting Student-Athletes Presenting With Alcohol-Related Unintentional Injuries

Steven M. Howell, PhD*; Adam E. Barry, PhD†; William A. Pitney, EdD, ATC, FNATA*

*College of Education, Northern Illinois University, Dekalb; †Department of Health & Kinesiology, Texas A&M University, College Station

Compared with their nonathlete peers, collegiate athletes consume higher quantities of alcohol, drink with greater frequency, and exhibit an increased propensity to engage in heavy episodic drinking (ie, binge drinking), which often may result in alcohol-related consequences. Moreover, collegiate athletes are also more likely to engage in other maladaptive lifestyle behaviors, such as participating in physical fights and riding with an intoxicated driver, and less likely to engage in protective behaviors, such as wearing a helmet while operating a motorcycle, moped, or bicycle. Taken together, these behaviors clearly pose a health risk for student-athletes and increase the likelihood that they will experience an alcohol-related unintentional injury (ARUI). An ARUI represents a risk not only to the health and well-being of collegiate athletes but also to their athletic performances, collegiate careers, and potential professional opportunities. Therefore, athletic trainers need to be equipped with the knowledge and skills to provide face-to-face brief interventions to student-athletes presenting with ARUIs and to evaluate the effect of their involvement. We address potential action items for implementation by athletic trainers.

Key Words: collegiate athletes, alcohol use, alcohol-related consequences, interventions

Compared with their nonathlete peers, collegiate athletes consume higher quantities of alcohol, drink with greater frequency, and exhibit increased propensities to engage in heavy episodic drinking (ie, binge drinking).[1–3] Given their high-risk drinking behaviors, student-athletes are more likely to experience alcohol-related consequences.[4,5] Compared with nonathletes, collegiate athletes also are more likely to engage in other maladaptive lifestyle behaviors, such as participating in physical fights and riding with an intoxicated driver, and less likely to engage in protective behaviors, such as wearing a helmet while operating a motorcycle, moped, or bicycle.[6] Taken together, these behaviors clearly pose a health risk for student-athletes and increase the likelihood that they will experience alcohol-related unintentional injuries (ARUIs). An ARUI represents a risk not only to the health and well-being of collegiate athletes but also to their athletic performances, collegiate careers, and potential professional opportunities. Head athletic trainers (ATs) contend that alcohol abuse during and after athletic and social events continues to be an important concern for the health and safety of student-athletes.[7]

In a recent cross-sectional study, Brenner et al[8] observed that, overall, approximately 18% of collegiate athletes experienced ARUIs and most of these occurred during the athletes' first and second years in school. Furthermore, they noted that 38% of collegiate athletes identified ARUI as a serious issue facing them.[8] Moreover, approximately 56% of ATs recently reported that during the 2010–2011 academic year, they evaluated, treated, or referred an average of 3 ARUIs, most of which (63%) were classified as either moderate or severe.[9]

Not surprisingly, Brenner et al[9] observed that most ATs (73.4%) assert that ARUIs are a serious problem affecting the health of collegiate athletes, with 65.7% believing that they should be involved in the alcohol-related screening process for student-athletes. In addition, Brenner et al reported that most ATs contend that more training is necessary to help them (1) identify student-athletes with ARUIs (79%), (2) confront student-athletes with alcohol-related problems (79.7%), and (3) involve themselves in the referral process (92%).[9] Furthermore, most head ATs have also expressed interest in becoming more involved with alcohol intervention programs.[7] Considering that most university ATs already are substantially involved with regularly evaluating and treating non–alcohol-related injuries among student-athletes, ATs can and should play important roles in recognizing and evaluating ARUIs among student-athletes, especially given their expressed desire for more training in the intervention, prevention, and referral of ARUIs. Furthermore, ATs view themselves as "safe, approachable, care-taking individuals with whom athletes felt comfortable disclosing personal information,"[10(p150)] placing them in a unique position to provide appropriate intervention when necessary.

LITERATURE REVIEW

Drinking Among Collegiate Student-Athletes

For decades, researchers[1,3,11,12] have repeatedly documented that varsity collegiate athletes are more likely to consume alcohol and drink in greater quantities than their nonathlete peers. Investigators also have demonstrated that as an individual's involvement or engagement in collegiate athletics increases, his or her drinking behaviors increase. Specifically, both male and female student-athletes in leadership positions (eg, team captains) consumed more drinks per week (8.25) than collegiate athletes who were not in leadership positions (7.34) and nearly twice the amount of nonparticipants (4.12).[5] Hildebrand et al[2] noted similar trends when comparing athletic involvement in high school and college, reporting that as athletic involvement increased, the likelihood of being classified as a heavy drinker increased. Thus, student-athletes represent an at-risk group in particular need of programming aimed at reducing alcohol use.[13,14]

Alcohol Use and Risk of Injury

Alcohol consumption represents a substantial risk factor for injury,[15,16] with the greatest likelihood of repeat injuries occurring among heavier drinkers.[17,18] Given that collegiate athletes represent one of the highest-risk drinking subgroups on college campuses, they are more likely to experience alcohol-related consequences, such as ARUIs, than their nonathlete peers.[4,5] An ARUI is particularly problematic for athletes because it represents not only a health risk but also a potential risk to their on-the-field performance and athletic careers. The National Collegiate Athletic Association found that 15.3% of student-athletes reported being either hurt or injured at least once during the year before the study because of use of alcohol or other substances.[19] More recently, Brenner et al[8] observed that nearly 18% of collegiate athletes reported having experienced an ARUI, with most of these happening in the off-season (53.2%) and in-season (30.5%).

Athletic Trainers' Confidence to Intervene

The National Athletic Trainers' Association has asserted that certified ATs have the capacity and responsibility to play active roles as integral members of the health care team.[20] Among the 8 content areas that students from accredited athletic training programs must demonstrate are Psychosocial Strategies and Referral and Prevention and Health Promotion.[21] Per the fifth edition of the National Athletic Trainers' Association's *Athletic Training Education Competencies*, ATs must be able to "[i]dentify the symptoms and clinical signs of substance misuse/abuse, the psychological and sociocultural factors associated with such misuse/abuse, its impact on an individual's health and physical performance, and the need for proper referral to a healthcare professional."[21(p27)] Furthermore, the AT should "...develop and implement strategies and programs to prevent the incidence and/or severity of injuries and illnesses and optimize their client's/patient's overall health and quality of life."[21(p12)]

Skills within these content areas include a variety of behaviors, such as counseling skills, addressing referrals, maintaining a healthy lifestyle, and preventing chronic disease. Athletic trainers have identified psychosocial intervention as 1 role associated with their unique position, which allows them "to be approached by athletes with issues because of the special relationship that exists between athlete and athletic trainer."[10(p150)] Unfortunately, most ATs are not confident or do not believe they are effective in recognizing or confronting student-athletes presenting with health-risk behaviors, despite identifying these roles as part of their capacities as ATs.[22] Although ATs reported that they were prepared to counsel student-athletes on injury rehabilitation and nutrition, they believed they were inadequately prepared to counsel on less common areas, such as ARUIs.[23,24]

Action Items for Implementation

Whereas many researchers[25–29] have examined the effect of alcohol-related interventions for the general collegiate student population, few investigators[30–32] have focused on developing or evaluating alcohol-related intervention programs specifically for collegiate athletes. In the available studies, researchers have examined the effect of social-norms campaigns on athlete drinking,[31,32] but none have assessed ARUIs. Therefore, investigators have highlighted "the need to develop more efficacious interventions for heavy-drinking students and those who belong to other at-risk groups such as Greeks and athletes."[33(p2488)] Moreover, Larimer and Cronce[34] contended that "athletes appear [as] responsive to similar approaches as the broader [student] population."[(p2459)] Screening and brief interventions have been identified as the single most effective method for addressing alcohol use, particularly for those who are not seeking treatment.[35] Among a collegiate population treated with screening and brief intervention at a university emergency facility, 75% reported at a 3-month follow-up that the intervention was effective and their alcohol consumption had decreased. More recently, investigators examining effective prevention strategies among college students have suggested that brief, motivational interventions or skills-based interventions were most effective.[33,35–38] Simply stated, ATs need to be equipped with the knowledge and skills to provide face-to-face, brief interventions to student-athletes presenting with ARUIs and to evaluate the effect of their own involvement. To this end, action items for appropriate intervention should include (1) gaining an understanding of ATs' experience and confidence in and preparation for addressing ARUIs; (2) developing appropriate educational and skill-building programs for ATs on using screening and brief interventions with college athletes; and (3) for ATs, adopting and adapting appropriate screening and brief interventions as needed. Therefore, we offer specific initiatives to address the aforementioned actions:

1. To establish a baseline level of understanding, we must assess ATs' (a) experiences treating, evaluating, or referring athletes presenting with ARUIs; (b) confidence intervening with ARUI among athletes; (c) educational preparation to counsel athletes presenting with ARUIs; and (d) knowledge of the effects of alcohol on athletic performance.[9,10,37–40] For example, using aspects of the Screening, Brief Intervention, and Referral to Treatment (SBIRT)[41] program would appropriately parallel the

functions and roles of ATs when addressing an ARUI. Findings from these assessments can then be used to determine changes resulting from appropriate educational programs designed to equip ATs with appropriate knowledge, skills, and abilities.

2. Developing educational and skill-building programs that are designed to give ATs the requisite knowledge and abilities to intervene with collegiate athletes presenting with ARUIs.[9,10,37–40]
3. For ATs, using aspects of the Brief Alcohol Screening Intervention for College Students[26] and the SBIRT[41] programs could be beneficial in addressing alcohol-abuse concerns in student-athletes. The Brief Alcohol Screening Intervention for College Students program[26] is a nonconfrontational, nonjudgmental, and nonauthoritarian intervention program designed for young adults (age = 18–25 years) experiencing alcohol-related problems (eg, ARUIs). The SBIRT[41] is an evidence-based practice approach for individuals who have (or are at risk of having) substance-use disorders and consists of an initial brief screening that can be based on a variety of models. For example, an AT could use sources such as AlcoholScreening.org, followed by brief interventions.[41] These brief interventions can also use 1 or more of many readily available models, including motivational interviewing or referral to a specialist for cognitive behavioral therapy.[41]

These types of programs have been implemented successfully with college students and appear to be just as appropriate for athletes. Once ATs have been educated on applying screening and brief interventions, then they can implement these skills with their students and athletes. As with many initiatives, a follow-up assessment must be performed to examine the perceived usefulness of the approach, the outcomes of the program for the student-athlete and ATs, and any necessary changes or modifications necessary for future use.

CONCLUSIONS

An ARUI is a common, serious consequence of student-athlete drinking. Athletic trainers are key resources who can deliver coordinated intervention initiatives; however, despite their desire and frequent opportunities to intervene, they believe they are unequipped to perform these functions. Therefore, a timely and important need exists to explore educational and skill-enhancing programs and recommendations designed to build the capacity of ATs to intervene on behalf of student-athletes presenting with ARUIs.

REFERENCES

1. Ford JA. Substance use among college athletes: a comparison based on sport/team affiliation. *J Am Coll Health*. 2007;55(6):367–373.
2. Hildebrand KM, Johnson DJ, Bogle K. Comparison of patterns of alcohol use between high school and college athletes and non-athletes. *Coll Stud J*. 2001;35(3):358–365.
3. Nelson TF, Wechsler H. Alcohol and college athletes. *Med Sci Sports Exerc*. 2001;33(1):43–47.
4. Doumas DM, Turrisi R, Coll KM, Haralson K. High-risk drinking in college athletes and nonathletes across the academic year. *J Coll Couns*. 2007;10(2):163–174.
5. Leichliter JS, Meilman PW, Presley CA, Cashin JR. Alcohol use and related consequences among students with varying levels of involvement in college athletics. *J Am Coll Health*. 1998;46(6):257–262.
6. Nattiv A, Puffer JC, Green GA. Lifestyles and health risks of collegiate athletes: a multi-center study. *Clin J Sport Med*. 1997;7(4):262–272.
7. Shirazi A, Tricker R. Current drug education policies in NCAA institutions: perceptions of head athletic trainers. *J Drug Educ*. 2005;35(1):29–46.
8. Brenner JW, Metz SM, Entriken J. Alcohol-related unintentional injury among collegiate athletes. *Athl Train Sports Health Care*. 2014;6(5):228–236.
9. Brenner JW, Metz SM, Entriken J, Brenner CJ. Experiences and attitudes of collegiate athletic trainers regarding alcohol-related unintentional injury in athletes. *J Athl Train*. 2014;49(1):83–88.
10. Moulton MA, Molstad S, Turner A. The role of athletic trainers in counseling collegiate athletes. *J Athl Train*. 1997;32(2):148–150.
11. Martens MP, Dams-O'Conner K, Beck NC. A systematic review of college student-athlete drinking: prevalence rates, sport-related factors, and interventions. *J Subst Abuse Treat*. 2006;31(3):305–316.
12. Turrisi R, Mallett KA, Matroleo NR, Larimer ME. Heavy drinking in college students: who is at risk and what is being done about it? *J Gen Psychol*. 2006;133(4):401–420.
13. Larimer ME, Cronce JM. Identification, prevention and treatment: a review of individual-focused strategies to reduce problematic alcohol consumption by college students. *J Stud Alcohol Suppl*. 2002;14:148–163.
14. Yusko DA, Buckman JE, White HR, Pandina RJ. Alcohol, tobacco, illicit drugs, and performance enhancers: a comparison of use by college student athletes and nonathletes. *J Am Coll Health*. 2008;57(3):281–290.
15. Cherpitel CJ, Ye Y. Trends in alcohol- and drug-related emergency department and primary care visits: data from four U.S. national surveys (1995–2010). *J Stud Alcohol Drugs*. 2012;73(3):454–458.
16. MacLeod JB, Hungerford DW. Alcohol-related injury visits: do we know the true prevalence in U.S. trauma centres? *Injury*. 2011;42(9):922–926.
17. Gmel G, Givel JC, Yersin B, Daeppen JB. Injury and repeated injury: what is the link with acute consumption, binge drinking and chronic heavy alcohol use? *Swiss Med Wkly*. 2007;137(45–46):642–648.
18. *Alcohol Screening and Brief Intervention (SBI) for Trauma Patients: Committee on Trauma Quick Guide*. Bethesda, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Service Administration, Center for Substance Abuse Treatment; 2007.
19. Bracken NM. National study of substance use trends among NCAA college student-athletes. National Collegiate Athletic Association Web site. http://www.ncaapublications.com/productdownloads/SAHS09.pdf. Published 2012. Accessed February 2, 2015.
20. Bonci CM, Bonci LJ, Granger LR, et al. National Athletic Trainers' Association position statement: preventing, detecting, and managing disordered eating in athletes. *J Athl Train*. 2008;43(1):80–108.
21. National Athletic Trainers' Association. *Athletic Training Education Competencies*. 5th ed. Dallas, TX: National Athletic Trainers' Association; 2011.
22. Vaughan JL, King KA, Cottrell RR. Collegiate athletic trainers' confidence in helping female athletes with eating disorders. *J Athl Train*. 2004;39(1):71–76.
23. Misasi SP, Davis CF, Morin GE, Stockman D. Academic preparation of athletic trainers as counselors. *J Athl Train*. 1996;31(1):39–42.
24. Stiller-Ostrowski JL, Ostrowski JA. Recently certified athletic trainers' undergraduate educational preparation in psychosocial intervention and referral. *J Athl Train*. 2009;44(1):67–75.
25. Helmkamp JC, Hungerford DW, Williams JM, et al. Screening and brief intervention for alcohol problems among college students treated in a university hospital emergency department. *J Am Coll Health*. 2003;52(1):7–16.

26. Marlatt GA, Baer JS, Kivlahan DR, et al. Screening and brief intervention for high-risk college student drinkers: results from a 2-year follow-up assessment. *J Consult Clin Psychol*. 1998;66(4):604–615.
27. Borsari B, Carey KB. Effects of a brief motivational intervention with college student drinkers. *J Consult Clin Psychol*. 2000;68(4):728–733.
28. Baer JS, Kivlahan DR, Blume AW, McKnight P, Marlatt GA. Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. *Am J Public Health*. 2001;91(8):1310–1316.
29. DiFulvio GT, Linowski SA, Mazziotti JS, Puleo E. Effectiveness of the Brief Alcohol and Screening Intervention for College Students (BASICS) program with a mandated population. *J Am Coll Health*. 2012;60(4):269–280.
30. Marcello RJ, Danish S, Stolberg AE. An evaluation of strategies developed to prevent substance abuse among student-athletes. *Sport Psychol*. 1989;3(3):196–211.
31. Perkins HW, Craig DW. A successful social norms campaign to reduce alcohol misuse among college student-athletes. *J Stud Alcohol*. 2006;67(6):880–889.
32. Thombs DL, Hamilton MJ. Effects of a social norm feedback campaign on the drinking norms and behavior of Division I student-athletes. *J Drug Educ*. 2002;32(3):227–244.
33. Carey KB, Scott-Sheldon LA, Carey MP, DeMartini KS. Individual-level interventions to reduce college student drinking: a meta-analytic review. *Addict Behav*. 2007;32(11):2469–2494.
34. Larimer ME, Cronce JM. Identification, prevention and treatment revisited: individual-focused college drinking prevention strategies 1999–2006. *Addict Behav*. 2007;32(11):2439–2468.
35. Larimer ME, Cronce JM, Lee CM, Kilmer JR. Brief intervention in college settings. *Alcohol Res Health*. 2004–2005;28(2):94–104.
36. McCabe SE, Teter CJ, Boyd CJ. Illicit use of prescription pain medication among college students. *Drug Alcohol Depend*. 2005;77(1):37–47.
37. Walters ST, Neighbors C. Feedback interventions for college alcohol misuse: what, why and for whom? *Addict Behav*. 2005;30(6):1168–1182.
38. White HR. Reduction of alcohol-related harm on United States college campuses: the use of personal feedback interventions. *Int J Drug Policy*. 2006;17(4):310–319.
39. Fromme K, Corbin W. Prevention of heavy drinking and associated negative consequences among mandated and voluntary college students. *J Consult Clin Psychol*. 2004;72(6):1038–1049.
40. Mastroleo NR, Mallett KA, Ray AE, Turrisi R. The process of delivering peer-based alcohol intervention programs in college settings. *J Coll Stud Dev*. 2008;49(3):255–259.
41. About Screening, Brief Intervention, and Referral to Treatment (SBIRT). Substance Abuse and Mental Health Services Administration Web site. http://beta.samhsa.gov/sbirt/about. Updated April 24, 2014. Accessed February 2, 2015.

Address correspondence to Steven M. Howell, PhD, College of Education, Northern Illinois University, 1425 West Lincoln Highway, Dekalb, IL 60115. Address e-mail to showell2@niu.edu.