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Experiences and Attitudes of Collegiate Athletic Trainers Regarding Alcohol-Related Unintentional Injury in Athletes

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Context: Alcohol-related unintentional injury (ARUI) has been an unexamined consequence of alcohol consumption by collegiate athletes. It has a potentially devastating effect on their athletic performances and careers. Awareness of this problem in athletes could have a huge effect on what athletic trainers (ATs) do to recognize, treat, and prevent it in a collegiate athlete population.

Objective: To examine the experiences and attitudes among collegiate and university ATs about ARUI in the athletes in their care.

Design: Cross-sectional study.

Setting: Web-based survey.

Patients or Other Participants: A total of 1767 e-mail addresses for collegiate and university ATs within National Athletic Trainers' Association Districts 1, 2, 3, and 9.

Main Outcome Measure(s): We calculated frequencies, percentages, and attitudes of ATs regarding ARUI in collegiate athletes during the 2010–2011 academic year.

Results: The resulting sample size for the analysis was 459 (26.0%) participants of the initial total sample. More than 56% (n = 260) of the ATs reported that they had evaluated, treated, or referred if needed at least 1 ARUI in a collegiate athlete. On average, these ATs had evaluated, treated, or referred if needed 3 alcohol-related unintentional injuries within the 2010–2011academic year. About 73% (n = 331) of ATs agreed that ARUI is a serious problem. Nearly 80% (n = 358) indicated they believe ATs should receive more training to identify student–athletes with alcohol-related problems.

Conclusions: Alcohol-related unintentional injury is a common and serious consequence of alcohol use among collegiate athletes. Many ATs also view it as a serious problem yet would like more training in how to address it. Alcohol-related unintentional injury may have important negative effects on the careers and athletic performances of athletes. Researchers need to determine how prevalent ARUI is in the collegiate athlete population and what ATs can do to address it.

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

Key Points

- Many athletic trainers view alcohol-related unintentional injury as a serious consequence of alcohol use among collegiate athletes.
- Alcohol-related unintentional injury could negatively affect the careers and athletic performances of athletes.
- Researchers need to determine the prevalence of alcohol-related unintentional injury in collegiate athletes and how athletic trainers can address it.

Researchers clearly have demonstrated that collegiate athletes consume a greater quantity of alcohol than the general collegiate student population.[1–7] In addition, male collegiate athletes and team leaders seem to be at particular risk for this behavior.[1–3,8,9] Given this high-risk behavior, student–athletes are at greater risk for experiencing consequences related to alcohol use, including hangovers, injuries, academic problems, driving while intoxicated, and riding with an intoxicated driver.[1,2,9,10]

Unintentional injury from alcohol consumption is particularly problematic for athletes, as it potentially could affect their athletic performances and even their athletic careers. Although researchers have found evidence that collegiate athletes are at greater risk for alcohol-related unintentional injury (ARUI), descriptive prevalence of this type of alcohol-related consequence in athletes is unknown.[4,5] The National Collegiate Athletic Association (NCAA)[11] recently indicated that 7.4% of athletes reported being hurt or injured due to alcohol consumption or substance use within the preceding 12 months. Although the percentage is important, it is nondescriptive, is limited in scope (previous 12 months), and does not differentiate among alcohol and other drugs that are abused. Therefore, the purpose of our study was to examine the experiences and attitudes of collegiate and university athletic trainers (ATs) about ARUI in the athletes in their care. We wanted to ascertain the frequency and characteristics of ARUI by sex, sport, body parts involved, season, and institution type and participants' attitudes about ARUI in athletes. We hypothesized that ARUI would be demonstrated to be an

important concern for collegiate and university ATs and sports medicine professionals.

METHODS

Participants

The study participants were collegiate and university ATs who had provided e-mail addresses to the National Athletic Trainers' Association (NATA) in Districts 1, 2, 3, and 9. Given that this was a preliminary study to explore whether ARUI was really a concern, we limited the size, scope, and cost of this research to determine whether further study was necessary. The NATA member services provided 1767 e-mail addresses, and we used all of them for this study. They also provided us with the sex (51% male), average age (35.8 years), and institution type (49% in NCAA Division I, 16% in NCAA Division II, 25% in NCAA Division III, 4.4% in National Association of Intercollegiate Athletics, 4.1% in junior or community college) for all collegiate and university ATs in the districts sampled. All participants completed the informed consent page of the survey, and the Human Subjects Committee of West Chester University of Pennsylvania approved the study.

Instrumentation

We designed all the survey items, as this topic had not been thoroughly researched. The survey consisted of 5 sections, including the informed consent page, the experiences of ATs with alcohol-related injury, injury information, perceptions regarding alcohol use by collegiate athletes, and demographic information. To assess the validity of the survey, we used a nonprobability purposive expert sampling method. Five clinically active, collegiate certified ATs (3 men, 2 women; age = 44 ± 10.8 years), who also had experience with ARUI in athletes, were asked to participate. We instructed this expert panel to evaluate the full survey for validity and comprehensiveness and to assess the content and style (ie, clarity) of the survey items by providing written feedback for each item.[12] The feedback was reviewed, and 8 items were modified. Lastly, the revised instrument and e-mail invitation were sent electronically to the panel for pilot testing in the Web-based format to identify electronic survey function and the need for further revision of survey items. No additional revisions were recommended by this panel.

The Web-based survey began with the informed consent page, followed by the definition of an *alcohol-related injury* as a physical injury requiring any medical evaluation, treatment, or rehabilitation that was a direct outcome of alcohol consumption by a student–athlete. The first survey question asked whether the AT participants had evaluated, treated, or referred if needed any alcohol-related injuries in their student–athletes during the 2010–2011 academic year. If they answered *yes*, the participants were taken to the next section that asked how many injuries they had evaluated, treated, or referred if needed and asked them to provide specific data for each of these injuries, including body part or parts involved, severity (mild, moderate, severe), sport, and sex of the athlete. In addition, this section included questions about the percentages of these injuries that resulted in limited and missed participation, about the time (season) when these injuries mostly occurred, and about alcohol-induced hangovers. If the participants answered *no* to question 1, they skipped the injury section and were sent directly to an 8-item section addressing attitudes and perceptions about alcohol use by collegiate athletes. Each question was assessed on a 6-point Likert scale, ranging from *strongly agree* to *strongly disagree*. The last survey section contained 5 demographic questions about institutional characteristics, years as a collegiate AT, current position, age, and sex.

The survey was anonymous to ensure the honesty of the respondents. Therefore, test-retest reliability assessment was not conducted. In addition, given that most of the survey items measured different concepts, we did not conduct an internal consistency assessment.

Procedures

We used Survey Monkey (SurveyMonkey.com, Portland, OR) to administer the survey and collect the responses. The selected participants were the only ones who could access the survey through an e-mail invitation with a link to the survey. Clicking on the survey link took participants to the informed consent page of the survey followed by the survey questions. The survey was open for 33 days, and participants were e-mailed a follow-up reminder message 3 weeks after the initial e-mail invitations. They could complete the survey only once. Their responses were confidential and securely stored on SurveyMonkey.com servers with password protection.

Statistical Analysis

Comparative statistics and percentages were computed for all survey items. For the 8-item alcohol-related perception questions, a Cronbach α was computed and revealed an acceptable internal consistency ($\alpha = 0.794$). A multivariate analysis of variance (MANOVA) was computed to assess if the 8 individual AT attitudinal items differed by whether participants had experienced any alcohol-related injuries in their athletes. The homogeneity of covariances assumption was not violated (Box test $P = .273$); therefore, the MANOVA test was used to correct for possibility of type I error. Lastly, a logistic regression was used to assess the odds of an AT experiencing one or more alcohol-related injuries in his or her athlete population by institutional characteristics, including institution type, campus setting, and receipt of public or private funding. Specifically, adjusted odds ratios (aORs) were computed with 95% confidence intervals (CIs). We performed a secondary analysis (χ^2 goodness-of-fit test for sex and institution type and t test for age) to determine if our participant sample (N = 459) differed from the total population of collegiate ATs in NATA Districts 1, 2, 3, and 9. Data were downloaded for statistical analysis using SPSS (version 17.0; SPSS Inc, Chicago, IL).

RESULTS

Demographics

Of the 1767 collegiate and university ATs who were e-mailed the link to the survey, 531 (30%) provided informed consent and answered at least 1 question on the survey. Cases were retained for analysis if the ATs responded to

20% or more survey items. Hence, 72 (13.6%) of the 531 cases were excluded from the analysis because the ATs only answered the first question. The resulting sample size for analysis was 459 (26.0%) participants of the initial total sample. Six (1.3%) of the 459 respondents did not provide complete demographic data. Of the 453 respondents, the 246 (54.3%) men and 207 (45.7%) women had an average age of 35 ± 10.1 years and had worked as ATs at the collegiate or university level for an average of 9.7 ± 8.4 years and in their current positions for 6.3 ± 6.9 years. Close to half of the AT respondents worked at public institutions (53.4%, n = 242), in NCAA Division I institutions (45.5%, n = 206), and in suburban settings (41.7%, n = 189) (Table 1).

Alcohol-Related Unintentional Injury

More than 56% (n = 260) of the 459 respondents reported that they had evaluated, treated, or referred if needed at least 1 alcohol-related injury during the 2010–2011 academic year. Those ATs reported on a total of 782 alcohol-related injuries in the 2010–2011 academic year. Analyzing the responses of these 260 ATs, we found that they had evaluated, treated, or referred if needed on average, 3 alcohol-related injuries in the 2010–2011 academic year. The sex of athletes incurring the alcohol-related injuries was reported as 65.9% (n = 515) male and 34.1% (n = 267) female. Of the injuries reported, 38.2% (n = 299) were described as *mild*; 44.6% (n = 349), as *moderate*; and 18.4% (n = 144), as *severe*. The most frequently injured body parts were the head (24.8%, n = 194), hand (19.4%, n = 152), and ankle (19.3%, n = 151). All the body parts involved in the reported ARUIs are listed in Table 2. The last descriptor of the reported alcohol-related injuries was by sport. Football (18.7%, n = 146) had the highest reported number of injuries followed by soccer (16.2%, n = 127) and lacrosse (15.0%, n = 117). Given that the participants and colleges or universities were not identified, computing injury rates by sport was impossible. The frequencies for sports noted in the reported ARUIs are presented in Table 3.

Of the respondents who had evaluated, treated, or referred if needed at least 1 alcohol-related injury in the 2010–2011 academic year, 37.6% (n = 99) indicated these injuries occurred *in season*; 29.7% (n = 78), during the *nontraditional season*; and 32.7% (n = 86), *out of season*. In addition, only 14.6% (n = 35) of the injuries did not result in *limited practice or contest participation*. Similarly, only 19.9% (n = 49) of the injuries did not result in *lost practice or contest participation*. Therefore, most alcohol-related injuries reported by ATs resulted in both limited and missed practice or contest participation. When participants were asked whether they knew of an athlete attending a practice or contest with the effects of recent excessive alcohol use (hangover), 77.6% (n = 204) responded *yes*.

The results of the logistic regression revealed that ATs working at privately funded institutions had slightly higher odds of having evaluated, treated, or referred if needed an alcohol-related injury than those working in public institutions (aOR = 1.64, 95% CI = 1.09, 2.48). The regression model is fully presented in Table 4. The other variables (campus setting, division) were not different.

Athletic Trainers' Attitudes Regarding ARUI

Overall, 73.4% (n = 331) of the respondents agreed that ARUI is a serious problem. However, only 65.7% (n = 296) indicated that they believed ATs should be involved in screening student–athletes for alcohol-related problems.

Table 1. Characteristics of Collegiate and University Athletic Trainers (N = 459)[a]

Sample Characteristics	No. (%)
Institutional support	
Public	242 (53.4)
Private	211 (46.6)
Campus setting	
Rural	122 (26.9)
Suburban	189 (41.7)
Urban	142 (31.3)
Institution type	
National Collegiate Athletic Association Division I	206 (45.5)
National Collegiate Athletic Association Division II	89 (19.6)
National Collegiate Athletic Association Division III	115 (25.4)
National Association of Intercollegiate Athletics	17 (3.8)
Community college	17 (3.8)
Junior college	9 (2.0)

[a] Indicates 6 of 459 athletic trainers provided incomplete demographic data.

Table 2. Frequency of Body Parts Involved in Alcohol-Related Unintentional Injuries Reported by Athletic Trainers (N = 459)

Body Part	Frequency, No. (%)
Head	194 (24.8)
Hand	152 (19.4)
Ankle	151 (19.3)
Knee	66 (8.4)
Foot	42 (5.4)
Shoulder	40 (5.1)
Wrist	37 (4.7)
Leg	20 (2.6)
Elbow	18 (2.3)
Arm	16 (2.0)
Torso	11 (1.4)
Pelvis or hip	11 (1.4)
Thigh	8 (1.0)
Neck	5 (0.6)

Table 3. Frequency of Alcohol-Related Unintentional Injuries by Sport Reported by Athletic Trainers (N = 459)

Sport	Frequency, No. (%)
Football	146 (18.7)
Soccer	127 (16.2)
Lacrosse	117 (15.0)
Baseball	84 (10.7)
Basketball	79 (10.1)
Volleyball	34 (4.3)
Swimming	33 (4.2)
Softball	32 (4.1)
Ice hockey	24 (3.1)
Other	21 (2.7)
Tennis	19 (2.4)
Field hockey	19 (2.4)
Track, field, or cross-country	18 (2.3)
Wrestling	17 (2.2)
Crew or rowing	10 (1.3)
Golf	7 (0.9)

Table 4. Logistic Regression Summarizing Odds of Athletic Trainers Reporting Alcohol-Related Unintentional Injury in Student–Athletes[a]

Characteristics	Yes, No. (%)	No, No. (%)	Adjusted Odds Ratio	95% Confidence Interval
Institutional support				
Public	119 (46.5)	123 (62.4)	Not applicable	Not applicable
Private	137 (53.5)	74 (37.6)	1.64	1.09, 2.48[a]
Campus setting				
Rural	71 (27.7)	51 (25.9)	0.97	0.61, 1.52
Suburban	104 (40.6)	85 (43.1)	1.14	0.68, 1.90
Urban	81 (31.6)	61 (31.0)	Not applicable	Not applicable
Institution type				
National Collegiate Athletic Association Division I	108 (42.2)	98 (49.7)	Not applicable	Not applicable
National Collegiate Athletic Association Division II	56 (21.9)	33 (16.8)	1.34	0.79, 2.28
National Collegiate Athletic Association Division III	77 (30.1)	38 (19.3)	1.59	0.97, 2.60
National Association of Intercollegiate Athletics	8 (3.1)	9 (4.6)	0.60	0.22, 1.69
Community college	4 (1.6)	13 (6.6)	0.33	0.10, 1.07
Junior college	3 (1.2)	6 (3.0)	0.49	0.12, 2.06

[a] Indicates difference ($P < .05$).

Yet, 79% (n = 358) believed ATs should receive more training to identify student–athletes with alcohol-related problems. Similarly, 79.7% (n = 361) of the respondents indicated they believed collegiate and university ATs should receive more training about confronting student–athletes with alcohol-related problems.

When assessing the role ATs play in addressing this issue, 72.5% (n = 328) agreed that ATs should play a role in confronting student–athletes with alcohol-related problems. More than 92% (n = 417) of respondents agreed that ATs should be involved in the referral process, and 86.3% (n = 391) agreed that ATs know where to refer athletes both on and off campus for alcohol-related problems. Lastly, 85.5% (n = 388) of respondents agreed that collegiate ATs should be involved in the development and implementation of policies for addressing athletes with alcohol-related problems. All 8 attitudinal concepts and responses are presented in Table 5.

The MANOVA revealed that the attitudinal items differed according to whether the ATs had evaluated, treated, or referred if needed at least 1 alcohol-related injury in their student–athletes in the 2010–2011 academic year ($F_{8,434} = 5.764$, $P < .001$, Wilks $\lambda = .904$, partial $\eta^2 = 0.096$). As expected, when examining the univariate results, participants who had evaluated, treated, or referred if needed one alcohol-related injury (2.79 ± 0.96; lower number indicates higher agreement) reported higher agreement with the statement "alcohol-related injury is a serious problem among collegiate/university student athletes" than those who did not care for an alcohol-related injury (3.37 ± 1.17, $F_{1,443} = 32.372$, $P < .001$, partial $\eta^2 = 0.068$). No other AT attitudinal items were different by experience ($P \geq .05$).

Our secondary analysis revealed that our participant sample did not differ from that of the total population of collegiate ATs in NATA Districts 1, 2, 3, and 9 (sex: $\chi^2 = 8.66$, $P = .07$; institutional level: $\chi^2 = 1.53$, $P = .22$; average age: $t = 1.38$, $P = .17$).

DISCUSSION

It is well established that collegiate athletes are at greater risk for consequences related to alcohol consumption, such as unintentional injury, but very few researchers have attempted to quantify and describe the phenomenon of ARUI. More than half of this sample of ATs reported that they had evaluated, treated, or referred if needed, at least 1 alcohol-related injury within the 2010–2011 academic year, and on average, they reported evaluating, treating, or referring if needed 3 alcohol-related injuries. These results show that this problem is not isolated or rare. Finding that more than 73% of respondents agreed that ARUI is a serious problem underscores the gravity of this consequence of alcohol use in collegiate athletes. It also corroborates another study in which collegiate head ATs indicated that alcohol abuse by athletes continues to be a major concern.[13]

The irony is that many collegiate athletes work very hard to improve their performances, yet ARUI could seriously reduce their performances and even restrict their participation in sport. Additionally, alcohol use by athletes may increase the risk of sustaining an athletic injury[14] and impair recovery from both exercise and injury.[15–17] Therefore, collegiate and university health care providers, ATs, health educators, and others interested in alcohol abuse prevention need to be familiar with this consequence of alcohol use among collegiate athletes and how to address this common occurrence. Athletic trainers must consider alcohol use as a potential cause of injury when taking the history during an athlete's injury evaluation, particularly if the injury was not observed by any medical personnel.

Researchers[2–4,10] have identified male collegiate athletes as being at greater risk for consequences related to alcohol use. Our respondents confirmed this finding, reporting that male athletes sustained two-thirds of the alcohol-related injuries. The head (24.8%) was the most frequently reported body part involved in these alcohol-related injuries. Given our knowledge of the effects of concussion in sports,[18] this finding is troubling if these injuries are not being adequately and properly identified and treated.

Although only 18.4% of the ARUIs were described by the ATs as *severe*, approximately 80% resulted in some missed practice or contest participation. This very serious finding illustrates the urgency of addressing this issue throughout collegiate athletics. We do not know how many of these injuries result in permanent disability or contribute to an athlete's being unable to participate at the collegiate level.

Table 5. Summary of Attitudes Among Athletic Trainers Towards Alcohol-Related Unintentional Injury

Attitudinal Items	Mean ± SD[a]	Responses, % (No.)					
		Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Alcohol-related injury is a serious problem among collegiate/university student–athletes.	3.1 ± 1.1	4.9 (22)	26.8 (121)	41.7 (188)	13.5 (61)	11.1 (50)	2.0 (9)
The collegiate/university AT should be involved in screening (use of a brief survey to detect harmful alcohol use) student–athletes for alcohol-related problems.	3.2 ± 1.2	4.7 (21)	25.5 (115)	35.5 (160)	15.3 (69)	14.9 (67)	4.2 (19)
The collegiate/university AT should receive more training to identify student–athletes with alcohol-related problems.	2.9 ± 1.1	4.6 (21)	34.9 (158)	39.5 (179)	9.5 (43)	8.4 (38)	3.1 (14)
The collegiate/university AT should play a role in confronting student–athletes with alcohol-related problems.	3.0 ± 1.2	6.0 (27)	31.8 (144)	34.7 (157)	14.1 (64)	9.9 (45)	3.5 (16)
The collegiate/university AT should receive more training about confronting student–athletes with alcohol-related problems.	2.8 ± 1.2	7.3 (33)	41.1 (186)	31.3 (142)	8.4 (38)	8.6 (39)	3.3 (15)
The collegiate/university AT should be involved in the referral process of student–athletes with alcohol-related problems.	2.3 ± 0.9	15.3 (69)	50.0 (225)	27.3 (123)	3.1 (14)	3.3 (15)	0.9 (4)
The collegiate/university AT knows where to refer student–athletes on and off campus for alcohol-related problems.	2.3 ± 1.1	19.0 (86)	53.0 (240)	14.3 (65)	7.1 (32)	6.0 (27)	0.7 (3)
The collegiate/university AT should be involved in the development and implementation of policies for student–athletes with alcohol-related problems.	2.5 ± 1.1	12.6 (57)	43.6 (198)	29.3 (133)	6.8 (31)	6.8 (31)	0.9 (4)

Abbreviation: AT, athletic trainer.
[a] Likert scale ranging from 1 (*strongly agree*) to 6 (*strongly disagree*).

Every sport had some ARUIs reported. Similarly, the results of the logistic regression revealed very little difference in the odds of experiencing an ARUI based on institution type, campus setting, or institutional funding type. This implies that one cannot accurately predict or assume that any institution of higher education or sport within the institution will be protected or immune from ARUI.

More than 77% of the ATs who reported evaluating, treating, or referring if needed at least 1 ARUI also said they were aware of athletes attending practices or contests with hangovers. This is also very concerning, as athletes experiencing the effects of hangovers may be at greater risk of sustaining athletic injuries during participation. The actions taken in this situation may vary by institution, team, and AT, but future research is warranted to determine what action, if any, is taken when athletes present with this condition.

To our knowledge, we are the first to attempt to quantify and describe ARUI among collegiate athletes. We believe that this is a rather common occurrence, and our results support that assertion. We are concerned that appropriate action is not always taken when ATs encounter these unintentional injuries and that this perpetuates the problem and supports the culture of high-risk alcohol use by collegiate athletes.

We interpret the results of the 8 attitudinal items to indicate that collegiate ATs recognize ARUI is an important concern faced when caring for collegiate athletes. Athletic trainers want to be part of the solution yet believe that they are not trained on how to intervene. We found strong agreement among ATs on their roles in the referral of athletes with alcohol-related problems, and this could be credited to the existence of "...support/referral process for interventions to address unhealthy lifestyle behaviors" contained within the Board of Certification's 2009 Role Delineation Study.[19] Our findings support those of previous researchers[20] who reported that recently certified ATs were comfortable recognizing when to refer an athlete but uncomfortable approaching an athlete to suggest a referral. Athletic training education programs may need to better prepare ATs to address ARUIs, particularly after they have occurred, if this is determined to be an important concern facing collegiate ATs. Another challenge to overcome may be problematic alcohol consumption by ATs and even students within athletic training education programs.[21]

Researchers need to examine the actual prevalence of ARUI within the collegiate athlete population to determine if this is a critical problem that needs to be faced. We suspect it will be. Similarly, researchers need to explore effective ways of addressing this issue with athletes. Given that ATs may be evaluating, treating, or referring if needed ARUIs with some regularity, they will be necessary providers in helping athletes recognize the seriousness of this issue and aiding in injury prevention. Some possible ways ATs could assist in addressing ARUI prevention are screening for alcohol use during preparticipation physical examinations,[22] using brief interventions,[23] and even including ARUI in enhanced educational interventions specifically designed for athletes.[24]

Our study had limitations. It had sampling issues because the number of e-mail addresses of collegiate and university ATs provided was substantially less than the number of collegiate and university ATs in the eastern one-third of the United States. However, NATA member services provided us with the sex, average age, and institutional type for all

collegiate and university ATs in the districts sampled. Our secondary analysis revealed no difference between our participant sample and the total population of collegiate ATs in NATA Districts 1, 2, 3, and 9; therefore, we believe our sample is representative. These results should be generalizable, but we urge caution because of the sampling issues and because this survey did not include the entire United States.

Given that this was a preliminary study examining experiences and attitudes of ATs, we urge caution when examining the specifics of the athlete injury data. For example, football generally has larger participation rates than most other sports. We asked only for actual frequency of alcohol-related injuries that ATs evaluated, treated, or referred if needed. Alcohol-related unintentional injury rates in football may not be different from those in other sports, but because football has more athletes participating, they may be disproportionately represented here. In attempting to streamline the survey to increase the participation rate, we also did not separate many sports by sex (ie, soccer, lacrosse). Therefore, when looking at frequency of alcohol-related injury by sport, one must note that soccer and lacrosse include both male and female athletes (Table 3). We hope that researchers studying collegiate athletes and ARUI will be able to determine actual prevalence rates by sport and sex.

In addition, the data collected required ATs to recall ARUIs in athletes they had evaluated, treated, or referred if needed during the 2010–2011 academic year. Some recall bias might have existed because this survey was conducted in May and June and instructed the participants to remember back to August of the previous year. Finally, some ARUIs may be unreported or misreported because of the possible embarrassment or punitive action taken upon discovery by coaches, ATs, and others. Therefore, the results of this study may be more conservative than the actual prevalence of ARUI among collegiate athletes.

CONCLUSIONS

The results of our study suggest that ARUI is a common and serious consequence of alcohol use among collegiate athletes. Many ATs also view it as a serious problem. Alcohol-related unintentional injury could have important implications for an athlete's career and athletic performance. Researchers need to determine how prevalent ARUI is in the collegiate athlete population.

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