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What is This?
Alcohol consumption in sportspeople: The role of social cohesion, identity and happiness

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Abstract
Research indicates that those participating in sport consume alcohol more frequently and at higher quantities than their non-sporting peers. The highest levels of alcohol consumption have been found in university student sportspeople; however, the reasons for such elevated alcohol use are unclear and there has been little research in this area outside US institutions. Moreover, research seems to be predominantly problem-focused and may therefore be unlikely to afford a wider understanding of the role alcohol plays in the lives of many sportspeople. There is a particular paucity of research examining the positive social and psychological outcomes of alcohol consumption in sport participants. The present study addresses this gap in the literature by exploring the relationship between social cohesion, identity, self-reported happiness and student sportspeople’s drinking. Questionnaires containing validated measures for alcohol consumption, happiness, importance of sporting identity and drinking for team cohesion were used to collect data from 243 university sportspeople (females =145, 60%). Hierarchical regression analyses indicated that age, happiness and team cohesion were significant predictors of alcohol consumption, whereas sporting identity did not contribute significantly to the regression model. Further mediation analyses found that the relationship between happiness and alcohol consumption was mediated by team cohesion.

Keywords
alcohol consumption, happiness, identity, social cohesion, sports

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Introduction

Sport is generally seen as a health-promoting and character-enhancing activity through which societal values and key social skills are cultivated. However, a close connection between sport and alcohol has also been observed (Collins and Vamplew, 2002; Jones et al., 2006; Palmer, 2011; Stainback, 1997). Research consistently indicates that those participating in, or following, sport consume more alcohol than their non-sporting counterparts (Black et al., 1999; Hildebrand et al., 2001; Lawson and Evans, 1992; Leitchliter et al., 1998; Lorente et al., 2004; Neal et al., 2005; Nelson and Wechsler, 2001; O’Brien et al., 2005). In particular, studies have identified students involved with sports as a high-risk population for hazardous alcohol use (Green et al., 2001; Martin, 1998; Partington et al., 2013). Research amongst college and university students indicates that those involved in sporting activities are more likely to report consuming greater quantities of alcohol, have higher binge drinking rates, more frequent intoxication, and experience more alcohol-related harms than students not involved in sports (Ford, 2007; Green et al., 2001; Leitchliter et al., 1998; Martens et al., 2006; Nativ et al., 1997; Nelson and Wechsler, 2001; O’Brien et al., 2012, 2013; Wechsler et al., 1997). Latent growth analysis used to study this relationship indicates that participation in sports is a predictor of alcohol intoxication, and that students partaking in organised recreational sport often drink more than those who do not participate in any organised activity at all (Ward and Gryczynski, 2007; Wichstrom and Wichstrom, 2009). Ethnographic studies also disclose the important role of alcohol in sporting subcultures (Donnelly, 1980; Young, 1983). For example, an early exploration into the rugby culture captures the importance of a sense of togetherness that was epitomised in the act of ‘drinking with your opponent’ (Orloff, 1974). The respondents highlight the traditions of the rugby subculture and exemplify the generosity and sportsmanship of the sport, and it may be these values and attitudes that contribute to upholding the Faustian pact between sports and alcohol. Recent quantitative work supports the influence of normative cultural practices and expectations centred on drinking with, and buying alcoholic drinks for, opponents after sporting competitions. O’Brien et al. (2010) found strong positive relationships ($r$ values > .40) between a scale measuring the importance of drinking with sport competitors, and AUDIT-total and AUDIT-C scores (AUDIT: Alcohol Use Disorders Identification Test).

The notion that sport and alcohol are inextricably linked has been discussed across a number of themes (c.f. Palmer, 2011). Important elements of this relationship appear underpinned by cultural traditions surrounding the social aspects of sport, which appear to seamlessly partner the social nature of drinking. For example, drinking is inherently classed as a social activity (Douglas, 1987; Gefou-Madianou, 1992; Wilson, 2005), and the historical customs and etiquettes associated with consuming alcohol are often in place to promote social interaction and bonding. Similar social rituals can be observed within sports; for instance, sports teams are often encouraged to interact and bond for team cohesion and camaraderie (Carron et al., 2002a, 2002b). Common post-match customs such as convening with the opposing team to promote social integration are traditions embedded as established cultural practices throughout sport history (Collins and Vamplew, 2002; Donnelly and Young, 1988). For example, in a strongly identifying
sporting nation like Australia, alcohol consumption is an important element of post-game celebrations (Lawson and Evans, 1992; McGuifficke et al., 1991; O’Brien et al., 2010) and is associated with the general culture of being part of a sports team (Black et al., 1999). Research by Peretti-Watel et al. (2002) observed that for many non-elite (non-professional) sports players, induced sociability gained from participation could be more important than the actual sport itself. In a similar vein, Nelson and Wechsler’s (2001) sample of student sportspeople placed greater importance on socialising than non-sporting students. This work indicates how the social practices in sports can complement those of drinking, and how sporting participation and drinking behaviours are linked by their social significances.

Above all, sport is a competitive activity. The success of a team is often accredited to good cohesion and team spirit (Carron et al., 2002a; Salminen and Luhtanen, 1998; Williams and Hacker, 1982). Consequently, team cohesion is often perceived to be a ‘good thing’ (Paskevich et al., 2001) and sports leaders may strive to promote cohesion within their squads. Sports teams are often encouraged to interact in integrative and social environments with the aim of fostering a sense of cohesion. The cultural ties between alcohol and sport, coupled with the social nature of drinking, may thus provide a context where sociability and alcohol consumption are implicitly – or explicitly – advocated. In the attempt to create a more collective ethos, sports players may find themselves exposed to more situations that provide an opportunity to drink and promote the use of alcohol (Stainback, 1997). An early investigation into cohesiveness in sports groups noted that cohesion influenced conformity and behaviour change (Carron, 1982). Such findings suggest an interaction between sports team cohesiveness and health behaviours, such as alcohol consumption.

Immersion in, and acceptance of, the sports culture necessitates the adoption of a sporting identity, particularly in those who wish to be successful in team sports. Indeed, actively participating in sports, and becoming a member of a sports team, leads to the deliberate construction of a sporting identity (Donnelly and Young, 1988). This sporting identity can be established through processes where sports players adopt normative styles of behaviour as a means of validating their identity and team membership (Donnelly, 1981). With its historical and cultural ties with alcohol, the assimilation of this sporting identity may help shape sportspeople’s beliefs and attitudes towards alcohol and its consumption. For example, alcohol use may be associated with desires to gain and maintain acceptance by others in the sporting environment, and might therefore become important for confirming one’s sporting identity (Grossbard et al., 2009; Lisha and Sussman, 2010). By directly exploring the significance of a sporting identity on behaviours such as alcohol use, we may therefore be able to observe how the sport–alcohol relationship becomes espoused by those involved in sports.

To date much research in this area has been problem-focused and directed solely towards the problematic aspects of the sport–alcohol relationship. However, some studies indicate that despite reporting higher alcohol-related harms, those involved in sports continuously hold positive expectations regarding drinking (Werner et al., 1993, 1995; Zamboanga, 2006), and do not differ in their psychological wellbeing despite higher prevalence rates of alcohol consumption (Aries et al., 2004). Higher ratings of life satisfaction and happiness are seen in those who participate in sport (Huang and Humphreys, 1999).
2010; Zullig and White, 2010) and involvement with a sports team has been found to correlate positively with wellbeing (McHale et al., 2005; Marsh and Kleitman, 2003). It has been suggested that the social interactions within sports and the integration with a valued group provide a number of psychosocial benefits (Berkman et al., 2000; Durkheim, 1951), and these benefits may facilitate a general feeling of wellbeing and happiness. Accordingly, a novel investigation of the benefits and positive outcomes of sporting participation and alcohol use in sportspeople is important. By understanding the wellbeing gains that may link sporting participation to alcohol consumption, or vice versa, we can bring about a more balanced view of the alcohol–sport relationship.

A cultural limitation to the extant research on sports-associated drinking is the geographically concentrated body of data and discussion, with the majority of sport-related alcohol studies being conducted in the United States and Australasia (e.g. Black et al., 1999; Green et al., 2001; Jones et al., 2006; Nattiv et al., 1997; Nelson and Wechsler, 2001; Martens et al., 2006; O’Brien et al., 2005). With the exception of Partington et al. (2013), there has been no research on this issue in the UK. The populations of student sportspeople typically investigated in the literature may therefore differ from other populations (e.g. European or American), and therefore limits cross-cultural applications. There are, for example, differences between university sports and sporting participation in the US compared to the UK. Specifically, sport is more integrated with education in the US – with highly funded and organised high school and collegiate sports scholarship and athletic programmes the norm in the US. US college (university-level) sport has particular prestige, and can be more popular than its professional counterparts. However, in comparison with the US, student sport in the UK has a relatively low profile. With no institutionalised system of sports scholarships or elite athletic programmes, those involved or participating in sports predominantly consider it as a leisure activity or interest. Collins and Vamplew (2002), amongst others, highlight British cultural and historical ties between sport and alcohol, and that there may be mediating effects of traditional alcohol-fuelled team sports camaraderie popularly associated with British sports (Robertson, 2003). Such cultural nuances may change the way sport participation is experienced across cultures and, subsequently, its sports-associated activities.

The present study explores the relationship between happiness, social cohesion, sporting identity and alcohol consumption in university sportspeople. It examines the possibility that the drinking behaviours of sportspeople may be associated with the benefits of participation in sports, such as social cohesion and identity. It is hypothesised that self-reported happiness will be related to increased social cohesion and identity, and that these variables will in turn predict drinking levels. In addition, the present study will provide some much-needed evidence on alcohol consumption and its antecedents in a non-US student sample.

**Methods**

The sample consisted of 243 university student sportspeople (males, $N = 98; 40\%$), with a mean age of 20.56 years ($SD = 1.84$). A self-report survey method was used, and data collection ran for four months during an academic school year. Participants were recruited opportunistically via visits to scheduled training sessions and match days, or volunteers...
responding directly to word-of-mouth appeals or recruitment posters (response rates $\approx 90\%$ face-to-face). The participants were spread across a range of sporting types: football ($N = 59$); field hockey ($N = 44$); rugby ($N = 40$); netball ($N = 29$); volleyball ($N = 23$); cricket ($N = 16$); cross-country and athletics ($N = 12$); waterpolo ($N = 8$); badminton ($N = 6$); basketball ($N = 5$); and martial arts ($N = 1$).

Data were collected via a pen-and-paper administered questionnaire that took approximately 15 minutes to complete. £2 was paid to participants who returned a completed questionnaire.

Measures

The scales used to collect data were the AUDIT (Saunders et al., 1993), a four-item Subjective Happiness Scale (SHS; Lyubomisky and Lepper, 1999), and items designed to assess the importance of drinking alcohol for team cohesion and the importance of sporting identity were adapted from Martens et al.’s (2005) scale of athlete-specific drinking motives. Demographic items, such as participant age and gender, were also recorded and respondents’ primary sport was coded as a function of whether it was a team or an individual sport.

Alcohol Use Disorders Identification Test. Developed by the World Health Organization (WHO), the AUDIT is a 10-item questionnaire to identify hazardous drinking behaviour. It is a widely used measure among university students (Fleming et al., 1991) and is a sensitive indicator of alcohol consumption (AUDIT-C subscale; Bush et al., 1998). The reliability and validation assessments of the AUDIT have established a cut-off score of eight or above as an indication of hazardous drinking (Conigrave et al., 1995). In the current sample, the Cronbach’s alpha for the AUDIT was .82, and .79 for the AUDIT-C subscale.

Subjective Happiness Scale. The SHS is a short four-item ‘global subjective assessment’ of whether a respondent is a happy or unhappy person (Lyubomisky and Lepper, 1999). Use of this scale was preferred over others due to its succinct nature while demonstrating reliability and validity comparable to similar but considerably longer wellbeing scales. Internal consistency was good (Cronbach’s alpha = .84) in the current sample and all four items loaded onto a single factor.

Team cohesion and sporting identity. A series of six questions were adapted from the Athlete Drinking Scale (ADS; Martens et al., 2005). Marten’s development of the ADS identified a team/group factor comprising of items either directly, or indirectly, related to alcohol use within the context of an athletic group. A simple factor analysis was conducted on these items for our sample to confirm that the items identified for each subscale loaded onto the separate factors identified by Martens et al. (2005) representing the concepts of ‘team cohesion’ (four items) and ‘sporting identity’ (two items). Team cohesion included the questions ‘Having a drink (alcohol) with teammates is important to me for team building’ and ‘I drink with teammates because it helps develop closer friendships’ to establish the extent of the significance of consuming alcohol for team cohesion.
The *sporting identity* factor gauged how important sport was to the respondents personally, for example, ‘Being part of my sports team/club is an important part of my own personal identity’. The *team cohesion* factor yielded a satisfactory Cronbach’s alpha of .69. No equivalent analysis was performed for *sporting identity*, as this factor consists of two items.

**Planned analysis**

Data analysis was performed using the Statistical Package for Social Sciences (SPSS v.20). Participant data were entered, verified and screened for errors and outliers prior to analyses. The analytical strategy was to use AUDIT total scores as an indication of hazardous drinking, while the subscale AUDIT-C scores allowed us to examine alcohol consumption levels. The AUDIT-C comprised of the summed combination scores for drinking frequency, drinking quantity and frequency of binge drinking – the first three items of the AUDIT (Bush et al., 1998).

One-way analyses of variance (ANOVAs) were used to assess gender differences in AUDIT scores. Previous research has consistently found differences in hazardous drinking behaviour between genders (males greater than females; e.g. Leichliter et al., 1998), age (younger greater than older; e.g. Heather et al., 2011) and between team and individual sports players (team greater than individual; e.g. Martens et al., 2006). In order to control for these known predictors of alcohol use, analyses of covariance (ANCOVAs) were used when analysing AUDIT scores to adjust for their effects. Multiple hierarchical regressions were used to examine the relationship between our variables of happiness, cohesion, sporting identity and AUDIT scores. Post-hoc mediation analyses (MacKinnon et al., 2004; Preacher and Hayes, 2008) would be applied to assess potential mediating results between any significant relationships between our dependant variables (e.g. AUDIT scores) and independent variables (e.g. happiness scores).

**Results**

**Preliminary analyses**

Two participants provided unusable data (i.e. substantial responses were missing from core scales; the AUDIT and/or SHS) and were thus removed from the dataset. Three participants reported abstaining from alcohol and therefore had AUDIT scores of 0, but were included in the analyses. We include abstainers in order to give an unbiased analysis of our sample of sportspeople, as these respondents provided viable scores on measures of team cohesion, sporting identity and self-reported happiness. Mean AUDIT total and alcohol consumption subscale (AUDIT-C) totals were calculated. There was no significant gender difference in the mean AUDIT total scores (males $M = 16.7$, $SD = 7.48$; females $M = 16.2$, $SD = 6.72$, $F(1,239) = .30, p = .59$) or in the mean AUDIT-C scores (males $M = 8.71$, $SD = 2.48$; females $M = 8.41$, $SD = 2.29$, $F(1,239) = .88, p = .35$). Using the established AUDIT total score of eight or above as an indicator of hazardous drinking (Conigrave et al., 1995), 89% of the participants reported hazardous drinking levels. Chi-squared analysis indicated no significant differences
between genders in proportions of hazardous drinking levels (male = 86%, female = 91%, \( \chi^2 = 1.68, p = .19 \)).

To control for known predictors (age, gender and sports type), ANCOVAs were used to assess the mean difference in AUDIT scores. There was a significant relationship between age and AUDIT total score (\( r = –.23, p < .01 \)); thus, as age appears to increase drinking decreases, consistent with previous research (Moore et al., 2005). There were no significant differences between sports type and AUDIT total scores (team \( M = 16.5, SD = 6.95 \); individual \( M = 14.4, SD = 7.67 \), \( F(1,237) = 1.19, p = .28 \)), or AUDIT-C sub-scale scores (team \( M = 8.58, SD = 2.38 \); individual \( M = 8.00, SD = 2.26 \), \( F(1,237) = 3.18, p = .62 \)); however, this may be due to the small number of individual sports players (\( N = 19 \)) in the current sample.

**Relationship among variables**

To test the relationship between AUDIT total and happiness scores, Pearson’s correlation coefficients were calculated. Analyses indicated that AUDIT total scores correlated significantly with happiness scores (\( r = .15, p < .05 \), two-tailed; see Table 1); thus, as AUDIT scores increased so did self-reported happiness. From the AUDIT subscales, AUDIT-C was the most correlated with happiness scores (\( r = .17, p < .01 \), two-tailed).

It was expected that drinking for team cohesion would also be associated with AUDIT scores. Correlational analyses show team cohesion to be positively correlated with AUDIT total (\( r = .46, p < .001 \), two-tailed) and AUDIT-C scores (\( r = .42, p < .001 \), two-tailed). This supports the hypothesis that a higher indication of drinking for team cohesion is associated with higher alcohol consumption. Team cohesion was also significantly related to happiness (\( r = .15, p < .05 \), two-tailed), the positive correlation indicating that a higher importance of drinking for team cohesion was associated with higher self-reported happiness.

In addition, sporting identity was found to be significantly associated with self-reported happiness scores (\( r = .15, p < .05 \), two-tailed); however, no statistically significant relationship was found between AUDIT scores and sporting identity.

Two separate hierarchical regression analyses were conducted to assess the strength of the proposed predictors of AUDIT total and AUDIT-C drinking scores. Known

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**Table 1.** Correlation matrix for all intercorrelations between AUDIT total, AUDIT-C, and happiness scores, team cohesion, sporting identity factors and age.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AUDIT-total</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. AUDIT-C</td>
<td>.77**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Happiness</td>
<td>.15*</td>
<td>.17**</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Team cohesion</td>
<td>.46**</td>
<td>.42**</td>
<td>.15*</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Sporting identity</td>
<td>.09</td>
<td>.06</td>
<td>.15*</td>
<td>.22**</td>
<td>–</td>
</tr>
<tr>
<td>6. Age</td>
<td>–.23**</td>
<td>–.29**</td>
<td>–.04</td>
<td>–.23**</td>
<td>–.12</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01, *** p < .001. N = 241.
predictors (age, gender and sports type) were entered in the first step of the regression model, happiness scores were entered in the second step, and team cohesion and sporting identity scores were simultaneously entered in the third step.

A significant model emerged for AUDIT total scores. Demographic variables accounted for 5.2% of the variance, with happiness accounting for a further 1.4% of the variance. When team cohesion and sporting identity were entered into the final step, the overall model accounted for a total of 22% of the variance in AUDIT total scores. Gender, sports type and sporting identity failed to contribute significantly to the regression model. In the final step of the model, age ($\beta = -0.14, p < .05$) and team cohesion ($\beta = 6.85, p < .001$) were the only significant predictors of AUDIT total scores (see Table 2).

Regression analysis for AUDIT-C scores found a similar significant model. Demographic variables and happiness scores accounted for 10.7% of the variance in AUDIT-C scores. With the addition of team cohesion, the overall model accounted for 22% of the variance in AUDIT C subscale scores. Sporting identity failed to contribute significantly to the regression model. Although gender was a significant predictor at step 2, after other demographic variables and happiness were accounted for, in the final step gender was not a significant predictor. Age ($\beta = -0.22, p < .001$), happiness ($\beta = .12, p < .05$) and team cohesion ($\beta = .36, p < .001$) were significant predictors of AUDIT-C scores in the final step of the regression model (see Table 3).

Regression analyses for predictors of AUDIT total scores showed that, prior to step 3, happiness was a significant predictor of AUDIT total, however, the final step in the regression model indicated that happiness falls in statistical significance when team

### Table 2. Hierarchical multiple regression analyses for prediction of AUDIT total scores by happiness score, team cohesion and sporting identity factors, and demographic variables.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
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<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.09</td>
</tr>
<tr>
<td>Age</td>
<td>-.24***</td>
</tr>
<tr>
<td>Team vs. individual sport</td>
<td>.07</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.09</td>
</tr>
<tr>
<td>Age</td>
<td>-.24***</td>
</tr>
<tr>
<td>Team vs. individual sport</td>
<td>.05</td>
</tr>
<tr>
<td>Happiness score</td>
<td>.13*</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.04</td>
</tr>
<tr>
<td>Age</td>
<td>-.14*</td>
</tr>
<tr>
<td>Team vs. individual sport</td>
<td>.03</td>
</tr>
<tr>
<td>Happiness score</td>
<td>.08</td>
</tr>
<tr>
<td>Team cohesion</td>
<td>.42***</td>
</tr>
<tr>
<td>Sporting identity</td>
<td>-.03</td>
</tr>
</tbody>
</table>

$\beta$, standardised coefficients.
P-value for significant t-values * $p < .05$, ** $p < .01$, *** $p < .001$.
Note. $R^2 = .05$ for step 1; $\Delta R^2 = .01$ for step 2; $\Delta R^2 = .15$ for step 3.
cohesion was entered, thus suggesting mediation. To test whether team cohesion was a mediating variable for alcohol use, post-hoc mediation analysis was conducted on the relationship between happiness and AUDIT scores (AUDIT-total and AUDIT-C).

**Mediation analysis**

To test for mediation of relationships between happiness, and AUDIT-C and AUDIT total scores by team cohesion, we adopted the most widely used and recommended bootstrapping method with bias-corrected 95% confidence intervals (CIs; MacKinnon et al., 2004; Preacher and Hayes, 2008). Mediation is said to be present when a significant relationship between the independent (happiness) and dependent variable (AUDIT scores) becomes non-significant after controlling for the mediator (team cohesion). As can be seen in Figures 1 and 2, regression analysis found a positive relationship between happiness and team cohesion, and happiness and AUDIT-C and AUDIT total. In addition, the proposed mediator had significant positive relationships with the dependent variables (AUDIT scores). Accordingly, we tested for mediation using 5000 bootstrap resamples to produce 95% CIs. The analyses indicated that team cohesion fully mediated relationships between happiness and AUDIT total scores ($B = .47$, CI: $.09$, .94) and between happiness and AUDIT-C scores ($B = .14$, CI: .02, .29). The relationships between happiness, and AUDIT-total ($B = .55$, $t(241) = 1.39, p = .17$) and AUDIT-C ($B = .24$, $t(241) = 1.86, p = .07$) were no longer significant after controlling for team cohesion.
The aim of this study was to explore the relationship between self-reported happiness, sporting identity, the importance of drinking for team cohesion, and alcohol use among student sportspeople. Overall, the analyses indicated significant positive correlations between all of our variables (happiness, team cohesion and sporting identity). Happiness was also a significant predictor of AUDIT scores. Moreover, team cohesion correlated positively with AUDIT scores and was found to be the highest predictor of AUDIT scores. Mediation analyses suggested that team cohesion fully mediated the relationship between sportspeople’s self-reported happiness scores and AUDIT scores. Finally, sporting identity was not found to be a significant predictor of alcohol use.

In line with previous research (O’Brien et al., 2007; Zamboanga, 2006), the majority of our sample (89%) reported hazardous drinking levels. Drinking for team cohesion was correlated positively with potentially hazardous alcohol use and this was the strongest predictor for elevated AUDIT scores. A possible explanation for this link is that those involved in sports may engage with more opportunities to drink alcohol in the effort to promote cohesive interactions and a sense bonding. For example, Lawson and Evan’s (1992) study of rugby players revealed that respondents’ drinking usually took place in groups, and drinking alone was considered undesirable. In their study, drinking was considered a part of the traditions of mateship associated with the game, which were seen to promote a sense of camaraderie and cohesion. However, in light of our current findings,
it seems that a concomitant consequence of team cohesion may be higher levels of hazardous alcohol consumption.

Significant correlations were also found between self-reported happiness and AUDIT scores, and these findings appear to illustrate that higher self-reported alcohol consumption was associated with elevated self-reported scores of happiness. Further analyses indicated that these positive correlations were fully mediated by the role of team cohesion. In other words, our findings indicate that the positive relationship between alcohol consumption and happiness identified in this study is only significant due to the role of drinking for team cohesion. It could be suggested that despite reporting hazardous levels of alcohol use, sportspeople may be happier due to the sociality advocated within the sports subculture that encompasses the creation of a socially cohesiveness unit. Greater connectedness to one’s team among sportspeople has been suggested to promote greater social support that may act as a protective factor against negative alcohol-related repercussions (Grossbard et al., 2009). A recent study observed a similar relationship whereby students who were happier were more likely to binge drink, and happiness also linked with social satisfaction (Hsu and Reid, 2012). These findings indicate that it is important to have a balanced perspective of the involvement of alcohol on our social and psychological experiences. In the case of sports-associated drinking it may be that alcohol consumption is not just a product of sporting involvement, but perhaps a channel through which the culture and values of being a sportsperson are epitomised, and psychosocial benefits are fostered.

In addition, identification with a sports team and being part a club creates a sense of social belonging that has been found to be positively related to psychological health (Wann, 2006). This benefit to wellbeing is also found in the present study, where sporting identity correlated with happiness scores. Furthermore, the results reveal that sporting identity was not significantly associated with AUDIT scores. This suggests that it is not the adoption of their role as a sportsperson per se that plays a significant role in influencing alcohol use. Instead the results suggest that socially orientated purposes or norms appear most important in explaining alcohol consumption in sports participants.

There are a number of limitations to factor in with the present work. For example, the sample recruited for this study represents one of convenience, and participants were primarily recruited from a single university in the North West of England. We aimed to add UK data to existing investigations of sportspeople’s drinking; however, the lack of spread in the sample is likely to limit the generalisability of findings as there may be differences in athletes in different geographic areas, or attending different institutions of higher education. Another note is that the timing of data collection fell into latter part of the academic year, which meant many clubs affiliated with university leagues would have their competitive season coming to an end. Previous work has observed that sportspeople indicated drinking more during in-season periods (Martens and Martin, 2010; National Collegiate Athletic Association (NCAA), 2001), so for future direction it would be important to take note of seasonal inflations of alcohol consumption. In addition, the cross-sectional design of the study does not allow for inferences to be drawn with regards to the direction of causality of our variables. We would therefore like to echo calls for longitudinal explorations in alcohol and sport research (Baer, 2002; Reed et al., 2007).
A reasonable assumption from our data proposes that drinking by sportspeople adds to social cohesion and is rewarding for this reason. However, it may be possible that such psychosocial rewards from drinking are not found in those exhibiting above-average and harmful AUDIT levels. Almost a third of the study sample demonstrates inordinate AUDIT scores of 20 and above (30.3%), usually taken to indicate a possibility of alcohol dependency (Babor et al., 2001). Happiness levels, and the mediating effect of drinking for team cohesion, may not be found or found to be reversed for these students. Further research could explore whether the relationships between happiness, team cohesion and drinking emerge out of samples that score highly on the AUDIT.

Notwithstanding these limitations, the study is the first in Europe to examine associations between happiness (wellbeing), social cohesion, sport identity, and their relationship to alcohol consumption in sport participants. Most worrying, mean AUDIT scores for the present sample are almost double the hazardous drinking cut-off score (8+ on AUDIT). This finding clearly signals the need for further research aimed at explicating the reasons for, and means to reducing, such hazardous drinking levels. The present study found that team cohesion and happiness were significant predictors of alcohol consumption; moreover, the observed relationship between happiness and alcohol consumption was found to be fully mediated by the importance of drinking for team cohesion. This indicates that social cohesion is an important factor for well-being in this sports-specific context. Previous interventions aimed at reducing drinking of those involved in sports have been largely ineffective (Thombs and Hamilton, 2002; Wechsler et al., 2003) and the findings from the present study call for novel strategies that employ ways of creating cohesion and maintaining a sense of collectiveness, belonging and wellbeing, without the involvement of alcohol and drinking practices. Coaches and team leaders, as well as university athletics departments, need to be engaged with the development and implementation of interventions to reduce drinking while maintaining the positive elements and outcomes of sport participation.

Given the growing interest in gender convergence in sports-associated drinking behaviours (O’Brien et al., 2008; Partington et al., 2010), it would be astute to comment on the non-significant gender difference in the mean AUDIT scores (males $M = 16.8$, $SD = 7.48$; females $M = 16.2$, $SD = 6.72$). These results mirror those found in previous work in a sample of New Zealand student sportspeople (O’Brien et al., 2005, 2008). Cross-culturally it is interesting to note the patterns of convergence in the drinking behaviour among male and female sports players. In recent years there have been initiatives within the UK to tackle the gender gap in sport and to raise the profile of female participation in sports. Female participation figures have increased significantly over recent years (Sport England, 2012); however, an area for concern for future research would be to examine how the sport–alcohol nexus will integrate itself with the rising female involvement within sports.

Previous research has largely ignored the psychosocial benefits of alcohol consumption in sport, and as such the present work helps address this gap in the literature. In this study happiness was found to be a significant predictor of alcohol consumption, and its relationship with hazardous drinking was mediated by team cohesion. Further studies could examine the quality of team cohesion on happiness, which may afford a better
insight into which aspect of social cohesion should be emphasised in order to take advantage of potential wellbeing gains. There are a multitude of tangible positive outcomes that arise from sports participation, as well a range of benefits to social and psychological wellbeing. A conclusion to be drawn from the present study is that a greater focus on the social drivers for excessive alcohol among sportspeople is required. Such research will help inform sports-specific interventions centred on reducing excessive alcohol consumption, whilst maintaining the positive social and health outcomes of sport participation.

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