

# **Comparing awareness of mental health issues and cognitive behavioural therapy in male and female UK Premier League academy soccer players and university students**

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## **Abstract**

The aim of this study was to obtain information regarding elite soccer academy players' and university students' awareness of common mental disorders and intervention options. A cross-sectional design compared perceptions of male and female Premier League soccer academy players with those of male and female university students using a custom-made questionnaire. The prevalence of experiences of anxiety and depression was high in all groups. Significantly less male soccer players had heard of cognitive behavioural therapy (CBT) or knew what CBT was compared with all other groups. Barriers to obtaining support for mental health concerns included not knowing how or when to seek help and what treatment entailed. Participants indicated that they would first turn to family and friends rather than coaches or professionals for help. A preference for CBT over counselling was indicated by the majority of the soccer players and students. The findings of this study can be applied during the development of suitable evidence-based interventions tailored for elite academy soccer players.

## **Keywords**

Soccer, students, common mental disorders, cognitive behavioural therapy, gender differences

## Introduction

Awareness of common mental disorders (CMD) among elite athlete populations has recently been in the spotlight (1). CMD are defined as symptoms related to distress, anxiety, depression and substance abuse (2). Global prevalence amongst athletes has varied between 8 and 48% (3-7), with a higher prevalence rate of CMD in female compared with male athletes (3,6,8). Soccer, sometimes referred to as football in certain European countries, is one of the most popular team sports played worldwide (9). Within professional soccer, the prevalence of CMD is high, with prevalence rates of 17% among Danish and Swedish male elite soccer players (10) and 25-43% for soccer players across five European countries (11). Moreover, the Football World Player's Union has suggested that CMD are likely to be under-reported (12). The main reasons for under-reporting of CMD may be related to stigma and not knowing when or how to seek help (13). Research through the International Federation of Professional Footballers (FIFPro) has suggested soccer players are more than 20% more likely to suffer from mental health difficulties than the general public. Moreover, 50% of these diagnosable mental health illnesses can be identified by the age of 14 years and 75% by the age of 24 years (14). Furthermore, 11% of the overall deaths among soccer players from 2007-2013 resulted from suicide (15). Developing CMD has been attributed to a strenuous lifestyle (16), high expectations (17), injuries (18) and the growing media interest and the pressure this places on players (19). Specific support and diagnosis around CMD requires screening, identification and a clinical referral (20). To ensure timely identification, the English Premier League's current Youth Development Rules require all academies to provide full-time players with education in 'Life Management Skills'. "Wellbeing i.e. mental health and nutrition" makes up one of the eight compulsory components in this curriculum, that itself, is part of the wider Education Programme delivered by all Premier League academies (21,22). Whilst it is recommended that a club's Head of Education organise this, it is not mandatory. The Premier League's Charter for Academy players and parents states that the governing body will assist clubs in implementing all education programmes (21,22). The extent of this education varies between clubs, with resources (both financial and in personnel) a likely contributing factor to the level of support provided to players.

Once diagnosed, addressing CMD in sports environments is essential due to the negative impact of depression on sports performance (23). Historically, support for player's mental health has not always received sufficient attention with the greater emphasis placed on physical health (15). Due to a greater awareness of the possibility of mental health difficulties, more emphasis is now being placed on the duty of care to educate players regarding mental health problems and services through life skills programmes (24). Despite this education, mental health services are underutilised by athletic populations (25). This could be partly due to the complexities involved and perceptions that only mentally and emotionally strong athletes are able to succeed (26). Reluctance to access support may also be attributed to stigma, uncertainty regarding the services, negative past experiences and personal characteristics such as a lack of time, money or transportation (27-30).

Many psychological interventions have been used to address CMD (31). These include rational emotive therapy (32), mindfulness, cognitive, multimodal and alternative interventions (31). There is good evidence that psychological interventions, provided by suitably trained clinical professionals or individuals under supervision of such professionals, reduce CMD. This has resulted in a drive to improve access to psychological therapies (IAPT). In particular there has

been a call to provide cognitive behavioural therapy (CBT) free of charge in the UK (32) due to its evidence of efficacy (33,34).

Few mental health interventions have been developed with and specifically for athletes (35). More soccer-based public mental health initiatives are being developed, although the theoretical basis of the interventions are not always clear and few have been quantitatively evaluated (36). Applying the theoretical-base of CBT in the sports domain may have particular advantages when specifically targeted to manage both sports performance and mental health issues. There has been limited research within the sports domain focusing on the applicability of CBT to address mental health concerns in athletes. Preliminary studies have included very small samples but have indicated potential regarding the use of CBT in reducing anxiety in golfers (37) and hockey players (38). Internet and mobile-based interventions have been suggested to overcome the resource limitations posed by face-to-face interventions (39). Use of Internet-based CBT (ICBT) has shown to be of benefit in high school athletes requiring mental health support (40).

Perceptions regarding the efficacy of the intervention is an important aspect that influences engagement with the intervention. As there is little information regarding athlete's perceptions of CBT, these perceptions were recently investigated in elite Premier League male soccer players (13). It was found that awareness and knowledge of CBT were low, however, perceptions towards CBT were positive following provision of information on CBT. This study only focused on male soccer players from one academy. Including female players from a different academy would provide further insight. It would also be of value to identify whether experiences of CMD and intervention preferences are unique to soccer players compared with a population of a similar age who also face similar levels of pressure, such as a university student population (41-43). Depression amongst university students is substantially higher (mean prevalence of 31%) than in the general population (44). The present study was designed to identify mental health perception in elite academy soccer players compared with university students, with the following specific objectives:

- i) To determine whether experiences of CMD differ between male and female elite Premier League soccer players and university student groups
- ii) To identify factors associated with help-seeking behaviours in these populations
- iii) To compare awareness of and knowledge towards CBT in male and female Premier League academy soccer players and university student groups
- iv) To ascertain preferences toward mental health interventions in soccer and university student groups

## **Materials and Methods**

### ***Study Design***

A cross-sectional study design was used to compare perceptions regarding mental health and CBT across four different cohorts. Ethical approval was granted by the Faculty of Medical Sciences Research Ethics Committee of Newcastle University. The study adhered to the tenants of the Declaration of Helsinki.

### ***Study population***

Study eligibility criteria were students and Premier League academy soccer players aged 18-25 years living in England. The upper age of 25 was chosen as although the age limit for English Premier League academy players is 23 years, soccer teams can include a goalkeeper

and up to three ‘over-aged’ outfield players (45). Recruitment first targeted male and female soccer players recruited from two Premier League academies in England. Thereafter male and female students with similar demographic characteristics in terms of age, ethnicity, and gender were recruited. Students were recruited from Anglia Ruskin University across various faculties to obtain a representative cohort. Sports and psychology students were excluded as they would be expected to have a greater awareness of CBT. Participation in the study was voluntary, with all participants providing informed written consent prior to participating, after being made aware of what the study involved and their right to withdraw at any time.

## **Data Collection**

### ***Quantitative Data Collection***

As no standardised measure was available, a custom-made paper questionnaire, ‘Perceptions towards mental health and CBT’ that was piloted by Wilkins et al. (13) was used for the present research. The questionnaire (see Appendix A) consists of 32 questions related to i) demographic data {5 questions}, ii) experiences of anxiety or depression and the importance of mental health and support received for mental health issues {13 questions} iii) awareness of and knowledge of CBT {14 questions}. Following the awareness and knowledge questions, the players were given a brief description of CBT to judge its suitability. Questions related to barriers to engagement in CBT and preferences with regards to the format of CBT were included. Responses to the questions were either categorical (e.g. “Yes”, “No”) or ordinal using a 10–point Likert scale that ranged from 1 (“not at all” or item equivalent) to 10 (“very much so” or item equivalent).

### ***Qualitative Data Collection***

Participants were asked to explain their reasons for choosing counselling or CBT to obtain further insights from the responses to this open-ended question.

## **Statistical analysis**

### ***Quantitative data analysis***

The Statistical Package for Social Sciences (SPSS) version 23.0 was used for statistical analysis (46). The following analyses were performed:

### ***Sample Characteristics***

Descriptive statistics including gender, age, ethnicity, religion, education and previous experience with anxiety/depression (either personally or through others) were used to describe the sample characteristics for each group. Continuous variables were summarised with means and standard deviations. Categorical variables were described using frequencies and percentages. Where ordinal data (the Likert scale questions) were present, the median was reported.

### ***Group comparisons***

To determine whether there were any statistically significant differences between groups a Chi-square test was used when categorical data were present and a Kruskal-Wallis *H* test when analysing ordinal data with a similar distribution of scores. Where the distribution of scores was not similar, only the mean ranks were reported. If significant findings were present, post hoc testing was performed using pairwise comparisons. For all analyses, a two-tailed significance level of  $<0.05$  was considered statistically significant. Bonferroni correction for multiple tests was applied for post-hoc testing. The standardised residual method was used for post-hoc testing when using chi-square tests (47) and pairwise comparisons post-hoc tests were done when Kruskal-Wallis *H* tests were performed.

### ***Qualitative data analysis***

Qualitative data coding was performed using QSR International's NVivo 11 Software (48). Qualitative thematic analysis formed the theoretical framework to systematically identify, analyse and report patterns within data into a structured format (49). Thematic analysis was selected due to its ability to detect patterns of meaning that would facilitate understanding of the data (49). This analysis examined the data in a recursive process to identify a set of condensed categories. These categories were derived inductively using a bottom-up approach without imposing advanced pre-conceived categories or theoretical perspectives (deductively). These responses were coded for meaning units, which are the statements that related to the same central category and formed the units of analysis for coding. Meaning units were then sorted into potential candidate themes and later sub-themes. Categories were gradually condensed by combining those with similarities to ensure they were mutually exclusive. Category labels were assigned by selecting meaningful terms. After selecting the codes and categories the original data were rechecked for consistency to ensure responses were appropriately categorised.

## **Results**

### ***Participants***

Questionnaires were completed by 24 male soccer players and 18 female soccer players. To obtain a gender match, 24 male students, and 18 female students were recruited and completed the questionnaires. There were 84 respondents in total (42 soccer players, 42 students). The socio-demographic characteristics of the respondents were similar as seen in Table 1.

Experiences of self-reported anxiety and depression from the survey were high in all the groups (54–83%). Chi-squared testing indicated that there were no statistically significant differences in these experiences between the groups ( $\chi^2(3) = 4.33, p = 0.23$ ). To justify awareness of CMD, participants were asked if they knew others with anxiety and depression. A range of 54-96% across the groups indicated that they did. Significant group differences were found ( $\chi^2(3) = 16.03, p = 0.001$ ). Post-hoc testing indicated that significantly less male soccer players ( $z = 2.6, p = 0.01$ ) and female soccer players ( $z = 2.0, p = 0.04$ ) indicated that they knew people with anxiety and depression compared with the other groups.

Table 1. The demographic profile of the participants

	<b>Female Soccer players</b>	<b>Female Students</b>	<b>Male Soccer players</b>	<b>Male students</b>
<b>Number (n = 108)</b>	<b>18</b>	<b>18</b>	<b>24</b>	<b>24</b>
<b>Age Mean (SD) Range</b>	19.22 (1.87) 18-24	20.48 (1.95) 19-25	20.04 (1.52) 18-24	19.12 (1.89) 18-25
<b>Highest level of education completed</b>				
GCSE	3 (17%)	2 (11%)	10 (42%)	1 (4%)
A levels	12 (67%)	10 (56%)	14 (58%)	20 (83%)
'''	3 (17%)	4 (22%)	0	3 (13%)
Postgraduate	0	2 (11%)	0	0

<b>Ethnicity</b>				
British	14 (78%)	13 (72%)	17 (71%)	17 (71%)
Irish	2 (11%)	2 (11%)	1 (4%)	0
African	2 (11%)	3 (17%)	5 (21%)	0
Arab	0	0	1 (4%)	0
Asian	0	0	0	0
Pakistani	0	0	0	3 (13%)
Indian	0	0	0	2 (8%)
Chinese	0	0	0	2 (8%)
<b>Religion</b>				
None	8 (44%)	11 (61%)	12 (50%)	11 (46%)
Buddhist	1 (6%)	0	0	0
Christian	9 (50%)	7 (39%)	10 (42%)	8 (33%)
Muslim	0	0	2 (8%)	5 (21%)
<b>Past experiences of anxiety or depression</b>				
No	6 (33%)	3 (17%)	10 (42%)	11 (46%)
yes	12 (67%)	15 (83%)	14 (58%)	13 (54%)
<b>Know someone with anxiety or depression</b>				
No	8 (44%)	2 (11%)	11 (46%)	1 (4%)
yes	10 (56%)	16 (89%)	13 (54%)	23 (96%)

Table 2 provides the mean ranking and statistical analysis for questions regarding the importance of good mental health; how much anxiety and depression is experienced due to playing soccer or studying and views regarding the perceived support for mental health concerns provided by the academy/ university. The mean ranking regarding the importance of good mental health for soccer/ studying was highest for female soccer players and the lowest for male students. The Kruskal-Wallis  $H$  test showed significant between-group differences regarding the importance of good mental health. Post-hoc testing indicated that the differences were significant between male and female soccer players and between female soccer players and each individual student group.

The mean ranking regarding soccer or studying causing anxiety and depression was highest amongst female students and lowest for male students. Post-hoc testing indicated that the difference was significant between male and female students. Significant differences were also seen for perceived organisational support received for mental health issues. Interestingly, female soccer players ranked the support highest and male soccer players ranked the support lowest. Post-hoc testing indicated that this difference was significant between male and female soccer players and between male soccer players and female students.

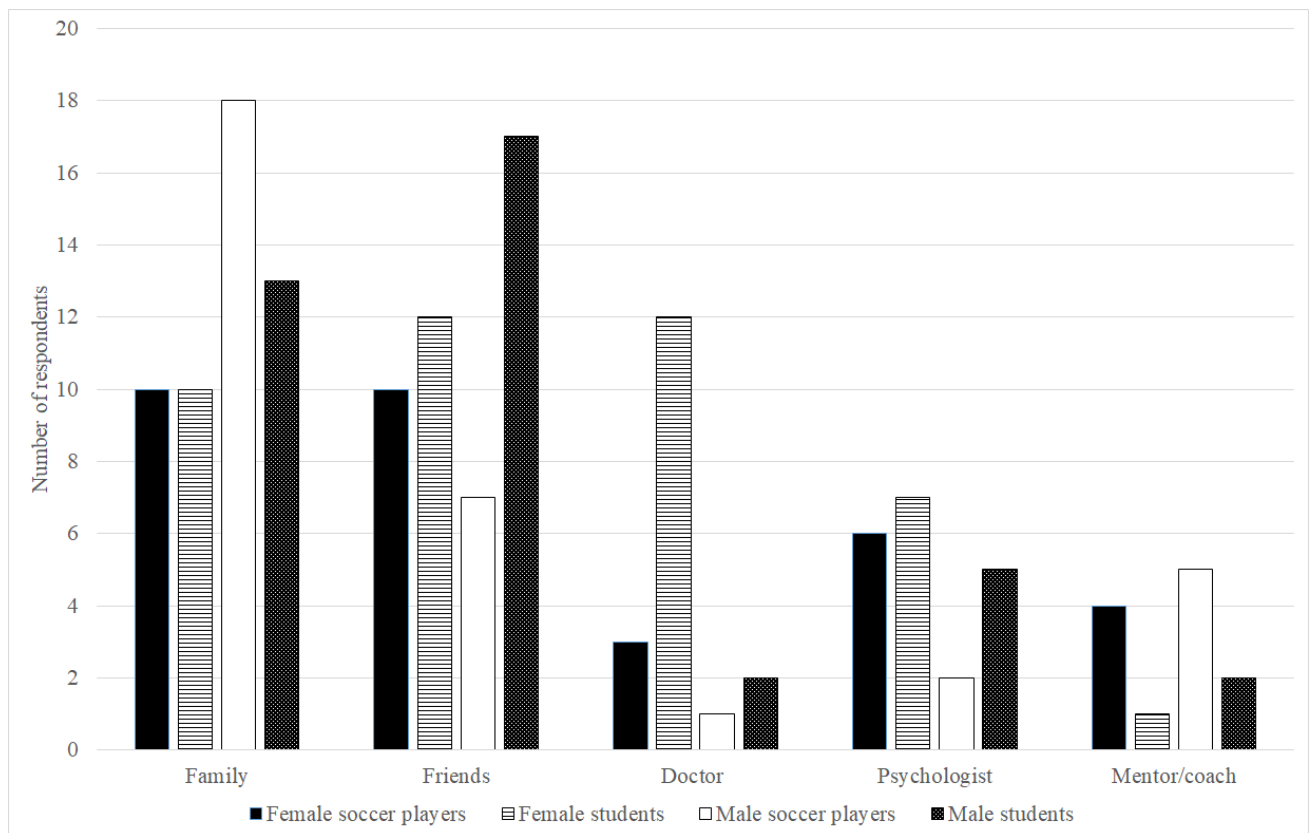
Table 2: The importance of and support provided for mental health concerns

Category	Mean Ranking				Kruskal-Wallis H Test	Posthoc testing Pairwise comparison with Bonferroni adjustment					
	Male Soccer	Female Soccer	Male students	Female Students	Overall significance	M soccer vs F soccer	M soccer vs M student	M soccer vs F student	F soccer vs M student	F soccer vs F student	M student vs F student
Importance of good mental health	41.3	67.4	25.9	38.2	$\chi^2(3) = 31.61$ $p = 0.001^*$	$t = 26.19$ , $p = 0.01^*$	$t = 15.38$ $p = 0.16$	$t = -3.08$ $p = 1.00$	$t = 41.58$ $p = 0.01^*$	$t = 29.28$ $p = 0.001^*$	$t = 12.30$ $p = 0.60$
Anxiety/Depression related to soccer/studying	38.13	47.4	32.3	55.0	$\chi^2(3) = 10.80$ $p = 0.01^*$	$t = 9.32$ $p = 1.00$	$t = 5.83$ $p = 1.00$	$t = 16.85$ $p = 0.14$	$t = 15.15$ $p = 0.27$	$t = -7.53$ $p = 1.00$	$t = 22.68$ $p = 0.01^*$
Employer support for mental health issues	27.5	57.9	33.1	41.0	$\chi^2(3) = 20.87$ $p = 0.001^*$	$t = -30.38$ , $p = 0.001^*$	$t = 16.83$ $p = 0.06$	$t = -24.74$ $p = 0.004^*$	$t = -13.55$ $p = 0.37$	$t = -5.65$ $p = 1.00$	$t = -7.90$ $p = 1.00$



### Obtaining Support

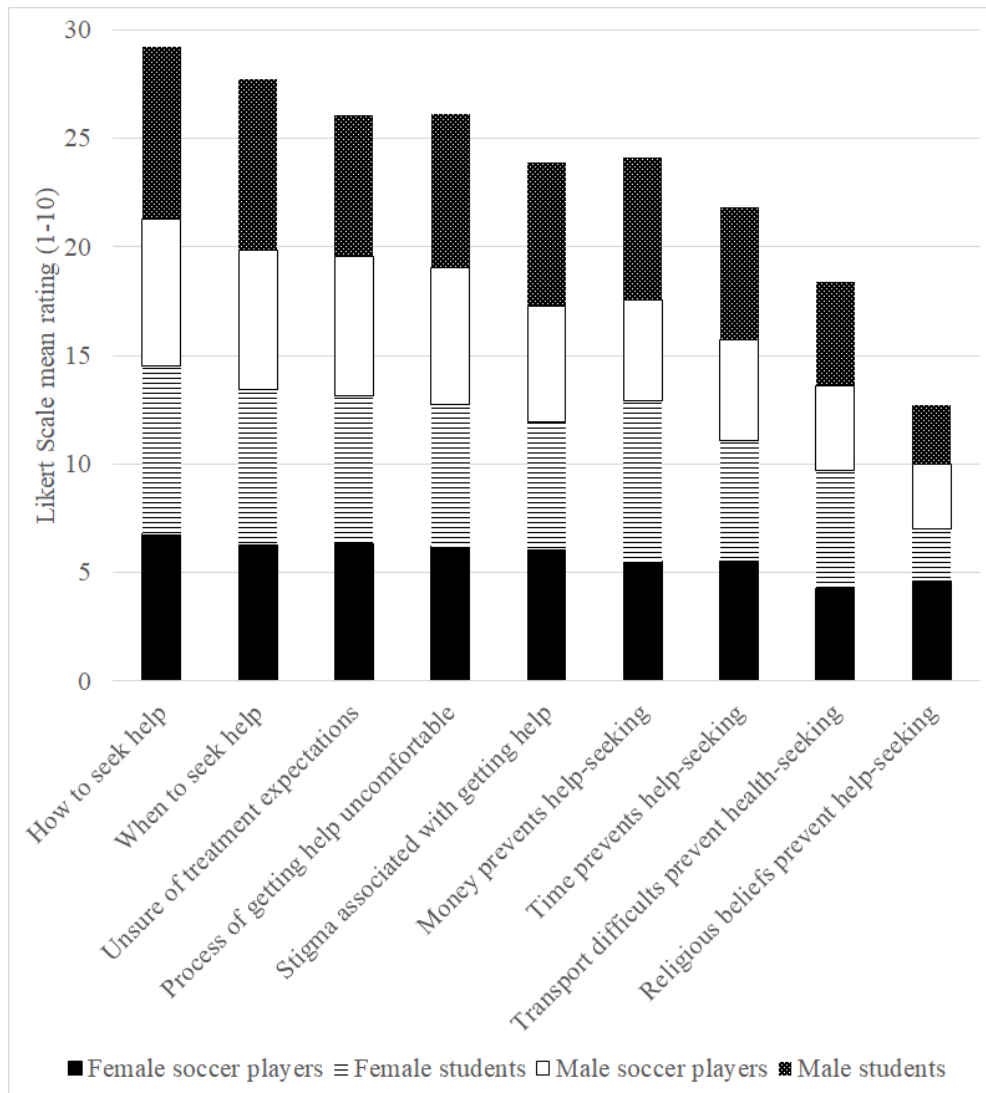
There were no significant differences identified in where help would be sought ( $\chi^2(12) = 13.03$ ,  $p = 0.16$ ). The majority indicated that they would go to family and friends before seeking professional help from a GP, psychologist or their coach or mentor, as indicated in Figure 1.



**Figure 1:** Where help would be sought for mental health concerns

Participants were asked to rate the influence of possible barriers regarding seeking help for mental health concerns. These included not knowing how or where to get help, the stigma associated with seeking help, time, transport and financial factors, as shown in Figure 2. The most frequently indicated barrier was not knowing how to or when to seek help. There were no group differences regarding any barriers.

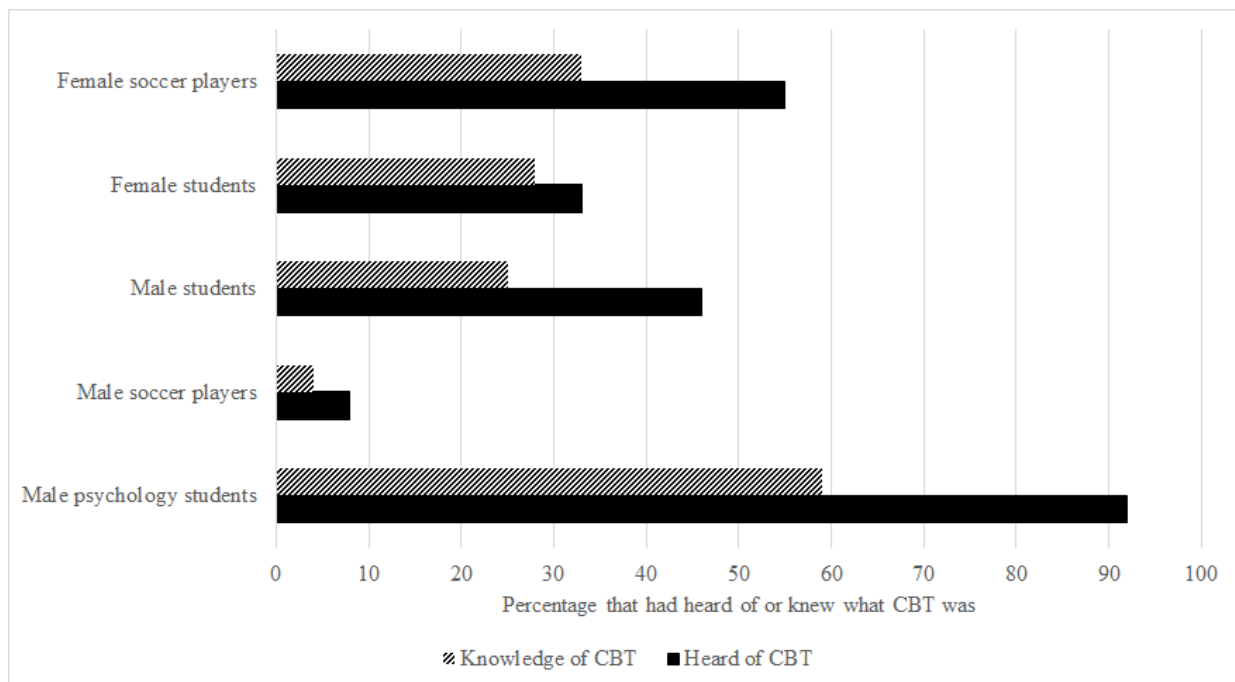
(Figure 2 near here)



**Figure 2.** Barriers to help seeking treatment for mental health concerns

### ***Perceptions of CBT***

Participants were asked whether they had heard of or knew what CBT was (Figure 3). Chi-squared testing indicated significant group differences ( $\chi^2(3) = 15.39, p = 0.002$ ) as significantly fewer male soccer players ( $z = 20.25, p = 0.001$ ) had heard about CBT. There were also significant group differences regarding knowledge of CBT ( $\chi^2(3) = 8.15, p = 0.04$ ). Significantly fewer male soccer players ( $z = 9.61, p = 0.04$ ) had knowledge of CBT in comparison to the other groups.



**Figure 3. Awareness and knowledge of CBT**

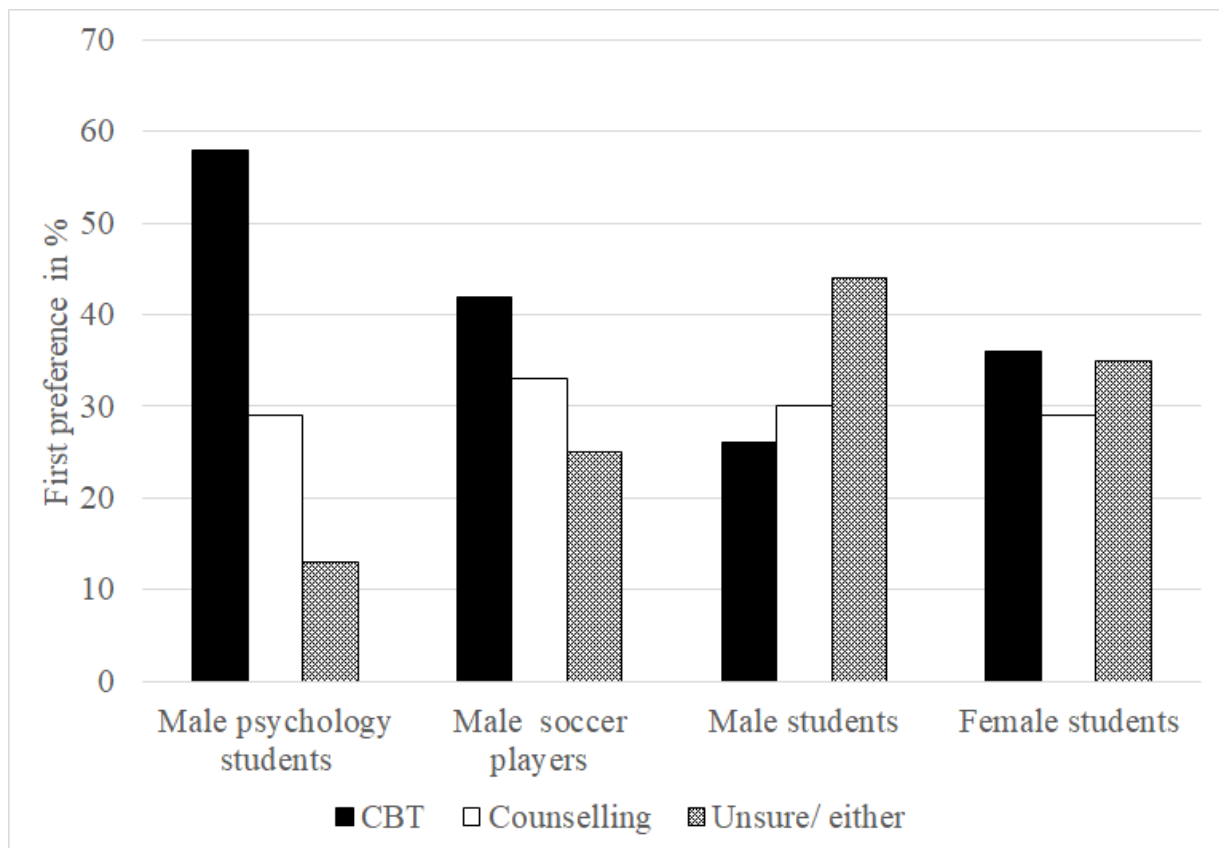
After reading an explanation of CBT, Participants were asked how appealing CBT was if they were to experience anxiety and depression and whether it should be available for those playing soccer or studying. Median ratings were not significantly different between groups for both how appealing CBT sounded (median 8.0) ( $\chi^2(3) = 33.95, p = 0.17$ ) and whether it should be available (median 8.0) ( $\chi^2(3) = 21.89, p = 0.59$ ). In general, individuals agreed that it should be readily available.

#### ***Preferences for the format of mental health support***

The majority of respondents indicated that they would prefer the format of mental health support to be individualised face-to-face support (80%) rather than in a group format (8%). A few participants indicated that either format was suitable (12%). There were no group differences regarding these preferences ( $\chi^2(6) = 12.73, p = 0.12$ ). When asked if they would prefer individualised face-to-face or an Internet-based format, the majority again selected face to face (72%) with only 5% indicating an Internet-based format and 23% indicating that either format would be suitable. There were no group differences regarding these preferences ( $\chi^2(6) = 17.65, p = 0.26$ ).

#### ***Preferences for the type of mental health support***

When asked whether they would prefer obtaining CBT or counselling for CMD, the majority indicated a preference for CBT compared with counselling (Figure 4). There were no significant group differences regarding these preferences ( $\chi^2(9) = 9.72, p = 0.37$ ).



**Figure 4. Preference regarding the type of help for mental health concerns**

Participants were asked to explain their preference of counselling or CBT. Thematic analysis was undertaken to investigate the reasons for the selected preference (Table 3). Two main themes were identified, 1) preference for the approach offered and 2) the benefits provided by the approach.

Table 3: Thematic analysis of open-ended questions exploring the reasons for choosing counselling or CBT. The number of participants mentioning each is provided in brackets.

	<b>COUNSELLING</b>		<b>CBT</b>	
<b>APPROACH</b>	<b>THEME</b>	<b>EXAMPLE</b>	<b>THEME</b>	<b>EXAMPLE</b>
	Addressing the root cause (4)	Helps get to the root of the problem, allowing a greater solution to any mental health problems ( <i>male student</i> )	Focused on current issues (8)	Dealing with current issues seems much more productive for functioning on a day-to-day basis ( <i>Male student</i> )
	Encouraging feelings to be expressed (3)	allows expression of feelings more ( <i>female student</i> )	Structured approach (5)	As it is structured I believe it would be more successful ( <i>female soccer player</i> )
	Intensive approach (2)	sounds as if it is a more intensive and more precise solution to anxiety or depression ( <i>male soccer player</i> )	Evidence-based (2)	Research shows that CBT is effective ( <i>Female student</i> )
	Less commitment required (2)	Requires less commitment ( <i>male student</i> )	Addresses thought patterns (2)	Prefers positive thinking techniques ( <i>female soccer player</i> )
<b>BENEFITS</b>	<b>COUNSELLING</b>		<b>CBT</b>	
	Past issues dealt with (10)	Looks more into the past which can have a significant impact in later life ( <i>female student</i> )	Practical solutions sought (4)	CBT seems to be more focused on practical solutions than counselling ( <i>male student</i> )
	Targets anxiety and depression (2)	Focused on anxiety and depression ( <i>male soccer player</i> )	Reduced associated stigma (4)	I feel like I would it more uncomfortable to go counselling due to the nature of the therapy and the stigma attached to it ( <i>female soccer player</i> )
	Different perspectives can be obtained (1)	because it helps with different perspectives ( <i>female student</i> )	It has a wider application (4)	Possibly helpful even in the absence of depression or anxiety ( <i>female soccer player</i> )
			Improves outlook and behaviours (2)	CBT actively changing patterns of behaviour which are causing us distress and targeted coping mechanisms ( <i>female student</i> )

## **Discussion**

This study investigated awareness of mental health concerns and treatment preferences in male and female academy soccer players by comparing their perceptions with those of university students. This exploratory study is of importance due to the recent findings regarding the high prevalence of CMD among soccer players (10-12). Previous UK based research has focused on the prevalence of CMD in various sports (3). Limited research is present regarding experiences of CMD among soccer players in the UK. Moreover, little information regarding male and female soccer players perceptions of CBT exists. University students were included in this study to determine whether experiences of CMD and perceptions of CBT were unique to soccer players or similar to other young adults who also face various pressures. This discussion focuses on the main findings of this study.

### ***Experiences of anxiety and depression***

Participants from all groups indicated a high prevalence of having experienced anxiety or depression in the past (54-83%) with no significant group differences. It was not established how many of these participants had clinically diagnosed anxiety and depression. Low mood instead of depression and traits such as perfectionism, instead of clinical anxiety could have been referred to. This may contribute to why this finding differs to previous research which has indicated a higher prevalence in young females than in males (50) and higher in female athletes compared with male athletes (8). Further exploration with a larger sample size is warranted. Such studies should include validated anxiety and depression measures using consistent definitions of anxiety and depression.

More university students reported knowing people with anxiety and depression than the soccer players. This finding is open to interpretation, but could indicate that different groups perceive CMD differently. Soccer players could also possibly be less inclined to openly discuss mental health issues due to concerns of the impact this may have on their professional career. Although education about CMD is provided, ensuring this education is available to both soccer players and coaches is important (51). Also evaluating the effectiveness of the education in helping players identify anxiety and depression should be sought (52). This education should start early and be given greater priority as players progress in their career. Previous studies have indicated that adolescent players have expressed a need for resources to prevent and cope with mental health issues (53). Whilst Premier League academies are required to provide education on “wellbeing i.e. mental health”, there is very little further reference to mental health within the Youth Development rules, and no specific legislation regarding how this support should occur (e.g. hours, content, delivery methods) (22,23).

### ***The importance of support provided for mental health concerns***

The importance of mental health was rated significantly higher by female soccer players compared with the other groups. Female players have many additional challenges in becoming a professional soccer player, which may contribute to this finding (54,55). Soccer players did not, however, indicate that competitive soccer led to more anxiety or depression compared with the other groups. Male students indicated that their studies led to significantly less anxiety and depression than female students, indicating some gender differences. A recent systematic review had similar findings that female dental students presented with more depressive symptoms (56). A meta-analysis comparing medical and non-medical students also found that female students were more likely to be depressed, although findings were not statistically

significant (44). These gender differences deserve further exploration. Participants were asked to rate how much support is provided for mental health concerns by their academy or university. There were significant group differences, in particular the male soccer players perceived that there was significantly less support available compared with female soccer players and student groups. This may be related to the differences in the educational programs provided in these specific clubs. As mentioned previously, whilst there is some limited legislation for education on wellbeing, the extent to which a club goes beyond this is likely to vary considerably. A one-hour workshop yearly would likely have much less impact on players CMD perceptions than regular sessions delivered with individualised content and targeted progressions. Emphasising the availability and importance of support for mental health concerns within Premier League soccer academies should be encouraged. Other studies have also indicated that even adolescent players have expressed a need for resources to prevent and cope with mental health issues (53).

Incorporating mental health support into performance psychology consultations may be one approach that could be followed (57). Many such initiatives have been established such as the Premier League's Elite Player Performance Plan (22) and City Player Advanced Safety and Support framework (City PASS), using a multidisciplinary team to action challenging behaviours (20). If followed, such guidelines can identify high risk players and then initiate the appropriate support.

### ***Obtaining Support***

Participants were asked where they would obtain support for mental health problems. All groups indicated that they would turn to family and friends first (before GPs or psychologists) when seeking help for mental health issues. Education of CMD should include families to increase awareness of the importance of their support and possible negative influence at times of an unstable home life or pushing players too hard (58). Very few players indicated that they would ask mentors or their coach for support. This may be associated with the strong competition present within elite soccer Premier Leagues, fear of not being chosen for the team, and ongoing stigma regarding CMD despite more and more athletes discussing mental health problems (26,59,60). Educating elite sport staff, especially coaches who spend a lot of time with the players, regarding the signs of CMD and ensuring they are supportive towards players obtaining help, should be actively promoted (51,61). Focus groups with adolescents in Australia who were participating in organised sport including soccer, indicated that these players valued the support provided by parents/ family and coaches (53). These preferences may be partially attributed to who provides the support and education for mental health. When provided by coaches directly, instead of an external company, players may feel more comfortable approaching their coach. The participants from this study were, however, younger, than for the present sample, who may have concerns regarding possible negative consequences with help-seeking.

The most frequently reported barriers to help-seeking were not knowing how, when or where to seek help. This is of importance especially within an athlete population who underutilise mental health support services (62). Regular educational programmes should ensure information is readily available about mental health, including how and where to obtain help, prevention, identification and treatment options (62).

### ***Perceptions of cognitive behavioural therapy***

CBT is one form of help for mental health disorders utilized by the UK initiative to increase psychological services free of charge (IAPS) (32). Little information is available regarding perceptions of CBT among athletes. To determine perceptions of CBT, participants were first asked whether they had heard of CBT or had knowledge of CBT. Male soccer players had the least number of participants who had heard of or had knowledge of CBT. Once an explanation of CBT was given, all groups indicated that CBT would be appealing for CMD. They also indicated that CBT should be made available by their academies/ universities. Overall, there was a stronger preference for CBT than for counselling. Within an athlete population, therapies such as CBT should be promoted to address both sport psychology issues as well as mental health difficulties (63).

Thematic analysis indicated that the reasons for the preferences given were related to both 1) the approach provided and 2) the benefits gained. Those indicating a preference for CBT indicated that this was due to CBT focusing on current issues and that it was a structured and evidence-based approach that addressed thought patterns. Where mental health issues are associated with present pressures and stressors, soccer players may be more acceptant of an approach such as CBT which is focused on current difficulties as opposed to approaches in counselling perceived to be of more benefit for past issues. Further perceived benefits of CBT included offering practical solutions, having less associated stigma, and having a wider application at improving outlook and behaviours. Preferences for counselling were expressed due to it dealing with past issues, addressing the root cause of problems and that feelings can be expressed as well as being a less structured but more intensive approach. The stigma of mental health has previously been shown to have a moderately sized negative effect on help-seeking in the general population (64) and within elite sport (26). Ways of reducing the stigma associated with different forms of help and help-seeking behaviour are key to reducing the impact of mental health difficulties. A key aspect of any intervention program should be on having support from specialists with knowledge of the sporting environment (65).

### ***Preferences for the format of mental health support***

The majority of respondents indicated that they would prefer face-to-face help rather than group-based or Internet-based help. Group-based interventions can be of great benefit to certain players due to the sharing of experiences, but can also result in conflicts between players (66). Participants also indicated a preference for face-to-face care over Internet-based treatments in previous clinical trials (67,68). Interestingly, after undertaking Internet interventions, ratings of Internet-interventions generally improve and were higher than the face-to-face treatment in some instances, such as Jasper et al. (69). The lower preference towards an Internet-based intervention in the present study may partly be attributed to uncertainty regarding what Internet-interventions involve. Internet interventions can be designed to include attractive interactive elements and synchronous or asynchronous support from a health-care professional (70). Participants have indicated high satisfaction regarding the presentation of materials in such designs (71,72). Internet-based interventions can also provide CBT support. In the field of general mental health services, ICBT has been tested for over 25 different clinical disorders with large effect sizes in the treatment of for instance depression, anxiety and eating disorders (73). Equivalent effects between conventional CBT and ICBT have also been reported (73). An ICBT intervention may be an attractive option for young adults and athletes in particular



due to the flexibility, accessibility, anonymity, and convenience it offers. Providing more information about how Internet-based interventions function may increase familiarisation. It may be an option especially in populations found to be less in favour of seeking help from mental health services such as male athletes (29). Regardless of the format, readily available evidence-based interventions targeting sport-specific stressors such as the demands of competition and training, performance failure, burnout, dealing with injury and recovery, anxiety and depression, performance expectations and overtraining should be available to athletes (74,75). Customising the intervention for sports type, such as individual versus team sports should also be prioritised (5). A need to evaluate these interventions regarding their effectiveness is paramount (36).

### **Study limitations**

The present study served as an exploratory study as there is little information regarding perceptions of CMD and CBT in soccer players. Data were only collected from one male and one female soccer academy in the UK. Experiences of CMD and support provided for CMD may vary from academy to academy, and legislation regarding the education of these is dependent upon the category/level of each academy. Players from academies with category 2-4 status may be receiving less support concerning their mental health than those with category 1 status. The results do need to be interpreted within the context of the populations investigated and the questionnaire used and may not be generalisable to other contexts or populations. Further studies are indicated to determine whether these findings are similar in other academies and other sub-groups of athlete populations. Including validated measures for anxiety and depression, such as the Generalized Anxiety Disorder (76) and Patient Health Questionnaire (77) would have helped identify depression and anxiety in this sample.

### **Clinical Implications**

This study explored awareness of mental health issues and intervention options among both male and female elite soccer players compared with students of similar ages. It highlighted that mental health concerns are prevalent in soccer players and young adult student populations. Screening tools and mental health educational course are available, but may not always be used to the same extent in all academies (20). More research is required to develop evidence-based interventions for athletes who are faced with different stressors and pressures to the general population (16,36,78,79). It is important that these are addressed and not ignored, hidden or discarded when working with these populations (26). Although educational systems may be in place, the associated stigma or perception of lower mental toughness may still discourage help-seeking (26,80). Although creative approaches have been sought to reduce stigma and increase help-seeking for CMD (81), optimal solutions remain to be found. Recommendations for service provision for athletes are currently being sought and should include education of athletes, coaches, and directors on CMD (82). Education of key support staff may promote early intervention and timely referral where CMD concerns are identified (51). Readily available tailored services for athlete and young adult populations to address mental health concerns may reduce some of the present barriers in seeking help. In view of the limited interventions available for this population, the preferences indicated by soccer players in this study can guide intervention planning of tailored and accessible interventions focusing on the mental well-being of elite athletes.

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### **Table captions**

Table 1: The demographic profile of the participants

Table 2: The importance of and support provided for mental health concerns

Table 3: Thematic analysis of open ended questions exploring the reasons for choosing counselling or CBT. Number of mentions for each them is provided in brackets

### **Figure captions**

Figure 1: Where help would be sought for mental health concerns

Figure 2. Barriers to help seeking treatment for mental health concerns

Figure 3. Awareness and knowledge of CBT

Figure 4. Preference regarding the type of help for mental health concerns

Appendix A: Perceptions towards mental health and CBT' Wilkins et al. (13) questionnaire