

Article

# Healthy Practice of Female Soccer and Futsal: Identifying Sources of Stress, Anxiety and Depression

Aurelio Olmedilla <sup>1</sup>, Enrique Ortega <sup>2,\*</sup> , Francisco Javier Robles-Palazón <sup>2</sup>, Miquel Salom <sup>3</sup> and Alexandre García-Mas <sup>3</sup>

<sup>1</sup> Department of Personality, Evaluation and Treatment Psychological, University of Murcia, Campus Mare Nostrum, Espinardo, 30100 Murcia, Spain; olmedilla@um.es

<sup>2</sup> Department of Physical Activity and Sport, University of Murcia, Campus Mare Nostrum, San Javier, 30730 Murcia, Spain; franciscojavier.robles1@um.es

<sup>3</sup> Department of Basic Psychology, University of the Balearic Islands, 07122 Mallorca, Spain; fbv@federacionbalearvela.org (M.S.); alex.garcia@uib.es (A.G.-M.)

\* Correspondence: eortega@um.es; Tel.: +34-8688-88826

Received: 25 May 2018; Accepted: 28 June 2018; Published: 2 July 2018



**Abstract:** The aim of this study was to examine the post-injury psychological impact looking to avoid sources of health issues. We have analyzed differences in the stress, anxiety, and depression levels between male and female football players who have suffered at least one injury during the last season played, with respect to similar players who have not been injured. A descriptive cross-sectional design was used. The participants were 187 football players and data on the player's injuries were collected. A self-reported questionnaire collected number, type, and severity of injuries sustained during the previous sports season (twelve months), and also the player's current situation, being injured or not injured. To evaluate the psychological variables, the DASS-21 questionnaire was used. Results indicated that the male injured players presented anxiety levels higher than those who were non-injured. When we observe the female players' data, the stress levels of the non-injured ones are higher than those of the injured players. Regarding the non-injured athletes, results showed that the female non-injured players presented values in anxiety higher than those corresponding to the non-injured male players. Thus, sport injury affects mental health issues such as anxiety and stress, and in a different way regarding gender.

**Keywords:** psychological impact; sport injuries; gender

---

## 1. Introduction

Sports injuries are inherent to the sports practice, and are quite familiar to the majority of athletes, as shown by numerous epidemiological studies [1,2]. In professional or elite football, for example, each player suffers a mean of two sports injuries during a single competitive season [3,4], which causes a significant impact to the club. In this sense, the loss by injury for a month of a titular player costs his/her club approximately 500,000 euros [5]. In addition, injuries also have a negative impact on the team's performance. Waldén et al. [1] indicate that the higher are the injury rates in elite European soccer, the poorer the team performance is. In addition to the economic and sportive consequences for the clubs, injuries may produce other consequences for the player (need for special practices, loss of fitness, time spent as a substitute, etc.), added to the associated cognitive and emotional reactions (pain, duel, sadness, anger, fear) that may negatively influence their well-being [6,7]. Considering it globally, sports injuries are the most common cause of abandonment in all kinds of sports careers [8].

Given the high incidence of injuries in sports practice and their negative consequences on both athletes and other entities (teams, clubs, etc.), it seems very important to determine what are the

possible predictors of these injuries, and eventually, try to control them. Historically, the research in this field has been focused on the medical, physiological, and biomechanical perspectives, but during the last two decades, the role of the psychological factors as a possible cause of the injuries has been also extensively explored [9], also suggesting interdisciplinary theoretical models and practical interventions [10]. The study of the psychological factors that may affect the athlete's vulnerability to the injury has become, nowadays, some kind of paradigm in the field of sports psychology [10–12].

The classical model of stress and sports injury proposed by Andersen and Williams [13] has consolidated an approach that establishes that when the athletes face potentially stressful sports situations, they carry out an estimation of the demands of the situation, and then evaluate their abilities to cope with it and of the eventual consequences. If the athletes perceive that their abilities or resources are not strong enough to cope with the situation successfully, they are more likely to show stress responses, along with attentive and physiological changes, placing the athlete in a situation of greater risk of injury [13,14]. These athlete's responses may be moderated by three main factors: their personality, their previous history of stress events, and his/her coping resources and strategies. These psychosocial variables can either attenuate or aggravate the athlete's stress response capacity, and therefore, affect the athlete's vulnerability to injury [15].

Expanding this model, and specifically focusing on this last topic, Wiese-Bjornstal et al. [16] propose a model integrating both the psychological response to the injury and the rehabilitation process, based on the influence of the factors before and after the injury, and also, on the psychological response of the athlete. The psychological consequences are related to the whole process, and are developed based on three different sources: the athlete's cognitive appraisal of the event, the athlete's emotional response, and the athlete's behavioral reaction. Thus, the psychological and physical rehabilitation of the injured athlete will be the result of a whole dynamic and circular process in which different factors appear, both prior to injury and post-injury, which influence the psychological response. As a summary, Olmedilla and García-Mas [10], in their global psychological model of sports injuries, establish some guidelines of analysis, intervention, and research, based primarily on the contributions coming from the models by Andersen and Williams [13,14] and Wiese-Bjornstal et al. [16].

Going one step further regarding the severity of the consequences of the injury, it is well documented that depression may be one of the emotional reactions which may appear after the injury occurs [17]. Moreover, it is known that women are at least twice as likely to develop clinical depressions compared with men, so this gender difference in the global population could also affect the prevalence of depression in the athletes in some way [18].

Likewise, the relationship of the clinical depression and the lesions both at work (non-sports) and at home has been extensively investigated, both as one of the predictors, and as a consequence of the injury. Thus, cohort studies have demonstrated the predictive capacity of the depression regarding the incidence of accidental injuries [19]. Also, gender differences have been found in factors associated with post-injury depression in the workplace [20]. However, despite the potential risks associated with the clinical depression, such as suicidal ideation, there is a lack of studies to study it in sports populations [21].

In a retrospective study, Brewer and Petrie [22]—using the *Epidemiological Studies Depression Scale* (CES-D)—found that the symptoms of clinical depression in athletes who had suffered an injury in the past season that they played were significantly higher than the symptoms shown by those who had not suffered any injury during the same season. Looking for gender differences, they found significant differences between the female athletes who had reported an injury and those who had not, while these differences did not appear in male athletes. Later, Appaneal et al. [23], using self-reported interviews, also found gender differences with considerable size effects, significantly related to the injuries duration.

However, as was indicated above, the main line of research has been developed after the Andersen and Williams model [13,14], being mainly focused twofold. First, we have a large amount of the research on the relationship between high levels of stress and the narrowing of the attentional field,

as well on the relationship between training in muscular and mental relaxation, and the improvement of the perception and discrimination of the peripheral and central field of vision [24,25]. Second, research has been also centered on how some variables can mediate the relationship between the level of perceived stress and the injury, such as in the case of the competitive anxiety, depression, coping strategies, social support, etc. [26,27]. However, the results have not always been coincident, and are even sometimes contradictory.

However, very few studies have tried to analyze if this stress model is able to explain well the mechanisms of stress response in male and female athletes. For instance, Andrews and Chen [28] analyzed the mental toughness and coping strategies of male and female athletes regarding their relationship with sport injuries, finding that men showed a higher level of mental toughness than the female athletes. In addition, male athletes showed greater self-esteem and better coping resources—such as focusing on tasks, or a greater use of the visualization technique—while women showed greater detachment and resignation, as coping strategies. In this same vein, some studies indicate that there are significant differences between male and female athletes regarding this level of competitive anxiety [29], or on how they deal with the stress related to the competitive sport practice [30], indicating, also, some differences when considering the coping strategies used for to face the stress which may appear after the injury occurs [28].

Therefore, and guided by current theory, our objective was to examine the post-injury psychological impact. More specifically, we have examined if there are differences in the stress, anxiety, and depression levels between men and women football players (football association and indoor football) who have suffered at least one injury during the last season played respect to similar players who have not been injured.

## 2. Materials and Methods

### 2.1. Design and Participants

A descriptive cross-sectional design was used. The participants were 187 football players (55.6% women and 44.4% men; 82.4% football association and 17.6% indoor football), aged between 16 and 34 years old, with a mean age of 22.07 years ( $\pm 4.7$ ), belonging to teams of similar competitive level of the Football Federation (3rd and 2nd B Spanish National Football League divisions; 1st, 2nd and 3rd Spanish National Futsal League divisions). Of the total sample, 58.3% of the players had suffered an injury during the last season played, and the 41.7% had not been injured during the same season.

### 2.2. Variables and Instruments

The protocol for collecting epidemiological data on the player's injuries was based on the definition and injury registry system coming from Junge et al. [31], used in follow-up studies of the International Olympic Committee (IOC) and the International Federation of Football Associations (FIFA). Added to that, a self-reported questionnaire [32] was used to record the number, type, and severity of injuries sustained during the previous sports season (which lasted approximately one year), marking clearly the player's current situation being injured or not injured at the time of the study.

To evaluate the psychological variables, the Spanish version of the DASS-21 questionnaire was used [33]. It is composed of 21 items—Likert type with four response options—and measures the basic symptoms of depression, anxiety, and stress. The DASS have adequate psychometric reliability and validity properties in a range between 0.73 and 0.81 [33].

### 2.3. Procedure

A list of the federated clubs was requested of the Football Federation of the Region of Murcia (Spain), and those teams that met the requirements of sampling by convenience were selected: geographical viability and facility of the contacts. Later, an appointment was made with the sports

directors and meetings were organized with the players and coaches of each team to explain the objectives of the study, clarify doubts, and request their participation. Finally, those players who agreed to participate in the research signed an informed consent. The study was conducted in accordance with the Declaration of Helsinki.

#### 2.4. Statistical Analysis

First, a descriptive analysis of the variables was performed showing means and standard deviations. After analyzing the normality of the data with the Kolmogorov–Smirnov test, it was found that the data were normal, so it will use parametric statistics. Subsequently, the Student's *t* test was used for independent samples, using Cohen's *d* for the calculation of the effect size. In all cases, a significance level of  $p < 0.05$  was used. The data were analyzed with the statistical package SPSS, V. 21.0.

### 3. Results

Table 1 shows the mean values and the standard deviation of the variables stress, depression and anxiety, for both the injured and non-injured athletes in males.

**Table 1.** Mean  $\pm$  SD of the studied variables in males.

Variables	Injured ( $n = 52$ )	Non-Injured ( $n = 31$ )
Stress	15.07 $\pm$ 7.83	15.61 $\pm$ 9.66
Depression	8.42 $\pm$ 7.89	7.35 $\pm$ 6.76
Anxiety	6.84 $\pm$ 6.92	4.32 $\pm$ 3.26

Table 2 shows the mean values and the standard deviation of the variables stress, depression and anxiety, for both the injured and non-injured athletes in female.

**Table 2.** Mean  $\pm$  SD of the studied variables in female.

Variables	Injured ( $n = 57$ )	Non-Injured ( $n = 47$ )
Stress	13.08 $\pm$ 7.47	16.97 $\pm$ 7.78
Depression	7.92 $\pm$ 7.09	10.08 $\pm$ 8.20
Anxiety	7.75 $\pm$ 6.66	9.40 $\pm$ 7.92

The data presented in Tables 1 and 2 show that—regarding the male players—the non-injured ones presented values slightly higher than those who were injured in stress, and slightly lower in depression, although no statistically significant differences were found ( $t_{81} = 0.276$ ,  $p = 0.783$ , and  $t_{81} = -0.628$ ,  $p = 0.532$ ). Statistically significant differences were observed between the injured and non-injured players in the variable anxiety ( $t_{77.80} = -2.243$ ,  $p = 0.028$ ,  $d = 0.465$ ).

When we observe the female players' data, it can be seen that in the three variables analyzed, the values of the non-injured ones are slightly higher than those of the injured players, although no statistically significant differences were observed in either depression or anxiety ( $t_{102} = 1.437$ ,  $p = 0.154$ , and  $t_{102} = 1.153$ ,  $p = 0.251$ ), but these differences are significant regarding the variable stress ( $t_{102} = 2.592$ ,  $p = 0.011$ ,  $d = 0.51$ ).

On the other hand, the data in Tables 1 and 2 indicate that there were no statistically significant differences between injured male and female players regarding the stress ( $t_{107} = 1.356$ ,  $p = 0.178$ ), nor in depression ( $t_{107} = 0.344$ ,  $p = 0.732$ ), and the same with the anxiety ( $t_{107} = -0.698$ ,  $p = 0.487$ ). Similarly, when we observe the non-injured athletes, there were no statistically significant differences in either stress ( $t_{76} = -0.688$ ,  $p = 0.494$ ) or depression ( $t_{76} = -1.539$ ,  $p = 0.128$ ), but significant differences were found in anxiety ( $t_{66.07} = 3.920$ ,  $p = 0.001$ ,  $d = 0.83$ ).

#### 4. Discussion

This study aimed to determine if there were differences in the stress, anxiety, and depression levels among those football players who had suffered at least one injury during their last season played, with respect to those who had not suffered any injuries, as well as to establish if there were gender differences in these groups.

The results of the study clearly show that there are no differences in levels of perceived stress, anxiety, and depression among male and female football players who had suffered at least one sports injury. It can be said that the injury situation affects men and women emotionally in a quite similar way, in contrast to some previous research in the field of sports, but in agreement with other studies that have analyzed the way to deal with the stress related to the injury. In this sense, the work of Andrews and Chen [28] shows that men show greater mental toughness, while female athletes show greater detachment and resignation from the injury, in addition to minor differences in the preference of use of the different coping strategies, such as the visualization technique.

However, this result contrasts with the difference found in levels of competitive anxiety between uninjured male and female athletes who are in full sports practice. Female athletes seem to manifest a higher level of anxiety than men, agreeing with previous studies that have also shown that there are significant differences in competitive anxiety between men and women [29], and even with some studies that have found some differences in the way of dealing with the stress associated with the competitive practice [30]; and against others who have not found such kind of differences [34]. Although there are differences found regarding the way coping strategies are used by both genders, it has also been reported that there were no fundamental gender differences in coping with the stress of competition when the perceived it in a similar way. In a meta-analysis of the use of stress coping strategies (not only in sport), a mixed situation has been found: the differences between gender focused on the typology of the strategies used, as well as on the perception of the magnitude of the stressor, rather than the background of the differential relationship between gender and the coping styles [35].

On the other hand, the results of the study show that within the male players, those who had suffered an injury showed significantly higher anxiety values than those who had not been injured, being in agreement with other studies [11,36]. This is a collateral facet that sometimes has been associated with other quite relevant psychological indicators at the injury rehabilitation process, such as the player's perceived fatigue. In this vein, Liberal et al. [37] found that during the last rehabilitation phase of several injured football players, there was an increase in perceived fatigue and anxiety, as well as lack of concentration, and an increment in the worry about their own performance in competition, accompanied with a lack of confidence in their abilities, and some decrease in their motivation towards the practices, too. Although it is possible to say that the emotional functioning of the two groups of the present study is pretty similar, it is important to consider the different levels of anxiety between these two studies, with attention to the fact that this level correlates with their perception of the magnitude of the threat and worry with their situation. This point, as seen before, is very important regarding the prevention side of the psychological interventions with injured athletes [12,38]. Furthermore, although in the Ivarsson et al. [9] meta-analysis, the role of the athletes' personality traits—which could include the trait anxiety—is found to have to a marginal association with the injury rates, the current research should not overlook the influence of a key aspect, such as this.

Indeed, the results of the study show that in the group of players, those who had suffered an injury showed significantly lower stress values than those who had not been injured, results that are not in agreement with what is found in the majority of previous studies [9,26,32], and are not predicted exclusively by the Andersen and Williams model [13,14].

In addition, in a very recent systematic literature review by Ivarsson et al. [9], the results outline, again, the role of the stress response as the more powerful predictor of the injury rates. Perhaps, as opposed to the male players, female footballers who are injured perceived their situation as a decrease in their level of pressure and responsibility, something that may not happen while they are

active in practices and, above all, in competition. In any case, it should be considered as relevant data that should be studied deeply in the future.

Finally, it should be considered that despite the absence of significant differences in the variable depression, it should be taken into account that if, in the group of male players, their scores in depression are higher in the subgroup of injured players with respect to the non-injured, within the female players' group the opposite occurs, their scores being higher in the group of non-injured females. This fact also occurs in the same direction with the stress and anxiety variables in the same subgroup of uninjured players, indicating, thus, a clear direction of the next research from this study, perhaps following the path outlined by Appaneal et al. [23]. Consequently, it seems logical to consider that some psychological features related to the health, such as stress, anxiety and, or depression, could be, in one way or another, influencing both the players' vulnerability to injury and rehabilitation and re-insertion processes [39,40], being verified the existence of a bias regarding the gender of the athletes [18].

#### Limitations and Future Research

The sample number, without being too low, should be increased, which would obviously give greater force to the statistical analysis of the data. On the other hand, perhaps it would also be interesting to homogenize the sample with respect to the sport modalities, because although both specialties shared common basic rules, the two sports have to be considered quite different in physical and technical skills, both for practices and matches. Lastly, it is evident that studying sports injuries with just a retrospective analysis may decrease the predictive value of the findings, so it would seem good to use longitudinal or prospective designs in further studies on this topic.

**Author Contributions:** A.O. conceived and designed the work; F.J.R.-P. and E.O. acquired and analyzed the data; A.G.-M., M.S. and E.O. revised the work critically for important intellectual content; A.O. wrote the paper; A.G.-M., M.S. and F.J.R.-P. reviewed and edited the paper; all authors read and approved the final manuscript.

**Funding:** This research was supported in part by the Murcia (Spain) Regional Football Association's, Football Project, (grant FFRM-UMU-04 0092 321B 64502 14704), and the European Commission Erasmus+ ELIT-in Integration of elite athletes into the labour market through the valorization of their transversal competences(grant 590520-EPP-1-2017-1-ES-SPO-SCP).

**Conflicts of Interest:** The authors declare no conflict of interest.

#### References

1. Waldén, M.; Häggglund, M.; Ekstrand, J. The epidemiology of groin injury in senior football: A systematic review of prospective studies. *Br. J. Sports Med.* **2015**, *49*, 792–797. [[CrossRef](#)] [[PubMed](#)]
2. Pujals, C.; Rubio, V.J.; Marquez, M.O.; Sánchez-Iglesias, I.; Ruiz, R. Comparative sport injury epidemiological study on a Spanish sample of 25 different sports. *Rev. Psicol. Deporte* **2016**, *25*, 271–279.
3. Ekstrand, J.; Häggglund, M.; Waldén, M. Epidemiology of muscle injuries in professional football (soccer). *Am. J. Sports Med.* **2011**, *39*, 1226–1232. [[CrossRef](#)] [[PubMed](#)]
4. Reis, G.F.; Santos, T.R.T.; Lasmar, R.C.P.; Oliveira, O.; Lopes, R.F.F.; Fonseca, S.T. Sports injuries profile of a first division Brazilian soccer team: A descriptive cohort study. *Braz. J. Phys. Ther.* **2015**, *19*, 390–397. [[CrossRef](#)] [[PubMed](#)]
5. Ekstrand, J. Keeping your top players on the pitch: The key to football medicine at a professional level. *Br. J. Sports Med.* **2013**, *47*, 723–724. [[CrossRef](#)]
6. Hagger, M.S.; Chatzisarantis, N.L.D.; Griffin, M.; Thatcher, J. Injury representations, coping, emotions, and functional outcomes in athletes with sports-related injuries: A test of self-regulation theory. *J. Appl. Sport Psychol.* **2005**, *35*, 2345–2374. [[CrossRef](#)]
7. Wiese-Bjornstal, D.M. Psychology and socioculture affect injury risk, response, and recovery in high-intensity athletes: A consensus statement. *Scand. J. Med. Sci. Sports* **2010**, *20*, 103–111. [[CrossRef](#)] [[PubMed](#)]
8. Drawer, S.; Fuller, C.W. Perceptions of retired professional soccer players about the provision of support services before and after retirement. *Br. J. Sports Med.* **2002**, *36*, 33–38. [[CrossRef](#)] [[PubMed](#)]

9. Ivarsson, A.; Johnson, U.; Andersen, M.B.; Tranaeus, U.; Stenling, A.; Lindwall, M. Psychosocial factors and sport injuries: Meta-analyses for prediction and prevention. *Sports Med.* **2017**, *47*, 353–365. [[CrossRef](#)] [[PubMed](#)]
10. Olmedilla, A.; García-Mas, A. El modelo global psicológico de las lesiones deportivas. *Acc. Psicol.* **2009**, *6*, 77–91. [[CrossRef](#)]
11. Johnson, U.; Tranaeus, U.; Ivarsson, A. Current status and future challenges in psychological research of sport injury prediction and prevention: A methodological perspective. *Rev. Psicol. Deporte* **2014**, *23*, 401–409.
12. Olmedilla, A.; Rubio, V.J.; Ortega, E.; García-Mas, A. Effectiveness of a stress management pilot program aimed at reducing the incidence of sports injuries in young football (soccer) players. *Phys. Ther. Sport* **2017**, *24*, 53–59. [[CrossRef](#)] [[PubMed](#)]
13. Andersen, M.B.; Williams, J.M. A model of stress and athletic injury: Prediction and prevention. *J. Sport Exerc. Psychol.* **1988**, *10*, 294–306. [[CrossRef](#)]
14. Williams, J.M.; Andersen, M.B. Psychosocial antecedents of sport injury: Review and critique of the stress and injury model. *J. Appl. Sport Psychol.* **1998**, *10*, 5–25. [[CrossRef](#)]
15. Petrie, T.; Perna, F. Psychology of injury: Theory, research, and practice. In *Sport Psychology: Theory, Applications, and Issues*; Morris, T., Summers, J., Eds.; John Wiley & Son: Milton, Australia, 2004; pp. 547–571.
16. Wiese-Bjornstal, D.M.; Smith, A.M.; Shaffer, S.M.; Morrey, M.A. An integrated model of response to sport injury: Psychological and sociological dynamics. *J. Appl. Sport Psychol.* **1998**, *10*, 46–69. [[CrossRef](#)]
17. Brewer, B.W. Psychology of Sport Injury rehabilitation. In *Handbook of Research on Sport Psychology*, 2nd ed.; Singer, R., Hausenblas, H., Janelle, C., Eds.; John Wiley & Son: Morgantown, WV, USA, 2001; pp. 787–804.
18. Blehar, M.; Keita, G.P. Women and depression: A millennial perspective. *J. Affect. Disord.* **2003**, *74*, 1–4. [[CrossRef](#)]
19. Tiesman, H.M.; Peek-Asa, C.; Whiten, P.; Sprince, N.L.; Stromquist, A.; Zwerling, C. Depressive symptoms as a risk factor for unintentional injury: A cohort study in a rural county. *Inj. Prev.* **2006**, *12*, 172–177. [[CrossRef](#)] [[PubMed](#)]
20. Kim, J.; Choi, Y. Gender differences in the longitudinal association between work-Related injury and Depression. *Int. J. Environ. Res. Public Health* **2016**, *13*, 1077. [[CrossRef](#)] [[PubMed](#)]
21. Leddy, M.H.; Lambert, M.J.; Ogles, B.M. Psychological consequences of athletic injury among high-level competitors. *Res. Q. Exerc. Sport* **1994**, *65*, 347–354. [[CrossRef](#)] [[PubMed](#)]
22. Brewer, B.W.; Petrie, T.A. A comparison between injured and uninjured football in selected psychosocial variables. *Acad. Athl. J.* **1995**, *10*, 11–18.
23. Appaneal, R.N.; Levine, B.R.; Perna, F.M.; Roh, J.L. Measuring Postinjury Depression Among Male and Female Competitive Athletes. *J. Sport Exerc. Psychol.* **2009**, *31*, 60–76. [[CrossRef](#)] [[PubMed](#)]
24. Bum, D.; Morris, T.M.; Andersen, M.B. Stress, life stress, and visual attention. In Proceedings of the International Congress on Stress and Health, Sydney, Australia, 5–8 October 1996.
25. Rogers, T.J.; Landers, D.M. Mediating effects of peripheral vision in the life event stress/athletic injury relationship. *J. Sport Exerc. Psychol.* **2005**, *27*, 271–288. [[CrossRef](#)]
26. Petrie, T.; Deiters, J.; Harmison, R. Mental toughness, social support, and athletic identity: Moderators of the life stress–injury relationship in collegiate football players. *Sport Exerc. Perform. Psychol.* **2014**, *3*, 13–27. [[CrossRef](#)]
27. Tranaeus, U.; Ivarsson, A.; Johnson, U. Evaluation of the effects of psychological prevention interventions on sport injuries: A meta-analysis. *Sci. Sports* **2015**, *30*, 305–313. [[CrossRef](#)]
28. Andrews, P.; Chen, M.A. Gender differences in Mental Toughness and Coping with Injury in Runners. *J. Athl. Enhanc.* **2014**, *3*. [[CrossRef](#)]
29. Ponseti, F.J.; Garcia-Mas, A.; Cantalops, J.; Vidal, J. Diferencias de sexo respecto de la ansiedad asociada a la competición deportiva. *Retos* **2017**, *31*, 193–196.
30. Nicholls, A.R.; Polman, R.; Levy, A.R.; Taylor, J.; Cogley, S. Stressors, coping, and coping effectiveness: Gender, type of sport, and skill differences. *J. Sports Sci.* **2007**, *25*, 1521–1530. [[CrossRef](#)] [[PubMed](#)]
31. Junge, A.; Engebretsen, L.; Mountjoy, M.L.; Alonso, J.M.; Renström, P.A.; Aubry, M.J.; Dvorak, J. Sports injuries during the Summer Olympic Games 2008. *Am. J. Sports Med.* **2009**, *37*, 2165–2172. [[CrossRef](#)] [[PubMed](#)]
32. Díaz, P.; Buceta, J.M.; Bueno, A.M. Situaciones estresantes y vulnerabilidad a las lesiones deportivas: Un estudio con deportistas de equipo. *Rev. Psicol. Deporte* **2004**, *14*, 7–24.

33. Fonseca-Pedrero, E.; Paino, M.; Lemos-Giráldez, S.; Muñiz, J. Propiedades psicométricas de la Depression Anxiety and Stress Scales-21 (DASS-21) en universitarios españoles. *Ansiedad Estrés* **2010**, *16*, 215–226.
34. Kowalski, K.C.; Crocker, P.R.E.; Hoar, S.D.; Niefer, C.B. Adolescents' control beliefs and coping with stress in sport. *Int. J. Sport Psychol.* **2005**, *36*, 257–272.
35. Tamres, L.K.; Janicki, D.; Helgeson, V.S. Sex differences in Coping Behavior: A Meta-Analytic Review and an Examination of relative coping. *Personal. Soc. Psychol. Rev.* **2002**, *6*, 2–30. [[CrossRef](#)]
36. González-Reyes, A.; Moo-Estrella, J.; Olmedilla, A. Psychological characteristics that influence sports injuries of amateur triathletes from Yucatan, Mexico. *Rev. Psicol. Deporte* **2017**, *26*, 71–77.
37. Liberal, R.; García-Mas, A.; Pérez-Llantada, M.C.; López, A.; Buceta, J.M.; Gimeno, F. Fatiga percibida y características psicológicas relacionadas con el rendimiento en la rehabilitación de una lesión futbolística: Estudio de un caso. *Rev. Andal. Med. Deporte* **2014**, *7*, 44–46. [[CrossRef](#)]
38. Johnson, U.; Ekengren, J.; Andersen, M.B. Injury prevention in Sweden: Helping soccer players at risk. *J. Sport Exerc. Psychol.* **2005**, *27*, 32–38. [[CrossRef](#)]
39. Lichtenstein, M.B.; Gudex, C.; Andersen, K.; Bojesen, A.B.; Jørgensen, U. Do exercisers with musculoskeletal injuries report symptoms of depression and stress? *J. Sport Rehabil.* **2017**, 1–22. [[CrossRef](#)] [[PubMed](#)]
40. Silva, L.O.; Mendes, L.M.R.; de Paula-Lima, P.O.; Almeida, G.P.L. Translation, cross-adaptation and measurement properties of the Brazilian version of the ACL-RSI Scale and ACL-QoL Questionnaire in patients with anterior cruciate ligament reconstruction. *Braz. J. Phys. Ther.* **2018**, *22*, 127–134. [[CrossRef](#)] [[PubMed](#)]



© 2018 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).