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Relationship between the amount and type of sports injuries with athletes' competitive anxiety

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Abstract
In the present study, we sought to investigate the competitive anxiety of athletes and its relationship with sports injuries in them. 200 athletes were purposefully selected. Competitive Sports Anxiety Questionnaire (SCAT) and quadruple sports injury questionnaire were used to collect information. There was no significant difference between competitive anxiety of injured and uninjured athletes (P = 0.079). There was a significant positive relationship between competitive anxiety in injured and uninjured athletes (P <0.05), this relationship was moderate to weak for all athletes (r = 0.33) and moderate for injured athletes (r = 0.55). There was no significant difference between athletes' competitive anxiety according to the type of injury (P = 0.18). The lack of a significant difference between the competitive anxiety of injured and uninjured athletes may be due to the recovery of injured athletes.

Keywords: Competitive Anxiety, Sports Injury, Athletes, Stress

1. Introduction

So far, many researchers have examined the relationship between psychological resources and the incidence of sports injuries, and have proposed models, each of which seeks to help clarify this issue. Gunnoe et al. (1) reported in a study that players with high anxiety are more prone to injury and the percentage of different injuries is higher in them. In contrast, Weiss (2) did not find a significant relationship between injury and psychological factors such as anxiety and worry during his studies and believes that a precise relationship between injuries in sports and psychological factors has not been observed yet. In addition, Smith (3) did not find a significant relationship between injury and psychological factors such as anxiety and worry during his studies and believes that a precise relationship between injuries in sports and psychological factors has not been observed yet. However, Ford et al. (4) state that athletes with high levels of competitive anxiety are more likely to be injured. Galambos et al. (5) also state that athletes with high levels of competitive anxiety are more likely to be injured. Their research was conducted on 845 athletes including 433 female athletes and 412 male athletes. Their results showed that competitive anxiety has a positive relationship with injury. As it turns out, the relationship between sports injuries and mental fitness is not without ambiguity, and there are conflicting results in the current research background. Injury is considered a potential danger and threat in sports (6). The effect of psychological factors in increasing the performance of sports skills, prevention of sports injuries, sports rehabilitation and as an effective tool for managing stress and anxiety in competitions has been confirmed by various researches (7) . In general, the causes of injury in athletes can be classified into two categories: physical and psychological (8). There is no clear theoretical framework for the relationship between psychological factors and trauma in sports (9). However, according to various studies, several psychological factors seem to be involved in the occurrence of sports injuries, the most important of which are high competitive anxiety, low self-esteem, high stress, lifestyle changes and reduced social support. . Also, some psychological factors strengthen and improve the performance of athletes. Undoubtedly strengthening these factors reduces the risk of injury and accelerates the process of rehabilitation of sports injuries (9). Some researchers believe that anxiety in sports competitions, anxiety and mental states are related to the number of injuries and factors such as violence, hostility and negative mental states are effective in the severity of the injury (10). Anxiety is one of the most controversial and important topics in psychology and affects all psychological and physical dimensions of human beings (11). We humans have all experienced anxiety. Some life events warn us that we are in a dangerous situation. In this situation, anxiety is a natural reaction, because the job of anxiety is to mobilize the body's defenses and warns us to listen to the alarm and protect ourselves from danger. When our initial assessment of the likelihood of an accident or danger is not realistic and correct, then it is imperative that we seek to find the right way to deal with it. So we find that having anxiety in itself is not a problem, but during the coping process, it also gives us energy and strength to deal with the situation properly. In a competitive environment in sports, anxiety is unpleasant when the initial assessment of the competitive conditions of the competition is not accurate and realistic. When an athlete is upset and anxious for no

apparent reason, he loses his effectiveness in these situations and faces many dangers in the competition scene (12). In the field of psychology, anxiety has been introduced at the root of many mental illnesses that can also cause physical problems. Anxiety, due to its negative effect on people's thinking and cognition, disturbs the concentration of athletes and can expose the athlete to serious injuries, which is very important in the world of sports (12). Given that studies on the relationship between competitive anxiety levels and injury rates are very limited and also the need to conduct a study to assess injured and uninjured athletes in terms of anxiety levels, the purpose of this study was to investigate the relationship between sports injuries and anxiety. It was competitive athletes.

2. Methodology

This quasi-experimental study was conducted with a post-test design in two groups including a group of injured athletes and a group of uninjured athletes. Athletes were all selected from competitive disciplines and 200 people were selected as a statistical sample through the available purposive sampling method.

Competitive Sports Anxiety Questionnaire (SCAT) and quadruple sports injury questionnaire were used to collect information. The questionnaire was developed in 1976 by Martinez in the United States after a five-year study of 4,000 subjects. This test consists of 15 questions, 5 of which are not included in the scoring. Martinez (1977) used Cronbach's alpha and retest method to evaluate the reliability of this scale and reported Cronbach's alpha coefficient of 0.79. Also, the reliability of this scale in the retest method was found to be 0.98. In Iran, Atardi et al. (2011) in their research reported the Cronbach's alpha coefficient of this questionnaire as 0.79. They also considered the content validity of this questionnaire to be desirable (13). SCAT scores range from 10 (low competitive anxiety) to 30 (high competitive anxiety). If the individual anxiety score is between 10 and 16, he has low anxiety, between 17 and 23 has moderate anxiety and between 24 and 30 has high anxiety (14).

To evaluate the amount of sports injuries to describe the extent of injuries in the limbs (upper limbs, lower limbs and trunk) and different parts of the body (joints, muscles and bones) use the report form of four sports injuries The required information was obtained based on interviews with athletes and information on the type and severity of injuries according to their medical records. This form was compiled in a study by Rezaei (2005) and its validity was reported to be 0.78. Quadruple injuries include joint injuries (dislocation, ligament or sprain strain, and meniscus injury), muscle injuries (bruise, muscle tear, muscle contusion, and strain), or bone injuries (open fracture, Closed fractures and hair removal), and skin injuries (injuries and wounds).

First, the values of each variable were described using the mean and standard deviation, as well as the frequency and percentage. Then, independent t-test was used to compare competitive anxiety between injured and uninjured groups and Pearson correlation coefficient test was used to investigate the relationship between duration of injury and competitive anxiety. An independent one-way analysis of variance (ANOVA) was used to compare the level of competitive anxiety among athletes according to the type of injury. A significance level of $P \leq 0.05$ was considered.

3. Results

There was no significant difference between competitive anxiety of injured and uninjured athletes ($P = 0.079$). There was a significant positive relationship between competitive anxiety in injured and uninjured athletes ($P < 0.05$), this relationship was moderate to weak for all athletes ($r = 0.33$) and moderate for injured athletes ($r = 0.55$). There was no significant difference between athletes' competitive anxiety according to the type of injury ($P = 0.18$).

4. Discussion

Based on the findings of the present study, no significant difference was observed between the levels of competitive anxiety of injured and uninjured athletes. In other words, the level of competitive anxiety of the two groups of athletes who were injured and not injured was the same. These findings and the lack of a statistically significant difference between the two groups could be influenced by the fact that the injured athletes were recovering from their injuries and were holding competitions. Therefore, if their competitive anxiety was measured at the time of the injury, different results might have been obtained. In other words, injured athletes develop a state anxiety that occurs at the moment of injury, which may fluctuate depending on the extent of the injury, and after knowing the extent of the injury and treatment strategies, anxiety decreases. In fact, these athletes become anxious as a result of the threat posed to them by the injury and the possibility of them leaving the competition and training conditions, which, as the injury resolves, also reduces their anxiety (15). These findings may be consistent with the study of Weiss (16) and the study of Smith (15). In their studies have not found a significant relationship between trauma and psychological factors such as anxiety and worry and believe that the relationship is not yet No exact relationship has been observed between sports injuries and psychological factors. On the other hand, the results of this study are in contradiction with the results of Ford et al. (17) and Galambos et al. (18). Athletes with high levels of competitive anxiety are more likely to be injured, the researchers said. Also, based on the findings of the present study, a significant positive relationship was observed between the levels of competitive anxiety and the duration of injury. In fact, it was found that with increasing

duration of injury, competitive anxiety also increases. Therefore, it can be concluded that athletes, because they suffer a lot of stress during the period of injury and are very worried about the future of their sport, their anxiety will increase with increasing duration of injury. These findings are consistent with the findings of Lavallee and Flint (19). Therefore, the duration of the injury is an important factor in tolerating stress and anxiety in the individual, which is reduced in the presence of social support. Weiss (2) did not find a significant relationship between injury and psychological factors such as anxiety and worry during his studies and believes that a precise relationship between injuries in sports and psychological factors has not been observed yet. Also, based on the findings of the present study, there was no significant difference between the levels of competitive anxiety of injured athletes according to the type of injury. Competitive anxiety had nothing to do with the type of injury. These results show that there is no significant difference between the competitive sports anxiety of injured athletes and their type of injury and athletes with different injuries have a close average of competitive sports anxiety. In other words, the type of injury can not affect the incidence of competitive sports anxiety in athletes. These results may be inconsistent with Spilberger (20). The results also showed that most of the athletes participating in the study had low (37.5%) and moderate (37.5%) levels of competitive anxiety. 25% of the research athletes also had a high level of competitive anxiety. The reason why most athletes had low or moderate levels of competitive anxiety can be attributed to several factors. One of the reasons could be their elitism. Researchers have found that as athletes move toward the elite, their anxiety decreases as much (14).

5. Conclusion

It is concluded that there is no significant difference between competitive anxiety of injured and uninjured athletes. Of course, this may be due to the recovery period of injured athletes when measuring competitive anxiety. It is also concluded that there is a significant positive relationship between competitive anxiety and the duration of injury. In other words, with increasing competitive anxiety, the duration of athletes 'injuries also increases, which may be due to the athletes' concerns about their future in sports. It is also concluded that athletes' competitive anxiety has nothing to do with the type of injury they suffer. Also, most athletes have low and moderate levels of competitive anxiety, the most important reason being their elite.

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