Comparative Analysis of Competitive State Anxiety among Elite and Non-Elite karate Athletes in Iran

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ABSTRACT

The present study aims to compare the competitive state anxiety among elite and non-elite karate athletes in Iran. The sample consisted of 40 Karate male athletes in two groups. The first group consisted of 20 elite Karate players who participated in competitions of super leagues of Iran Karate in 2012 year. The second group consisted of 20 non-elite Karate athletes. All participants in this study were regularly competing at the super leagues and regional level. The research instrument employed was the Competitive State Anxiety Inventory-2 (CSAI-2). This inventory distributed among subjects about 30 minutes before the first competition. Test subjects were required to express their feelings at the moment without giving it much time. Finally, using one way ANOVA data was analyzed. The results showed that there were significant differences between the levels of somatic anxiety, cognitive anxiety and self-confidence among elite and non-elite karate athletes in Iran (P < 0.05).

Key words: Competitive State Anxiety, Elite and non-elite karate athletes.

Introduction

Today in athletics filed the role of skills and psychological preparations of athletes in sport successes and achieving desire performance in completions and tournaments, even in some circumstance, be considered more important than the technical preparation. Many research evidences have confirmed this claim in psychological filed. In recent year with a quick look at Iranian athletes record in Olympic and world championship, can be find many bright and dark spots in this regard [13]. Karate sport with its own characteristics and attractions, taking root in the world and has attracted many interests, as every year we see many national tournaments, continental tournaments, championships, world cup and same tournaments. Fewer seasons can be found that are not held in Karate. Research is needed to be done in all areas of studies to progress in various fields of sports. Psychological studies is one of this areas which examine the psychological conditions of athletes, the effect of environmental conditions and the interact of these to sport’s performance [6].

Precompetitive anxiety is a state of arousal that is unpleasant or negative and occurs during the 24 hour span prior to competition. The worry that is associated with PCA is not just experienced with heads, but with entire body. Our bodies provide us with numerous cues such as muscle tension, butterflies, desire to urinate and cotton mouth that suggests that we are out of control. Our thoughts become self-focused, selfdefeating and negative. Most of us will have a combination of these responses during the precompetitive period. However, the degree to which they influence our performance is largely dependent upon the interaction of our own uniqueness and the competitive situation.

Anxiety is defined as feelings of nervousness and tension caused by the environment or surrounding expectation that is related to ‘arousal’. Those demands are usually so stressful and thus causing an imbalance between the demands and the athlete’s ability to fulfill the expectation [15].

Dealing with anxiety is an important task for coaches because athletes could not perform when they are under stress, having problems in their concentration, memory and the priority they should put on in their performance. Athletes could not perform at their best like they usually could because of anxiety. Consequently, their performance is affected during the competition and they seldom achieve victory [30].

Researchers have reported that over 50 percent of consultations among athletes at Olympic Games or sport events were related to stress or anxiety problems [28, 20]. Athletes, who experience high
levels of anxiety, are also more likely to withdraw from sport [9, 2] suffer muscle pain, sickness and become aggressive during competitions [39]. Furthermore, they experience sleeping problems [35], injuries in sports [23] and have very low self-confidence [1]. Anxiety is a negative emotion that affects perceptions in sport competitions, and this leads to majority of athletes to consider anxiety to be debilitating towards performance, which may result in decreases in performance [39, 33]. When anxiety is not managed appropriately, athletes lose control and performance levels decrease [27]. It is well recognized that the level of performance in competitive sports is influenced by a number of psychological factors, e.g. personality traits, competitive anxiety and coping strategies [29]. The application of mental skills in sports is linked with the development and maintenance of expert performance in sport [12].

Psychological variables comprise of those personal characteristics that may impact upon performance including confidence and motivation [12, 38]. Athletes report different levels of anxiety before and during competitions [8, 26]. Elite athletes with higher skill level have been found to report low levels of anxiety [32]. Soltani and et al (2012) On the contrary, Perry and Williams (1998) found no significance on the levels of anxiety between athletes of high, medium and low skills. The results of findings of Pigozzi (2008) confirmed that an athlete's skill level is an important factor in controlling his/her competitive stresses and he believes that elite athletes who are able to control their competitive anxiety through mental skills (such as imagination, feeling control), have good motivation and self-confidence, but amateur athletes with high anxiety experience weak performance in competitions [36].

Studies conducted regarding anxiety levels in elite and non-elite athletes have contradictory results. According to Hanton, Abriyon, Malaliyo and Soltani, anxiety levels before and during competition are not clear due to conflicting findings, various athletes have reported different levels of anxiety from much to low [17]. Soltani and et al (2012) reported significant difference in somatic anxiety levels between elite and non-elite badminton players. On contrast, Perry and Williams (1998) have not reported significant difference in high, moderate or low levels of skill. With respect to the fact that every sport field has its own special nature and exiting sport researches have been conducted on elite and successful athletes and athletes with lower level of success have been neglected, therefore, the present research attempts to determine the level of competitive state anxiety between the elite and non-elite Karate players in Iran.

Material and Methods

The sample consisted of 40 Karate male athletes in two groups. The first group consisted of 20 elite Karate players who participated in competitions of super leagues of Iran Karate in 2012 year. The second group consisted of 20 non-elite Karate athletes. All participants in the study were regularly competing at the super leagues and regional level. The age of the subjects ranged from 18 to 28 years. The basic ethical principles for conducting research studies were observed. The subjects were assured confidentiality regarding the data collected and their personal identity.

Procedures:

At first, researcher visited coaches from the various teams that had been selected and explained the nature of the study and in the second stage explained the study to the athletes and distributed materials containing a letter describing the study and informed-consent forms. At the third stage Personal Information Questionnaire and state Competitive Anxiety Inventory (CSAI-2) for both elite and non-elite players were administered to subjects within 30 minutes prior to the start of the competition and the nature of study was described at the top of the questionnaire to the subjects. Each questionnaire took approximately 5 minutes to complete.

Measures:

1. Demographic Questionnaire
   Participants were asked to indicate their age, gender, training experience and skill level.

2. Competitive State Anxiety Inventory-2 (CSAI-2)
   This measurement tool is often used in research studies in order to estimate the participants' cognitive and somatic types of anxieties, as well as their self-confidence (Martens, Vealey and Burton, 1990). The test indicates to choose the answer that corresponds with how they feel at this point in time, right now. Cognitive anxiety items are numbers 1, 4, 7, 10, 13, 16, 19, 22, and 25. Somatic anxiety items are numbers 2, 5, 8, 11, 14 (reverse), 17, 20, 23, and 26. Self-confidence items are numbers 3, 6, 9, 12, 15, 18, 21, 24, and 27. According to Martens et al. (1990) the scoring of the CSAI-2 is achieved in the following way. Person rates how they are feeling right now by circling one of the presented answers. The four-presented answers include not at all (1), somewhat (2), moderately so (3) and very much so (4). The final scores for each subscale will range from 9 to 36, with 9 indicating low anxiety/confidence and 36 indicating high anxiety/confidence. The validity of this questionnaire was confirmed by professors and the reliability was measured by Alpha Cronbach (α=0.89). Also, internal reliability of this questionnaire was reported by Peter et al. (2003) as 85.75, and 0.83 respectively [32].
Data Analysis:

In order to calculate measures of central tendency and variability measures descriptive statistics was utilized. At first Levene’s test checked homogeneity of variances between sets of scores. After making sure of variances homogeneity, One way analysis of variance was conducted for between group’s comparisons, then the hypotheses were examined at P<0.05.

Result:

Table 1 revealed that the amount of Levene Statistic of somatic anxiety, cognitive anxiety and self confidence are 4.04, 0.179 and 3.09 respectively. The obtained “P” value is 0.51, 0.674 and 0.86 respectively (P>0.05). Therefore elite and non-elite karate athletes in term of studied variable are homogenous.

Table 2 shows the scores of somatic anxiety in elite and non-elite karate athletes. The one-way ANOVA results indicated that elite karate athletes had significantly lower levels of somatic anxiety compared with non-elite karate athletes (P<0.05).

Table 3 shows the scores of cognitive anxiety in elite and non-elite karate athletes. The one-way ANOVA results indicated that elite karate athletes had significantly lower levels of cognitive anxiety compared with non-elite karate athletes (P<0.05).

Table 4 shows the scores of self confidence in elite and non-elite karate athletes. The one-way ANOVA results indicated that elite karate athletes had significantly higher levels of self confidence compared with non-elite karate athletes (P<0.05).

Discussion:

The karate athletes reported significantly lower levels of both cognitive and Somatic anxiety compared with non-elite karate athletes.

Some types of athletes are more prone to feeling the effects of anxiety on performance. Amateur athletes are more likely than seasoned professionals to experience anxiety that interferes with their ability to perform in competition. This makes sense due to their relative lack of experience both in competition and in managing arousal [5].

Furthermore elite athletes are exposed to a number of intense physical and psychological demands, and they use a set of cognitive and behavioral strategies in order to cope with these challenges and related stress [11]. If athletes are unable to cope with these demands, it can lead to poor performance, negative effect and drop out of sport [25]. An athlete’s use of cognitive or behavioral strategies can further be seen as the core of the coping process [3].

Krane & Williams (1992) supported the result of this hypothesis and determined that athletes who had better previous performances had lower somatic anxiety than athletes who had less successful performances in the past.

This finding was confirmed by Hackfort and Spielberg (1989), Leunes and Nation (2002) who showed elite athletes use positive coping strategies to combat anxiety and to enhance performance. In other words, the maximum usage of coping techniques can differentiate between elite and non-elite athletes. This research also has been supported Anshel, Williams and Williams (2000) that elite athletes are popular in using much kind of positive coping techniques.

However, many studies have shown that elite athletes exhibit the lowest level of competitive state anxiety [14, 24, and 34]. Jones and et al (1994) reported that elite athletes consider anxiety as a facilitative factor for their performance. Further analysis showed that performance of non-elite athletes was impeded by their anxiety.

Previous studies have shown that although elite and non-elite athletes both experience the same
intensity of anxiety, elite athletes are better able to facilitate this response (Jones, Hanton & Swain, 1994). Hanton & Connaughton (2002) found that although elite performers initially view cognitive state anxiety as debilitative, they use cognitive strategies to overcome negative thoughts and change them to positive ones.

Also, the third finding indicated that karate athletes had better result on the subscale measurement of self confidence, which is regarded as an important personality trait influencing the level of sports performance. It seems that training experience in karate positively influences the development and strengthening of athletes' self-confidence. Elite athletes develop and maintain their self-confidence through training and preparation, including visualization. They do not allow any things in a match situation to significantly affect their self-confidence, as they know that a mistake in a game is just a human error and nothing more. Some athletes will have a planned strategy for what action to take if mistakes start to occur, and they know that by using this strategy, their mistakes will be temporary and will therefore not affect their self-confidence and ultimately, performance. These mistakes will not override the intense self-belief and confidence created by a strong work ethic and focused preparation. A large number of studies have shown that higher levels of self-confidence are associated with superior performance. These results are supported with the results of Cr Ciun et al., (2009) and Kruger (2010) and Mohammad Saber Sotoodeh & et al (2012). Bota (1993) found that self-confidence; commitment and goal setting are the most essential measures for distinction between elite athletes and non-elite ones.

Conclusion:

The findings showed that there is a significant difference between competitive state anxiety subscales and the levels of skill in competitive stress situations of karate athletes. Instrument of Competitive State Anxiety Inventory-2 (CSAI-2) have a predictive value in assessing levels of athletes' performance. Athletes should be aware of their individual level of anxiety in relation to optimal functioning, as well as the values of particular coping strategies in sport competition situations. It is suggested that coaches and athletic authorities of participating teams in sport leagues employ sport psychologist to teach and prepare comprehensive planning to develop psychological skills and suitable strategies for coping competitive anxiety specific non-elite athletes.

References


