

Comparison of competitive State Anxiety among Elite and Non- Elite Badminton Players in Iran**¹Hossein Soltani, ²K. Surender Reddy, ³Syed Reza Attarzadeh Hosseini, ⁴Syed Bahador Zaki Zadeh, ⁵Zahra Hojati and ⁶Sedigheh Sadat Hojati**¹*Department of Physical Education and Sport Sciences , Torbat-e Heydariyeh Branch, Islamic Azad University, Torbat-e Heydariyeh, Iran*²*Professor, Department of Physical Education, Osmania University, Hyderabad, A.P, India.*³*Faculty of Physical Education and Sport Sciences department, Ferdowsi University of Mashhad, Mashhad, Iran*⁴*Department of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran*⁵*Ph.D Scholar, Department of Physical Education, Osmania University, Hyderabad, A.P, India.*⁶*Faculty of Physical Education and Sport Sciences Department, Payame Noor University of Ferdows, Iran*

Hossein Soltani, K. Surender Reddy, Syed Reza Attarzadeh Hosseini, Syed Bahador Zaki Zadeh, Zahra Hojati and Sedigheh Sadat Hojati; Comparison of competitive State Anxiety among Elite and Non- Elite Badminton Players in Iran

ABSTRACT

The present study compared the competitive state anxiety among elite and non- elite Badminton players in Iran. 30 athletes (15 elite badminton players and 15 non-elite badminton players in Iran) were the subjects of the study. The age of the athletes ranged between 19 and 27 years. All had been practicing their sport for 5-15 years. 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. Results showed that the level of competitive state anxiety among the elite and non- elite badminton players in Iran was not significant ($P \geq 0.05$). There was no significant difference between the level of somatic anxiety and self confidence among elite and non-elite badminton players in Iran ($P \geq 0.05$). On the contrast there was a significant difference between the level of somatic anxiety and training experience of elite and non-elite badminton players in Iran ($p < 0.05$).

Key words: Competitive State Anxiety, Elite and non-elite badminton Players.**Introduction**

Athletic performance in the field is presented as the result of complex interaction among physical, social, technical and psychological variable. Especially, the psychological variable is one of the most important elements for the athletes to manage their game [10, 11]

One of the official competitive sports at the Olympic Games is badminton. The nature of badminton tournaments is that one of the two players or pairs who compete in each match has to win the game. There is no possibility of a draw or tied result. Therefore, after a match, there will always be a winner and a loser. This process is repeated until there is a tournament winner or champion. A badminton player, or shuttler, will not be acknowledged as a top player unless shuttler has proven that he or she can compete successfully and

become established in the world's top ranks, which is known as the International Badminton Federation (IBF) ranking system. To reach a higher rank in the world, a shuttler principally needs as many points as possible from accredited tournaments. To get high points, a shuttler must win several tournaments, especially from the IBF major grand prix series. Moreover, badminton tournaments mostly use a knock-out system in which the loser in each round is eliminated from the competition. Winning, consequently, becomes the ultimate goal in every match [40].

An inherent aspect of competitive athletics is the need for players to meet the demands of competition and to perform well under pressure [3].

In recent years, because of the advancement of badminton's technical level and new rules appeared, the competition becomes increasingly intense. Especially "21-score" being carried out, the pace of

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competition becomes fast, and the athlete's psychological state is the key factor to win the game, but the anxiety of athletes in competition plays an important role in their psychological state [39].

In multidimensional anxiety theory, Martens et al. (1990) proposed a series of two-dimensional relationships between cognitive anxiety, somatic anxiety, self confidence and performance. Cognitive anxiety was defined as 'negative expectations and cognitive concerns about oneself, the situation at hand, and potential consequences' (Morris et al., 1981, p. 541). Somatic anxiety was conceptualized as the perception of one's physiological arousal. Self-confidence was conceptualized as one's belief in meeting the challenge of the task to be performed. In multidimensional anxiety theory (Martens et al., 1990), cognitive anxiety is hypothesized to have a negative linear relationship with performance; somatic anxiety is hypothesized to have a quadratic (inverted-U shaped) relationship with performance; and self-confidence is hypothesized to have a positive linear relationship with performance [37].

In the games and sports, psychological and physiological factors play an important role in determining the performance level [7, 34]. Many athletes who perform well during training or practice can suffer from performance anxiety on game day. If feelings of nervousness, anxiety or fear interfere with one's sports performance, learning to use a few tips from sports psychology may help one get his/her anxiety under control and reduce game day nerves [4].

In badminton many players are good in the physical aspect but not tough enough mentally. A badminton player can have all the fitness, power, agility and skills but without the presence of mental toughness, he or she can be affected mentally anytime, anywhere [1]. Athletes report different levels of anxiety before and during competitions [2, 20]. Elite or athletes with higher skill level have been found to report low levels of anxiety [33]. 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.

Previous studies in badminton mostly have analyzed the skills need in the game [18, 19]. Other studies have examined psychological variables [26, 35]. Although a few studies [4, 27, 31] have focused on the field research for the performance enhancement of elite and non-elite players, much more information is still required.

According to Martens et al. (1990) for athletes who perform individually "the threat of evaluation is maximized; that is the diffusion of responsibility for performance errors is minimized". In other words, individually performing athletes know that they alone are responsible for their failures or successes. If they want to succeed, they should lower their level of cognitive anxiety and raise their self confidence [23].

So far, research in sport has focused only on the categories of elite or successful athletes, but ignored the other categories of less successful athletes (Krane, 1995). Therefore, the present research attempts to determine the level of competitive state anxiety between the elite and non- elite badminton players in Iran.

Material and methods

The sample consisted of 30 male athletes in two groups. The first group consisted of 15 elite badminton players who participated in competitions of super leagues of Iran badminton in 2012 year. The second group consisted of 15 non-elite badminton players. The mean of training experience for elite group (first group) was 13.39 years and for non-elite group (second group) 7.81 years. All participants in the study were regularly competing at the super leagues and regional level. The age of the subjects ranged from 19 to 27 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), 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. A 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 ($\alpha=0.89$). Also, internal reliability of this questionnaire was reported by Peter *et al.* (2003) as 85.75, 0.0 and 0.83 respectively [30].

Data Analysis:

In order to calculate measures of central tendency and variability measures descriptive statistics was utilized. Leven and one-way ANOVA were applied for variance homogeneity and between group differences respectively. Also Kruskal-Wallis statistical test was used for determining mean differences of between group ranks.

Result:

The one way ANOVA presented in Table 1 shows that level of competitive state anxiety among the elite and non- elite badminton players in Iran was not significant ($P \geq 0.05$).

Table 1: Mean values and comparison of Competitive State Anxiety between elite and non-elite badminton players.

Anxiety Variables	Skill Level	N	M	SD	F	Significant
Competitive State Anxiety	Elite Players	15	58.06	7.12	2.51	.124
	Non-elite Players	15	62.2	7.13		

*Significant at 0.05 level

Table 2 shows the levels of competitive state anxiety subscales. There is no significant difference between the level of cognitive anxiety and self confidence among elite and non-elite badminton

players in Iran ($P \geq 0.05$). On the contrary there is a significant difference between the level of somatic anxiety among elite and non-elite badminton players in Iran ($p < 0.05$).

Table 2: Mean values and comparison of Competitive State Anxiety subscales between elite and non-elite badminton players.

Anxiety Variables	Skill Level	N	M	SD	F	Significant
Cognitive Anxiety	Elite Players	15	17.46	5.13	.025	.867
	Non-elite Players	15	17.73	4.04		
Somatic Anxiety	Elite Players	15	14.20	3.60	6.89	.014
	Non-elite Players	15	17.80	3.89		
Self Confidence	Elite Players	15	26.40	4.89	.025	.877
	Non-elite Players	15	26.66	4.41		

*Significant at 0.05 level

Table 3 shows that the mean of training experience among elite players was higher than that of non-elite players. In other words there is a

significant difference between the training experiences among elite and non- elite badminton players in Iran ($P \geq 0.05$).

Table 3: Mean values and comparison of training experience between elite and non-elite badminton players.

Variables	Skill Level	N	M	SD	F	Significant
Training experience	Elite Players	15	11.06	1.08	13.320	.001
	Non-elite Players	15	6.60	.567		

*Significant at 0.05 level

Discussion:

Different research results imply that competitive anxiety is the source of decrease in performance especially in amateur athletes. Elite athletes by controlling their competitive anxiety through mental skills (such as imagination, feeling control) have higher motivation and self-confidence, but amateur ones experience weak performance through an increase in anxiety during competitions [36]. The primary purpose of the present study was to compare competitive state anxiety among elite and non-elite badminton players.

The first result of present study showed that the level of competitive state anxiety had not significant difference among elite and non-elite badminton players in Iran. In other word elite and non-elite players perceived the situation as moderately stressful. Moreover, the competitive state anxiety scores, in particular cognitive anxiety in elite and non-elite players showed moderate levels of anxiety intensity, which resemble anxiety levels reported in field studies with young athletes [9]. Similarly, a survey of Jones, Hanton and Swain (1994) examined the directions of symptoms of anxiety and of their performance. The sample consisted of 97 high level swimming athletes (elite) and 114 lower level swimming athletes (non-elite). No statistically significant difference between the two groups regarding the intensity of cognitive anxiety was found. However, elite athletes expressed that they consider anxiety as a facilitative factor for their performance. Further analysis showed that performance of non-elite athletes was impeded by their anxiety [15].

Considering that elite badminton players had the experiences of competitive anxiety, the moderate levels of anxiety before competitions that were induced were deemed satisfactory.

The third result of present study showed that the level of somatic anxiety in elite badminton players was moderate levels on the other hand non-elite badminton players showed the high level of somatic anxiety. These results are supported by the survey of Filaire, Alix, Ferrand and Verger (2008), who examined the psychological profile of 16 tennis players (8 men, 8 women) during their first tournament [28]. This may be due to the fact that many badminton coaches who coach in low level of league lack the proper educational background and training that would prepare them with the knowledge of sport psychology that could be passed on to their students. The lack of mental skills training in badminton games could be a contributing factor to the finding that badminton players of all competitive levels experience somatic anxiety. Furthermore the non-elite athletes sometimes focus on the future events in a negative manner because they expect the worst a lot of the times. They tend to focus on failing and how horrible it will be and how embar-

assed they will be if they mess up in front of their peers. One way to help eliminate this is to focus on the positive outcomes like becoming a better dribbler, or passer, and not on the chances of failure [38].

The fourth result of this study showed satisfactory averages of self-confidence in badminton players both of the sample elite and non elite, the direction of self-confidence seems to play a facilitative role on their performance during the match. The result of present study regarding high level of self confidence in elite badminton players is supported by (Hardy, 1990; Hemery, 1996; Kausz, 1980). In Jones and Hardy's report of interviews of elite athletes, they found that in general, elite athletes tended to have very high levels of confidence and found the athletes felt that these high levels were needed for the performances that they were looking for. Hemery's study of 63 elite athletes showed that 90% of the sample had "a very high level of self-confidence [14].

The fifth result of this study reported that there is a significant difference between training experience and skill level among elite and non-elite badminton players in Iran. Ryska (1998) notes that ability level (i.e. Division) is significantly related to decreasing competitive anxiety. On the other hand Gould et al. (1983) who found higher experience level was associated with low cognitive anxiety levels, It seems that training experience in elite badminton players has positively influences the development and strengthening of athletes' self-confidence.

Conclusion:

Generally according to the results of present study only somatic anxiety level of competitive state anxiety among elite and non-elite badminton players was significant. In other word elite badminton players had lower level of somatic anxiety compared to non-elite badminton players but there was no significant difference between the levels of cognitive anxiety and self confidence among elite and non-elite badminton players and the means scores of these two subscales approximately were moderate. Therefore elite athletes may also suffer from anxiety just as much as the non-elite. The biggest difference between the two is the thought that processes are different. Elite athletes have a more positive interpretation of their feelings of competitive state anxiety and future performances because they look at the future with higher positive expectations than those of non-elite athletes. The non-elite athletes sometimes focus on the future events in a negative manner because they expect the worst a lot of the times. It is suggested that coaches and athletic authorities of participating teams in badminton league prepare comprehensive planning to develop psychological skills and suitable strategies for coping competitive anxiety and also help them to eliminate

negative thoughts and focus on the positive outcomes and not on the chances of failure by the help of sport psychologists.

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