



ISSN: 2456-0057  
IJPNE 2017; 2(2): 77-79  
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www.journalofsports.com  
Received: 17-05-2017  
Accepted: 18-06-2017

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## Comparative study of sports competition anxiety among contact and non-contact sports persons

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#### Abstract

The purpose of the study was to compare the anxiety level among Contact and Non-contact sports persons who used to take part in state/national/international level tournaments. For this study the investigator selected two hundred and fifty (250) contact sports persons and two hundred and fifty (250) non-contact sports persons (Total-500). The subjects were between the age group of 18-40 years. The consecutive eligible subjects were selected from various sports training camps for the study. To measure anxiety level between Contact and Non-contact sports persons, a Sport Competition Anxiety Test (SCAT) questionnaire was employed. For statistical analysis and interpretation of data, 't' test was applied. It was concluded by data analysis result that contact sports persons have significantly higher anxiety level than non-contact sports persons.

**Keywords:** Anxiety, Contact Sports Persons, Non-contact Sports Persons

#### Introduction

Sports involve competition. Without competition, there is no game. Competition provides a forum within which people strive to become competent, to become excellent. The opportunities for rivalry within sport are many and varied: team against team, individual against individual, individual against a record, individual now against a previous best performance and an individual against a physical barrier. Competition involves individuals and groups striving for excellence within the rules and traditions that constitute a sport.

Sports are categorized in different categories i.e. contact and non-contact sports. Contact sports are those sports in which physical contact occurs among contestants during a competition. For example; Judo, Kabaddi, Boxing, Wrestling etc. and non-contact sports are those sports in which no body contact occurs during a competition, for example; Swimming, Archery, Track & Field events etc.

Anxiety is one of the most common deterrents to good performance; therefore it is among the most frequently investigated variables in sport psychology (Hardy, Jones, and Gould, 1996) [1]; (Jones, 1995) [2]. Anxiety is a state of mind in which the individual respond with discomfort to some event that has occurred or is doing to occur. The person's worry about events, their occurrences and consequence, in general are the sources of anxiety. However, anxiety can be either somatic or cognitive in nature. The symptoms of somatic anxiety comprise mental worries and fears. In simple words, it is a type of emotional disturbance. The sports men like other athletes are anxiety prone while participating in competitive sports. At worst the effect of the anxiety gets the athlete so tied up in knots that he is frozen in fear. At best anxiety subtly impairs performance by distracting the attention. The term anxiety is also used to refer to a complex psychological process (Spielberger, 1972 b.) [3], in essence, the concept of anxiety as process implies a theory of anxiety that included stress, threat; and anxiety as fundamental constructor variables. Thus, anxiety as process refers to a sequence of cognitive, affective, physiological and behavioral events. The purpose of the study was to compare the anxiety levels of contact sports persons and non-contact sports persons.

**Review of related literature**

The idea of optimal anxiety states developed very early, when Spielberger in the 1960s first introduced the state-trait approach and concluded that both high and low levels of state anxiety interfere with performance (Spielberger, 1989) [4], thus connecting this theory with optimal arousal theory. This tends to be true for somatic anxiety but not for cognitive because increasing this dimension of state anxiety usually result in performance decline (Weinberg and Gould, 2011 [5]; Cox, 1998) [6]. Research which further investigated temporal patterning of somatic and cognitive anxiety concluded that cognitive anxiety remains relatively stable prior to competition while somatic tends to rapidly increase as the start of the event becomes closer (Jones, 1995) [2] and then decrease once performance begins (Martens et al. 1990) [7]. However, although the intensity of cognitive anxiety remains relatively stable prior to competition, frequency in which the athletes experience the symptoms of it increases substantially and progressively during pre-competition period (Swain and Jones, 1993) [8]. During the competition, it's levels can vary depending on subjective probability of success (Martens et al. 1990) [7]. Also, there is an argument that anxiety can have debilitating (harmful to performance) and facilitating (helpful to performance) consequences for the performance. This refers to "direction" athletes label the cognitive and somatic symptoms experienced as a function of interpreting the meaningfulness of experienced symptoms following earlier appraisal about the congruence between demands of the situation and the one's ability to meet them (Jones, 1995) [2]. This means that two athletes who are equally concerned and physiologically aroused prior to their upcoming performance can have completely different interpretations of those symptoms based on the perceived level of control, perceived level of ability to face this situation and goal attainment. This idea is confirmed in several studies such as the study conducted by Jones, Hanton and, Swain (1994) [9], which found that elite performers interpreted cognitive and somatic anxiety as being more facilitative to performance than non-elite performers.

**Objective of the study**

The objective of the present study was to compare the sports competition anxiety level among contact and non-contact sports persons.

**Methodology**

**Selection of subject:** For the purpose of present study total 500 sports persons, 250 from contact sports and 250 from non-contact sports were selected. These are consecutive eligible subjects, selected from various sports training centres in India.

Selected sports persons were between 18 to 40 years of age and had minimum District/State level participation, whereas few among selected sports persons also participated at National as well as International level.

**Procedure:** All concern team coaches were contacted and briefed about the study. Proper informed consent was taken from all eligible participating sports persons. Total 500, including 250 from contact sports and 250 from non-contact sports persons (between 18 to 40 years of age) consecutive eligible subjects were selected. To assess the anxiety of all selected eligible sports persons, SCAT (Sports Competition Anxiety Test) questionnaire developed by Martens, R. et al (1990) was distributed in a comfortable room with sufficient light and ventilation. Sufficient time was given for filling responses in questionnaire.

**Tool Used:** The anxiety score of the subjects was assessed by using SCAT scale developed by Martens, R. et al (1990), because it is a reliable, valid and suitable test to measure sports competition anxiety of sports persons.

**Measures:** The SCAT questionnaire is designed to measure levels of trait anxiety in sports persons and has 15 questions on which participant has to choose between three answers (rarely, sometimes, often). 5 of these questions are spurious statements added to reduce response bias and are not scored. Results can be ranged between 10 and 30, where higher results indicate higher levels of trait anxiety. Authors of the original version reported a high degree of reliability and good validity of the scale (Martens et.al. 1990).

**Table 1**

S. No.	Total Score	Interpretation
a.	<17	Low Level of Anxiety.
b.	17-24	Average Level of Anxiety.
c.	>24	High Level of Anxiety.

**Hypothesis**

It was hypothesized that there may not be significant difference in anxiety level among contact and non-contact sports persons.

**Statistical Technique**

The obtained data were analyzed by applying independent 't' test in order to compare the anxiety level among selected contact and non-contact sports persons. The level of significant was set at 0.05.

**Results:** There was significant difference found in anxiety level among contact and non-contact sports persons, as anxiety level of contact sports persons is higher than that of non-contact sports persons.

**Table 2:** Total score and frequency percentage of Anxiety level

S. No.	Variables	Group 01 Contact Sports Persons (CSP) n=250 (f %)	Group 02 Non-contact Sports Persons (NCSP) n=250 (f %)	p-value
1	Low level of anxiety (<17 Score)	79 (31.6)	183 (73.2)	<0.0001
2	Average level of anxiety (17 to 24 Score)	161 (64.4)	64 (25.6)	
3	High level of Anxiety (>24 Score)	10 (4.0)	3 (1.2)	

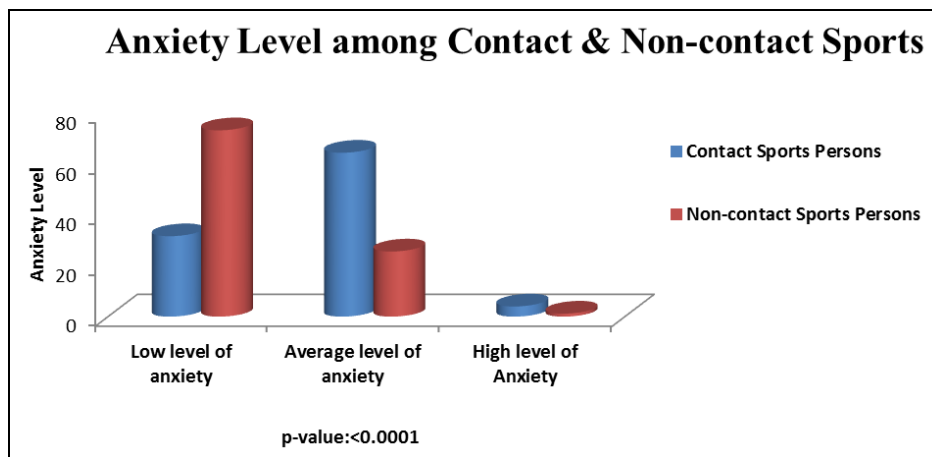


Fig 1 Anxiety level among contact & non-contact sports

Table 3: Mean and Standard Deviation of total anxiety level

Variable	Group 01 Contact Sports Persons (CSP) n=250 mean+/-SD	Group 02 Non-contact Sports Persons (NCSP) n=250 mean+/- SD	p-value
Anxiety level total	18.4 +/- 3.6	13.8 +/- 6.1	<math><0.0001</math>

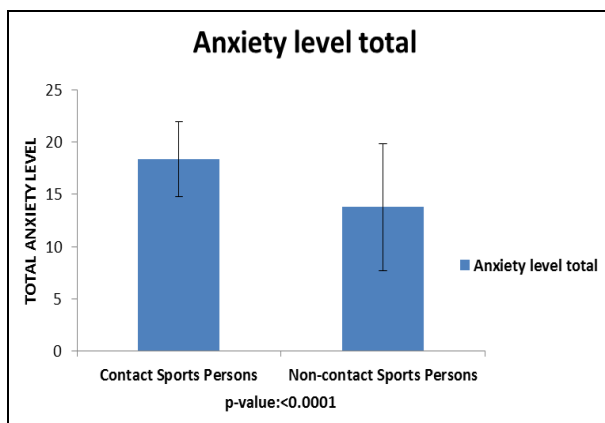


Fig 2: Anxiety level total

**Results**

From the above tables, it is revealed that there was a significant difference in the anxiety level among contact and non-contact sports persons. Thus it may be concluded that anxiety level was significantly higher among contact sports persons as compared to non-contact sports persons.

**Discussion of Finding**

The finding of the study reveals that there was a significant difference found in case of anxiety level among contact and non-contact sports persons. Among contact and non-contact sports persons, only 31.6 % contact sports persons were having low level of anxiety as compared to 73.2% in non-contact sports persons, whereas 64.4% contact sports persons were having average level of anxiety as compared to 25.6% in non-contact sports persons.

**Conclusion**

After going through the interpretation of the result’s tables it has been concluded that there was a significant difference in anxiety level among contact and non-contact sports persons, as contact sports persons have high anxiety level as compared to non-contact sports persons.

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