

## Comparison of anxiety between senior National and All India inter University volleyballers

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### ■ ABSTRACT

The study was designed to compare the anxiety level between the senior national and All India inter university volleyballers. The subjects (n=24) were male senior national and All India university volleyball players who had secured first place in senior national and All India inter university volleyball players, 2010. It was hypothesized that there would be a significant difference of anxiety among senior national and All India university volleyball players. The anxiety level of the subjects was obtained by administering self evaluation state and trait anxiety inventory questionnaire. The anxiety among the groups was compared by the two sample t-test at 0.05 level of significance. The statistical analysis of data revealed that senior national and All India university volleyball players had significant difference in relation with state anxiety, as the calculated t value (2.53) was found more than tabulated t value 2.074 for state anxiety. Whereas, calculated t value, 1.48 for trait anxiety was found lesser than tabulated t value, 2.074 to be insignificant at 0.05 level of significance. The study will be helpful in the self-assessment of the senior national and All India university volleyball players and also helpful for coaches and psychologists to provide guidelines to the senior national and All India university volleyball players about problems related with anxiety.

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**A**nxiety is a state of emotional and physical disturbance induced in person by real or imagined threat (Encyclopedia American, 1966). Anxiety is one of the most interesting and important areas of focus in sports psychology and has continued to attract great research interest (Weiss and Gill, 2005). A variety of studies have focused on anxiety experiences and characteristics of athletes, coaches and referees (Kirby and Liu, 1999). Applied sports psychology is approaching a time in which pre-competition anxiety may be accurately assessed and effectively regulated on an individualized basis, thereby enhancing athlete's working mental state and performance. While the predominant anxiety performance theory of the 1980s, the inverted U hypothesis, has largely failed to substantiate itself (Weinberg 1990) a developed intra-individual paradigm, the individual zone of optimal functioning theory (IZOF; Hanin 1980) has

proven promising (Turner and Raglin, 1991; Weinberg, 1990). Further knowledge is needed about the relationship between anxiety characteristics and elite sports performance. Some researchers have argued that low trait anxiety is necessary for sports success. On the other hand, other researchers have proposed that athletes tend to display lower anxiety over time as a consequence of experience. It is useful to differentiate anxiety from related concepts such as the emotion of fear. Fear is a brief reaction to a threatening stimulus. Anxiety represents a longer lasting, broader reaction to a greater range of stimuli than those that induce fear. In contrast to fear, anxiety often occurs in the absence of an obvious external stimulus and is generated in association with substantial cognitive process. Several related, yet distinct concepts have been employed in attempts to describe and understanding anxiety. The most well established of these is the distinction between

state and trait anxiety. Trait anxiety is personality characteristic describing how prone an individual is to experiencing episodes of anxiety. State anxiety refers to moment – to moment variations in the intensity of an individual’s thoughts and feelings of apprehension. State and trait anxiety interact in a predictable way. In general, individuals characterized by high trait anxiety perceive a greater number of situations as threatening, more frequently exhibit periods of elevated state anxiety and have a more potent anxiety reaction to a given situation compared to people characterized by average or low trait anxiety (Spielberger *et al.*, 1983). Wiggins and Brustad (1996) reported gender difference investigating anxiety across time, with females reporting higher cognitive anxiety intensity 24 hours prior to competition, but found no anxiety directions differences. Therefore, the purpose of this paper was to compare the anxiety (state and trait) between national and All India inter university male volleyballers.

**■ METHODOLOGY**

The subjects were 24 male senior national and All India inter university volleyballers who had secured 1<sup>st</sup> position at senior national and All India inter university level in 2010. This study used the (STAI) developed by Spielberger ‘*et al.*, (1970) to assess the pre-competition anxiety (state and trait). The STAI is a sports specific, self -evaluating inventory containing two subscales-state and trait anxiety. It is comprised of 40 items, with 20 items in each of the 2 subscales. In responding to state anxiety scale, subjects were instructed to indicate how they generally feel by rating the frequency of their feeling of anxiety on the four point scale – (1) Not at all (2) Somewhat (3) Moderately so (4) Very much so. In responding to the trait anxiety scale, subjects were instructed to indicate how they generally feel by rating the frequency of their feelings of anxiety on the following four points scale-1) Almost never 2) Sometimes 3) Often 4) Almost always. The questionnaire contained a number of statements from 1 to 20 which were related to state anxiety and indicated how one feels right now, that is at this moment. The statements from 21 to 40 assessed the level of trait anxiety person’s level of anxiety on permanent basis as indicated by personality trait indicating how a person generally feels.

The scoring weights for anxiety absent items are reversed *i.e.*, responses marked 1, 2, 3, or 4 are scored 4, 3, 2, or 1, respectively. The anxiety absent items for which scoring weights are reversed are:

State anxiety : 1,2,5,8,10,11,15,16,19 and 20

Trait anxiety: 21, 23,26,27,30,33,34,36 and 39

To obtain scores for the state and trait anxiety scales simply add the weighted scores for the inventory items that makes up each scales, taking into accounts that fact, that the scores are reversed for the above items. Scores for both the states and trait anxiety scales which can vary from a minimum

of 20 to a maximum of 80. For state anxiety, the average norm is 36.17±10.96 and for trait anxiety it is 36.15±9.53. The reliability quotients as given in this manual of Spielberger’s State and Trait Anxiety Inventory are presented in Table A.

Table A : Reliability quotients of state and trait anxiety		
Variable	Test	Reliability quotients
State anxiety	Self-evaluation questionnaire (STAI)	0.93
Trait anxiety	Self-evaluation questionnaire (STAI)	0.92

The data were collected one hour before the competition from all the male participants who reached in the final of senior national and All India inter university of volleyball. The self-evaluation (STAI) questionnaire was distributed among the players and instructed them to fill-up the questionnaire without taking the help of others and then it was analyzed of those who secured 1<sup>st</sup> position at senior national (held at LNUPE, Gwalior, 2010) and All India inter university (held at B.H.U., Banaras, 2010) of volleyball.

**■ OBSERVATIONS AND DISCUSSION**

To find out significant difference of anxiety (state and trait) between senior national volleyball players and All India inter university volleyball players, independent t-test was employed at 0.05 level of significance. The statistical analysis of data related to state anxiety are given in Table 1.

Results presented in Table 1 indicate that there was significant difference between senior national and All India inter university male volleyball players in state anxiety. As calculated t value 2.53 was found higher than tabulated t value 2.074 required to be significant at 0.05 level of significance (Fig. 1).

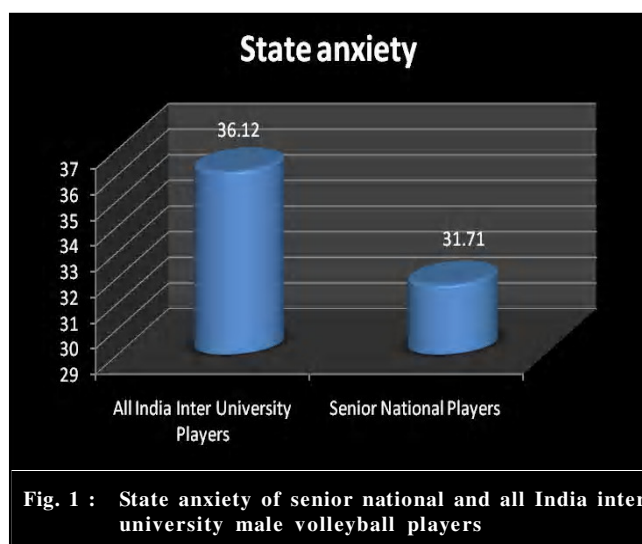


Fig. 1 : State anxiety of senior national and all India inter university male volleyball players

**Table 1 : Comparison of state anxiety between senior national and all India inter university volleyball players**

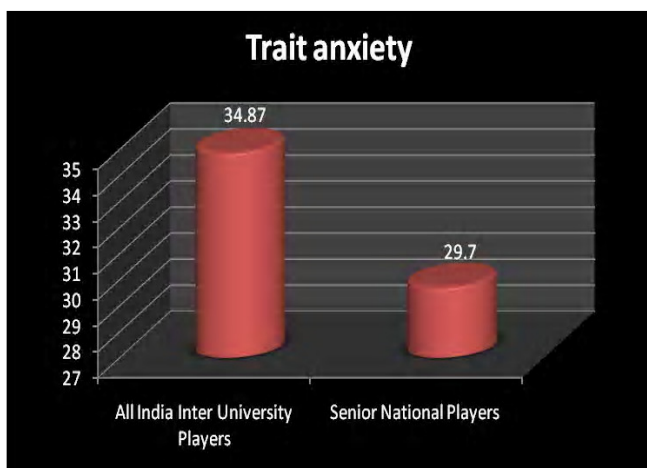
Group compared	Mean	S.D	Calculated 't'	Tabulated 't'
All India inter university players	36.12	7.46	2.53	2.074
Senior national players	31.71	6.19		

d.f (22) at 0.5 levels

Data of Table 2 reveal that there was insignificant difference between senior national and All India inter university male volleyball players in state anxiety. As calculated t value 1.48 was found lesser than tabulated t value 2.074 required to be insignificant at 0.05 level of significance (Fig. 2).

**Table 2 : Comparison of trait anxiety between senior national and All India inter university volleyball players**

Group compared	Mean	S.D.	Calculated 't'	Tabulated 't'
All India inter university players	34.87	6.67	1.48	2.074
Senior national players	29.70	5.61		

**Fig. 2 : Trait anxiety of senior national and all India inter university male volleyball players**

The finding of the study showed that there was significant difference between senior national and All India inter university male volleyball players in their state anxiety level and the anxiety levels of All India inter university

volleyball players were more than that of the senior national volleyball players. This study attributed to the fact that the level of practice and training, level of performance in the competition, psychological state and stability were different in the senior national and All India inter university male volleyball players which differed them psychologically and physiologically. All India inter university volleyball players have less experience and less number of participation in competition although senior national volleyball players participated in many number of competition throughout the day which helped them to become mature and less anxious. Beginners' players are more affected by anxiety than experience players. These results can be helpful to develop psychological training programme for male volleyball players to get success in the competition and to avoid the influence of anxiety on performance.

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