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## Comparative study on anxiety and aggression between forwards and defenders in hockey

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### Abstract

The psychological behavior of an athlete plays a positive role in sports performance. There are many factors that influence the behavior of sportsmen such as anxiety, aggression, self-confidence, motivation, etc. These psychological factors shall influence the performance of athletes.

In modern sports, psychological preparations have an important role in the technical as well as in the team preparations. Psychological factors have a close relationship to every performance, players at all levels and players at different positions. Psychological factors can affect the performance of an individual and the whole team.

For the purpose of the study, 30 college-level hockey male players were selected, which included both forward line and defenders. Anxiety was measured using the questionnaire of Spiel Berger and Aggression was assessed using the Questionnaire of Tiwari and Chauhan's aggression test.

The assessment showed that there was no significant difference between forwards and defenders on anxiety, whereas, there was significant difference in aggression between forwards and defenders.

**Keywords:** Anxiety, aggression, forwards, defenders, psychological, performance

### Introduction

The psychological behavior of an athlete plays a positive role in sports performance. There are many factors that influence the behavior of sportsmen such as anxiety, aggression, self-confidence, motivation, etc. These psychological factors shall influence the performance of athletes.

In modern sports, psychological preparations have an important role in the technical as well as in the team preparations. Psychological factors have a close relationship to every performance, players at all levels and players at different positions. Psychological factors can affect the performance of an individual and the whole team.

Nowadays one of the most challenging tasks for athletes is how they improve psychological behavior and performance in competitive sports. It has been previously accepted that psycho-physiological conditioning programs and traditional skill practices are of crucial importance in high-level competitive sports, which highly affect an athlete's performance.

The main function of psychological training is to overcome the thoughts and emotional processes in a way that may improve the performance of the athlete.

### Statement of the problem

The purpose of the study was to make a comparative analysis of selected psychological variables between male forward players and defender players in hockey.

### Delimitations

- A total of 30 college-level players (N = 30) were selected as subjects for the study.
- Out of selected subjects, fifteen were forward-line players and the remaining defenders.
- The age group of the subjects ranged from 18-22 years.
- The study was delimited to psychological variables i.e., Anxiety and Aggression
- A Standardized questionnaire of Spielberger was used to assess State of Anxiety.
- A Standardized questionnaire of Tiwari and Chauhan's Aggression test was used to assess the aggression.

**Limitations**

- Questionnaire research has its own limitations, any bias that may enter into the subject on this account may be considered a limitation of this study.
- Other factors of the subject which are beyond the control of the researcher, may have affected the responses of the subjects. These will be considered limitations of the study.

**Hypothesis**

On the basis of available literature following hypotheses were framed.

H<sub>1</sub> - There is a significant difference between forwards and defenders on anxiety.

H<sub>2</sub> - There is a significant difference between forwards and defenders on aggression.

**Significance of the study**

- To compare anxiety and aggression between forwards and defenders among male hockey players.
- To design a psychological programmer for future performance.
- To create awareness about the mental health of the players.
- Help the players to become aware of their anxiety and aggression.

**Methodology**

The following methods were adopted for the selection of subjects, selection of variables, selection of test items, administration of the questionnaire, and statistical technique as explained below.

**Selection of subjects**

For the purpose of the study, thirty (N = 30) male college-level hockey players from the Thiruvananthapuram district were selected. Fifteen each (N = 15) were Forwards and Defenders respectively. The age of the selected subjects ranged from 18 – 22 years.

**Selection of variables**

The following psychological variables were selected for the purpose of the study:

1. Anxiety
2. Aggression

**Selection of test items**

**1. Assessment of Anxiety**

Questionnaire – I – Spiel Berger Anxiety Questionnaire.

**2. Assessment of Aggression**

Questionnaire – II

**Description**

One dimension of the frustration test was selected, devised by Tiwari and Chauhan to measure the players’ general aggression level. It consists of ten statements and each item has six answers.

**Test Administration**

The subjects were assembled in a classroom and they were given clear instructions both in English and Malayalam, on filling up the questionnaire. They were asked to read each statement carefully and respond to it by making a tick mark on any one of the four responses given. The total scores were considered for statistical treatment.

**Scoring**

The aggression test has ten statements each and each of the 10 items has five answers from “very much” to “not at all”. A score of 5 was given to the response very much, 4 for much, 3 for ordinary, 2 for less, 1 or very less, and 0 for not at all. The high scores indicate that the score presents of more aggression and the lowest score indicated no aggression.

The scores obtained for aggression were added together and considered for statistical treatment.

**Statistical technique**

The data which were collected from the subjects were tested statistically. To find out the differences in anxiety and aggression between Forwards and Defenders. A Dependent “t test” was used. The level of confidence to test the significance was kept at 0.05. SPSS 16 version was used for calculation.

**Analysis of data and results of the study**

The statistical analysis of data, result of the study, and discussions of findings are presented below.

The aim of the study was to analyze anxiety and aggression between forwards and defenders among male hockey players. In order to find out the differences between anxiety and aggression of forwards and defenders, the independent ‘t’ ratio was computed by using the SPSS 16 Version and tested for significance at a 0.05 level of confidence.

The descriptive scores on anxiety of forwards and defenders of Thiruvananthapuram dist. have been presented in Table 1.

**Table I:** Mean, standard deviation, difference of the mean and ‘t’ ratio of anxiety of forwards and defenders

S.I No.	Group	N	Mean	SD	MD	Obtained ‘T’ value	Tabulated ‘T’ value
1	Forwards	15	23.85	4.74	1.07	0.71	2.05
2	Defenders	15	22.21	3.88			

\*Significant at 0.05 level. DF = 28, 2

Table I shows that the mean of Anxiety of the Forwards and Defenders were 23.83 and 22.21 respectively. The Standard deviation of Anxiety of the Forwards and the Defenders was 4.74 and 3.88 respectively. The obtained “t” ratio of 0.71 is less than the table value of 2.05 at 0.05 levels. The result

indicates that there is no significant difference between Forwards and Defenders on Anxiety.

The descriptive scores of Forwards and Defenders of Thiruvananthapuram District has been presented in Table II.

**Table II:** Mean, Standard deviation, Difference of the Mean and “t” ratio of Aggression of Forwards and Defenders

S.I No.	Group	N	Mean	SD	MD	Obtained ‘t’ value	Tabulated ‘t’ value
1	Forwards	15	28.67	3.14	3.47	2.395	2.15
2	Defenders	15	27.40	4.36			

\*Significant at 0.05 level. DF = 28, 2

Table II shows that the mean of Aggression of Forwards and Defenders was 28.67, and 27.40 respectively. The Standard deviation of Aggression of forwards and defenders was 3.14, and 4.36 respectively. It shows that the obtained “t” value of 2.395 is higher than the 2.15 at a 0.05 level of significance. The result indicates that there is significant variation in aggression between forwards and defenders.

### Discussion on hypothesis

The first hypothesis ( $H_1$ ) states that there is a significant difference between forwards and defenders in anxiety. The result of the study indicates that there is no significant difference between forwards and defenders on anxiety. Hence the hypothesis is rejected at a 0.05 level of confidence.

The second hypothesis ( $H_2$ ) states that there is a significant difference between forwards and defenders in aggression. The result of the study indicates that there is a significant difference between forwards and defenders on anxiety. Hence the hypothesis is accepted at a 0.05 level of confidence.

### Conclusion

Under the condition and the limitations of the present investigation and on the basis of the obtained results the following conclusions have been drawn.

1. Analysis of data indicated that there was no significant difference between Forwards and Defenders on Anxiety.
2. There was a significant difference in Aggression between Forwards and Defenders ( $t = 2.395$ ).

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