CHAPTER - 3

MATERIALS AND METHODS

This chapter is developed to the procedures adopted with selection of the subjects, selection of tests including their reliability, orientation to the subjects in order to acquaint them with the manner in which they are expected to work. Collection of the data for administration of the tests and their tools, and statistical procedures used for analysing the data.

SELECTION OF SUBJECTS

The purpose of the study was the analysis of selected psychological variables between college men and women, Basketball players.

For this purpose, list of students who represented inter-collegiate and inter-university tournaments was prepared and from these players subjects were selected using method of purposive sampling.

The final sample consisted of 50 men college Basketball players and 50 women college Basketball players making total of 100 players.

In order to ensure the full co-operation from the subjects, the researcher had a meeting with them in presence of their coach/mangers. The purpose of this study was made clear by giving a detailed explanation in order to ascertain that there was no ambiguity among the subjects regarding the efforts, which they had to put in the successful completion of the investigation.
All subjects voluntarily agreed to extend full cooperation and coaches/ managers ensured that the subjects were made available for collection of data.

**SELECTION OF VARIABLES**

A feasibility analysis as to which of the variables could be taken up for the investigation, keeping in view the availability of questionnaires and their acceptability to the subjects and the legitimate time that could be devoted for testing and to keep the entire study unitary and integrated was made in consultation with experts.

With the mentioned criteria in mind, the following psychological variables such as – Achievement Motivation, Aggression, Anxiety, Attitude and Stress were selected because these are directly related to performance of the Basketball players.

**SELECTION OF QUESTIONNAIRES**

The present study has been undertaken for the analysis of selected psychological variables between men and women, college and Basketball players. For this purpose the following standardized questionnaires have been used to collect data for different psychological variables

<table>
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<th>S.No.</th>
<th>Variables</th>
<th>Questionnaire</th>
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<tr>
<td>1.</td>
<td>Achievement motivation</td>
<td>Sports Achievement Motivation test</td>
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<td>2.</td>
<td>Aggression</td>
<td>Smith’s Aggressive Questionnaire</td>
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<td>3.</td>
<td>Anxiety</td>
<td>Sports Competition Anxiety test (SCAT)</td>
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<td>4.</td>
<td>Stress</td>
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<td>5.</td>
<td>Attitude</td>
<td>Sodhi Attitude Scale (SAS)</td>
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**RELIABILITY OF QUESTIONNAIRES**

1. Achievement Motivation: - The reliability value has been found to be 0.70.
2. Aggression: - The reliability value has been found to be 0.70.
3. Anxiety: The reliability value has been found to be 0.85.
4. Stress: The reliability has been found to be 0.87.
5. Attitude: The reliability has been found to be 0.70.

COLLECTION OF DATA.

All the data in this study has been collected by the investigator in the natural sitting. Each player was contacted for this purpose and permission was sought from the coach/manager of the college. Before actual collection of data, the investigator gave a short orientation lecture explaining to the subjects, the purpose of the test that was to analyze the selected psychological variables between men and women college Basketball Players.

Each player, present on the day of data collection, was included in the study. The time taken for data collection was about 70 minutes. Respondents gave their answer on their respective answer sheets after reading items from the test booklet. Thus, all the responses were recorded on the test booklet and answer sheet.

ADMINISTRATION OF THE QUESTIONNAIRES

1. Achievement Motivation has been assessed using Sports Achievement Motivation Test. This test was constructed by M. L. Kamelsh. The tool consisted of 20 test items to be answered by putting a mark of tick. The scoring is done by awarding 2 marks for correct statement and for incorrect ‘O’ marks is awarded.

2. Aggression has been assessed using Smith’s Aggressive Questionnaire. This test was developed by Smith. This test consists of four questions and each question has five levels of responses. The level changes from strongly disagree to strongly agree. The respondents were made to encircle the appropriate number which suited their attitude. The test was scored with the help of the scoring key that is ‘1’ marks for strongly disagree, ‘2’ marks for disagree, 3
marks for undecided, 4 marks for agree and 5 marks for strongly agree. The total range of score was from 4 to 20. The higher the score, the more aggressive the player is.

3. Anxiety has been assessed using Sports Competition Anxiety Test (SCAT). This test was developed by Rainer Martens, Diane Gill, Tara Scanlan, and Julie Simon. In the year 1990 at Champaign, IL. The purpose of the test was to assess individual differences in competitive trait anxiety, or the tendency to perceive competitive situations as threatening and/or to respond to these situations with elevated state anxiety. The tool consisted of 15 items to be answered by putting a mark of ‘X’. It is based on Likert’s method and each statement consisted of their responses; hardly ever, sometimes and often, the respondents made a cross mark (X) on any one of the response that fitted to them. A separate method was used for positive and negative statements. The scores for positive statement that is question number 1,2,3,4,5,7,8,9,10,12,13,14 and 15 are awarded by giving ‘1’ marks for Hardly ever, ‘2’ Sometimes and ‘3’ for often. The scores for negative statement, that is, question number ‘6’ and ‘11’ are awarded by giving ‘3’ marks for Hardly ever, ‘2’ for sometimes and ‘1’ for often. The scores obtained for both positive and negative statements were added. The higher the score, the higher the anxiety.

4. Stress has been assessed using Sports Stress Test. This test was constructed by Everly & Girdano. The tool consisted of 14 statements rating to various situation of life there was four levels of responses almost, always, seldom true and never true. The subjects were made to mark a tick in the column to which ever response the player felt was true to his nature. The scoring is done by giving ‘1’ mark for Never, ‘2’ marks, for Seldom true, ‘3’ marks, for usually true and ‘4’ marks, for almost always true. The range of score varies from 14 to 56. The lesser the score, the lower the psychological stress.
5. Attitude has been assessed using Sodhi Attitude Scale (SAS). This test was constructed by G.S. Sodhi. The questionnaire is consisted of five parts. First part consists of 12 questions, second part consists of 10 questions, third part consists of 19 questions, fourth part consists of 10 questions, and fifth part consists of 20 questions. Total there are 71 questions in the questionnaire. The subjects have to give response in ‘yes’ or ‘no’ and if the value given in the scoring is positive and the response is ‘yes’ give +1 and if ‘no’ give -1 if marked ‘?’ give 0. Conversely if the value shown for an item on the scoring key is negative and the subject has responded ‘yes’ give him -1 and if ‘no’ give him +1 and if ‘?’ give him 0 in the case too. Score of all the five scale will be added and the final score will be obtained. The higher the score the more attitude is seen.

STATISTICAL PROCEDURE

The ‘t’ test was used to compare the groups and for testing significance of the values at .05 levels have been fixed.