Chapter 3

Methodology
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3.1. PURPOSE OF METHODOLOGY

In this chapter, selection of subjects, selection of variables, reliability of the data, reliability of questionnaire, orientation of subjects, administration of questionnaire, collection of data and statistical techniques employed for analyzing the data have been described. The Study was designed to deal with the comparative analysis of psychological variables and socio-economic factors among the college Football, Kabaddi and Softball players at different Topography in India.

3.2. SELECTION OF SUBJECTS

Forty College men players each in Football, Kabaddi and Softball from North, South, East and West Zones were selected as subjects at random and their age was between 18 to 25 years.

3.3. SELECTION OF VARIABLES

The research scholar reviewed the available scientific literature, journals, periodicals, magazines and research papers keeping in mind the role of selected psychological variables and socio economical factors, their importance, availability of questionnaires and feasibility aspects of their measurements, number of variants were selected.

In this study, 3 x 4 factorial design was used to analyze the main effects and interaction effects. Wherever the main effect was significant (Factor “A” and Factor “B”) the Scheffe’s post hoc test was used. If the interaction effect was significant, the simple test was used to analyze the overall cell mean significant difference. If the simple test was significant, the Scheffe’s post hoc test was used to findout the paired mean significant difference of each cell. (Anne Ruthestin in 1985).
3.4. PILOT STUDY

In order to find out the merit demerits and the suitability of conducting the test, a pilot study was conducted with two subjects from each zone total subject.

3.5. RELIABILITY

The researcher has established the subject reliability, instrumental reliability and tester's reliability prior to the conduct of the test with suitable methods.

3.5.1. SUBJECT RELIABILITY

In order to get uniform result from the subjects, they were used under the similar condition and same questionnaire was used and they were of the same age group 18-25 years.

3.5.2. INSTRUMENT RELIABILITY

As instruments four questionnaires were used to test the selected Psychological variables and socio-economic factors. They are as followers

1) Standardized questionnaire of Raniner Morten (1997) sports competition anxiety test was used to assess the state anxiety.

2) Standardized questionnaire prepared by Kamalesh (1991) was used to assess the achievement motivation.

3) Standardized questionnaire prepared by U.S. Public Services (1989) was used to assess the lifestyle.

4) Standardized questionnaire prepared by Shrivastava (1987) was used to assess the socio-economic status.

All the above questionnaires were standardized one's and time tested having been used for scores of research studies in the past and in on going studies. Hence, were considered reliable.
3.5.3. TESTERS RELIABILITY

The tester's competency was assessed with the reliability of the tests. To determine the reliability of the test Forty-college level sportsmen each from Football, Kabaddi and Softball from different topography were selected at random basis. All chosen variables were recoded, twice under similar condition by the investigator. The collected data were analyzed with intra class co-relation to find out the tester reliability. The correlation value was more than 0.90 for all the chosen variables.

3.6. CRITERION MEASURES

The following measures were chosen for the hypotheses:

1) To find out the level of Achievement motivation among Football, Kabaddi and Softball College level men players, standard questionnaire was used and the unit of measurement was points.

2) To find the level of Anxiety between Foot Ball, Kabaddi and Soft Ball College men players, standard questionnaire was measured and the unit of measurement was points.

3) To find out the level of Lifestyle among Foot Ball, Kabaddi and Soft Ball College men Players, standard questionnaire was used and the unit of measurement was points.

4) To find out the level of Socio-Economic factor among Foot Ball, Kabaddi and Soft Ball College men players, standard questionnaire was used and the unit of measurement was points.

3.7. PROCEDURE OF MEASURING DEPENDENT VARIABLES

In this study, ten-college men players, each in Football, Kabaddi and Soft Ball game were selected form North, South, East and West Zone in India. The research scholar planned to visit the various places with in the areas of North South, East and West India to administrate the questionnaire for the collection of data. After identifying the areas, the investigator visited personally for filling up the questionnaire. Further, purpose and relevant instructions were given to each and every subject before completing the
questionnaire. The scholar also clarified about the doubt or quarry in regard to the questionnaire etc. The subjects were keenly interested about the area of the study and also discussed about the aspects of Anxiety, achievement motivation, life styles and socio-economic factors.

The scholar prepared a list of visiting areas on the days of visit along with the copies of questionnaire. After getting the consent from the respondent to act as subject for the study. The investigator was careful about the attempt of all the questions mentions in the questionnaire. This information's were used for further presentation of analysis.

3.7.1. Lifestyle

For the present study the selection of the variables were made according to the required information regarding life style of Foot Ball, Kabaddi and Soft Ball players at Different Topography in India. The basic variables were selected on the basis of use of questionnaire. The following variables were identified as follows:

a. Exercise / fitness  
b. Nutrition  
c. Tobacco use  
d. Alcohol and Drugs  
e. Stress management  
f. Safety  
g. Disease prevention

The above-mentioned selected variables were helped in assessing the overall evaluation of Lifestyle of the subjects for the present study. A questionnaire on lifestyle was selected and adopted for the present study. As it includes and fulfills the requirement to assess the lifestyle in parts and in full initially. The questionnaire was developed by US Public Service. It covers the important parameters of lifestyles which were included.
3.7.2. Anxiety

Purpose
To assess the state competition Anxiety level among the college level men Football, Kabaddi and Softball players at different topography.

Tools
Rainer Martens Sports competition anxiety test

Procedure
A survey was made on various standard tests to measure sports completion. Anxiety among the college level Foot Ball, Kabaddi and Soft Ball Players at different topography. After discussions with experts and faculty members at Dept of Physical education Alagappa University, Karaikudi it was decided to Use. (SCAT) questionnaire framed by Rainer Martens. This test has been widely used for measuring anxiety related to sports situation in most of the advanced countries. The test is reliable and valid. The form A was used for the purpose of the study the purpose of the study was explained to the subjects and their co-operation was requested through their coaches and managers.

The SCAT questionnaire was distributed with achievement motivation, Life style and socio-economic questionnaire to the Foot Ball, Kabaddi and Soft Ball Players at different topography. Two hours before staring the actual competition. The researcher at a dictation speed to make the subjects understand about what they exactly had to do with the questionnaire read the direction.

The SCAT has 15 items out of which five were spurious questions, which had been added to questionnaire to diminish response of biasness towards the actual test items. These five questions were not scored out. The subjects were instructed to respond to each item according to how they generally feel in completion sports situation.
Every Statement has three possible responses i.e.

1. Hardly ever
2. Some times
3. Often

The SCAT has got ten test items, which are taken for scoring purpose. These are 2, 3, 5, 6, 8, 9, 11, 12, 14 and 15. The remaining test item i.e. spurious item which were not taken for scoring were 1, 4, 7, 10 and 13.

While the subjects were responding to the questionnaire the research was present verifying that they were recording answer sequentially and explained the meaning of the words in case of doubts.

**Scoring**

The investigator evaluated the completed questionnaires. The items 2, 3, 5, 8, 9, 12, 14 and 15 were awarded in such a way that they were scored according to key.

<table>
<thead>
<tr>
<th>Score</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>for Hardly ever</td>
</tr>
<tr>
<td>2</td>
<td>for Sometimes</td>
</tr>
<tr>
<td>3</td>
<td>for Often</td>
</tr>
</tbody>
</table>

In the case of questions number 6 and 11 the scoring was done in the following manner:

<table>
<thead>
<tr>
<th>Score</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>2</td>
<td>Sometimes</td>
</tr>
<tr>
<td>1</td>
<td>often</td>
</tr>
</tbody>
</table>

Spurious questions i.e. 14, 7, 10, 13 were not scored as suggested by Mortens (1997)
Scores obtained by each subject on each statement were added up which represented one's total score of state competition Anxiety test. Higher the score higher the anxiety and lower the score, lower the anxiety. Scores were ranged between 10 to 30.

3.7.3. Achievement Motivation

The standard psychological tool devised by Kamlesh consists of 20 incomplete statements, which can be completed by choosing either of the two proposed parts against each statement. The subjects were asked to tick ( ) the second part which in their opinion fits in best with the first part. The investigator revalidated the inventory by administering it on 120 men players of Foot Ball, Kabaddi and Soft Ball from College level.

This inventory was scored with the help of a scoring key a score of two being given for the correct answer and zero for wrong answer. The item, which was left unanswered, was not taken for consideration. The score was added and it was considered as individual score. The range of score is 0 to 40. The large the score the higher the achievement motivation of the subject.

**Scoring key**

1-a, 2-b, 3-a, 4-a, 5-b, 6-b, 7-b, 8-b, 9-a, 10-a, 11-a, 12-a, 13-a, 14-b, 15-b, 16-a, 17-a, 18-a, 19-b, 20-a

In the above the number 1 to 20 denotes the statement and betters (a) and (b) denotes the correct answers

Correct answers for each statement as indicated above will be awarded “2” marks and incorrect answers for each statement will be awarded “0” mark.

High score indicates high motivation in their achievements.
3.7.4. Socio Economic Status

Srivastava Socio-economic status score was used to collect the information about socio economic status of the college level players.

The final form of the scale seeks information about the following component variables.

a) Education  
b) Occupation  
c) Income  
d) Cultural Living or Cultural Standard  
e) Social Participation

The socio-economic status scale contains the following items with their weightage.

a) Education With in this variable there are eight categories of item which relate to the parental education of the guardian. Scores allotted to each category are given below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctorate Degree</td>
<td>8</td>
</tr>
<tr>
<td>Post Graduate Degree</td>
<td>7</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate</td>
<td>5</td>
</tr>
<tr>
<td>High School</td>
<td>4</td>
</tr>
<tr>
<td>Middle School</td>
<td>2</td>
</tr>
<tr>
<td>Primary School</td>
<td>1</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0</td>
</tr>
</tbody>
</table>

Occupation

The item of occupation relates to the Primary education of the parent or head of the family. There are seven categories of item with in these variables scores allotted to each category from ‘a’ to ‘g’ are 10, 7, 5, 4, 3, 2, 1 respectively of short description of these categories are given below.
a) The eight category consists of high profession as education, medical, legal, high administrative Jobs big factory owners, big farm owner’s etc.
b) This category consists of semi-professional group involving college of post-high school education such as non gazetted officers, high school teachers, commission agents etc.
c) Clerical jobs, elementary school teachers, shop owners etc.
d) Skilled workers such as mechanics, engine drivers, car drivers etc.
e) Semi skilled workers such as factory workers, laboratory attendants etc.
f) Such occupation, which required neither education nor training such as domestic servants, watchmen etc.
g) Unemployed.

Income

There are six categories of income groups with in these variables; Income categories with the scores allotted to them are given below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Below</th>
<th>Between</th>
<th>Between</th>
<th>Between</th>
<th>Between</th>
<th>Between</th>
<th>Between</th>
<th>Between</th>
<th>Above</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs. 1700</td>
<td>Rs. 1000 and 1700</td>
<td>Rs. 500 and 999</td>
<td>Rs. 200 and 499</td>
<td>Rs. 100 and 199</td>
<td>Rs. 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cultural Living

With in these variables there are three items in item No. 4, 5, 6 on the scale which concern with expenses on newspaper, magazines and expenses in the form of pocket money.
Item No. 4 concerns information regarding purchase of newspapers. There are three categories of such item in this category. Scores allotted for the categories a, b, c or 2, 1, 0 respectively

Item No.- 5 Concerns the purchase of magazines. There are four categories of sub item. Scores allotted for the categories a, b, c, d are 3, 2, 1,0 respectively

Item No.-6. Concerns information regarding availability of money for pocket expenses. Score of 2 is allotted for yes. (Category a) answer and zero for 'no' (Category b) answer social participation.

This variable consists of two variables of item No. 7 and 8

Item No.-7. Concerns club membership of the parents scores allotted for 'yes' (category A) and No. (Category B) are two and zero respectively

Item No. 8. Concerns question and nature of social participation. Four levels of social participation have been provided with in this item i.e. membership of one organization, holding office in one organization and holding office in more than one organization score of 1, 3, 4, 5 are zero is allotted for non-participation

3.8. COLLECTION OF DATA

The data on the chosen psychological variables were collected by administering standard questionnaire. The administration of the tests and the methods of collecting data are explained below

The subjects were explained about the meaning and use of particular questionnaire and what was to be done exactly.

Data were collected for the study directly from the college level Football, Kabaddi and Softball player in India
3.9. STATISTICAL TECHNIQUES:

In this study 4 X 3 factorial design was used to find-out the significant difference in main and interaction effects. To find-out the significant differences among College men Football, Kabaddi and Soft Ball players, two-way factorial design was used. The simple test was used to find out overall cell mean significance difference. To find out the paired cell mean significant difference, the Schaffer's post hoc test was used. Thirumalaisamy (1999)