Methodology

Selection of Subjects

The present study was conducted on 500 woman football players of India. Keeping in view the objectives, the players were categorized into three main groups: District (125), State (125) and National (125) woman Cricket players.

Reliability Of Data

The reliability of data was ensured by establishing the instrument reliability, and reliability of subjects.

Measurement of Psychological variables:

The selection of proper tools was of importance for the study since the aim was to assess the psychological variables among different levels of participation in woman cricket players.

It was decided to use questionnaire, the investigator obtained the reflection of psychological variables towards physical education. The validity of responses received greatly depends upon the integrity of the respondents and hence absolute could not be expected however, the anonymous responses ensure the greater validity of the responses.

Administration of the Questionnaire:

Psychological variables among different level of women cricket players has been randomly selected for collection of data, in total 500 women cricket players. Research Scholar has personally visited to all different level of players for collection of data 400 complete questionnaire has been consider for the present study. All above work has been executed with the consultation of the guide.

Aggression Test
The aggression questionnaire prepared by Anand Kumar and P.S. Shukla. This inventory consisted of 25 items in which 13 items were keyed “Yes” and rest of 12 were “No”. The statement which was keyed “Yes” were 1, 4, 5, 6, 9, 12, 14, 16, 18, 21, 22, 24 and 25 and the statement which were keyed “No” were 2, 3, 7, 8, 10, 11, 13, 15, 17, 19, 20 and 23.

**Scoring:**

For each item score was “1”. The maximum score might be 25 and score might be zero.

Score obtained by each subject on each statement was added up which represented one’s total score on Aggression.

**Sport Competition Anxiety Test (SCAT)**

**Purpose:-**

The sports Competition Anxiety Test is latest and most popular sport-specific anxiety test whose purpose is to assess individual differences in sports competitive trait anxiety or the tendency to pursue competition situations, as threatening, and /or to respond to these situations with elevated state anxiety.

Sports competition anxiety test questionnaire (SCAT) prepared by Rainer Martens (1986), was originally constructed for children (ages 10-15), its adult version was developed later on by suitably modifying the instructions and items. A reliability quotient of 0.85 had been reported for the adult version of SCAT.

**Procedure:-**

The SCAT questionnaire (Appendix-A) contains fifteen items. The subjects were asked to indicate how they generally felt in competitive sports situations, and responded to each item using a three point ordinal scale (hardly ever, sometimes, or often).

Out of fifteen items, only ten items assess sports competitive trait anxiety proneness (e.g., “Before I compete I feel uneasy”) and used for scoring purpose. These ten items were: 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15. The remaining five test items were the spurious items, which were added to the questionnaire to diminish response bias towards the actual test items (e.g., “Competing against others is socially enjoyable”). These five spurious items were not scored. These spurious were: 1, 4, 7, 10 and 13.

Every statement had three possible responses i.e.: -
1. Hardly ever
2. Sometimes
3. Often

While the subjects were responding to the questionnaire, the scholar went around verifying that they were recording answers sequentially and explained the meaning of the words in case of doubts.

**Scoring:**

The scholar scrutinized the completed questionnaire in order to ensure that the subject responds to every item and there was no question left unanswered. The items 2, 3, 5, 8, 9, 12, 14 and 15 were worded in such a manner that they were scored according to the following key:

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

In the case of items 6 and 11 scoring was carried out according to the following key:

<table>
<thead>
<tr>
<th>Score</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Often</td>
</tr>
<tr>
<td>2</td>
<td>Sometime</td>
</tr>
<tr>
<td>3</td>
<td>Hardly ever</td>
</tr>
</tbody>
</table>

However spurious questions i.e. 1, 4, 7, 10, and 13 were not be scored as suggested by Rainer Martens.

If a subject deleted one of the test items, her prorated full scale score was obtained by computing the mean score for the nine items answered, multiplying this value by ten values by ten, and rounding the product to the next whole number. When two or more items were omitted, the respondent’s questionnaire was invalidated.

Total scores of SCAT ranged from 10 (low competitive anxiety) to 30 (high competitive anxiety). The subjects were assigned to the following category according to the score obtained by them:

<table>
<thead>
<tr>
<th>Raw/Mean Score</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 17</td>
<td>Low Anxieties</td>
</tr>
</tbody>
</table>
Moderate Anxiety
More than 24 High Anxiety

Responses obtained from the subjects on each statements of sports competition anxiety questionnaires were subjected to statistical treatment keeping in view the purpose of study.

**Mental Toughness Questionnaire**

**Purpose:**

The mental toughness questionnaire (Appendix-C) was used to assessed the level of mental toughness of the players. The test retest reliability of the questionnaire was reported to be 0.79.

**Procedure:**

The questionnaire on mental toughness (Appendix-C) prepared by Alan Goldberg (1995) has sixty items, which has four categories namely: handling pressure (20 questions), concentration (17 questions), mental rebounding (14 questions), and winning attitude (9 questions). A sample statement under handling pressure category read “I think about my opponent’s size, previous performance or reputation before I play a match”.

The subjects were instructed to respond to each item according to how they generally felt in competitive sport situations.

Every statement has two possible responses i.e. True or False.

There was no time limit for the completion of the questionnaire but the subjects were instructed not to ponder too long over any statement and respond to all the statements in the questionnaire independently.

**Scoring:**

Responses obtained from the subjects on each statement of mental toughness questionnaire were recorded for analysis of data.

A total score of 60 was possible on this questionnaire. The classification criterion given by Alan Goldberg is as follows.
<table>
<thead>
<tr>
<th>Raw/Mean Score</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 – 60</td>
<td>Mentally – Tough</td>
</tr>
<tr>
<td>48 – 54</td>
<td>Pretty Solid Mentally</td>
</tr>
<tr>
<td>40 – 47</td>
<td>Average Mental Toughness</td>
</tr>
<tr>
<td>Below 40</td>
<td>Need Mental Toughness Exercise</td>
</tr>
</tbody>
</table>

The responses of the players in each of the four categories i.e. handling pressure, concentration, mental rebound and winning attitude were recorded for statistical treatment.

**Statistical Procedure**

Mean score and standard deviation of district (N=100), state (N=100), and national (N=100) and the sample (N=300) were calculated in all the four variables i.e. aggression, sports competition anxiety, mental toughness (consisting of four categories handling pressure, concentration, mental rebound and winning attitude) and attitude.

One-way analysis of variance was applied to find out the significance of mean difference among national (N=100), state (N=100) and district (N=100) players in each of the variable. This was followed by Least Significance Difference Test (L.S.D.) of Post-hoc comparison to determine the significance of difference between ordered paired means at 0.05 level.