Chapter-IV

ANALYSIS OF DATA & RESULTS

The research scholar collected data from various groups of subjects for the present study. The main tool used for the collection of data was questionnaire method. Questionnaire method was used for senior secondary and college athlete female students and non athlete female students. The questionnaires were administered among two groups with four variables. The four variables were Overprotection (i), Depressiveness (f), Submissive (e) and Anxiety (an). The two groups were of athlete females and non athlete females. Every group consisted of five hundred subjects each. The data was analysed by computing the descriptive statistics and one way analysis of co-variance. The finding pertaining to the descriptive statistic has been presented in Table No. 1.

The questionnaire which was used for the study had 4 variables which were analysed by computing t-test. Finding pertaining to the t-test on each selected variable has been presented from Table no. 2 to Table no. 5 and the graphical representation is presented from figure no.2 to no.15.
Table 1 shows the descriptive analysis of the different variables of Neuroticism. The mean value of *overprotection* in athlete females is 9.11 ± 2.67 and in non athlete females is 9.39 ± 2.9.

Simultaneously, the mean value for *depressiveness* in athlete females is 9.97 ± 2.70 and in non athlete females is 10.01 ± 2.83. *Submissiveness* is having the mean value in athlete females as 10.64 ± 2.64 and non athlete females as 11.12 ± 2.98.

The mean value of *anxiety* in athlete females is 11.35 ± 2.74 and in non athlete females mean value is 11.72 ± 3.051. It is concluded that the selected groups are homogeneous.
Further investigation shows that the mean value of total neurotic variables in athlete females is $41.06 \pm 5.86$ and in non athlete females is $42.23 \pm 5.82$. It is concluded that the selected groups are homogeneous.

**TABLE NO.2**

*t-* Test Equality of means

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>i raws</td>
<td>Equal variance assumed</td>
<td>-1.668</td>
<td>998</td>
<td>0.096</td>
</tr>
<tr>
<td>f raws</td>
<td>Equal variance assumed</td>
<td>-0.24</td>
<td>998</td>
<td>0.811</td>
</tr>
<tr>
<td>e raws</td>
<td>Equal variance assumed</td>
<td>-2.694</td>
<td>998</td>
<td>0.007</td>
</tr>
<tr>
<td>an raws</td>
<td>Equal variance assumed</td>
<td>-2.006</td>
<td>998</td>
<td>0.045</td>
</tr>
<tr>
<td>total raws</td>
<td>Equal variance assumed</td>
<td>-3.169</td>
<td>998</td>
<td>0.002</td>
</tr>
</tbody>
</table>

The table 2 is showing the ‘t-test equality of means’ value of the athlete and non athlete female.

**VARIABLE ‘i’:**

From Table no.2, it is evident that the value of t is 1.668 which is significant at 0.05 level with df -998. It indicates that the mean score of overprotection of athlete and non athlete females do not differ significantly. Thus the Null
hypothesis is accepted. Both athlete and non athlete females found to possess the “overprotection” variable to same extent.

VARIABLE ‘f’:
From Table no. 2, it is evident that the value of t is 0.240 which is significant at 0.05 level with df - 998. It indicates that the mean score of depressiveness of athlete and non athlete female do not differ significantly, thus the Null hypothesis is accepted. Both athlete and non athlete female found to possess the depressiveness to same extent.

VARIABLE ‘e’:
From Table no. 2, it is evident that value of t is 2.694 which is significant at 0.01 level with df -998. It indicates that the mean score of submissiveness of athlete and non athlete females differ significantly. Thus the hypothesis is rejected. The mean score of the athlete females is 10.64 and for non athlete females is 11.12 which indicate that non athlete females are more submissive than the athlete females.

VARIABLE ‘an’:
From table no. 2, it is exhibiting that value t is 2.006 which is significant at 0.01 levels with df -998. It indicates that the mean score of “Anxiety” of athlete and non athlete females differ significantly. Thus the hypothesis is
rejected. The mean score of the athlete females is 11.35 and for non athlete females is 11.72 which indicate that non athlete females are more anxious than the athlete females.

From Table no. 2, the value of t is 3.169 which is significant at 0.01 level with df - 998. It indicates that the mean score of Total Neurotic factors of athlete and non athlete females differ significantly. Thus the Null hypothesis is rejected. The mean score of the athlete females is 41.06 and for non athlete females is 42.23 which indicates that non athlete females are more neurotic than the athlete females.

**Table no. 3**

**Descriptive statistics**

<table>
<thead>
<tr>
<th>Non athlete</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i_sten</td>
<td>500</td>
<td>1</td>
<td>10</td>
<td>3.45</td>
<td>1.969</td>
</tr>
<tr>
<td>f_sten</td>
<td>500</td>
<td>1</td>
<td>10</td>
<td>5.59</td>
<td>2.022</td>
</tr>
<tr>
<td>e_sten</td>
<td>500</td>
<td>1</td>
<td>9</td>
<td>4.16</td>
<td>1.836</td>
</tr>
<tr>
<td>an_sten</td>
<td>500</td>
<td>1</td>
<td>44</td>
<td>6.68</td>
<td>2.489</td>
</tr>
<tr>
<td>total_sten</td>
<td>500</td>
<td>1</td>
<td>10</td>
<td>5.55</td>
<td>1.594</td>
</tr>
<tr>
<td>Valid (listwise)</td>
<td>N</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VARIABLE ‘i’:

It shows the descriptive analysis of the different variables of neuroticism and the sten scores of neuroticism variables. The mean value of overprotection of sten in non athlete females is $3.45 \pm 1.97$. “The female non athletes with high sten score on the overprotection represents sheltering from the realities of life, often by an unrealistic, indulgent home education. The (i+) person tends to be sentimental, kind, sometimes artistic and imaginative even to the point of fanciful. The high score (i+) non athlete females shows kindness, gentleness and helplessness to act on their behalf. They do so on the basis of sensitive intuition which is often “idealistic” and impractical.”

“By contrast, the low score or (i-) non athlete females might be described as without feelings, often brusque in manner, they tend to lack artistic interest and sensitivity, inclining to be practical, no – nonsense type, tough, hard, responsible, self – reliant, independent minded and poised. Tough minded non athlete females are practical, even shrewd, her actions are usually based on an objective, logical and “realistic” evaluation of the evidence, rather than on her feelings.\textsuperscript{63}

VARIABLE ‘f’:

The mean sten score of non athlete on this variable is 5.59 ± 2.02. The non athlete females who scores high on variable f is an almost classical picture of depression, glumy, sober, serious, subdued and pessimistic behaviour. She tends to withdraw from others; she is taciturn, incommunicative, smug, seclusive, retiring (“wall flower”) and introspective. Her quietness does not mean serenity. For when she is upset, she is simply simmers and broods, without easily detectable outward signs, such as restlessness. Finally, there is definite slowness and inability to accept and adapt to situations. The person is rigid, bound by habit, phlegmatic and slow to move. In other hand the low- score non athlete females are cheerful, happy-go-lucky, “the life of party.” She is humorous and witty, cheerful to the point of “manic elation, enthusiastic and likes excitement and social contact. She is expressive socialite, talkative (perhaps too much), adaptable, original, clever, energetic, fast moving and impulsive. Above characteristics of high score and low score shows that this component is one of the main elements in introversion – extroversion, though by no means all of it. The
association of depression with introversion confirms neurosis. A long held clinical opinion that introverts tend to be more neurosis-prone.\textsuperscript{64}

\textbf{VARIABLE ‘e’:}

It is evident that the descriptive analysis of the mean sten scores of submissiveness of non athlete females is 4.16±1.83. The non athlete females with a higher score on this variable are submissive, obedient, complascent, dependent (a-milk-toast) type relationship who lacks the drive to win & lacks the “will power” to assert herself. If not excessive, these characteristics may be acceptable or even desirable in a person in authority and/or at the dominant side of the scale. The submissive person does not “make trouble.” she remains modest. Quiet, retiring, tactful, not “defensive,” in general not demanding attention, ready to conceded the center of the stage to others rather than argue or clash with them, and sensitive to social approval or disapproval. In this sense, the submissive non athlete female behavior may be quiet “considerate,” kind, and soft-hearted, probably because she fears and avoids the clashes which would result from assertive – hostile behavior

\textsuperscript{64} Ibid.
toward others. If there are unavoidable conflicts with others, or any form of social disapproval, she is profoundly upset.

The non athlete females with a low score on this NSQ variable are dominant, assertive, ascendant, aggressive, and competitive, even pugnacious. She tends to be domineering, unshakable in her determination to have things her own way, vigorous, forceful, decisive, tough and stern. She is independent minded, willful, stubborn and self-assured, often to the point of being boastful and haughty. She seeks attention but is relatively insensitive to social approval or disapproval of his behavior.

**VARIABLE ‘an’:**

The mean sten scores of Anxiety variable of non athlete females is 6.68 ± 2.48. The person who scores high on this component has feelings of anxiety, dread, guilt, inferiority, frustration, and loneliness. She is upset, tense, excitable, restless, irritable, emotionally immature and unstable, with low frustration tolerance. This is mainly unbound, free-floating anxiety, but some “binding” is shown, for instance, in exacting, fussy behavior, hypochondria, neurotic fatigue, etc. However, “bound” anxiety, insofar as the concept is intelligible and definable, seems to appear more in other three NSQ variables.
The low-score pole shows absence of anxiety feelings and symptoms. Those non athlete females who score low are emotionally mature, secure, calm and composed, self-confident, realistic, stable, resilient, and in a broad sense, psychologically healthy.

There is almost nothing good to be said about high anxiety score. High anxiety score is associated not only with neurosis, but also with almost all the other disorders and maladjustments so far measured, including character disorders such as alcoholism, homosexuality and exhibitionism, physical disabilities, psychosis, etc. In fact, anxiety is much more highly and consistently associated with the various forms of disorders than are any of the other three components. Thus, anxiety is apparently what comes closest to being the common element in all forms of mental disorder. While lack of anxiety, conversely, comes close to what is usually meant by the term “mental health.” On the basis of this finding, non athlete females who score high on this variable they need therapy for alleviation of anxiety and neurosis.

Table 3 shows that the mean sten score of total no. of non athlete females is $5.55 \pm 1.59$. The total mean sten score represents that the female non athletes are neurotic and they need treatment.
TABLE NO 4

Descriptive statistics

<table>
<thead>
<tr>
<th>Athlete</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i_sten</td>
<td>500</td>
<td>0</td>
<td>9</td>
<td>3.22</td>
<td>1.938</td>
</tr>
<tr>
<td>f_sten</td>
<td>500</td>
<td>1</td>
<td>10</td>
<td>5.53</td>
<td>1.920</td>
</tr>
<tr>
<td>e_sten</td>
<td>500</td>
<td>1</td>
<td>10</td>
<td>3.83</td>
<td>1.684</td>
</tr>
<tr>
<td>an_sten</td>
<td>500</td>
<td>2</td>
<td>10</td>
<td>6.38</td>
<td>1.669</td>
</tr>
<tr>
<td>total_stn</td>
<td>500</td>
<td>1</td>
<td>9</td>
<td>5.23</td>
<td>1.594</td>
</tr>
<tr>
<td>Valid N</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VARIABLE ‘I’:

It is apparent that the descriptive analysis about the different variables of neuroticism of athlete females and it shows the sten scores of neuroticism variables. The mean value of Overprotection of sten in athlete females is 3.22 ± 1.93. The female athletes with high sten score on the tender mindedness represent overprotection and sheltering from the realities of life, often by an unrealistic, indulgent home education. The (i+) person tends to be sentimental, kind, sometimes artistically and imaginative even to the
point of fanciful. Characterizes the high score (i+), showing as kindness, gentleness and helplessness. Even when tender minded (high score) athlete females do act on their own. They do so on the basis of sensitive intuition which is often “idealistic” and impractical (for example, they are careless as regards material things). By contrast, the low score or (i-) athlete females might be described as unfeeling, a “philistine” often brusque in manner. Female athletes tends to lack artistic interest and sensitivity, inclining to be a practical, no – nonsense type, tough, hard, responsible, self – reliant, independent minded and poised. Tough minded athlete females are practical, even shrewd, her actions are based on an objective, logical and “realistic” evaluation of the evidence, rather than on her feelings.

**VARIABLE ‘f’:**

The mean sten score of female athletes on this variable is 5.53 ± 1.92. The female athletes who score high on variable f are an almost classical picture of depression: glum, sober, serious, subdued and pessimistic behavior. She tends to withdraw from others; she is taciturn, incommunicative, smug, seclusive, retiring (“wall flower”) and introspective. Her quietness does not mean serenity for when as often she is upset, she is simply simmers and broods, without easily detectable outward signs, such as restlessness. Finally there is definite slowness and inability to
accept and adapt to situations. The person is rigid, bound by habit, phlegmatic and slow to move. In other hand the low-score non athlete female are cheerful, happy-go-lucky, “the life of party.” She is humorous and witty, cheerful to the point of “manic elation, enthusiastic and likes excitement and social contact. She is expressive social able, talkative (perhaps too much so), adaptable, original, clever, energetic, fast moving and impulsive.

Above characteristics of high score and low score is shown that this component is one of the main elements in introversion – extroversion though by no means all it: The association of depression can element in introversion with neurosis confirms. A long held clinical opinion that introverts tend to be more neurosis-prone.

VARIABLE “E”:

It is evident that the descriptive analysis of the mean sten scores of submissiveness of non athlete female is $3.83 \pm 1.68$. The non athlete female with a higher score on this variable is submissive, obedient, complaisant, dependent – a – milk – toast type who lacks the drive to win (“will power”) and does not assert himself. If not excessive, these characteristics may be
acceptable or even desirable of person in authority and/or at the dominant side of the scale. The submissive person does not “make trouble.” He is modest. Quiet, retiring, tactful, not “defensive,” in general not demanding attention, ready to concede the center of the stage to others rather than argue or clash with them, and sensitive to social approval or disapproval. In this sense, the submissive non athlete female’s behavior may quiet “considerate,” kindly, and soft-hearted, probably mainly because she fears and avoids the clashes which would result from assertive – hostile behavior toward others. If there are unavoidable conflicts with others, or any form of social disapproval, she is profoundly upset.

The athlete female with a low score on this NSQ variable is dominant, assertive, ascendant, aggressive, and competitive, even pugnacious. She tends to be domineering, unshakable in her determination to have things his own way, vigorous, forceful, decisive, tough and stern. She is independent minded, willful, stubborn and self-assured, often to the point of being boastful and haughty. She seeks attention but is relatively insensitive to social approval or disapproval of his behavior.

VARIABLE ‘AN ‘:
The mean sten score of Anxiety variable of non athlete female is 6.38 ± 1.66. The person who scores high on this component has feelings of anxiety, dread, guilt, inferiority, frustration, and loneliness. He is upset, tense, excitable, restless, irritable, emotionally immature and unstable, with low frustration tolerance. This is mainly unbound, free-floating anxiety, but some “binding” is shown, for instance, in exacting, fussy behavior, hypochondria, neurotic fatigue, etc. However, “bound” anxiety, insofar as the concept is intelligible and definable, seems to appear more in other three NSQ variables.

The low-score pole shows absence of anxiety feelings and symptoms. Those athlete females who scores low is emotionally mature, secure, calm and composed, self-confident, realistic, stable, resilient, and in a broad sense, psychologically healthy. (Ivan H. Schoier, and Raymond B. Cattell : Neuroticism Scale Questionnaire 1951).

There is almost nothing good to be said about high anxiety score. High anxiety score is associated not only with neurosis, but also with almost all the other disorders and maladjustments so far measured, including character disorders such as alcoholism, homosexuality and exhibitionism, physical disabilities, psychosis, etc. In fact, anxiety is much more highly and consistently associated with the various forms of disorder than are any of the
other three components. Thus, anxiety is apparently what comes closest to being the common element in all forms of mental disorder, while lack of anxiety, conversely, comes close to what is usually meant by the term “mental health.” On the basis of this finding, non athlete female who scores high on this variable they need therapy for alleviation of anxiety and neurosis.

From table 3 shows that the mean sten score of total no. of athlete females is 5.23 ± 1.59.

### Table No. 5

<table>
<thead>
<tr>
<th>NON ATHLETE</th>
<th>Sten</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHER Neuroticism Level</td>
<td>&gt;7–10</td>
<td>Neu</td>
<td>148</td>
</tr>
<tr>
<td>MIDDLE Neuroticism Level</td>
<td>7-4</td>
<td>Nor</td>
<td>300</td>
</tr>
<tr>
<td>LOWER Neuroticism Level</td>
<td>1-4&lt;</td>
<td>N</td>
<td>52</td>
</tr>
</tbody>
</table>

percentage of the non athlete females
It exhibits that the neuroticism level 1 – 4 represents the neurotic range of non athlete females. The table shows that 52 out of 500 female non athletes are neurotic and their percentage is 10.4%. In the same way neuroticism level 7 – 10 represents the high neurotic range. The table shows that 148 out of 500 female athletes are highly neurotic and their percentage is 29.6%. The level 4 – 7 represents the normal range of neuroticism. In this level 300 out of 500 are declared to be normal and their percentage is 60%. Thus the table clearly shows that 40% of non athlete females are in definite need of treatment for neurosis.
It is evident that the neuroticism level 1 – 4 represents the neurotic range of athlete females. The table shows that 13.2% female athletes are neurotic and in the same way neuroticism level 7 – 10 represents the highly neurotic range. The table shows that 22.8% female athletes are highly
neurotic. Now, the level 4 – 7 shows the normal range of neuroticism. In this level 64% female athletes are declared to be normal. Thus, the table clearly shows that 54% female athletes are in definite need treatment for neurosis. It is concluded that irrespective of athlete and non athlete females in the range of 1 – 4< shows neurotic and level >7 – 10 are highly neurotic and require treatment.

**MEAN SCORE OF NEUROTICISM BETWEEN ATHLETE FEMALS AND NON ATHLETE FEMALES**

![Chart Title](chart.png)
FIGURE: 3

[Graph showing mean scores for athletes and non-athletes.

FIGURE: 4

Mean difference of athlete and non-athlete female of raw score.
**FIGURE: 5**
Mean difference of athlete and non athlete female of raw score.

**FIGURE: 6**
Mean difference of athlete and non athlete female of raw score.
FIGURE: 7
Mean difference of athlete and non athlete females of raw score.

FIGURE: 8
Mean difference of athlete and non athlete females of raw score.
MEAN SCORE OF NEUROTICISM BETWEEN ATHLETE FEMALES AND NON ATHLETE FEMALES

**FIGURE: 9**

The chart shows mean value of athlete and non athlete females

**FIGURE: 10**

The chart shows mean value of athlete and non athlete females
Mean difference of athlete and non athlete females of sten score.

**FIGURE: 11**

Mean difference of athlete and non athlete females of sten score.

**FIGURE: 12**

Mean difference of athlete and non athlete females of sten score.
**FIGURE: 13**

Mean difference of athlete and non athlete females of sten score.

**FIGURE: 14**

Mean difference of athlete and non athlete females of sten score.
MAIN FINDINGS

1. There is no significant difference between the female athletes and female non athletes on level of “Overprotection”.

2. There is no significant difference between the female athletes and female non athletes on “Depressiveness”.

3. There is significant difference between female athletes and female non athletes on “Submissiveness”. Non athlete females are more submissive than athlete females.

4. There is significant difference between female athletes and female non athletes on the level of “Anxiety”. Non athlete females are more anxious than athlete females.