CHAPTER IV

RESULTS AND DISCUSSIONS

4.1 Introduction
4.2 Presentation of Data
4.3 Personal Data
4.4 Motor Ability
4.5 Academic Achievement
4.6 Intelligence Level
4.7 Reaction Time
4.8 Sports Achievement Motivation Test
CHAPTER – IV
RESULTS AND DISCUSSIONS

4.1 Introduction

In this chapter the data collected as per procedure described in Chapter–III had been presented. Statistical analysis of data to obtain results and discussion and interpretation of results to draw logical conclusions had also been furnished. The description parameters on the personal data i.e physique (age, height, weight), selected motor ability, academic achievement and psychological parameters were studied and analyzed by applying ‘t’ test, for different two groups of district level football and kabaddi players to find out the significant difference. The levels of significance were set at 0.05 and 0.01 level of confidence.

4.2 Presentation of Data

Presentation of data of three main areas of the study including personal data i.e physique done area-wise was as follows

4.3 Personal Data

In the present study the personal data i.e age, height and weight were considered. The personal data seemed to be influencing the performance in the field of games and sports

4.3.1 Age:

Table – 4
Mean and Standard Deviation of Age of the Subjects of Football and Kabaddi Groups

<table>
<thead>
<tr>
<th>Variable (Years)</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
</tr>
<tr>
<td></td>
<td>16.17 ± 0.64</td>
<td>16.07 ± 0.63</td>
</tr>
</tbody>
</table>
Table 4 indicated that the mean and SD of age for football player were 16.17 ± 0.64 years whereas the mean age and SD of age for kabaddi players were 16.07 ± 0.63 years respectively. Fig. 1 represented the mean age of the two groups.

![Fig. 1: Mean and standard deviation of Age of two groups](image)

4.3.2 Height:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (cm)</td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
</tr>
<tr>
<td></td>
<td>167.90 ± 4.75</td>
<td>166.73 ± 4.43</td>
</tr>
</tbody>
</table>

In Table 5 and Fig. 2 mean scores and standard deviation of height for football and kabaddi players were 167.90 ± 4.75 cm and 166.73 ± 4.43 cm respectively. It was also observed that mean score of both the groups were not equal. It was found that height of football group was higher than kabaddi groups.
4.3.3 Weight:

Table 6

Mean and Standard Deviation of Weight of
the Subjects of Football and Kabaddi Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>Mean ±SD</td>
<td>Mean ±SD</td>
</tr>
<tr>
<td></td>
<td>53.93 ± 4.77 kg</td>
<td>54.47 ± 5.39 kg</td>
</tr>
</tbody>
</table>

Table 6 and Fig. 3 indicated that mean scores and standard deviation of weight in two groups were 53.93 ± 4.77 kg and 54.47 ± 5.39 kg respectively. It was observed from the mean body weight score of football group was lesser than kabaddi group.
4.4 Motor Ability

The test procedure conducted in this study was according to standard methods. It had been discussed and mentioned by various eminent experts, authors and researchers in the profession of physical education (Mathews, 1968, Clarke, 1976, Barrow and McGee, 1979 and Verducci, 1980) etc. Before conducting each test item, the test procedure was explained to all the subjects as they were duly motivated to have the best performance out of them.

The motor ability of the subjects in this respect was measured by five test items of A. A H P. E R Youth Fitness Test Battery with their measurement units. The items were:
(a) Sit up.
(b) Shuttle run.
(c) Standing broad jump
(d) 50 yard dash
(e) 12 minute run & walk.

In motor ability, the raw data were converted to the percentile scores according to the normative scale of this battery. The results were presented in tabular form and discussions were made test-wise accordingly given below.

4.4.1 Sit-up:

Table – 7
Mean Scores and Standard Deviation of Sit up of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE_D</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sit Up</td>
<td>59 67 16.55</td>
<td>47 50 20.96</td>
<td>4.88</td>
<td>2.50*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level =2.00, t at 0.01 level = 2.66
*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant
It appeared from the Table-7 and Fig. 4 that the mean scores and standard deviation of Sit up of football and kabaddi group were 59.67 ± 16.55 and 47.50 ± 20.96 respectively. The obtained ‘t’ value was 2.50 and found statistically significant at 0.05 level.

From the Table-7 indicated that mean score of sit up of football group was 59.67 which was better than the kabaddi group. Football group belonged to a regular training program. As a result their abdominal strength was better. A significant difference was observed between the two groups.

Sharkey (1990) had reported that exercise with medium resistance and repetition 15 to 25 may improve endurance as well as strength.

Clark and Vaccaro (1979), Reid et. al. (1987) have shown improvement in muscular strength endurance among boys and girls and adult male respectively.

Therefore the findings of the present study were in agreement with the findings of other researches. Accordingly from the findings of the study in regard to motor ability.

It may safely be concluded that hypothesis no. – 2 of Chapter–1.8 be accepted.
4.4.2 Shuttle Run:

**Table – 8**

Mean Scores and Standard Deviation of Shuttle Run of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE_d</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shuttle Run</td>
<td>60.50 ± 19.58</td>
<td>56.00 ± 24.51</td>
<td>5.73</td>
<td>0.79 NS</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

From Table–8 and Fig. 5 it was found that the mean scores and standard deviation of Shuttle Run of football and kabaddi group were 60.50 ± 19.58 and 56.00 ± 24.51 respectively. The obtained ‘t’ value 0.79 was found statistically not significant.

The mean score of agility of football group was much better than the kabaddi group. The time in second was converted to percentile score and hence, higher the percentile score, better is the result. So in agility footballer performed better result than kabaddi group. Differences were observed in agility between the groups but statistically not significant.

Rosenstein, Frost (1964) found the greatest improvement in strength with some gain in agility, balance and endurance by participation in regular good physical education programme.

Bandopadhyay (1978) attempted to study the effects of ankle flexibility, agility,
speed, vertical jumping ability in football event. Recognising the effect of selected exercise improved agility, flexibility, strength specially in ankle joint.

Reilly (1983) reported a study conducted by Raven et. al. (1970) where it was observed that an agility test best discriminated the soccer players from other sports specialists when a complete fitness battery was employed.

Therefore the findings of the present study were in close proximity with the findings of the other researchers.

So analysing the result it may be concluded that hypothesis no-2 of Chapter-1.8 in relation to shuttle run may be accepted.

### 4.4.3 Standing Broad Jump:

**Table – 9**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE₀</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing Broad Jump</td>
<td>52.50 ± 24.66</td>
<td>67.17 ± 23.14</td>
<td>6.17</td>
<td>2.38*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

Fig. 6: Mean and standard deviation of Standing Broad Jump of two groups

It appeared from Table–9 and Fig. 6 that the mean scores and standard deviation of Standing Broad Jump of football and kabaddi group were 52.50 ± 24.66
and 67.17 ± 23.14 respectively. The obtained ‘t’ value was 2.38 and found statistically significant at 0.05 level.

From the table it was observed that leg explosive strength of kabaddi group was much better than the football group.

Richard (1964) observed that the strengthening exercise help the male subjects in improving their performance in vertical jump and have also resulted in the improvement of running performance. Lamb (1978) viewed that strength training programme improved the performance in vertical jump, standing long jump etc. Weltman et. al. (1986) and Housh et. al. (1988) found improvement in vertical jump performance following training.

So analysing the result it may be concluded that hypothesis no. 2 of Chapter-1.8 in relation to standing broad jump may be accepted.

4.4.4 50 Yard Dash:

Table – 10

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE₀</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 Yard Dash</td>
<td>60.17 ± 23.62</td>
<td>45.33 ± 20.88</td>
<td>5.76</td>
<td>2.58*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

![Fig. 7: Mean and standard deviation of 50 Yard Dash of two groups](image-url)
It appeared from the Table-10 and Fig 7 that the mean scores and standard deviation of 50 Yard Dash of football and kabaddi groups were 60.17 ± 23.62 and 45.33 ± 20.88 respectively. The obtained ‘t’ value was 2.58 and found to be statistically significant at 0.05 level.

The investigator found out the difference in 50 yard dash between football and kabaddi groups from Table-10. It was found that the mean value of football group as 60.17 which was relatively higher than the mean value of kabaddi group of 45.33.

The time in second was converted to percentile score and hence, higher the percentile score, better is the result. So in 50 yard dash football group performed better than kabaddi group. A significant difference was observed between the two groups.

Harre (1982) and Fox (1981) showed that running speed may be improved through training. Nunney (1960) found improvement in speed by circuit training method.

Das and Banerjee (1992) observed the speed performance may be improved through appropriate training and longer the duration better was the magnitude of the improvement.

Therefore the findings of the present study were in agreement with the findings of the other researchers. So it may be safely concluded that hypothesis no-2, chapter-18 in relation to speed may be accepted.

4.4.5 12 Minute Run and Walk:

Table – 11

Mean Scores and Standard Deviation of 12 Minute Run and Walk of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Obtained 't' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Minute Run and Walk</td>
<td>67.67 ± 16.33</td>
<td>42.50 ± 11.73</td>
<td>3.67</td>
<td>6.86*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant
Fig. 8 : Mean and standard deviation of 12 Minute Run and Walk of two groups

From the Table-11 and Fig. 8 indicated that the mean scores and standard deviation of 12 minute run and walk of football and kabaddi group were 67.67 ± 16.33 and 42.50 ± 11.73 respectively. The obtained ‘t’ value was 6.86 which was statistically significant at both levels.

The investigator found out from Table-11 that the mean scores of 12 minute run and walk football group was 67.67 which was better than the kabaddi group. A significant difference was observed between the two groups.

Sharkey (1990) reported that exercise with medium resistance and repetition 15 to 25 may improve endurance as well as strength. Reid et. al. (1987) have shown improvement in muscular strength endurance among boys and girls and adult male respectively. The distance an individual can run in twelve minutes was proposed and popularized by Cooper (1968) as a test of circulatory, respiratory endurance, the basic research was conducted with United States Air force personnel. Barik and Banerjee (1990) observed that after six weeks of conditioning programme speed, endurance, strength, agility increased significantly.

Therefore the findings of the present study were in agreement with the findings of the other researchers. Accordingly from the findings, it may be concluded that hypothesis no-2, chapter no-1.8 in relation to 12 minute run and walk may be accepted.
4.4.6 Composite Score of Motor Ability:

Table – 12

Composite Mean Scores and Standard Deviation of Motor Ability of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE₀</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Scores of Motor Ability</td>
<td>300.17 ± 46.53</td>
<td>258.50 ± 58.59</td>
<td>13.66</td>
<td>3.05*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

Fig. 9: Composite mean and standard deviation of Motor Ability of two groups

It appeared from the Table-12 and Fig. 9 that the mean of composite score of Motor Ability of football and kabaddi group were 300.17 ± 46.53 and 258.50 ± 58.59 respectively. The obtained ‘t’ value was 3.05 and found significant at both levels.

The investigator found out the difference in composite score of motor ability between the groups from Table-12. It was found that the mean value of football group was significantly better than that of kabaddi group.

Mondal and Banerjee (1989) reported that in a six weeks conditioning programme on young soccer players, along with development in motor ability the basic skills in football also improved. Fox (1984) opined that regular practice, or exercise programme designed to strengthen muscles primarily involve in a particular sports can be effective in improving athlete’s skills and motor fitness.

Clark (1976), Islegen and Akgun (1987) have found improvement in motor
ability variables through training. Mondal and Banerjee (1991) observed that the athletic group was significantly better in physical fitness components that the non-athletic group.

From these findings, it may be concluded that in performing motor ability variables in five items, football groups had better result in sit-up, shuttle run, 50 yard dash and 12 min. run and walk in comparison to kabaddi groups. On other side, kabaddi had better result in standing broad jump as compared to football group.

So analysing the result, it may be concluded that hypothesis no. 2 of Chapter - 1.8 in relation to composite score of motor ability may be accepted. Fig. 10 and Fig. 11 shows the means and SDs of selected five tests in motor ability for football and kabaddi groups respectively.

**Fig. 10 :** Means and Standard Deviations of Selected Five Test Items in performing Motor Ability of Football Group

**Fig. 11 :** Means and Standard Deviations of Selected Five Test Items in performing Motor Ability of Kabaddi Group
4.5 Academic Achievement

Table – 13

Mean Scores and Standard Deviation of Academic Achievement of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Obtained 't' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>33.13 ± 4.78</td>
<td>34.73 ± 6.69</td>
<td>1.50</td>
<td>1.07 NS</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level =2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

Fig. 12: Mean and standard deviation of Academic Achievement of two groups

It appeared from Table–13 and Fig. 12 that the mean scores and standard deviation of the football and kabaddi group in the Academic Achievement performance were 33.13 ± 4.78 and 34.73 ± 6.69 respectively. The obtained 't' value was 1.07 which was found to be statistically not significant. A difference was observed in academic achievement between the groups.

The result from the above table showed that the mean value of kabaddi group was better in academic achievement than the football group, but 't' value was not significant. Fig. 12 reflects the mean values in academic achievement of the subjects.

Clarks and Jarman (1961) investigated the academic achievement of boys of nine, twelve and fifteen years of age. At each age high and low groups were formed separately based on physical fitness indices. In each instance the group was equated intelligence quotients. Generally (especially for physical index) the high group had
significantly superior grade point average in their class work and significantly higher means on standard scholastic achievement tests.

Bucher (1969) in his study had shown that high school students who are physically fit tend to grade better than those who are not. If one is physically fit, he will increase his chances of scholastic success.

Devis and Berger (1973) studied the academic achievement of college athletes compared with non-athletes to determine whether differences were evident or not. They concluded that the comparison of academic achievement between athletes showed that there was no significant difference the two groups.

So analysing the result it may be concluded that hypothesis no-3, chapter no.-1.8 in relation to academic achievement may be accepted.

4.6 Intelligence Level

Table – 14

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE_D</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence Level</td>
<td>15.67 ± 6.23</td>
<td>15.60 ± 5.97</td>
<td>1.58</td>
<td>0.04 NS</td>
</tr>
</tbody>
</table>

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

Fig. 13 : Mean and standard deviation of Intelligence Level of two groups
From Table-14 and Fig. 13 indicated that the mean scores and standard deviation of intelligence level of football and kabaddi groups were 15.67 ± 6.23 and 15.60 ± 5.97 respectively. The obtained ‘t’ value 0.04 was found statistically not significant.

A difference was observed in sports achievement motivation between the groups but statistically not significant. It was found from Table-14 that mean values of intelligence level of football and kabaddi groups were more or less same.

Spraque (1962) studied on physically normal 8 years old boys and found intelligence was positively correlated with motor skill. Yurick (1969) observed that lower intelligence groups of boys were significantly poorer than the average and high intelligence group in performing motor task which was characterized by speed of movement.

Budavari (1974) observed a high perceptive level of intelligence beyond average in more physically fit sports participants.

4.7 Reaction Time

Table – 15
Mean Scores and Standard Deviation of Reaction Time of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE_D</th>
<th>Obtained ‘t’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reaction Time</td>
<td>11.40 ± 1.38</td>
<td>10.70 ± 1.24</td>
<td>0.34</td>
<td>2.07*</td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level =2.00, t at 0.01 level = 2.66

*Sig at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant
In Table-15 and Fig. 14 that the mean scores and standard deviation of Reaction time of football and kabaddi group were 11.40 ± 1.38 and 10.70 ± 1.24 respectively. The obtained ‘t’ value was 2.07 and found to be significant at 0.05 level.

The investigator found out the difference in reaction time between football and kabaddi groups, from Table – 15. It was found that the mean value of kabaddi groups was 10.70 which was better than the football groups. Lower the score, better was the result. A significant difference was observed between the two groups of district level male players.

According to Hull (1942) reaction time do differ from individual to individual and as also in the same individual it varies from day to day and even from event to event. Johnson (1922) observed that reaction time decreases. Keller (1942) observed that the reaction time of persons specializing in individual events was slower than those participating in team events.

Singh (1986) also found significant difference in visual reaction time between the players of individual event and group games. Singh (1990) found that the high performance has less reaction time. Hammel (1955) reported that varsity athletes had a significantly shorter reaction time to a light stimulus than physical education majors, music and liberal arts major.
So it may be concluded that the present study found similarities with many other researcher. Analysing the result it may be concluded that hypothesis no. 4 of Chapter–1.8 in relation to reaction time may be accepted.

4.8 Sports Achievement Motivation Test

Table – 16

Mean Scores and Standard Deviation of Sports Achievement Motivation Test of Football and Kabaddi Groups and their Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>Football Group</th>
<th>Kabaddi Group</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Obtained 't' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Achievement</td>
<td>23.27 ± 4.28</td>
<td>24.07 ± 5.11</td>
<td>1.22</td>
<td>0.66 NS</td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30 observations for each variable, t at 0.05 level = 2.00, t at 0.01 level = 2.66

*Sig. at 0.05 level, **Sig. at 0.01 level, NS is Not-Significant

Fig. 15 : Mean and standard deviation of Sports Achievement Motivation Test of two groups

From Table–16 and Fig. 15 it was found that the mean scores and standard deviation of Sports Achievement Motivation of football and kabaddi groups were
23.27 ± 4.28 and 24.07 ± 5.11 respectively. The obtained 't' value was 0.66 and was statistically not significant.

The mean score of Sports Achievement Motivation of kabaddi group was better than the football groups. A difference was observed between the groups but statistically not significant.

According to the SAMT questionnaire subjects scoring below 24 are characterized as "low" in sports achievement motivation. Those scoring below 30 but above 24 are considered as "moderate" and scoring above 30 are considered as "highly motivated". From this study it was found that football and kabaddi groups scores were more or less same and both the groups belonged in moderate Sports Achievement Motivation.

The theory of achievement motivation attempts to account for the determination of the direction, magnitude and persistence of behavior in a limited but very important domain of human activities. It applies only when an individual knows that his performance will be evaluated in terms of standard of excellence and that consequence of his action will be either favourable (success) or unfavourable (failure). That is in other words a theory of achievement oriented performance (Atkinson, 1964).

Bujurke et al (1963) showed that achievement motivation is a contribution factor to athletic performance. They found a significant relationship between achievement motivations and selected sports performance. The subjects of the present study have improved their performance in physical fitness as well as in most of the skill oriented performance and this perhaps influenced in achieving a better sports achievement motivation test score following training.

Eysensch and Gillian (1964) found that highly motivated subjects performed at a lower level on hand-steadiness tests than did subjects at a lower motivational level. Lazarevic and Havilka (1985) found significant difference in the achievement motive displayed by active athletes, and non-athletes.

So it may be concluded that the present study found similarities with many other researcher. Analysing the result it may be concluded that hypothesis no. 4, Chapter–1.8 in relation to sports achievement motivation test may be accepted.