

Emotional Intelligence (EI) Among Sprinters, Throwers and Jumpers: A Cross-Sectional Analysis

Dr. Baljinder Singh

Assistant Professor
Department of Physical Education (T)
Guru Nanak Dev University, Amritsar, INDIA

Dr. Sukhdev Singh

Associate Professor
Department of Physical Education (T)
Guru Nanak Dev University, Amritsar, INDIA

Davinder Singh

Assistant Professor
Department of Physical Education (T)
Guru Nanak Dev University, Amritsar, INDIA

Kanwaljeet Kaur

Research Scholar
Department of Physical Education (T)
Guru Nanak Dev University, Amritsar, INDIA

Abstract: *The purpose of this study was to find out the significant difference of Emotional Intelligence (EI) among Sprinters, Throwers and Jumpers. The researcher collected the data on Sixty (N=60), Male subjects between the age group of 18-28 years (Mean \pm SD: age 22.73 \pm 2.73 years, height 174.41 \pm 3.70 m, body mass 69.35 \pm 3.77 kg) were selected. The subjects were purposively assigned into Three groups: Group-A: Sprinters (n₁=20), Group-B: Throwers (n₂=20) and Group-C: Jumpers (n₃=20). The survey method through the technique of questionnaire had been adopted to collect the relevant data for this study. Semantic Differential Emotional Intelligence Instrument developed by (Carrothers et al., 2000) was used. It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter Maturity, Compassion & Sociability of emotional intelligence were found to be statistically significant (P<0.05) whereas Morality and Calm Disposition of emotional intelligence were found to be statistically insignificant (P>0.05).*

Keywords: *Emotional Intelligence (EI), Sprinters, Throwers, Jumpers.*

1. INTRODUCTION

Inquisitiveness in emotional intelligence has bloomed over the last few years; there has been a growing body of literature revolving around the psychology of excellence in sport. Emotional intelligence (EI) refers to individual's ability to perceive, utilize, understand, and manage their emotions (Mayer & Salovey, 1997). Emotional intelligence (EI) was found to be twice as important as IQ or technical skills for leader performance in several large companies (Goleman, 1998). According to Mayer & Salovey (1997) emotional intelligence refers to an ability to perceive and recognize emotions, to assimilate emotions, to understand the message and meaning of the emotions. A wealth of evidence supports the notion that variations in emotions relate to variations in sport performance (Beedie et al., 2000; Lane et al., 2009b; Robazza et al., 2008). Meta-analysis results show that successful performance is associated with higher scores of vigor and lower scores of anger, confusion, depression, fatigue and tension (Beedie et al., 2000). Once an individual has regulated his or her emotions to an optimal level for the task, then emotional intelligence is proposed to help sustain these emotions providing task demands and motivation to achieve goals remain constant. The present study was conducted to find out the significant difference of Emotional Intelligence (EI) among Sprinters, Throwers and Jumpers.

2. METHODOLOGY

2.1. Selection of Subjects:

The researcher collected the data on Sixty (N=60), Male subjects between the age group of 18-28 years (Mean \pm SD: age 22.73 \pm 2.73 years, height 174.41 \pm 3.70 m, body mass 69.35 \pm 3.77 kg) were selected. The subjects were purposively assigned into Three groups:

- Group-A: Sprinters ($n_1=20$)
- Group-B: Throwers ($n_2=20$)
- Group-C: Jumpers ($n_3=20$)

Subject's characteristics are displayed in Table-1 and are exhibited in Figure-1.

Table1. Subject's Demographics

| Variables | Sample Size (N=60) | | | |
|-------------|--------------------|-----------------------|----------------------|---------------------|
| | Total N=60 | Sprinter ($n_1=20$) | Thrower ($n_2=20$) | Jumper ($n_3=20$) |
| Age | 22.73±2.73 | 23.70±2.43 | 20.90±2.14 | 23.60±2.70 |
| Body Height | 174.41±3.70 | 175.45±4.24 | 173.90±3.38 | 173.90±3.38 |
| Body Mass | 69.35±3.77 | 67.75±2.44 | 70.65±4.18 | 69.65±4.01 |

2.2. Selection of Variables:

The following variables were selected for the present study:

2.3. Emotional Intelligence:

- A. Maturity
- B. Compassion
- C. Morality
- D. Sociability
- E. Calm Disposition

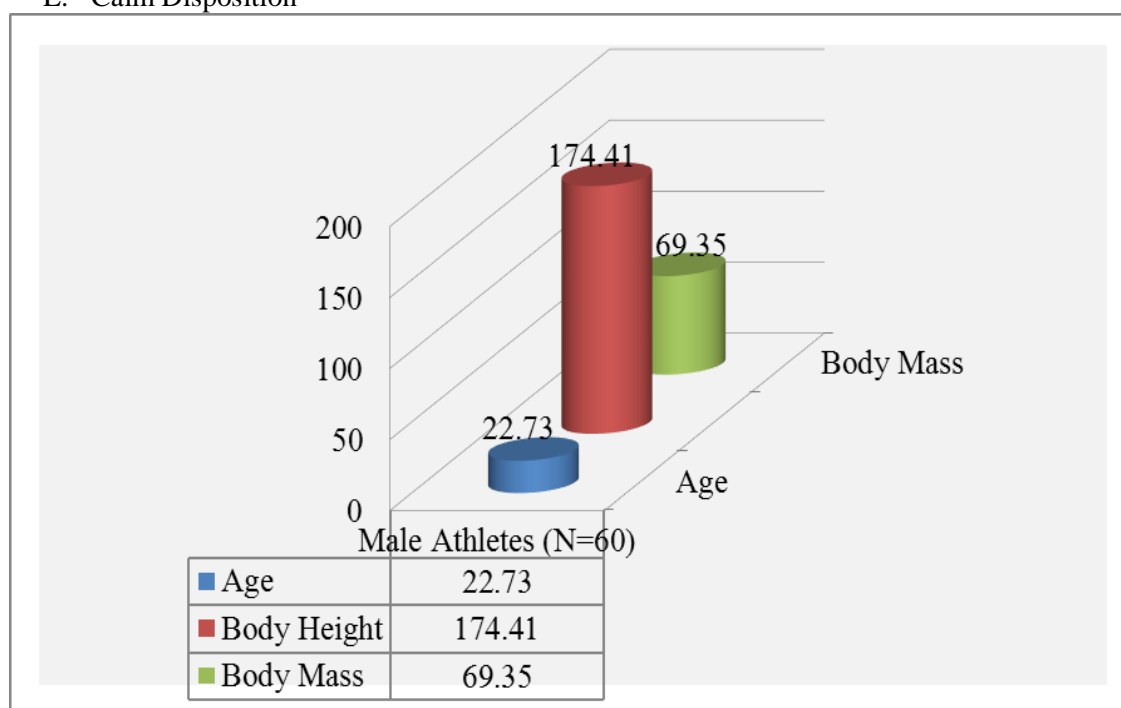


Fig1. Subject's Demographics

3. ADMINISTRATION OF TEST

Semantic Differential Emotional Intelligence Instrument developed by (Carrothers et al., 2000) was used. In total there are 34 items in semantic differential emotional intelligence instrument. Before administering all the items were arranged in random order. It was rated on 7 point scale. The subject has to place a tick mark in one of the seven alternatives to his best of honesty and sincerity. Eighteen out of thirty four items which are marked must be reversed coded before analysing the data. After administration, submission of scores were done for each of five dimensions of the instrument and also a single score of the overall instrument was calculated by

summing each score indicating subject’s emotional intelligence. The semantic differential emotional intelligence instrument is presented in Table-2.

Table2. *Semantic Differential Emotional Intelligence Instrument*

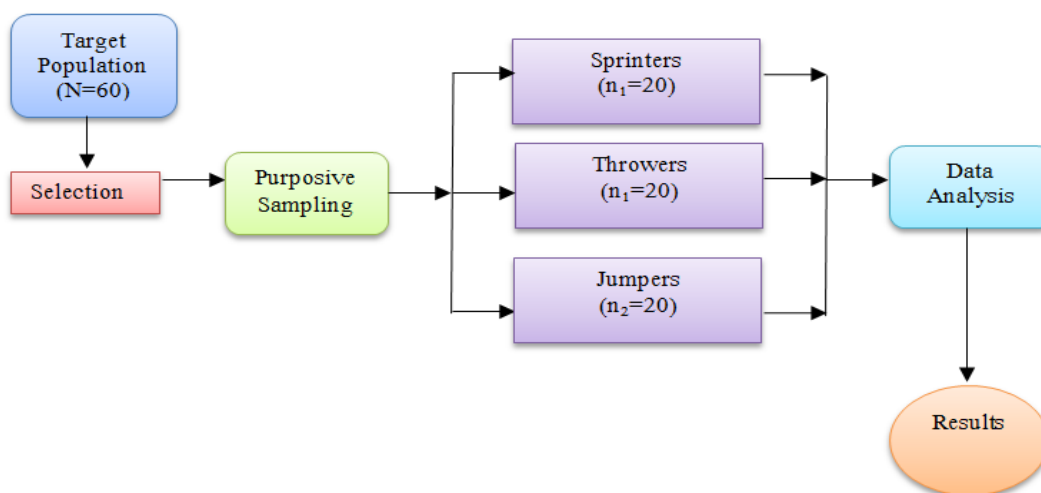
| Category | Components of Emotional Intelligence | Dimensions (34) |
|----------|--------------------------------------|-----------------|
| A. | Maturity | 12 |
| B. | Compassion | 08 |
| C. | Morality | 07 |
| D. | Sociability | 04 |
| E. | Calm Disposition | 03 |

4. COLLECTION OF DATA

The survey method through the technique of questionnaire had been adopted to collect the relevant data for this study. The researcher collected the data on Sixty (N=60), Male subjects between the age group of 18-28 years (Mean ± SD: age 22.73±2.73 years, height 174.41±3.70 m, body mass 69.35±3.77 kg). The purposive sampling technique was used to attain the objectives of the study.

5. DESIGN OF THE STUDY

This is an exploratory study that has employed method of data collection and analysis quantitatively. The purpose of the study was to find out the significant difference of Emotional Intelligence (EI) among Sprinters, Throwers and Jumpers. The purposive sampling technique was used to attain the objectives of the study.



6. STATISTICAL TECHNIQUE EMPLOYED

The Statistical Package for the Social Sciences (SPSS) version 14.0 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by One-way Analysis of Variance (ANOVA). For further analysis Post-Hoc Test (Scheffe’s Test) was applied. In all the analyses, the 5% critical level (p<0.05) was considered to indicate statistical significance.

7. RESULTS

For each of the chosen variable, the result pertaining to significant difference, if any, of Emotional Intelligence (EI) among Sprinters, Throwers and Jumpers are presented in the following tables:

It is evident from Table 3 that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter maturity of emotional intelligence were found to be statistically

significant ($P > 0.05$). Since the obtained “F” ratio .429 was found statistically insignificant, therefore, no need to apply post hoc test.

Table3. Analysis of Variance (ANOVA) results with regard to Maturity among Sprinters, Throwers & Jumpers

| Source of variance | Sum of Squares | df | Mean Square | F-ratio | Sig. |
|--------------------|----------------|----|-------------|---------|------|
| Between Groups | 40.300 | 2 | 20.150 | .429 | .653 |
| Within Groups | 2679.100 | 57 | 47.002 | | |
| Total | 2719.400 | 59 | | | |

*Significant at 0.05, $F_{0.05}(2, 57)$

Table4. Analysis of Variance (ANOVA) results with regard to Compassion among Sprinters, Throwers & Jumpers

| Source of variance | Sum of Squares | Df | Mean Square | F-ratio | Sig. |
|--------------------|----------------|----|-------------|---------|------|
| Between Groups | 628.900 | 2 | 314.450 | 4.057 | .023 |
| Within Groups | 4418.350 | 57 | 77.515 | | |
| Total | 5047.250 | 59 | | | |

*Significant at 0.05, $F_{0.05}(2, 57)$

It is evident from Table 4 that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter compassion of emotional intelligence were found to be statistically significant ($P < 0.05$). Since the obtained “F” ratio 4.057 was found statistically significant, therefore, Post Hoc test (LSD) was applied to determine the degree and direction of difference between the paired means among the groups with regard to the sub-parameter compassion. The results of post-hoc test have been presented in Table 5 below.

Table5. Analysis of Least Significant Difference (LSD) post hoc test among Sprinters, Throwers & Jumpers with regard to Compassion

| Group (A) | Group (B) | Mean Difference (A-B) | Sig. |
|----------------------------|-----------|-----------------------|------|
| Sprinters (Mean= 31.00) | Thrower | 4.90000 | .084 |
| | Jumper | 7.85000* | .007 |
| Throwers (Mean= 26.10) | Sprinter | -4.90000 | .084 |
| | Jumper | 2.95000 | .294 |
| Jumpers (Mean= 23.15) | Sprinter | -7.85000* | .007 |
| | Thrower | -2.95000 | .294 |

*Significant at 0.05 level

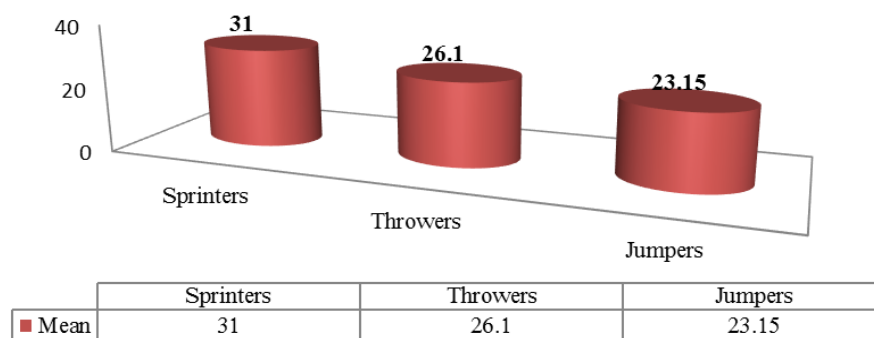


Fig2. Graphical Representation of mean scores among Sprinters, Throwers & Jumpers with regard to Compassion

Emotional Intelligence (EI) Among Sprinters, Throwers and Jumpers: A Cross-Sectional Analysis

A glance at Table 5 showed that the mean value of sprinters was 31.00 whereas throwers had mean value as 26.10 and the mean difference between both the groups was found 4.90. The p-value sig .084 shows that the sprinters had demonstrated better on compassion than their counterpart's throwers though not significantly. The mean difference between throwers and jumpers was found 2.95. The p-value sig .294 showed that the throwers had demonstrated better on compassion than their counterpart's jumpers though not significantly. The mean difference between sprinters and jumpers was found 7.85. The p-value sig .007 shows that the sprinters had demonstrated significantly better on compassion than their counterpart's jumpers. The graphical representation of responses has been exhibited in Figure 2.

Table6. Analysis of Variance (ANOVA) results with regard to Morality among Sprinters, Throwers & Jumpers

| Source of variance | Sum of Squares | df | Mean Square | F-ratio | Sig. |
|--------------------|----------------|----|-------------|---------|------|
| Between Groups | 106.233 | 2 | 53.117 | 1.093 | .342 |
| Within Groups | 2770.350 | 57 | 48.603 | | |
| Total | 2876.583 | 59 | | | |

*Significant at 0.05, $F_{0.05}(2, 57)$

It is evident from Table 6 that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter morality of emotional intelligence were found to be statistically significant ($P > 0.05$). Since the obtained "F" ratio 1.093 was found statistically insignificant, therefore, no need to apply post hoc test.

Table7. Analysis of Variance (ANOVA) results with regard to Sociability among Sprinters, Throwers & Jumpers

| Source of variance | Sum of Squares | Df | Mean Square | F-ratio | Sig. |
|--------------------|----------------|----|-------------|---------|------|
| Between Groups | 73.300 | 2 | 36.650 | 5.141 | .009 |
| Within Groups | 406.350 | 57 | 7.129 | | |
| Total | 479.650 | 59 | | | |

*Significant at 0.05, $F_{0.05}(2, 57)$

It is evident from Table 7 that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter sociability of emotional intelligence were found to be statistically significant ($P < 0.05$). Since the obtained "F" ratio 5.141 was found statistically significant, therefore, Post Hoc test (LSD) was applied to determine the degree and direction of difference between the paired means among the groups with regard to the sub-parameter sociability. The results of post-hoc test have been presented in Table 8 below.

Table8. Analysis of Least Significant Difference (LSD) post hoc test among Sprinters, Throwers & Jumpers with regard to Sociability

| Group (A) | Group (B) | Mean Difference (A-B) | Sig. |
|----------------------------|-----------|-----------------------|------|
| Sprinters (Mean= 13.90) | Thrower | -2.50000* | .004 |
| | Jumper | -.35000 | .680 |
| Throwers (Mean= 16.40) | Sprinter | 2.50000* | .004 |
| | Jumper | 2.15000* | .014 |
| Jumpers (Mean= 14.25) | Sprinter | .35000 | .680 |
| | Thrower | -2.15000* | .014 |

*Significant at 0.05 level

A glance at Table 8 showed that the mean value of sprinters was 13.90 whereas throwers had mean value as 16.40 and the mean difference between both the groups was found 2.50. The p-value sig .004 shows that the throwers had demonstrated significantly better on sociability than their counterpart's sprinters. The mean difference between throwers and jumpers was found 2.15. The p-value sig .014 showed that the throwers had demonstrated significantly better on sociability than their counterpart's jumpers. The mean difference between sprinters and jumpers was found .35. The p-value sig .680 shows that the jumpers had demonstrated better on sociability than their counterpart's sprinters though not significantly. The graphical representation of responses has been exhibited in Figure 3.

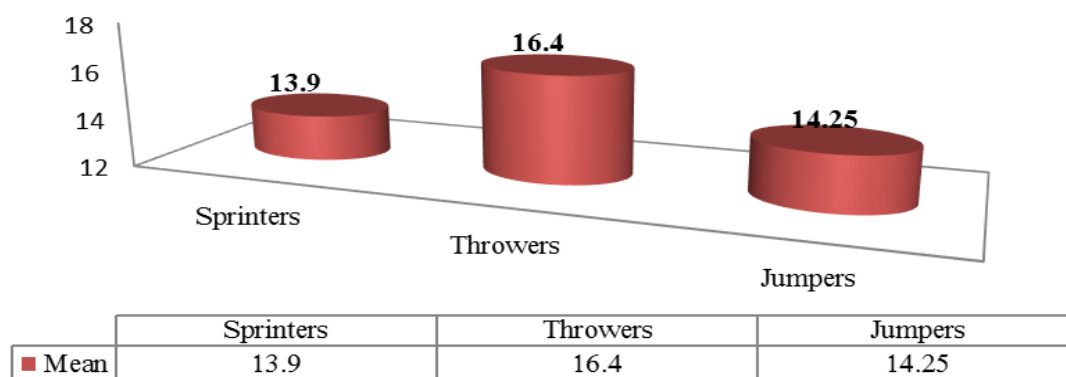


Fig3. Graphical Representation of mean scores among Sprinters, Throwers & Jumpers with regard to Sociability

Table9. Analysis of Variance (ANOVA) results with regard to Calm Disposition among Sprinters, Throwers & Jumpers

| Source of variance | Sum of Squares | df | Mean Square | F-ratio | Sig. |
|--------------------|----------------|----|-------------|---------|------|
| Between Groups | 1.233 | 2 | .617 | .213 | .809 |
| Within Groups | 165.100 | 57 | 2.896 | | |
| Total | 166.333 | 59 | | | |

*Significant at 0.05, $F_{0.05}(2, 57)$

It is evident from Table 9 that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter calm disposition of emotional intelligence were found to be statistically insignificant ($P > 0.05$). Since the obtained “F” ratio .213 was found statistically insignificant, therefore, there is no need to apply post hoc test.

8. CONCLUSIONS

1. To conclude, It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter Maturity of emotional intelligence were found to be statistically significant ($P > 0.05$). Since the obtained “F” ratio .429 was found statistically insignificant.
2. To conclude, It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter Compassion of emotional intelligence were found to be statistically significant ($P < 0.05$). Since the obtained “F” ratio 4.057 was found statistically significant.
3. To conclude, It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter Morality of emotional intelligence were found to be statistically significant ($P > 0.05$). Since the obtained “F” ratio 1.093 was found statistically insignificant.

4. To conclude, It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter Sociability of emotional intelligence were found to be statistically significant ($P < 0.05$). Since the obtained “F” ratio 5.141 was found statistically insignificant.
5. To conclude, It is evident that the results of Analysis of Variance (ANOVA) among three groups with regard to the sub-parameter calm disposition of emotional intelligence were found to be statistically insignificant ($P > 0.05$). Since the obtained “F” ratio .213 was found statistically insignificant.

REFERENCES

- [1] Mayer, J. D., & Salovey, P. What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic Books (1997).
- [2] Goleman, D. What makes a leader? *Harvard Business Review*, 76, 93-102 (1998).
- [3] Mayer, J. D., & Salovey, P. What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic Books (1997).
- [4] Lane, A. M., Thelwell, R. C., Lowther, J., Devonport, T. J. Emotional intelligence and psychological skills use among athletes. *Social Behavior & Personality: An International Journal*. 37(2), 195-201 (2009).