

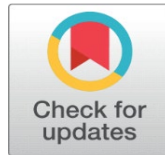
A STUDY OF EMOTIONAL INTELLIGENCE OF TENNIS PLAYERS AND SUBSEQUENT GENDER COMPARISON

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ABSTRACT

This research work was undertaken to study and compare the emotional intelligence of male and female tennis players from Delhi, NCR, India. The emotional Intelligence Scale (EIS- SANS) by Singh & Narain (2014). was used as a tool in the present study. 70 state and national level tennis players (38 males and 32 females) in the age group of 16 to 21 years from various sports academies and schools in Delhi, NCR, India were randomly selected. Upon gender analysis, the study revealed that subjects showed the same level of emotional intelligence for both genders ($p > .05$). However, there seemed to be a difference between the male and female tennis players on understanding motivation ($p < .05$). partial correlation showed that there was no significant relationship between emotional intelligence and body mass index of tennis players while controlling for their age, $r(67) = -.132$, $N = 70$, $p > .05$.

Keywords: Tennis Players, Emotional Intelligence, Gender

1. INTRODUCTION

Sports today has become highly competitive and especially the ones that carry high monetary awards and rewards like golf, tennis, football, cricket. It is pertinent to have good mental health besides high-level game specific physical fitness combined with years of hard work and perseverance for successful participation in physically and mentally demanding sport of tennis. Emotional well-being and controlled aggression in tennis has far reaching consequences in deciding a winner

and a loser not only amongst males but also amongst females. [Goleman \(2007\)](#) defined emotional intelligence as emotional awareness and emotional management skills that give the ability to maintain a healthy balance of emotion and rationality to achieve long-term happiness. Emotional intelligence plays an essential role in academics success, mental health, and physical health. The young competitive tennis players must be happy while training and not just rely upon winning the competitions only, for them to analyze their strengths and weaknesses in the build-up competitions. Research suggests that people who develop emotional intelligence (E.I.) skills can comprehend and reveal their own emotions, concede emotions in others, synchronize emotions, and use moods and emotions to stimulate adaptive behaviors [Salovey & Mayer \(1990\)](#). Other research studies investigate the development of emotional intelligence in childhood that is relevant to the tennis players who start competing at an early age as they must prioritize at least 1 by 6th part of their overall preparation to mental training techniques like imagery, cognitive behavior therapy etc. The study results could reveal that dynamic capability in young players might assist the multifaceted nature of [Zeidner et al. \(2003\)](#). E.I. can predict success in essential domains of an individual [Salovey & Grewal \(2005\)](#). The present study can be useful for the coaches and parents of the tennis players in planning strategies for better emotional regulation in the trying conditions when a student responds to challenges from both academics and sports. Male and female players have slightly different coping mechanisms for emotions and stress. Some might require positive while others might require negative reinforcement for growth. Understanding emotions, motivation, empathy, handling relations with family members, fellow players are some common life skills that are learnt over the period of time and requires further refining for a tennis player. A better insight into one's own capacities and capabilities can help players in peaking at the right time and maintaining their sports performance for a longer duration of time.

2. PROCEDURE

This descriptive research comprised 38 male and 32 female state and national level tennis players in the age group of 16 to 21 years. The data was collected using random and snowball sampling techniques from the population of Delhi, NCR, India. The subjects were assured that their information was for educational purposes only, and confidentiality would be maintained. The tool used for this study was the Emotional intelligence scale (EIS-SANS) developed by Dr. Arun Kumar Singh and Dr. Shruti Narain to assess emotional intelligence. Mean, standard deviation, and correlation and t-test were the statistical techniques used to analyze the data using IBM SPSS 25 version.

- **Inclusion criteria**

- 1) Only tennis players of Indian origin belonging
- 2) Players from Delhi, NCR only.
- 3) Should have been playing competitive tennis sports for the last at least 2 years.
- 4) Understanding of both English and Hindi languages.
- 5) A subject who meets the age criteria.

- **Exclusion criteria**

- 1) Subject with any kind of physical disability due to injury.
- 2) Inactive since last more than 6 months

- **Objectives**

- 1) To study the emotional intelligence of male and female tennis players.
- 2) To compare the emotional intelligence of male and female tennis players.
- 3) To study the relationship between body mass index and emotional intelligence
- 4) To study the relationship between level of participation and gender of the tennis players

- **Hypothesis**

- 1) H_0 = There will not be a significant difference between male and female tennis players on emotional intelligence
- 2) H_a = There will be a significant difference between male and female tennis players on emotional intelligence.
- 3) H_0 = There will not be a significant relationship between emotional intelligence overall score and body mass index while controlling for age.
- 4) H_a = There will be a significant relationship between emotional intelligence overall score and body mass index while controlling for age.
- 5) H_0 = There will not be a significant relationship between level of participation and gender.
- 6) H_a = There will be a significant relationship between level of participation and gender.

Statistics used: IBM SPSS 25 version was being used to analyze the data. Independent samples T-test was used to analyse the difference between males and females. Partial correlation method was used to find out the relationship between body mass index and emotional intelligence.

3. RESULTS AND DISCUSSION

Table 1

Table 1 Descriptive Statistics of Demographic Variables of Tennis Players (N=70)					
	Minimum	Maximum	Mean	Std. Deviation	
	Statistic	Statistic	Statistic	Std. Error	Statistic
Age_in_years	16.00	21.00	18.05	.168	1.41
Height_in_meters	1.48	1.71	1.60	.007	.063
Body_Mass_in_kg	51.00	66.00	57.50	.371	3.10
Body_Mass_Index	19.03	26.02	22.50	.185	1.54

Table 1 shows maximum and minimum values of age, height, body weight and body mass index vis a vis the mean and standard deviation of the tennis players. The mean age for participants was 18.05 ± 1.41 , mean height $1.60 \pm .007$ meters, mean body weight 57.50 ± 3.10 kilograms, mean body mass index was 22.50 ± 1.54 .

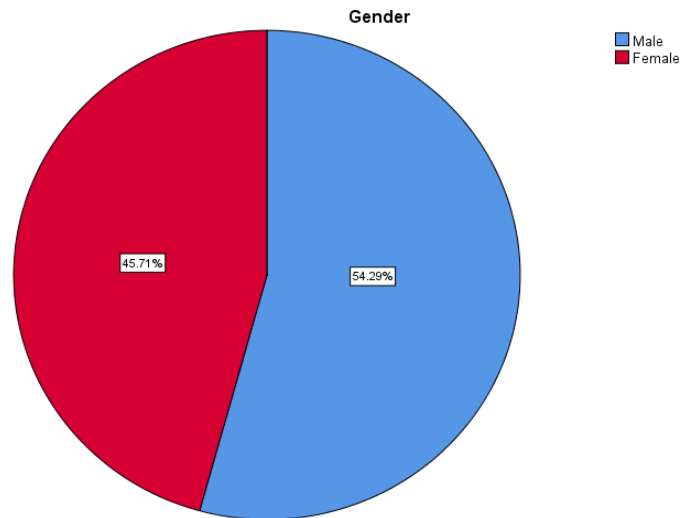
Chart 1

Chart 1 Showing Percentage Distribution of Male and Female Tennis Players (N=70)

Chart 1 shows gender wise division of tennis players in frequency and percentage. Of the 70 participant players, 54.29% were males and 45.71% were females.

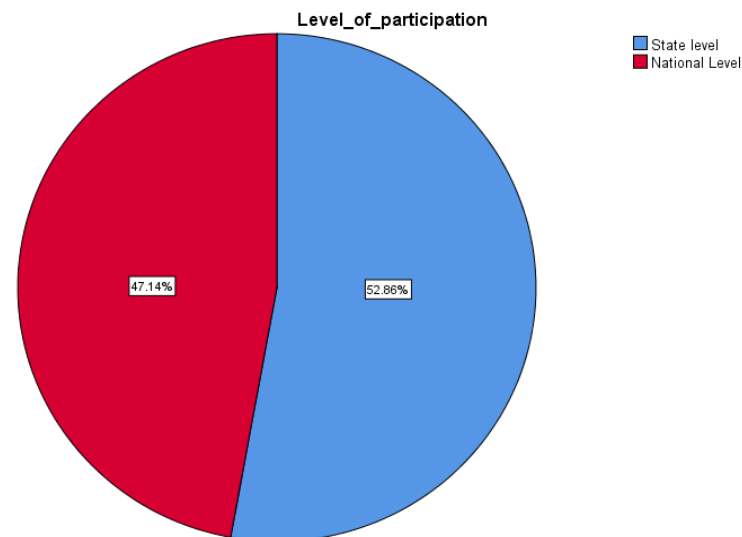
Chart 2

Chart 2 Showing Percentage Distribution of State and National Level Tennis Players (N=70)

Chart 2 shows level of participation wise distribution of tennis players. Of the 70 participant players, 52.86% were state level players and 47.14% were state level players.

Table 2
Table 2 Level_of_Participation * Gender Crosstabulation

			Gender		Total
			Male	Female	
Level_of_participation	State level	Count	18	19	37
		Expected Count	20.1	16.9	37.0

	National Level	Count	20	13	33
		Expected Count	17.9	15.1	33.0
Total		Count	38	32	70
		Expected Count	38.0	32.0	70.0

Table 2 shows the crosstabs table ("level of participation*gender Crosstabulation"). There are almost the same number of state level female and male players than would be expected. And similarly, there are a greater number of state level male players than the female players than would be expected.

Table 3

Table 3 Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	1.005 ^a	1	.316		
Continuity Correction ^b	.581	1	.446		
Likelihood Ratio	1.008	1	.315		
Fisher's Exact Test				.346	.223
Linear-by-Linear Association	.991	1	.320		
N of Valid Cases	70				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.09.

b. Computed only for a 2x2 table

Table 3 output shows Pearson chi-square and "Asymp. Sig." (significance level) for the crosstab above. "Asymp. Sig." is greater than .05 then the residuals differ as a function of the independent variable. So here the chi square is not significant (sig is greater than $\alpha = 0.05$), so we would fail to reject the H_0 . This means that level of participation and gender are independent (in other words, there is no relationship between the two variables).

Table 4

Table 4 Group Statistics Showing Comparative Gender Analysis of Tennis Players on Emotional Intelligence (Sub Scales and Overall Score)					
Variable	Gender	N	Mean	Std. Deviation	p-value
Understanding emotions	Male	38	3.77	.824	.090
	Female	32	4.12	.873	
Understanding motivation	Male	38	5.97	.695	.033
	Female	32	5.58	.815	
Empathy	Male	38	7.15	.789	.631
	Female	32	7.25	.803	
Handling relations	Male	38	6.44	.828	.103
	Female	32	6.12	.793	
Overall emotional intelligence score	Male	38	23.15	2.004	.093
	Female	32	22.39	1.689	

Table 4 shows a comparative gender analysis within group 1 (understanding emotions). Independent samples t-test outcome of Levene's test of significance showed that equal variances can be assumed. The values mentioned above indicate no statistically significant difference in the overall emotional intelligence of male

and female respondents ($p > .05$). on Understanding Emotion variable; the mean scores of male and female players shows statistically insignificant difference. On understanding motivation variable; the mean scores of were statistically significant ($P < .05$). In the Empathy dimension, the mean scores of male and female scores indicate no statistical significance difference ($P < .05$). In the Handling Relations dimensions, the mean scores of male and female subjects showed no statistical significance difference ($P < .05$). The overall mean scores of both genders indicate that there was no significant emotional intelligence difference among the male and female tennis players. It is also seen that both male (23.15 ± 2.00) and female (22.39 ± 1.68) players showed an average level of overall emotional intelligence. The null hypothesis that: "There will be a significant difference between male and female tennis players on emotional intelligence" is therefore rejected. Contrary to the findings above, in a comparative study on emotional competence of sports and non-sports personnel by [Shyam et al. \(2012\)](#), the findings revealed that male sports persons were found to be more competent emotionally than the female who did no sports.

[Venkatappa et al. \(2012\)](#) in their study on gender differences in emotional intelligence among first year medical students found that emotional intelligence was significantly high in females as compared to males. They attributed the reason to the fact that women tend to be more emotionally expressive than men and understand emotions better. In addition, some evidence exists that certain areas of the brain dedicated to processing emotions could be larger in women than in men.

Table 5

Table 5 Descriptive Statistics Showing Mean and Standard Deviation of all 70 Players on Body Mass Index, Overall Score on Emotional Intelligence and Age

Variable	Mean	Std. Deviation
Overall emotional intelligence	22.80	1.89
Body_Mass_Index	22.50	1.54
Age_in_years	18.05	1.41

The descriptive statistics [Table 5](#) shows that we had no missing data since the recorded sample size, $N = 70$, is the same as the number of participants that took part in the study. The mean value of the dependent variable, body mass index, was $22.50 \pm 1.54 \text{ kg/m}^2$, the mean overall emotional intelligence score of players was 22.80 ± 1.89 , whilst mean age 18.05 ± 1.41 years.

Table 6

Table 6 Partial Correlation between Body Mass Index and Overall Emotional Intelligence of Tennis Players While Controlling for Age

Control Variable		Overall emotional intelligence score	Body_Mass_Index	Age_in_years
-none ^{-a}	Overall emotional intelligence score	Correlation	1.000	-.136
		Significance (2-tailed)	.	.262
		df	0	68
Body_Mass_Index		Correlation	-.136	1.000
		Significance (2-tailed)	.262	.
		df	68	0
Age_in_years		Correlation	.038	-.125
		Significance (2-tailed)	.757	.304
		df	68	68

Age_in_years	Overall emotional intelligence score	Correlation	1.000	-.132
		Significance (2-tailed)	.	.278
		df	0	67
Body_Mass_Index		Correlation	-.132	1.000
		Significance (2-tailed)	.278	.
		df	67	0

a. Cells contain zero-order (Pearson) correlations.

A partial correlation was run (Table 6) to determine the relationship between the player's emotional intelligence and body mass index while controlling for age. There was a low, negative partial correlation between emotional intelligence (22.80 ± 1.89) and body mass index ($22.50 \pm 1.54 \text{ kg/m}^2$) whilst controlling for age (18.05 ± 1.41 years), which was statistically non-significant, $r(67) = -.132$, $N = 70$, $p > .05$. However, zero-order correlations showed that there was a statistically non-significant, negative correlation between overall emotional intelligence and body mass index ($r(98) = -.136$, $n = 70$, $p > .05$), indicating that age had weak influence in controlling for the relationship between emotional intelligence and body mass index. Body mass index explains 13% of the variation in the emotional intelligence of the tennis players, when adjusting for age. The null hypothesis that: "There will not be a significant relationship between emotional intelligence overall score and body mass index while controlling for age is therefore accepted.

4. CONCLUSION

In view of the results and discussions of the study above, it can be stated that there is no statistically significant difference among the emotional intelligence of the male and female tennis players who had at least participated at the state and national level tournaments in India. The subjects of both male and female groups showed an average level of emotional intelligence. In this study, the comparative gender analysis on sub scales of emotional intelligence of the respondents of both groups were same for both genders except one variable that is understanding motivation (Table 4), where males were found to be slightly better, which is indicative of an average but higher achievement drive together with the tendency to be optimistic and take initiative for males as compared to female tennis players.

CONFLICT OF INTERESTS

None.

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None.

REFERENCES

- Goleman, D. (2007). *Emotional Intelligence* (10th Ed.). Bantam Books.
- Salovey, P., & Grewal, D. (2005). The Science of Emotional Intelligence. *Current Directions in Psychological Science*, 14(6), 281-285. <https://doi.org/10.1111/j.0963-7214.2005.00381.x>

- Salovey, P., & Mayer, J.D. (1990). Emotional Intelligence. *Imagination, Cognition and Personality*, 9(3), 185-211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Shyam, L., & Juyal, & Dandona, A. (2012). Emotional Competence of Sports and Non-Sports Personnel: A Comparative Study. *International Journal of Behavioral Sciences*, 27, 41-52.
- Singh, A. K., & Narain, S. (2014). Emotional Intelligence Scale (EIS-SANS). National Psychological Corporation.
- Venkatappa, K., Shetty, S., Manjunath, S., Parakandy, S., & SK, S. (2012). Gender Differences in Emotional Intelligence Among First Year Medical Students. *Journal of Evolution of Medical and Dental Sciences*, 1, 1256-1262. <https://doi.org/10.14260/jemds/204>
- Zeidner, M., Matthews, G., Roberts, R.D., & Maccann, C. (2003). Development of Emotional Intelligence: Towards a Multi-Level Investment Model. *Human development*, 46(2-3), 69-96. <https://doi.org/10.1159/000068580>