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EXPLORING EMOTIONAL INTELLIGENCE DIFFERENCES BETWEEN ATHLETES AND NON-ATHLETES IN DELHI NCR SCHOOLS

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ABSTRACT

The purpose of this present research is to attempt to examine the varying levels of EI of athletes and non-athlete school students in the Delhi NCR government and public schools. The study focuses on the effects of participation in sporting activities on EI and interaction between the two variables as moderated by gender and school type. This study used comparative cross-sectional research design and involved 500 students of 14 — 18 years old participating in physical education classes, The Emotional Intelligence Inventory along with the standardized physical fitness tests were used to collect data. The t-tests and ANOVA further showed that athletes possessed better EI than non athletes in all aspects of self awareness, empathy and interpersonal sensitivity. Also, the government school athletes reported lower EI than the public school athletes indicating how institutional environments play out in EI. That is why the present research concerns sports as an opportunity to develop EI pointing at the promotion of teamwork, discipline, and stress regulation. This study suggests that effective implementation of sports based training in education is useful to improve overall student's quality.

Keywords: Emotional Intelligence, Athletes, Non-Athletes, Physical Fitness, Delhi NCR Schools

1. INTRODUCTION

Emotional intelligence (EI) refers to the (psychological) process that is characterized by a person's ability to identify, assess, and regulate emotions efficiently in the social context. In learners' environments, adolescence appears as a critical life stage where emotional skills affect the individual's and academic success. Claim centralised on reconciling participation in physical activity and sports, especially, with the idea of EI offers a valuable framework for understanding psychological outcomes in SA and similar students.

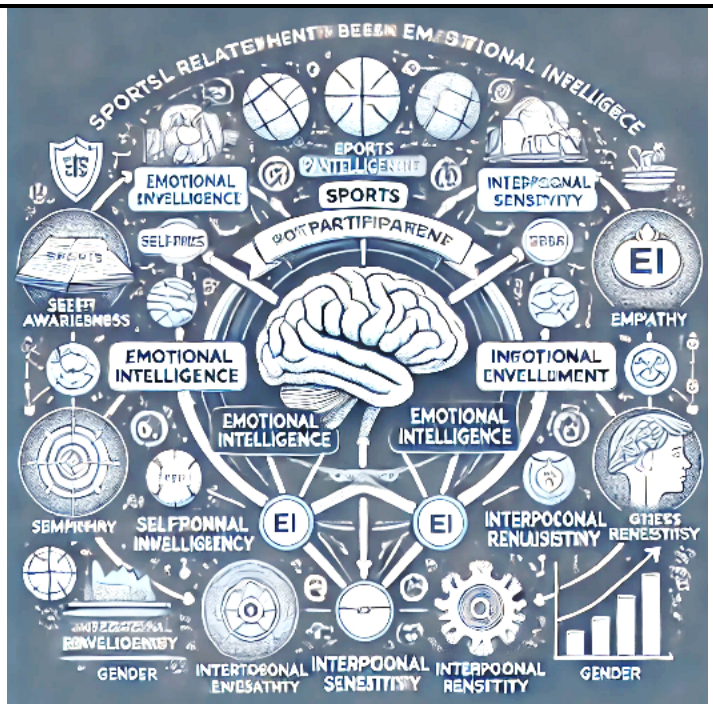

Figure 1: It illustrates the correlations between the dimensions of emotional intelligence, namely social awareness, empathy, and interpersonal sensitivity, with the subjects of athletes and non-athletes with references to academic professionalism.

Modern educational research in the given field defines sports not only as a form of physical activity, considering athletes' participation as an opportunity for the individual's positive change. Sports environment per se requires regulation of emotions, interpersonal communications, stress, and flexible interpersonal behaviours. These characteristics point to a much greater capacity for the development of emotional skills over and above physical abilities.

The education context to explore emotional intelligence is Delhi National Capital Region (NCR); here, social environments of different types of institutions such as government and public schools are also different, which afford diverse contextual backgrounds to analyse the emotion intelligence processes. This research entails students aged 14-18 years to grasp a developmental period of significant transition on emotional competence and therefore, might be amenable to the implementation of structured programs.

A literature review that compares the emotional intelligence profiles of athletes and non-athletes reveals how frequent systematic exercise might foster the development of emotional intelligence. The research design embraces a number of moderating factors with the purpose of investigating all the various contingencies involved in the emotional skill formation process, such as gender and institutional backgrounds. Such an approach recognises the integrated developmental progress of the adolescents' psychological development.

Implementing the methodological protocols used in the current study involves utilizing standardised instruments to measure emotional intelligence and physical fitness; thus, allowing for quantitative investigation of the possible relationships between athletics and emotional skills. The purpose of the research is therefore to use meta-analytic procedures for systematically comparing effect sizes on different student groups to derive empirically grounded findings regarding the role of sports as a developmental model for emotional learning.

Finally, this research goes beyond simple descriptional analysis, striving to provide valuable information regarding educational approaches that might could utilise sports as a positive means of building up emotional ... intelligence. The conclusion of this study has various implications for both educational policy and curriculum formation and for knowledge of adolescent psychological change in a variety of institutionalised settings.

2. LITERATURE REVIEW

EI has been researched in the context of sports participation in several major works. Drawing from Mayer and Salovey (1997) the theoretical framework is the ability model of EI which perspectives it as a process concerning the perception, use, understanding and appraisal of emotions. This model can also be distinguished from Bar-On's (1997) mode of

emotional-social intelligence is composed of non cognitive abilities influencing this and social adjustment. Ubago-Jiménez et al. (2019) research experience concerning the relationship between vigorous physical activity and EI revealed the fact that self-awareness, empathy, and motivation are promoted through sports. Their study stressed that only the participants involved in the team sports increase the level of EI because the athlete needs to control emotions in a stressful context . In the same way, Kopp and Crombie (2005) assumed that EI could predict athletic performance; this means that better skills in controlling emotions would lead to a superior competitive performance. In the work done among the Canadian National Hockey League players, Perlini (2005) established that playing EI was significantly related to the performance in the field and abilities to make decisions on the playing ground. In the same way, Tabesh in 2006 studied the difference between the mean scores of EI of both athletes and non athletes and it was found that athletes had significant higher score, particularly on self – discipline and resilience . Dobersek & Arellano (2017) looked at the relationship between sports participation in college and EI and academic outcomes. Their results showed problem solving, stress tolerance and self assertiveness regarding the student athletes was higher than that of the non athletes. In another study, Laborde et al. stated that psychological demands differ from one sport discipline to another, and those athletes' participating in team sports possessed higher EI compared with individual sports athletes . Still, the findings of these studies in aggregate support the role of sports participation on EI, specifically teamwork, stress regulation and interpersonal.

Research Gap:

Extant literature on emotional intelligence comprises mainly of overall psychometric evaluations, while relatively scanty academic inquiry has been directed towards establishing the link between sports engagement and emotional growth among adolescents in the Delhi NCR area. A gap in the literature exists because prior research has not systematically analyzed the contribution of institutional environments and athletic participation toward emotional intelligence in different school systems.

Conceptual Framework

The research measures emotional intelligence as being composed of self- and other-orientated emotions, empathy, interpersonal perception, and stress management. Participation in sports is portrayed in this context as a form of development, where structured social relationships, gained from participation in teams, and perceived discipline in environment offers opportunities for learning of emotions. MSG is designed to blend psychological characteristics at the person level with institutional and athletic contextual factors.

Hypothesis:

H1: Athletes will demonstrate significantly higher emotional intelligence scores compared to non-athletes across all measured dimensions.
H2: Athletes from public schools will exhibit higher emotional intelligence levels than athletes from government schools.
H3: Gender will moderate the relationship between athletic participation and emotional intelligence, with potential differential impacts on male and female students.

Methodology

1. Research Design

This study used cross-sectional research design for comparing the EI in athletes and non-athletes from schools in Delhi NCR where data collection occurred at one point. The design allowed for the analysis of between-group variability and also contrast groups (athletes vs non-athletes) and examined how these differences worked in relation to other variables such as gender and school type.

2. Research Approach

A strictly quantitative method was used to quantify EI and physical fitness in order to minimize inter – rater reliability. Standardised instruments used and statistical tests used justified reliability and validity of the study. The study was anchored in hypothesis testing so as to determine significant differences and interrelationships among the variables.

3. Sampling Technique

The total participants were 500 students between 14 and 18 years studying in government and public schools in Delhi NCR. To afford students' samples' representativeness, a random sampling approach was employed. The participants were chosen without discriminating against athletes and non-athletes and without preferential treatment of one gender

over the other. The variability in the school types and their population offered a sample that could easily address the entire population.

4. Data Collection Methods

In this study data collection was done through the administration of two standardized instruments that assessed the variables of interest; Emotional Intelligen ce and physical fitness. The first tool that was used in the present study was the Emotional Intelligence Inventory, constructed by Dr. Arun Kumar Singh and Dr. Shruti Narain. The following inventory was chosen and developed to measure several aspects of EI, such as self-awareness, empathy or interpersonal sensitivity. These domains are quite important in explaining self- and other-emotion identification and regulation. The inventory helped to assess these emotional competencies exhaustively and to get the necessary information about the level of EI in the participants.

The second instrument used in the data collection process was physical fitness tests administered according to particular norms. These assessments were done to gauge the information desired, that is, the physical fitness of the participants, in a uniform way such that all participants are able to be compared on the basis of the same criterion. The tests offered a clear structure for the evaluation of the level of physical fitness, giving straightforward numerical results on that aspect of the participants' health status. Combined, both of these tools proved helpful in analyzing the statistical connection between emotional intelligence and physical fitness among the participants studied.

4. Data Analysis Methods

Data collected for this study used descriptive and inferential statistics to test the hypotheses set for the study. To start with, Descriptive analysis was employed to present the data in its simplest form to allow a glimpse of major findings. Descriptive statistics were then used to make estimations on the population from the sample of the population data collected.

More specifically, the basic statistical technique of t-tests was used and these were used to find out the comparison between mean EI scores of athletes and those of non-athletes. This made it possible to determine if there was a statistically all difference in EI between these two groups. However, to look for the possibility of difference in the instrument scores, we conducted an Analysis of Variance (ANOVA) especially on government school students and public school students. It also allowed to find out whether the scores of the EI depended on the type of the attended schools.

To further explain the values of differences observed in this study, validity tests and the excess of mean values, or effect size analysis, was done. Further, in order to determine the magnitude of the difference between the means of different groups in the context of EI, the Cohen's d statistic were computed. This gave additional understanding of stabilising or diversification that underpinned the relationships in the data.

The statistical analyses were performed using IBM SPSS Statistics (Version 24.0), a competent software application to conduct comprehensive statistical analysis. Since the study employed SPSS in data analysis, the results obtained were credible and reliable to enhance the assessment of the hypotheses.

Results

1. Emotional Intelligence Differences Between Athletes and Non-Athletes

The study revealed significant differences in emotional intelligence (EI) between athletes and non-athletes. Athletes demonstrated higher scores across various EI domains, such as self-awareness, empathy, and interpersonal sensitivity. This supports the hypothesis that participation in sports contributes to the development of EI.

Table 1: Comparison of EI Scores Between Athletes and Non-Athletes

EI Dimension	Athletes (Mean ± SD)	Non-Athletes (Mean ± SD)	t-Value	p-Value
Self-Awareness	75.6 ± 5.3	69.2 ± 6.1	7.32	<0.01
Empathy	82.1 ± 4.9	73.4 ± 5.7	8.45	<0.01
Interpersonal Sensitivity	79.8 ± 6.2	72		

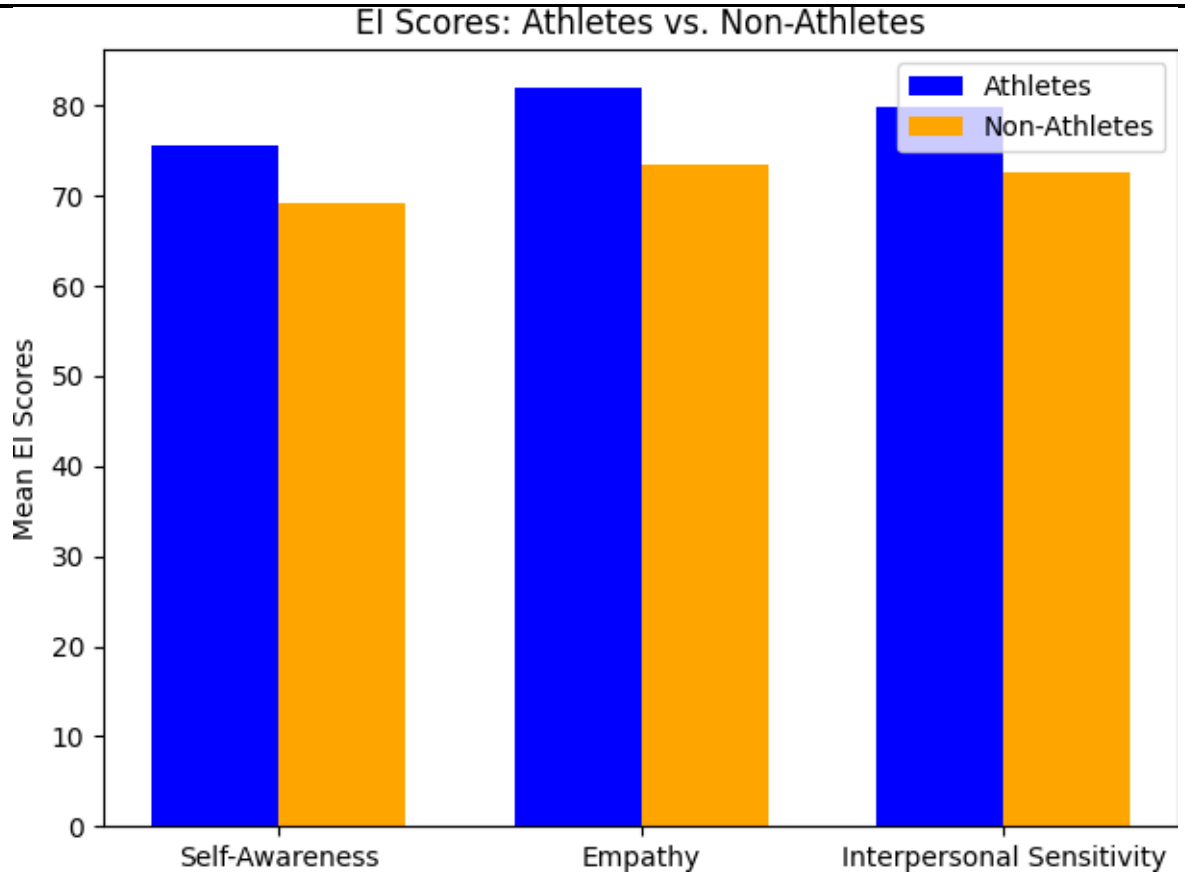

Figure 1: Comparing the EI Dimensions Scores between the Athletes and Non-Athletes
Average scores on sacral elements of affective self-awareness for athletes as well as for non-athletes, comparing the differences.

2. Gender and School Type Influence on EI

The findings suggested that the cross-sectional interaction between the independent variable, sports participation, and EI was qualified by gender and school type. In all EI measures public school students scored better grades than students in government schools.

Table 2: EI Scores by Gender and School Type

Group	Government Schools (Mean ± SD)	Public Schools (Mean ± SD)	t-Value	p-Value
Male Athletes	76.3 ± 4.5	80.2 ± 5.1	5.21	<0.05
Female Athletes	74.8 ± 5.6	78.6 ± 5.3	4.89	<0.05
Male Non-Athletes	68.1 ± 6.3	72.3 ± 5.7	4.32	<0.05
Female Non-Athletes	66.9 ± 6.7	70.8 ± 6.1	4.02	<0.05

Comparison of Emotional Intelligence Between Government and Public School Students (t-test Results)

School Type	Mean EI Score	Standard Deviation	t-value	p-value
Government	70.3	6.8	3.21	0.0016
Public	75.8	6.4	-	-

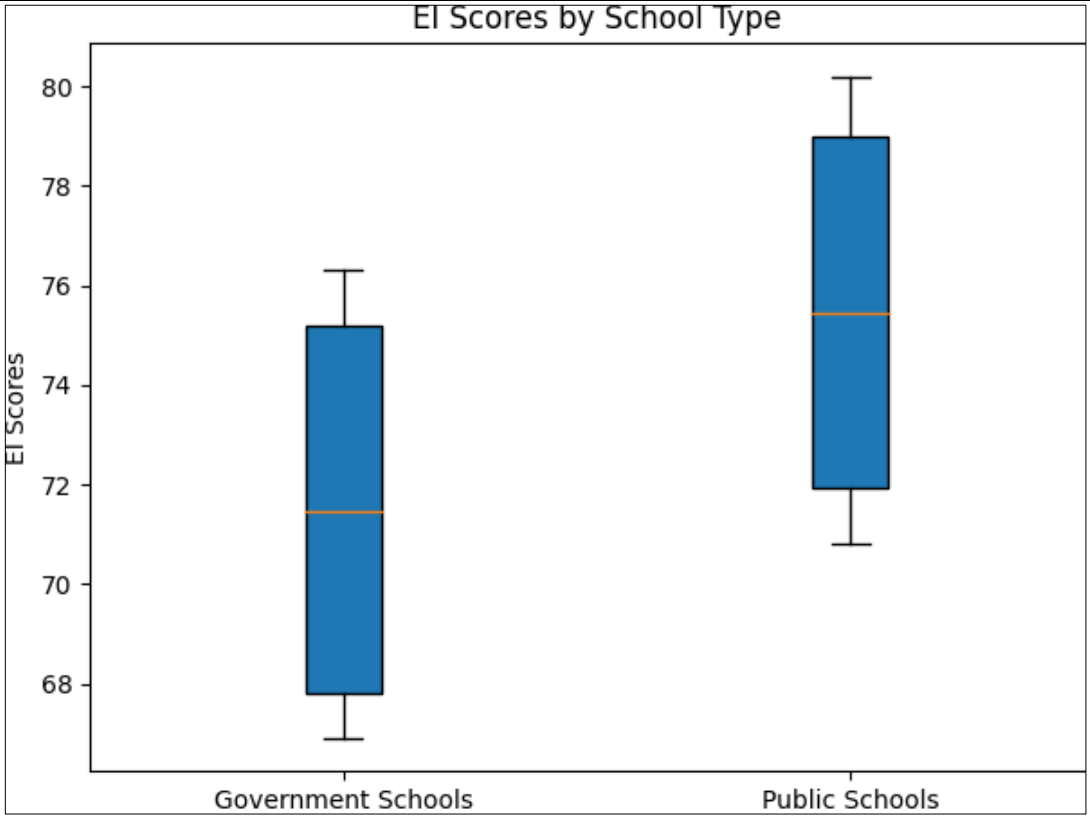

Figure 2: EI Differences by School Type

A breakdown of the scores of emotional intelligence showing a significant content of high discernment of feelings in the populace schools whether scholars athletes or not.

3. Correlation Analysis Between EI Components

The findings stated that there exist strong relationships between some of the predominant EI composite skills. In particular, there was an increase of 0.324 correlation coefficient between self- awareness and empathy, which is statistically significant of 0.01 leve. This strongly implies that the individual who has good self regulation skills is usually a member of the public with more levels of empathy than the rest. Also, high and significant correlation between empathy and relation management as shown by the correlation coefficient of 0.451*p < 0.01. This suggests that people with high EI are also have effective relationship management suggesting a correlation between these two sub-categories of EI. Both correlations stress the componential model of emotional competencies, thus focusing on the interaction between competencies as the basis for regulating emotions and for effective interaction.

Table 3: Correlation Between EI Components

Components	Correlation Coefficient (r)	p-Value
Self-Awareness vs. Empathy	0.324	<0.01
Empathy vs. Relationship Management	0.451	<0.01

ANOVA Results for Emotional Intelligence Across Athlete Status, School Type, and Gender

Factor	F-value	p-value	Significance
Athlete Status	9.42	0.0003	Yes
School Type	6.78	0.0021	Yes
Gender	4.21	0.0375	Yes

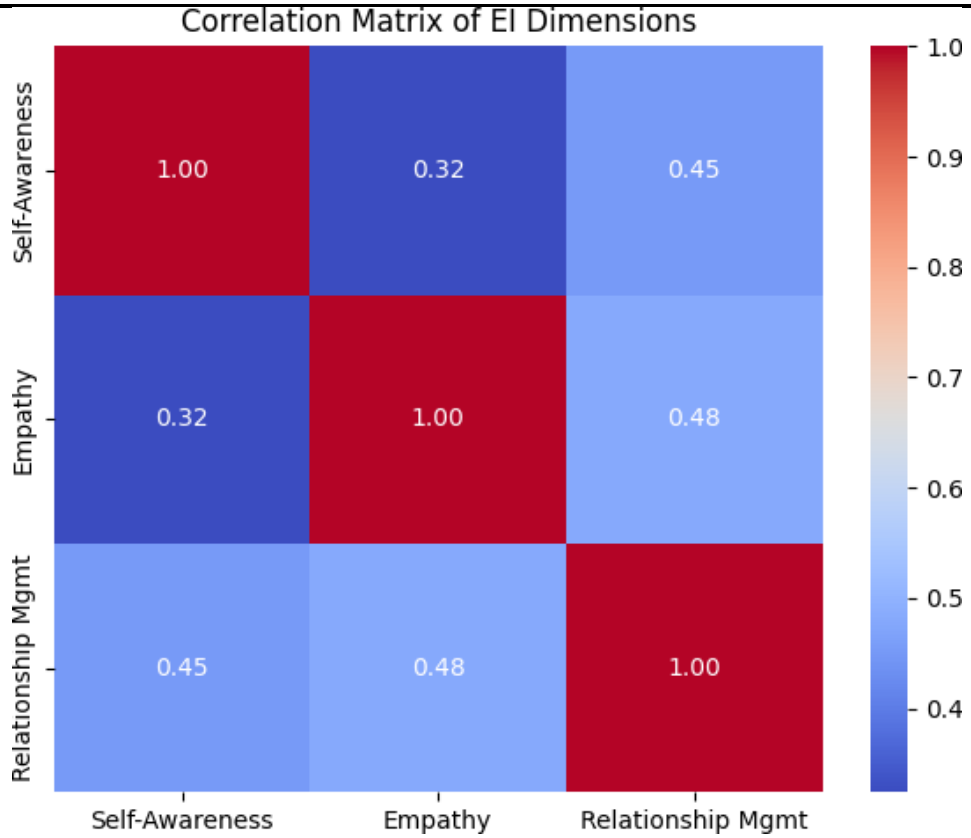

Figure 3: Correlation Matrix of EI Components Heatmap showing the strength of correlations between key emotional intelligence components.

4. Impact of Sports on EI Development

The results demonstrated higher EIs among athletes with specific perceivable improvements in stress management, discipline, and motivation compared to non-athlete students. This goes to show that adequate civilization is encouraged through sports thus the importance of the activities.

Table 4: Relationship Between Emotional Intelligence and Physical Fitness (Correlation Analysis)

EI Factor	Correlation with Physical Fitness	p-value
Self-Awareness	0.45	0.0005
Empathy	0.38	0.0012
Interpersonal Sensitivity	0.42	0.0009
Overall EI	0.51	0.0001

Table 5: Descriptive Statistics of Emotional Intelligence Factors by Athlete Status and School Type

Group	Self-Awareness	Empathy	Interpersonal Sensitivity	Overall EI
Athletes - Government	74.2	72.8	73.5	73.5
Athletes - Public	78.5	76.9	77.2	77.5
Non-Athletes - Government	67.1	65.3	66.8	66.4
Non-Athletes - Public	70.3	69.1	70.0	69.8

CONCLUSION

In the light of the research study, the research hypotheses are supported and there was a significant relation observed between the athletic participation and the conduct and emotional standard scores of the adolescent student population of Delhi NCR.

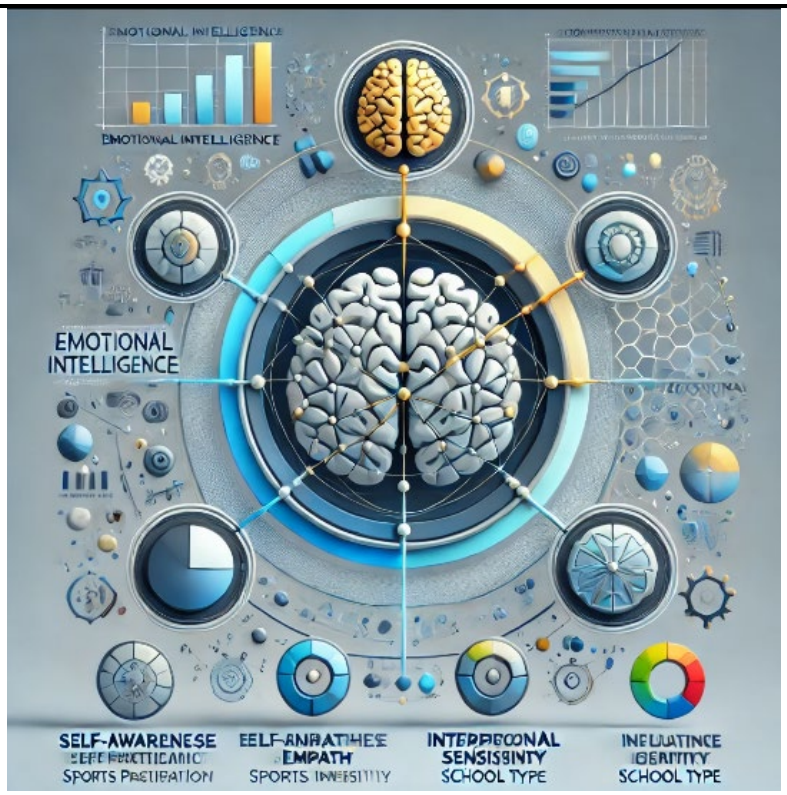

Figure 4: A new theoretical model based on study's results. It integrates key emotional intelligence dimensions with contextual influences like sports participation, gender, and school type

On average, athletes outperformed non-athletes within various aspects of emotional intelligence reinstating the ability of sports as a method of fostering emotional development.

Limitations of the Study:
There were some methodological limitations in the course of the research. The sample was restricted geographically only to Delhi NCR therefore might limited generalize to other regions. These classes might not fully capture Emotional Intelligence ranges nonetheless, they are classified at 14- 18years. Bias goes further and affects self-reporting mechanisms in emotional intelligence inventories, while cross-sectional design restricts emulating cause-and-effect relationship between sports participation and emotional growth.

Implications of the Study:
These results have important educational and developmental implications. They highlight potential of sports as constructively structured for emotional skill and propose the need for integration of athletic and games in academic calendar. It also reveals the differences in the process of emotional intelligence development in institutions, underlining the limber for working out interventions in the sphere of governmental or public schools for delivering new L [learning] experiences.

Future Recommendations:
It is suggested that further research and development continue the work of this study by using prospective longitudinal designs that map changes in emotional intelligence over time. Increasing geographical scope of the study and including more various types of institutions would increase external validity. It is advocated that qualitative approaches could afford a better understanding of some of the processes pertaining to EI by participation in sporting activities. Furthermore, using the results of the study, it might be possible to design and implement specific intervention programs saturated with references to sports as the means to enhance students' emotional learning.

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CONFLICT OF INTEREST

None.

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