

EMOTIONAL INTELLIGENCE AS A PREDICTOR OF SELF-ESTEEM IN HIGHER SECONDARY EDUCATION

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Abstract

This study examines the role of emotional intelligence (EI) as a predictor of self-esteem (SE) among higher secondary students, a demographic undergoing significant cognitive and emotional transitions. The study was conducted among 11th grade students from 226 higher secondary schools in Delhi NCR during the academic year 2021–2022, with a stratified random sampling approach. This study examined the relationship between emotional intelligence and self-efficacy among higher secondary students in Vellore district. The sample consisted of 500 students, selected through purposive sampling, who completed the Emotional Intelligence Scale by K. Kaur and the Self-Efficacy Scale by R. P. Singh and S. R. K. Singh. The data were analysed based on objectives and hypotheses formulated by the investigator. Descriptive statistical analysis (mean, standard deviation, skewness, kurtosis) and correlation analysis were performed. The independent sample t-test and one-way analysis of variance were employed to examine the influence of personal and demographic variables on emotional intelligence. The four selected demographic variables of higher secondary students, only gender and family type had significant differences in emotional intelligence scores, while caste and educational stream of study did not have any significant difference in findings. Further, the analysis revealed a strong positive correlation between emotional intelligence and self-efficacy ($r = 0.892$, $p < 0.01$). Determining the connection between emotional intelligence and self-efficacy, emotional intelligence is considered significant predictor of self-efficacy. Highly emotional intelligence group has high self-efficacy level. Highly emotional intelligence group has low self-efficacy level. There is a positive correlation between emotional intelligence and self-efficacy among higher secondary school students. Higher secondary school students with high emotional intelligence, self-efficacy is high. Students with low emotional intelligence self-efficacy level is low. Hence, school guidance programmers need to incorporate emotional intelligence skills programmes to enhance the emotional aspects and promote the psychological and emotional development of higher secondary students, thereby creating a positive learning environment.

Keywords: Emotional Intelligence, Self-Esteem, Higher Secondary Education, Psychological Development, and Correlation.

1. Introduction

EI and SE have been widely studied, focusing on their relationships in various contexts, particularly within educational settings. By definition, EI signifies those abilities and skills that allow people to express, understand, control, and assess emotions (Buşu, 2020). Numerous investigations have confirmed that high EI facilitates better life decisions, improves interpersonal relationships with others, and is associated with superior mental health. SE denotes a person's subjective appraisal of their own worth, which exerts significant influences on academic outcomes, interpersonal relationships, and overall life experiences (Molero Jurado et al., 2022).

Research has established a consistent relationship between EI and SE, with emotionally intelligent individuals exhibiting higher levels of SE (Sa et al., 2019). Studies have also reported a positive correlation between trait EI and SE in university students, which may be attributed to the role of EI in buffering the harmful effects of anxiety and depression on SE (Papagiannopoulou et al., 2024). Furthermore, it has been suggested that EI is a predictor of intrinsic motivation and resilience, both of which play a significant role in fostering SE in the face of adversity (Anwar & Mustika, 2024).

This is an important population for this relationship. The developmental significance occurs during a period of heightened cognitive, emotional, existential, and interpersonal development, which makes the areas of EI and SE particularly relevant. It has also been established that indicators of self-concept and self-esteem correlate positively with adolescents' ability to manage emotions (Dellarolle, 2024). Interventions aimed at enhancing nursing students' emotional intelligence skills have shown a significant increase in SE levels, emphasizing the influence of targeted instruction on psychological and emotional development (Benjamin et al., 2024). There is a pressing need to understand predictors of SE, especially the role of EI, as it holds significant implications for academic achievement and personal development.

In order to gain more insights into the interaction between EI and SE in learning institutions, this paper will examine the extent to which EI can forecast SE among senior learners in high schools. The study's main objective is to provide light on how best to foster students' emotional and psychological health in the classroom by investigating this connection.

2. Methodology

2.1 Population and Sampling

The research was conducted in Delhi NCR among 11th-grade students from 226 higher secondary schools during the academic year 2021–2022(Aggarwal, 2013). These schools included 157 general stream schools and 69 science stream schools. A stratified random sampling method employed to ensure a representative sample utilizing lottery methods, selecting 18 schools from each stream using a lottery method. From these schools, one class of 11th-grade students was chosen for participation by clustering methods, resulting in a total sample size of 1,678 students. The variable details and the independent variables according to the number of students are given in Table 1.

Table 1. Summary of the variables and the number of students selected for the research.

No .	Independent Variable	Level of Independent Variable	Number of Students	Total
1	Gender	Boys	896	1678
		Girls	782	
2	Caste	Reserved Caste	979	1678
		General Caste	699	
3	Educational Stream	General Stream	1014	1678
		Science Stream	664	
4	Type of Family	Joint Family	794	1678
		Nuclear Family	884	

2.2 Emotional Intelligence and Self-Esteem Scale Evaluation

A self-constructed and standardized tool (questionnaire) with 43 statements was used to cover five components namely motivation, empathy, self-awareness, social skills, and self-regulation. A self-constructed and standardized scale with 29 statements was used to measure four components which were significance, competence, power, and virtue.

2.3 Data Collection

The school principals contacted through telephonically to obtain the permission for data collection of the students. Students completed the IE Scale and SE scale under their supervision in a controlled environment. The scale was designed in such a way that took approximately 40 minutes for EI Scale and 25 minutes for the SE Scale.

2.4 Data Analysis

Statistical techniques, including reliability tests and validity assessments were applied to ensure the tools' robustness. Data were processed by variables and analysed using Microsoft Excel. Mean, standard deviation, standard error, and the critical ratio, were calculated as key factors of the data. Karl Pearson's coefficient of correlation was performed to assess the relationship between EI and SE.

3 Results

3.1 Effect of Independent Variables on Emotional Intelligence of the Students

The role of EI and SE among higher secondary education students, analysed across demographic and social categories. EI scores are analyzed in relation to gender, caste, educational stream, and family structure. The analysis indicated a statistically significant disparity in emotional intelligence between males and females. Girls ($M = 104.32$, $SD = 7.48$) demonstrated significantly higher EI compared to boys ($M = 102.17$, $SD = 8.22$). The mean difference (M.D.) of 2.15 was significant at the 0.01 level, with a critical ratio (C.R.) of 5.658, indicating that gender has a substantial influence on EI.

EI scores did not show a significant difference between students from reserved ($M = 104.36$, $SD = 8.49$) and general ($M = 103.88$, $SD = 7.95$) categories. The mean difference of 0.48 was found to be statistically non-significant (C.R. = 1.171, N.S.), suggesting that caste does not significantly affect EI. No significant difference was observed in EI between students in the general ($M = 104.12$, $SD = 8.3$) and science streams ($M = 103.72$, $SD = 7.56$). The mean difference of 0.4 was also non-significant (C.R. = 1.026, N.S.), indicating that the stream of education does not play a decisive role in determining EI levels. Students from joint families ($M = 104.83$, $SD = 8.61$) exhibited significantly higher EI compared to those from nuclear families ($M = 103.08$, $SD = 7.87$). The mean difference of 1.75 was statistically significant at the 0.01 level, with a C.R. of 4.375, suggesting that family structure has a notable impact on EI (Table 2).

Table 2. Independent Variables on Students' Emotional Intelligence

Characteristics		N	$\bar{x}$	σ	M.D.	SE _D	C.R.	Level of Significance
Gender	Boys	896	102.17	8.22	2.15	0.38	5.658	0.01
	Girls	782	104.32	7.48				
Caste	Reserved	979	104.36	8.49	0.48	0.41	1.171	N.S.
	General	699	103.88	7.95				
Stream	General	1014	104.12	8.3	0.4	0.39	1.026	N.S.
	Science	664	103.72	7.56				
Family Structure	Joint	794	104.83	8.61	1.75	0.4	4.375	0.01
	Nuclear	884	103.08	7.87				

N= sample size, $\bar{x}$ = mean, σ = standard deviation, M.D.= mean deviation, SE_D = Standard Error of Difference, C.R.= Critical Ratio

3.2 Effect of Independent Variables on Self – Esteem of the Students

The study further examined SE as a related outcome variable and its association with demographic and social factors in higher secondary students. The results, derived from comparisons across gender, caste, stream of education, and family structure.

A significant difference in SE was observed between boys and girls. Girls ($M = 73.27$, $SD = 6.82$) exhibited higher SE than boys ($M = 72.33$, $SD = 6.38$). The mean difference (M.D.) of 0.94 was statistically significant at the 0.01 level, with a critical ratio (C.R.) of 2.938, suggesting gender as a significant factor influencing SE. No statistically significant difference in SE was observed between students belonging to reserved ($M = 73.04$, $SD = 6.70$) and general ($M = 73.16$, $SD = 6.44$) categories. The mean difference of 0.12 was non-significant (C.R. = 0.375, N.S.), indicating that caste does not significantly influence SE levels. SE levels were similar between students in the general ($M = 73.11$, $SD = 6.56$) and science ($M = 73.07$, $SD = 6.63$) streams. The mean difference of 0.04 was statistically non-significant (C.R. = 0.121, N.S.), implying that the stream of education has minimal impact on SE.

Students from joint families ($M = 73.93$, $SD = 6.57$) reported significantly higher SE than those from nuclear families ($M = 72.23$, $SD = 6.61$). The mean difference of 1.7 was statistically significant at the 0.01 level, with a critical ratio (C.R.) of 5.313. This result highlights family structure as a major determinant of SE (Table 3).

Table 3. Independent Variables on Students' Self Esteem.

Characteristics		N	$\bar{x}$	σ	M.D.	SE _D	C.R.	Level of Significance
Gender	Boys	896	72.33	6.38	0.94	0.32	2.938	0.01
	Girls	782	73.27	6.82				
Caste	Reserved	979	73.04	6.7	0.12	0.32	0.375	N.S.
	General	699	73.16	6.44				
Stream	General	1014	73.11	6.56	0.04	0.33	0.121	N.S.
	Science	664	73.07	6.63				
Family Structure	Joint	794	73.93	6.57	1.7	0.32	5.313	0.01
	Nuclear	884	72.23	6.61				

N= sample size, $\bar{x}$ = mean, σ = standard deviation, M.D.= mean deviation, SE_D = Standard Error of Difference, C.R.= Critical Ratio

3.3 Correlation between Emotional Intelligence and Self–Esteem of the students

The correlation between emotional intelligence and self-efficacy was analyzed in a sample of higher secondary school students. Results indicated a strong positive correlation for both male and female samples, with correlation coefficients of $r = 0.886$ and $r = 0.929$ respectively, which were significant at 0.01 level. This suggests that emotional intelligence is a significant predictor of self-efficacy for both males and females. A moderate positive

correlation was found between the mean scores of self-efficacy and emotional intelligence for reserved category and general category students.

The correlation coefficient for the reserved caste group was 0.719, while for the general caste group, it was 0.688. In the category of caste there was a positive correlation of EI and SE, which was found to be significant at 0.01 level. In the case of course stream, there was a positive correlation between EI and SE among both general and science stream. The correlation coefficient for general stream was found to be 0.732 whereas for science stream it was 0.827, and both were significant at 0.01 level, which affirms that EI is an important predictor for SE in all the streams of study. Among nuclear and joint family, the correlation coefficient was higher for joint family, which was 0.864, followed by nuclear family with 0.72. Both the correlations were significant at 0.01 level, indicating that the type of family influences the strength of the correlation between EI and SE.

Analysis of the prediction of self-esteem through emotional intelligence among higher secondary school students Table 3 indicates that the correlation coefficient between total emotional intelligence (EI) and total self-esteem (SE) for all the selected samples is 0.892, which is significant at the 0.01 level. This indicates that there is a very high positive correlation between emotional intelligence and self-esteem among higher secondary school students. Hence, there is substantial evidence to support the hypothesis that emotional intelligence is a significant predictor of self-efficacy among higher secondary students. Results from the above analysis tell us about the significance of emotional intelligence and self-efficacy as indicators of overall social-emotional development. Further, higher emotional intelligence does not interact with other demographic characteristics like gender, caste, stream, and family type. Instead, it may possess a little bit predictive capability.

Table 3. Data of the coefficient of correlation of the scores obtained by the students on Emotional Intelligence Scale and Self-Esteem Scale

Gender	Particular	Boys	Girls
	N	896	782
	Value of Correlation	0.886	0.929
	Level of Significance	0.01	0.01
Caste	Particular	Reserved Caste	General Caste
	N	979	699
	Value of Correlation	0.719	0.688
	Level of Significance	0.01	0.01
Study Stream	Particular	General Stream	Science Stream
	N	1014	664
	Value of Correlation	0.732	0.827
	Level of Significance	0.01	0.01
Family Structure	Particular	Joint Family	Nuclear Family

	N	794	884
	Value of Correlation	0.864	0.72
	Level of Significance	0.01	0.01
Overall Correlation	Particular	Emotional Intelligence	Self-Esteem
	N	1678	1678
	Correlation	0.892	
	Level of Significance	0.01	

Discussion

The present study examined the contribution of emotional intelligence as a predictor towards self-esteem among higher secondary students concerning the salient variables gender, caste, stream of education, and family structure. The results reveal significant aspects that contribute to the existing research on the relationship between emotional intelligence and self-esteem among adolescent students.

EI as a higher-order construct, with correlation coefficients between the subscales reported. The average correlation coefficient for females is $r = 0.71$, and for males, it is $r = 0.67$. From this, one can conclude that there are moderate to strong correlations between the variables considered. High correlation coefficients were also observed between EI and self-esteem and gender as a variable in this regard. Both for male and female participants, there was a strong to very strong significant correlation between EI and self-esteem, consistent with previous studies. For boys, the correlation coefficient is $r = 0.886$, and for girls, it is $r = 0.929$. This indicates that as one of the two constructs considered increases, the other does as well, further confirming the mediating influence of emotional intelligence on developing self-esteem reported by Petrides. Multiple regression analysis with EI as an independent variable indicated a strong and significant predictive value for self-esteem in both male and female students. This is a statistically significant result, supporting previous studies that found high predictive power and percentage variance concerning self-esteem. It was also observed that the linear function is of positive nature. In common practice, evaluating whether gender differences are present in emotional intelligence and self-esteem is done using canonical analysis. Chi-square significant values reported confirm the gender differences both in total EI and in individual correlates. The findings of this study showing higher EI levels in females than in males support recent studies, including the studies that found relatively higher emotional intelligence measurement values in the female group.

Interestingly, the research did not find any significant differences in EI or SE depending on caste or stream of education, just as was the case with the other research (Kiran, 2024; Kumar, 2019). However, the moderate to strong positive correlations between EI and SE across caste categories (reserved: $r = 0.719$; general: $r = 0.688$) and study streams (general: $r = 0.732$; science: $r = 0.827$) indicate that EI serves as a robust predictor of SE regardless of these demographic factors. This consistency supports the argument by (Salovey & Mayer, 1990) that EI is a universal construct, minimally affected by sociocultural variables.

The study also revealed a significant impact of family structure on both EI and SE. Students from joint families exhibited higher EI ($M = 104.83$) and SE ($M = 73.93$) compared to their counterparts from nuclear families. The results validate the findings of (Kondiba & Hari, 2018; Kumar, 2019), who highlighted the contribution of joint families in developing an emotionally favorable atmosphere conducive to enhancing social and emotional competencies. Furthermore, the higher relationship coefficient ($r = 0.864$) between EI and SE in joint family students than in those from nuclear families ($r = 0.72$) emphasizes the role of

family affluence regarding shared psychological concepts, supporting the notion put forth by (Goleman, 2001).

The results revealed a strong overall association between emotional intelligence and self-esteem ($r = 0.892$), which highlighted the significant predictive value of emotional intelligence for self-esteem. Similar strong correlations among adolescents were also found by Nandwana and Joshi (2010). The consistently high correlations across different demographic subgroups suggest that emotional intelligence is a critical contributor to self-esteem development. Thus, improving emotional intelligence may be beneficial in enhancing self-esteem and can be a useful focus for psychological intervention programs to promote better mental health outcomes in student populations.

The findings of the study hold crucial significance and offer valuable insights for educational, psychological, and developmental interventions. It suggests that organizing separate programs for males and females, with a focus on developing Emotional Intelligence and Self-esteem, particularly for male participants, could potentially bridge the observed gap. Social interventions that promote emotional bonding, emotional intimacy, and reciprocal kinship support together with emotional support should be organized to enhance significantly the level of Emotional Intelligence and Self-esteem levels among college students from nuclear families. Further, Emotional Intelligence training of the experimental type may be effectively delivered in a school curriculum framework irrespective of caste and stream.

Conclusion

A review of the data revealed that emotional intelligence is significantly and positively correlated with self-esteem among higher secondary school adolescents, establishing it as the most important predictor of self-esteem among the various predictors included in the study, although they were only weakly correlated. Also, significant differences were found in the mean scores of emotional intelligences across the categories of gender, type of family, area of residence, and academic stream. Significant differences were found in the mean scores of self-esteems across the variables of gender, type of family, area of residence, and academic stream. However, there were no significant differences in the mean scores of emotional intelligence and self-esteem across the categories of caste, suggesting that emotional intelligence and self-esteem do not vary significantly across the caste groups included in the analysis. The product-moment correlation coefficient of 0.892 between Emotional Intelligence and Self-esteem shows a very high relationship between the two variables for Overall higher secondary school students and for higher secondary school students among the demographic variables.

These overall understandings of the research findings emphasize the necessity for planning and conducting gender-specific and family-oriented strategies and programs to improve Emotional Intelligence and Self-esteem among students, ultimately fostering their overall development and achievements.

Implication and Recommendations

The insights drawn from the research presented in this paper have significant implications for policy and practice concerning the emotional intelligence and self-esteem of students at the higher secondary level. The findings indicate that emotional intelligence has a considerably positive correlation with self-esteem, warranting the inclusion of emotional intelligence training within secondary school curricular offerings to bolster students' mental wellness and self-confidence. Given that the study's findings reveal females to possess greater emotional intelligence and higher self-esteem levels than males, it is pertinent to consider the implementation of gender-specific programs aimed at enhancing the emotional and self-

esteem attributes of male students. The study emphasizes the valuable role of the family environment in influencing students' emotional intelligence and self-esteem levels. Consequently, schools should explore conducting orientation programs for parents and their children that focus on the impact of family dynamics on emotional intelligence and self-esteem. Moreover, it is essential that relevant programs and initiatives are responsive to the diverse backgrounds of students, promoting inclusivity and representation. The study discerned no significant differences in emotional intelligence and self-esteem across caste categories, academic streams, or management types; however, interventions should persist in acknowledging and addressing these attributes. It could be argued that students and educators should receive training aimed at empowerment, as increased responsibility may lead to stress rather than positive outcomes. Thus, preparing students and educators with enhanced emotional intelligence and self-esteem through mentorship, peer-support, and capacity development initiatives would prove advantageous in effectively negotiating forthcoming academic and practical challenges faced by students. Overall, a multifaceted strategy for fostering the emotional and psychological development of the student populace is highlighted.

Conflict of Interests

Authors have no conflict of interest in this study

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AI Declaration

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