



A STUDY TO ASSESS THE LEVEL OF EMOTIONAL INTELLIGENCE AMONG LATE ADOLESCENTS OF 11TH AND 12TH STANDARD IN HIGHER SECONDARY SCHOOLS OF ODISHA

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ABSTRACT

Adolescence is a transitional period marked by rapid biological, cognitive, and social change; emotional competencies developed during this time influence academic outcomes, peer relationships, and mental health. This descriptive cross-sectional study assessed emotional intelligence (EI) among adolescents in selected higher secondary schools using a standardized EI Scale and convenience sampling. Using the median total EI score (123) as the cut-off, 55 adolescents (47.8%) scored High (>123) and 60 adolescents (52.2%) scored Poor/Median (≤ 123). Association tests between EI level (High vs \leq Median) and demographic variables are presented in Table 4. Significant associations were found Gender ($\chi^2 = 14.587$, $p = 0.002$), Education/Grade ($\chi^2 = 19.066$, $p < 0.001$), Parent's Working Status ($\chi^2 = 21.199$, $p < 0.001$), Family Income ($\chi^2 = 42.486$, $p = 0.001$), and Type of Family ($\chi^2 = 13.644$, $p = 0.017$). No significant associations were found for Age Group ($p = 0.669$) or Staying At ($p = 0.177$).

Key Words: Emotional Intelligence, Adolescents, Analytical study.

INTRODUCTION

Adolescence (ages 10–19) is a critical developmental window in which individuals consolidate identity, expand social roles, and encounter novel academic and emotional demands. Emotional intelligence (EI) — the skills to perceive, understand, regulate and use emotions — is increasingly recognized as a key determinant of adaptive functioning during this stage. Models of EI vary (ability vs. trait), but they converge on the idea that emotion skills contribute to resilience, relationship quality, and learning outcomes.

Recent empirical work shows that adolescents with stronger emotional competencies tend to report higher life satisfaction, lower symptoms of depression/anxiety, and better interpersonal adjustment. In addition, systematic reviews of school-based interventions indicate that structured social and emotional learning (SEL) and emotion-regulation programs can produce modest-to-moderate improvements in emotional skills and mental-health outcomes among secondary-school students. These findings make EI both an important subject of measurement and a practical target for school-based health and education initiatives. According to Llamas-Díaz and colleagues (2023), ability emotional intelligence plays a significant role in shaping subjective happiness among adolescents. In India, empirical studies also link EI with academic achievement, resilience, and lower behavioral problems among adolescents, though regional evidence is uneven and limited in some states. Localized assessments (for example, studies from Odisha and nearby regions) point to variation by schooling context and demographic variables, suggesting the benefit of context-specific measurement and intervention planning. According to Bhaina (2022), this study aims to measure emotional intelligence levels among adolescents in selected higher secondary schools to inform school-based supports and future interventions.

REVIEW OF LITERATURE

(Studies limited to roughly the last 10 years; focused on adolescents and school contexts)

CONCEPTUAL FOUNDATIONS OF EI

Researchers have conceptualized EI either as an *ability* (performance-based skills measured by tasks) or as a *trait* (self-reported emotional self-efficacy). Across approaches, EI is typically operationalized with dimensions such as emotional perception, understanding, regulation, and use of emotions. Megías-Robles and colleagues (2024) highlight that emotional intelligence is developmental in nature, with competencies that can grow through practice, instruction, and guided reflection during adolescence.



LINKS BETWEEN EI AND ADOLESCENT WELL-BEING

A growing body of recent research shows robust associations between EI and indicators of adolescent well-being. Population and school-based samples report that higher EI correlates with greater subjective happiness, lower depressive and anxiety symptoms, and improved coping under stress. These associations hold for both ability and trait measures and are observed across cultural contexts. Such findings support EI as a protective factor during adolescence. Llamas-Díaz and colleagues (2023)

EI, RESILIENCE AND SOCIAL FUNCTIONING

Recent meta-analyses and empirical studies indicate that emotional competencies are strongly tied to resilience — adolescents with better emotion-regulation and awareness recover more effectively from setbacks and show fewer conduct problems. Collado-Soler and colleagues (2023) emphasize the mediating role of emotional intelligence between stressors, such as academic pressure and peer conflict, and adjustment outcomes.

SCHOOL-BASED INTERVENTIONS AND EFFECTIVENESS

Systematic reviews covering the last decade report that structured SEL programs, mindfulness and emotion-regulation modules delivered in schools improve emotional skills and produce small-to-moderate gains in mental health and social behavior among adolescents. Implementation features matter (duration, teacher training, curriculum fidelity). The evidence supports schools as an effective delivery platform for EI-enhancing programs, although effects vary by program type and local context. Schools serve as an effective platform for delivering programs that enhance emotional intelligence, although the effects vary by program type and local context.

RECENT INDIAN AND REGIONAL STUDIES

Indian studies over the past decade have examined EI's relationship with academic achievement, peer relationships, and behavioral outcomes. Some studies from Odisha and neighboring regions have reported positive correlations between EI and scholastic performance, and found gender and urban/rural differences in specific EI dimensions. Bhaina (2022) notes that many Indian studies use convenience samples and varied instruments, highlighting the need for standardized, regionally representative assessments to guide school-based policy.

MEASUREMENT CONSIDERATIONS

Recent methodological work emphasizes selecting instruments that match the study's aim (ability vs. trait), age group, and local language/cultural context. Performance-based measures reduce self-report bias but are resource-intensive; validated self-report scales are frequently used in school settings. Megías-Robles and colleagues (2024) emphasize that when planning interventions, baseline measurement with a reliable and culturally validated instrument is essential.

GAPS AND DIRECTIONS

Although the last decade produced more high-quality trials of SEL and emotion-regulation programs, gaps remain in (a) region-specific evidence in many parts of India, (b) longitudinal tracking of EI development across mid- to late-adolescence, and (c) studies that link measured EI change to hard educational outcomes (grades, attendance) in rigorous designs. Cosgrove and colleagues (2024) argue that these gaps justify local assessment studies that can inform tailored school programs as well as larger quasi-experimental or randomized trials.

METHODS

A descriptive research study design with quantitative research approach was employed to conduct the research. And 115 no. of late adolescents of age 15 – 19 years was selected through convenience sampling method from 11th and 12th standard students of 2 higher secondary schools of Odisha, who met the inclusion criteria. Data were collected through questionnaire by using demographic Performa and EIS (Emotional intelligence scale) developed by developed by Hyde, Pethe, and Dhar on 2002. Factors of Emotional Intelligence included here in this scale are: "Self-awareness, Empathy, Self-motivation, Emotional stability, Managing relations, Integrity, Self-development, Value orientation, Commitment, Altruistic behaviour. Results are discussed with the use of descriptive and inferential statistics with the help of SPSS 25 and presented in tables and graphs.



RESULTS AND DISCUSSION

DEMOGRAPHIC DISTRIBUTION OF ADOLESCENTS

Table 1: Distribution of adolescents on account of their Demographic characteristics. N = 115

Demographic Characteristics	Sub Categories	Frequency (f)	Percentage (%)	Cumulative Percentage (%)
1. AGE IN YEARS	<=16	45	39.1	39.1
	>16 & <=17	35	30.4	69.6
	>17 & <=18	25	21.7	91.3
	>18	10	8.7	100.0
	Total	115	100.0	
2. GENDER	Male	61	53.0	53.0
	Female	54	47.0	100.0
	Total	115	100.0	
3. EDUCATION	11 th	51	44.3	44.3
	12th	64	55.7	100.0
	Total	115	100.0	
4. STAYING AT	Hostel	9	7.8	7.8
	Home	98	85.2	93.0
	Any other place	8	7.0	100.0
	Total	115	100.0	
5. PARENT WORKING STATUS	Single parent	62	53.9	53.9
	Both parent	53	46.1	100.0
	Total	115	100.0	
6. FAMILY MONTHLY INCOME	2,13,814 and above	14	12.2	12.2
	1,06,850-2,13,813	5	4.3	16.5
	80,110-1,06,849	9	7.8	24.3
	53,361-80,109	12	10.4	34.8
	31,978-53,360	29	25.2	60.0
	10,703-31,977	21	18.3	78.3
	<10,702	25	21.7	100.0
	Total	115	100.0	
7. TYPE OF FAMILY	Nuclear family	46	40.0	40.0
	Joint family	54	47.0	87.0
	Extended family	15	13.0	100.0
	Total	115	100.0	

The sample comprised adolescents ranging from 16 years and below to more than 18 years. The majority (39.1%) were aged ≤16 years, followed by 30.4% in the 17-year group. About 21.7% were between 17–18 years, and only 8.7% were above 18 years. This shows that most participants were in the middle to late adolescent stage, with a smaller proportion in the older adolescent group. The distribution of gender was fairly balanced: 53% male and 47% female. This near-equal representation suggests that the findings reflect both male and female adolescents' perspectives without significant gender bias in the sample. Among the respondents, 55.7% were in 12th grade, while 44.3% were in 11th grade. This indicates that a slightly larger proportion of the participants were in the final year of higher secondary education, a period often associated with increased academic stress and emotional challenges.

Most adolescents (85.2%) lived at home, while 7.8% stayed in hostels and 7% at other places (e.g., with relatives). The dominance of home-dwelling students highlights the influence of family environment on adolescents' daily life, while the smaller hostel population reflects limited exposure to independent living in this group. A notable finding is that 53.9% of adolescents had a single working parent, while 46.1% had both parents employed. This distribution suggests that a majority of adolescents come from households where only one parent contributes financially, which may have implications for family dynamics and emotional support systems. The income



distribution shows wide variability. The largest group (25.2%) reported monthly family income between ₹31,978–₹53,360, followed by 21.7% with income <₹10,702 and 18.3% between ₹10,703–₹31,977. Only 12.2% reported income above ₹2,13,814. This indicates that the sample predominantly comes from low to middle-income families, with a smaller proportion belonging to higher-income groups. The socioeconomic variation provides a useful context for interpreting differences in emotional intelligence levels. Nearly half of the adolescents (47%) lived in joint families, 40% in nuclear families, and 13% in extended families. This distribution suggests that a majority of respondents come from collectivist family settings, which may influence emotional development, interpersonal skills, and support systems differently compared to nuclear family structures.

DISTRIBUTION OF ADOLESCENTS ON ACCOUNT OF THEIR LEVEL OF EMOTIONAL INTELLIGENCE

Table 2: Distribution of adolescents on account of their Level of Emotional Intelligence

Level of EI	Frequency	Percentage (%)
High (>123)	55	47.8
Poor/Median (≤123)	60	52.2
Total	115	100

Distribution of Adolescents by Level of Emotional Intelligence (N=115)

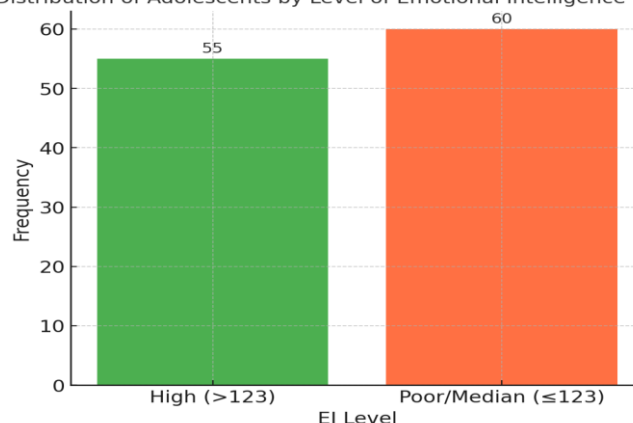


Figure 1: Distribution of Adolescents by their Level of EI

INTERPRETATION

The findings indicate that slightly more than half of the adolescents (52.2%) had low/average EI, while only 47.8% demonstrated high EI. This suggests that a considerable proportion of adolescents in the study may require interventions to strengthen emotional competencies such as self-awareness, empathy, and emotional regulation.

ASSOCIATION BETWEEN LEVELS OF EI WITH DEMOGRAPHIC VARIABLES

Table 4: Association between Levels of EI with demographic variables

Demographic Variable	χ^2 value	df	p-value	Test Used	Significant
Age Group	6.63	9	0.669	Monte Carlo Exact	Not Significant
Gender	14.587	3	0.002	Pearson Chi-square	Significant
Education	19.066	3	<0.001	Pearson Chi-square	Significant
Staying At	9.159	6	0.177	Fisher's Exact	Not Significant
Parent's Working Status	21.199	3	<0.001	Pearson Chi-square	Significant
Family Income	42.486	18	0.001	Monte Carlo χ^2	Significant
Type of Family	13.644	6	0.017	Fisher's Exact	Significant

P= 0.05 level of significance



Interpretation of Association between Level of EI and Demographic Variables (table no 4)

The association between emotional intelligence (EI) levels and selected demographic variables among adolescents (N=115) was tested using Chi-square/Monte Carlo/Fisher's Exact methods, as appropriate. The findings are:

1. Age Group

The χ^2 value (6.63, df=9, p=0.669) indicates no significant association between adolescents' age and their level of EI. This suggests that within the sampled age range (≤ 16 to >18 years), EI levels did not differ significantly.

2. Gender

A significant association was found ($\chi^2 = 14.587$, df=3, p=0.002). This implies that EI levels varied significantly between male and female adolescents, indicating gender differences in emotional competencies.

3. Education (Class 11 vs. 12)

A highly significant association was found ($\chi^2 = 19.066$, df=3, p < 0.001). This suggests that educational grade plays an important role, with adolescents in different classes showing varied EI levels, possibly influenced by maturity, academic exposure, and stress-handling skills.

4. Staying At (Home/Hostel/Other)

No significant association was observed ($\chi^2 = 9.159$, df=6, p=0.177). This indicates that place of residence (home, hostel, other) did not have a notable impact on EI levels in this study.

5. Parent's Working Status

A significant association was found ($\chi^2 = 21.199$, df=3, p < 0.001). Adolescents with single working parent vs. both parents working differed significantly in their EI levels, indicating that family structure and parental availability may influence emotional development.

6. Family Monthly Income

A strong significant association was found ($\chi^2 = 42.486$, df=18, p = 0.001). This shows that socioeconomic status plays a significant role in shaping adolescents' EI, possibly due to differences in resources, opportunities, and stress exposure.

7. Type of Family

A significant association was observed ($\chi^2 = 13.644$, df=6, p=0.017). Adolescents from nuclear, joint, or extended families differed in EI levels, reflecting the influence of family support systems and interaction patterns on emotional competencies.

SUMMARY

- **Significant Associations:** Gender, Education, Parent's Working Status, Family Income, and Type of Family.
- **Non-significant Associations:** Age and Staying at place.

This indicates that socio-demographic variables, especially family- and context-related factors, play a larger role in shaping EI than chronological age alone.

SUMMARY OF THE FINDINGS

Using the median total EI score (123) as the cut-off, 55 adolescents (47.8%) scored High (>123) and 60 adolescents (52.2%) scored Poor/Median (≤ 123). Association tests between EI level (High vs \leq Median) and demographic variables are presented in Table 4. Significant associations were observed for Gender ($\chi^2 = 14.587$, p = 0.002), Education/Grade ($\chi^2 = 19.066$, p < 0.001), Parent's Working Status ($\chi^2 = 21.199$, p < 0.001), Family Income ($\chi^2 = 42.486$, p = 0.001), and Type of Family ($\chi^2 = 13.644$, p = 0.017). No significant associations were found for Age Group (p = 0.669) or Staying At (p = 0.177).

STRENGTHS AND LIMITATIONS

Strengths: The study examines multiple family and demographic correlates in a local sample and links domain-level EI scores to practical recommendations.

Limitations: Cross-sectional design precludes causal inference; use of a median split reduces information vs. continuous modeling; absence of validated family-function metrics or parental EI in the dataset limits interpretation of family effects.



REFERENCES

1. Bhaina, D. U. (2022). *Emotional intelligence and academic achievement of school going children: A study in South Odisha, India*. Academia.edu. https://www.academia.edu/92068859/Emotional_Intelligence_and_Academic_Achievement_of_School_Going_Children_A_Study_in_South_Odisha_India
2. Collado-Soler, R., Trigueros, R., Aguilar-Parra, J. M., & Navarro, N. (2023). Emotional intelligence and resilience outcomes in adolescent period, is knowledge really strength? *Psychology Research and Behavior Management*, 16, 1365–1378. <https://doi.org/10.2147/PRBM.S383296>
3. Cosgrove, J. A., Rao, N., George, P., Hoey, T., Taylor, J., Marshall, T., Ghose, S. S., & Patel, N. A. (2024). Social and emotional learning interventions for preadolescents and adolescents: Assessing the evidence base. *Psychiatric Services*, 75(12), 1257–1266. <https://doi.org/10.1176/appi.ps.20240040>
4. Ibrahim, D., Altahir, A. M., Abdalla, D., Elkhidir, I., Abdelmagid, T., SirElkhatim, D., Hamid, S., Ali, B., Tamim, M., Isam, O., Abdelaziz, Z., Mohammed, Z., Ahmed, R. M., Adil, A., & Abdelgafour, R. H. (2024). How do emotional intelligence, resilience, and parental employment affect anxiety and depression levels among Sudanese adolescents? *Discover Mental Health*, 4(1), 36. <https://doi.org/10.1007/s44192-024-00096-z>
5. Llamas-Díaz, D., Cabello, R., Gómez-Leal, R., Gutiérrez-Cobo, M. J., Megías-Robles, A., & Fernández-Berrocal, P. (2023). Ability emotional intelligence and subjective happiness in adolescents: The role of positive and negative affect. *Journal of Intelligence*, 11(8), 166. <https://doi.org/10.3390/jintelligence11080166>
6. Mahajan, V. (2024, December 21). Social emotional learning and the Indian curriculum of education. *NHSJS*. <https://nhsjs.com/2024/social-emotional-learning-and-the-indian-curriculum-of-education/>
7. Megías-Robles, A., Gutiérrez-Cobo, M. J., Fernández-Berrocal, P., Gómez-Leal, R., & Cabello, R. (2024). The development of ability emotional intelligence during adolescence. *Personality and Individual Differences*, 224, 112642. <https://doi.org/10.1016/j.paid.2024.112642>

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Dr. Anasuya Pattanayak serves as a Co-Supervisor in the present research. Dr. Pattanayak is actively involved in mentoring postgraduate and doctoral nursing scholars. She is dedicated to advancing nursing education and research, emphasizing ethical practice, scientific inquiry, and professional development among her students. Her guidance has been instrumental in shaping competent nursing professionals and fostering innovative contributions to healthcare in India.