



Original Research Article

SCHOOL ENVIRONMENT AND ITS IMPACT ON SELF-ESTEEM AND LONELINESS: A COMPARATIVE STUDY AMONG STUDENTS OF WEST BENGAL

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ABSTRACT

Background: Adolescent mental health is a critical public health concern, with self-esteem and loneliness being pivotal aspects influencing well-being, academic performance, and social interactions. This study examines the levels of self-esteem and loneliness among government and private school students in Haldia, West Bengal, exploring their interplay and associated socio-demographic factors.

Materials and Methods: A cross-sectional study was conducted with 120 students from class 10th and 11th using the UCLA Loneliness Scale and Rosenberg Self-Esteem Scale. After taking ethical clearance from the Institutional Ethics Committee, IIMSAR, Haldia, we visited the respective schools and met the head of institutions briefing our idea. We visited both these schools three times and all the students of class 10th and 11th standards who were present on those days were included. They were explained the translated questionnaire in local language and proper assent was taken. Those who were not willing in this stage were excluded from the study.

Results: The study revealed that 69.2% of participants experienced moderate loneliness, while 30.8% suffered from moderately high loneliness, predominantly government school students (81.1%, $p=0.007$). High self-esteem was observed in 35% of participants, with a significant association with school type, as 81% of students with high self-esteem attended government schools ($p=0.003$). Socioeconomic status also influenced loneliness significantly ($p=0.021$), but no substantial gender or residence effects were observed. Although a weak negative correlation was found between self-esteem and loneliness, it was not statistically significant.

Conclusion: This study highlights the nuanced role of school environment and socio-economic factors in shaping adolescent mental health, underscoring the need for targeted interventions and further research to address these challenges.

Keywords: School environment, school students, self-esteem, loneliness, impact.

INTRODUCTION

Mental health of adolescents is a major public health concern worldwide. Adolescence is a unique phase which plays a pivotal role in an individual's physical,

mental and cognitive growth. During this transition period, the formation of self-image and self-conscience affects the performance in academics, social interactive skills and extracurricular activities. Two prominent aspects of adolescent mental

health—self-esteem and loneliness—play significant roles in this regard.^[1,2]

Self-Esteem

Self-esteem is defined as an individual's overall sense of personal worth and self-value. It encompasses how one views oneself, including confidence in one's abilities, acceptance of one's flaws, and a general sense of respect for oneself. In adolescence, self-esteem becomes particularly significant as young individuals begin to shape their identities and navigate complex social dynamics.^[3]

Loneliness

Loneliness is a complex emotional state characterized by a perceived lack of connection with others, which can lead to feelings of isolation and unfulfillment. Unlike mere physical solitude, loneliness stems from an unmet desire for social interaction and belonging, making it particularly distressing for adolescents who are at a critical stage of social development.^[4]

Self-esteem, or one's sense of self-worth, is closely linked to positive outcomes like resilience, academic performance, and healthy social interactions, while loneliness is associated with adverse effects such as depression, anxiety, and social withdrawal.^[5]

In a comparative study between loneliness and self-consciousness in high school students done by K Moroi (1985), it was found that loneliness was significantly correlated with various aspects of their high school life. Loneliness was negatively correlated with self-esteem and positively with social anxiety.^[6] In another study conducted in Netherlands, self-reported prevalence of loneliness among the adolescents was 19.4%.^[7] Chinawa J et al. (2015) did a study among Nigerian secondary school students and found out that low self-esteem was observed in 3.6% of the respondents with 4.3% of females and 2.5% of Males.^[8]

Educational environments can significantly influence these experiences, yet in India, the impact of school type—whether government or private—on students' self-esteem and loneliness remains underexplored. Government and private schools differ in terms of resources, teaching approaches, peer environments, and socio-economic backgrounds of students, potentially shaping their social and psychological well-being in distinct ways.

This research aims to compare the levels of self-esteem and loneliness among government and private school students in Haldia, West Bengal, examining how school environments might affect loneliness and shape self-worth, potentially affecting their overall mental health, social behaviour, and academic performance. A comparative study on self-esteem and loneliness across these school types and also with different demographic variables offers valuable insights into how these factors interplay within different educational settings in India, providing a foundation for targeted interventions and policies.

Objectives

1. To find out the levels of self-esteem & prevalence of loneliness among private and

government school students in Haldia, Purba Medinipur, West Bengal

2. To compare how the institution of study and different socio-demographic parameters influence self-esteem and loneliness among those students.
3. To assess how self-esteem and loneliness are correlated.

Hypotheses

1. There will be significant difference in loneliness and self-esteem among government and private school students
2. There will be significant difference in loneliness and self-esteem according to different socio-demographic variables.
3. Self-esteem will be significantly negatively correlated with loneliness.

MATERIALS AND METHODS

An analytical type of cross-sectional study was designed to explore our objectives. The study spanned over a period of 6 months, i.e. from June to November 2024

This study took place in Haldia, an industrial port city situated at southern-east part of West Bengal. Narayana School and Chakdwipa High School are two prominent private and government school respectively here in the locality. After taking ethical clearance from the Institutional Ethics Committee, IIMSAR-Haldia, we visited the respective schools and met the head of institutions briefing our idea. We visited both these schools three times and all the students of class 10th and 11th standards who were present on those days were included. They were explained the translated questionnaire in local language and proper assent was taken after taking consent from School Head Mistress and Class Teachers. Those who were not willing in this stage were excluded from the study.

Finally, a total of 120 students—75 from Chakdwipa High School and 45 from Narayana School were included and a one-to-one interview taken for each of them using following tools.

Tools

Data for socio-demographic variables (age, gender, residence) were collected with preformed questionnaire. Modified BG Prasad SES scale (updated 2024) was used to measure socioeconomic status of the participants.^[9]

Revised UCLA Loneliness Scale,^[10]

The UCLA Loneliness Scale is a widely used psychological tool developed to assess subjective feelings of loneliness and social isolation. Originally created in 1978 by Daniel Russell and his colleagues, the scale has undergone revisions to improve its accuracy and ease of use, with the current version consisting of 20 items. Respondents rate each statement (such as "I feel isolated from others") on a scale, typically ranging from "never" to "often" carrying scores from 1 to 4. Thus, a total score for a

participant can be between 20- 80. The most commonly used categorization is as follows: 20-34 denotes low degree, 35-49 moderate degree, 50-64 moderately high degree and 65-80 high degree of loneliness. Revised UCLA Loneliness Scale provides valuable insights into the social and emotional well-being of participants by quantifying their sense of connection or isolation.

Rosenberg Self-Esteem Scale,^[11]

The Rosenberg Self-Esteem Scale (RSES) is a widely recognized self-report measure for assessing self-esteem, developed by sociologist Dr. Morris Rosenberg in 1965. The scale consists of 10 statements, with items measuring both positive (e.g., "I feel that I am a person of worth") and negative (e.g., "I feel I do not have much to be proud of") self-evaluations. Respondents rate each statement on a 4-point scale, from "strongly agree" to "strongly disagree." The scale ranges from 0-30 where scores

between 15-25 suggests normal and below 15 suggests low self-esteem ^[12]. Scores on the RSES reflect an individual's overall sense of self-worth. The Rosenberg Self-Esteem Scale is extensively used in research on adolescent populations due to its reliability and simplicity, making it ideal for exploring self-esteem differences among students in government and private schools in this study.

The primary data were entered in MS Excel and coded properly. Data analysis was carried out using SPSS v.26. All tests were performed at a 5% level of significance; thus, an association was considered statistically significant if the p value was less than 0.05.

A follow-up counselling session was organised further for the students in both these schools regarding the importance of self-esteem and healthy social connection.

RESULTS

Table 1: Distribution of study participants according to various socio-demographic factors

Socio-demographic parameters		Frequency (n, %)
Age	Mean \pm SD = 16.35 \pm .88	
Gender	Boys	60 (50)
	Girls	60 (50)
Residence	Urban	59 (49.2)
	Rural	61 (50.8)
Study school	Government	75 (62.5)
	Private	45 (37.5)
Socio-economic class (Modified BG Prasad scale)	Upper	53 (44.2)
	Upper middle	35 (29.2)
	Middle	25 (20.8)
	Lower middle	5 (4.2)
	Lower	2 (1.7)
Total		120 (100)

Mean age of our study participants was 16.35 \pm .88 SD with no gender preponderance. A significant number (73.4%) of them belonged from upper and upper middle socioeconomic class. Table 1 summarises distribution of our study participants according to various socio-demographic factors.

While exploring loneliness, we found that all the 120 school children fell either in moderate (83, 69.2%) or moderately high degree (37, 30.8%) of loneliness category according to UCLA Loneliness Scale. Table 2 shows the association of loneliness with various sociodemographic factors.

Upon further exploration, different socioeconomic classes showed significant differences (p value = 0.021) in degree of loneliness. Those who were moderately lonely, most of them (80.7%) belonged from either upper or upper middle class. While in moderately high category, these two classes contributed for a total of 56.7%. Our study also found there was significant difference (p value = .007) in the degree of loneliness depending on the type of school they were studying. Among the 37 participants who were suffering from moderately high degree of

loneliness, 81.1% were from government school whereas 18.9% were from private school. This difference was not very substantial among the other group.

Table 2: Distribution and comparison of UCLA grades of loneliness according to various sociodemographic factors and study institution

Influencing factors		UCLA grade of loneliness		χ^2 value	p value
		Moderate (n, %)	Moderately high (n, %)		
Gender	Boys	44 (53%)	16 (43.2%)	0.977	0.429
	Girls	39 (47%)	21 (56.8%)		
Residence	Urban	43 (51.8%)	16 (43.2%)	0.751	0.433
	Rural	40 (48.2%)	21 (56.8%)		
Socioeconomic class (Modified BG Prasad scale)	Upper	43 (51.8%)	10 (27%)	11.61	.021*
	Upper middle	24 (28.9%)	11 (29.7%)		
	Middle	11 (13.3%)	14 (37.8%)		
	Lower middle	4 (4.8%)	1 (2.7%)		
	Lower	1 (1.2%)	1 (2.7%)		
Type of school	Govt.	45 (54.2%)	30 (81.1%)	7.88	.007*
	Private	38 (45.8%)	7 (18.9%)		
Total		83 (69.2)	37 (30.8)	120	

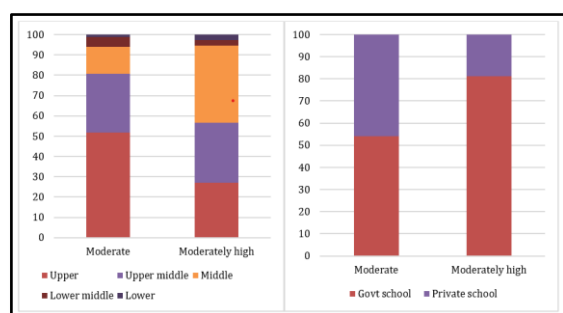


Figure 1a & 1b: Degree of loneliness according to SE Class and School type

Table 2 shows the distribution and comparison of UCLA grades of loneliness according to various sociodemographic factors and study institution whereas fig. 1a & 1b showing graphical distribution of them.

Self-esteem of our participants were measured using Rosenberg Self-esteem (RSE) Scale and it was found

that out of total 120 students, where only 2 (1.67%) were suffering from low self-esteem, 42 (35%) were from high self-esteem. Table 3 shows the distribution and comparison of different RSE grades according to various influencing factors. Where factors like gender, residence or socioeconomic status did not exert any significant influence on self-esteem, we found that participant's institution of study played a significant role. All the students (100%) who were suffering from low self-esteem were studying in government school. Among the students with high self-esteem, most (81%) were from government and the rest 19% were from private school. Association of different degrees of self-esteem with study institution of the participants was statistically significant (p value= .003). Table 3 shows the distribution and comparison of RSE grades of self-esteem according to various influencing factors.

Table 3: Distribution and comparison of RSE grades of self-esteem according to various sociodemographic factors and study institution

Influencing factors		RSE grade of self-esteem			χ^2 value	p value
		Low	Normal	High		
Gender	Boys	0 (0)	37 (48.7)	23 (54.8)	2.43	0.29
	Girls	2 (100)	39 (51.3)	19 (45.2)		
Residence	Urban	1 (50)	42 (55.3)	16 (38.1)	3.19	0.2
	Rural	1 (50)	34 (44.7)	26 (61.9)		
Type of school	Govt.	2 (100)	39 (51.3)	34 (81)	11.36	.003*
	Private	0 (0)	37 (48.7)	8 (19)		
Total		2	76	42	120	

Person correlation test was carried out to understand if there was any correlation between loneliness and self-esteem. Though self-esteem showed a very weak negative correlation with loneliness (correlation coefficient -.047), it was not statistically significant.

DISCUSSION

Hypothesis 1 was supported in this study. There were significant differences in loneliness and self-esteem among government and private school students. Though, hypothesis 2 was partially supported. Sociodemographic factors like gender and residence

played no significant role on participant's loneliness and self-esteem while socioeconomic status was associated with loneliness.

Lahiri A and Kausthub S found that gender played a significant role on self-esteem, but not on loneliness.^[13] Ashwini A K studied the effect of loneliness on self-esteem of high school boys and girls and concluded that there was no significant gendered difference in feeling of loneliness.^[14] Though both of them found that self-esteem was negatively correlated with loneliness which was statistically significant.

More than one third of our participants (35%) were suffering from high self-esteem and only 1.67% from low self-esteem. This was in line with a study conducted by Dhal A et al. to assess self-esteem and loneliness among students of a public school in Delhi.^[15] They found that most of their participants (87%) had high and rest (13%) had low self-esteem. They also reported that two thirds of their participants reported high level of loneliness. Compared to which, more than two third (69.2%) of our participants were suffering from moderate and 30.8% from moderately high degree of loneliness.

Novelty and uniqueness of our study was to compare participant's self-esteem and loneliness according to their studying schools. Students suffering from moderately high degree of loneliness, most were from government school (81.1%). Interestingly, students who possessed high self-esteem, a similar proportion (81%) of them were studying in government school too. Our study did not find any significant correlation between self-esteem and loneliness of participants.

CONCLUSION

This study provides an insight about loneliness and self-esteem among school students and impact of their educational institution on these factors. Some key messages we want to convey from this study are **Significant influence of school type:** Government school students showed a higher prevalence of both moderately high loneliness (81.1%) and high self-esteem (81%), highlighting the complex psychological landscape within these educational settings.

Socioeconomic disparities in loneliness: Students from higher socioeconomic backgrounds were more likely to experience moderate loneliness, while those in the lower middle and lower classes showed greater vulnerability to moderately high levels of loneliness, emphasizing the need for targeted interventions.

Limited impact of gender and residence: Contrary to common assumptions, gender and residential background did not significantly affect levels of self-esteem or loneliness, underscoring the stronger influence of institutional and socioeconomic factors.

Minimal correlation between self-esteem and loneliness: Despite theoretical links, this study found only a weak and statistically insignificant correlation between self-esteem and loneliness, suggesting independent influences on these psychological traits.

Need for school-based interventions: The findings highlight the importance of mental health programs in both government and private schools, emphasizing resilience-building, social skills development, and emotional well-being support for adolescents.

Our study explored some important aspects of adolescent mental health and the influencing factors associated. Nonetheless it was not without limitations. We took one government and one private school each for our study and sample size was 120.

So, the results cannot be generalized for a larger population where different sociodemographic factors as well as resources and setting of different schools play important roles. Also, being a cross-sectional study, temporality of association could not be determined in this study.

Ethical Approval: The study was accorded Ethical Committee Approval vide Ethics Committee IIMSAR-Haldia No. IIMSAR-Haldia/ IEC/ May 2024/22 dated 30.05.24.

Written/ Verbal Informed Consent was taken from all the participants.

The study was carried out in accordance with the principles as enunciated in the Declaration of Helsinki.

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