



Determinants of academic stress among senior secondary students: A study of parental involvement and emotional competency

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Abstract

In recent years, senior secondary school students have expressed a significant psychological concern about the effects of academic stress, particularly during the eleventh and twelfth grades. Among 400 high school seniors in the Raipur district, this study looks at how academic stress, emotional competency, and parental participation relate to one another. Academic stress, parental participation, & emotional competency were measured using standardized instruments in a descriptive & correlational study design. Statistical techniques included t-tests, ANOVA, and Pearson's correlation. The findings revealed that low parental involvement was significantly associated with higher academic stress, whereas high parental involvement did not significantly increase stress levels. Academic stress was found to be negatively correlated with emotional competency, suggesting that students who possessed higher levels of emotional competency also experienced lower levels of stress. When looking at the data by gender, we see that the trends for male and female students are very similar. In order to alleviate academic stress and improve students' psychological well-being, the study stresses the significance of emotionally competent skill development and supportive parental involvement.

Keywords: Academic stress, parental involvement, emotional competency, senior secondary students, gender differences, psychological well-being

Introduction

Academic stress is a major mental health issue for high school seniors, especially those in grades eleven and twelve. This transitional phase is characterized by heightened academic expectations, competitive examinations, career-related decisions, and strong parental aspirations, all of which intensify performance pressure. According to Lazarus and Folkman (1984) [7], when a person's coping resources are overwhelmed by the demands of school, it can lead to academic stress. If not effectively managed, it can negatively affect academic achievement, emotional stability, and overall development.

Among the major determinants of academic stress, parental involvement plays a pivotal role. It includes parents' engagement in academic activities, supervision of progress, communication with teachers, and provision of emotional support (Hill & Tyson, 2009) [5]. Constructive and supportive involvement has been shown to enhance motivation and academic success (Jeynes, 2012) [6]. However, excessive control, unrealistic expectations, or lack of parental support may increase anxiety and stress among adolescents (Deb, Strodl, & Sun, 2015) [1]. Thus, the quality of parental engagement significantly influences students' stress experiences.

Another important consideration is emotional competence. It helps students deal with academic stress since it is defined as the capacity to sense, control, and articulate emotions successfully (Salovey & Mayer, 1990; Goleman, 1995) [4, 11]. Extremera and Fernández-Berrocal (2006) [2] found that people who are more emotionally competent report less stress and more success in adjusting to new situations. Stress is influenced by a variety of factors, including gender and social and environmental context (Putwain, 2007) [8].

Despite an increase in studies, few have looked at these factors in tandem in an Indian setting, and even fewer have focused on Raipur district specifically. This is why this study seeks to answer the question, "How does academic stress affect students in their final year of high school?" by looking at the interplay between parental participation and emotional competency.

Objectives

1. To study the relationship of Parental involvement, High Parental, Low Parental, with Academic Stress among Senior Secondary School students.
2. To study the relationship of High Parental, Low Parental involvement with Academic Stress among Female Senior Secondary School students.
3. To study the relationship of High Parental, Low Parental involvement with Academic Stress among Male Senior Secondary School students.
4. To study the relationship of Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Senior Secondary School students.
5. To study the relationship of Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Female Senior Secondary School students.

Hypothesis

1. There will be no significance correlation between the Parental involvement, High Parental, Low Parental with Academic Stress among Senior Secondary School students.
2. There will be no significance correlation between the

High Parental, Low Parental involvement with Academic Stress among Female Senior Secondary School students.

3. There will be no significance correlation between the High Parental, Low Parental involvement with Academic Stress among Male Senior Secondary School students.
4. There will be no significance correlation between the Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Senior Secondary School students.
5. There will be no significance correlation between the Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Female Senior Secondary School students.

Research Methodology

Research methodology entails examining specific research approaches in a certain field from a theoretical and methodological perspective. An all-encompassing plan for collecting, analyzing, & interpreting data to validate and answer the study's inquiries is called a research strategy (Creswell, 2014). A methodology is more than just a list of procedures; it's a detailed blueprint that explains how and why each technique will contribute to the achievement of the investigation's aims. A well-defined approach allows for easier results application to the target group, guarantees validity and reliability, and makes study replication easy.

1. Research Design

A descriptive and correlational non-experimental design was used in the investigation.

2. Population and Sample

The population consisted of senior secondary students (Class XI and XII) from selected schools in Raipur district. In order to guarantee that all genders, educational backgrounds, and socioeconomic levels were represented, a stratified random selection technique was employed.

3. Tools Used

The reliability and precision of the findings are significantly impacted by how well the data-gathering instruments were chosen. The present investigation used established and standardized tools to assess academic stress, parental participation, emotional competency, & academic achievement.

4. Statistical Techniques

The study employed mean and standard deviation to summarize data, independent t-tests and one-way ANOVA to compare group differences, Pearson's correlation to examine relationships, and regression analysis to predict the impact of academic stress and parental support on learning outcomes.

Results

Research data is most useful when it has been methodically analyzed and interpreted, which occurs after data collection has taken place. In order to make it easier to look for patterns and test theories, tabulation entails sorting replies into meaningful groups. Data analysis is the next step after processing to conclude the studied relationships. Analyzing

data involves looking for patterns, correlations, and other insights in structured information. Approaching it with consideration, adaptability, and an open mind is essential. Before data gathering even starts, it is ideal to have an analysis plan ready. Analyses can take several forms, including making useful tables, reevaluating the study problem in light of the raw data, collaborating with others to clarify the findings, and using suitable statistical methods.

The demographic profile of the respondents gives a comprehensive account of the composition of the sample, ensuring that the study's findings are typical of the target population. After that, 400 youths were chosen at random from the Raipur district high schools. Important variables in data collection on emotional competency, parental participation, and academic stress included gender, socioeconomic status, and school type. **Table 1** shows the breakdown of responders by gender.

Table 1: Gender distribution of respondents

Variable	Categories	Frequency	Percentage (%)
Gender	Male	210	52.5
	Female	190	47.5
Total		400	100.0

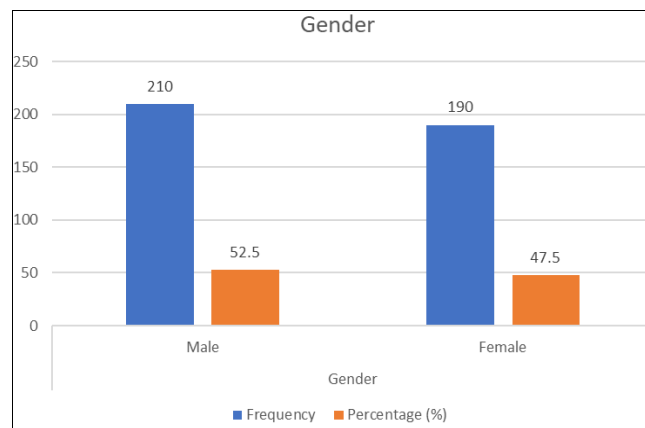


Fig 1: Respondents Categorized by Gender

Figure 1 shows the breakdown of responders by gender. Males made up 210 (or 52.5% of the total) and females 190 (or 47.5% of the total) of the 400 high school seniors polled. This indicates that there is a small male predominance in the sample, but overall, the gender distribution is balanced.

The results of the study will not favor one gender over the other because of the nearly equal representation of each gender. Such proportionality is important in educational research, as academic stress, parental involvement, and emotional competency may vary across genders. Therefore, this demographic distribution provides a reliable basis for making meaningful comparisons and drawing conclusions in subsequent analyses.

Table 2: Socioeconomic Distribution of Respondents

Socio-Economic Status	Frequency (N)	Percentage (%)
Low	120	30.0
Middle	190	47.5
High	90	22.5
Total	400	100.0

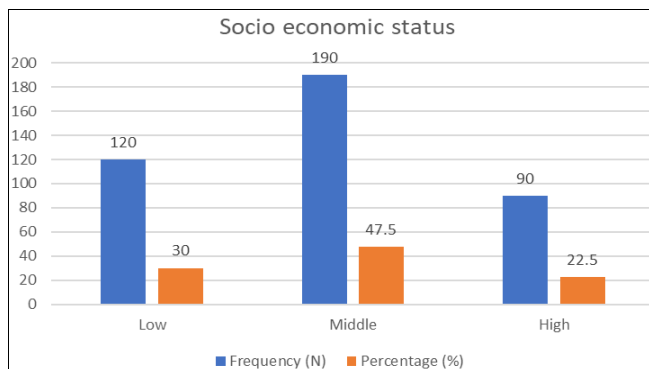


Figure 2: Respondents Categorized by Socio-Economic

The 400 respondents' socioeconomic distribution is shown in figure 2. The results reveal that the largest category in the illustration, including 47.5% of students, belongs to the middle socio-economic group. About 30% of students are from low socio-economic backgrounds, while 22.5% belong to the high socio-economic group.

This distribution indicates that the sample includes students from diverse socio-economic strata, with a stronger representation of middle-class families. The relatively smaller proportion of high SES students reflects the demographic reality of senior secondary school students in Raipur, where middle and lower-income families form the bulk of the school-going population.

Table 3: School Types Distribution of Respondents

Type of School	Frequency (N)	Percentage (%)
Government	170	42.5
Private	230	57.5
Total	400	100.0

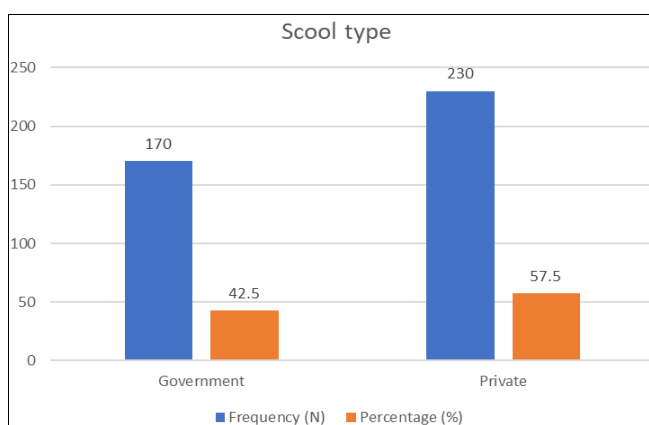


Fig 3: Respondents Categorized by School Type

The data from the survey is organized in Figure 3 by the different types of schools that the participants go to. A total of 400 pupils are enrolled; 230 (or 57.5% of the total) attend private schools, while 170 (or 42.5% of the total) attend public schools.

In comparison to public school children, the percentage of students enrolled in private schools has risen somewhat, according to the statistics. The inclusion of both groups guarantees that the study includes student viewpoints from various educational environments. The distribution is balanced, which allows for relevant comparisons to be made later on when school type is considered in connection to stress and academic accomplishment.

Table 4: T-test for gender-specific academic performance using independent samples

Gender	N	Mean Academic Achievement	SD	t-value	df	p-value
Male	210	62.35	8.12			0.05
Female	190	63.78	7.54	-1.95	398	

Table 4 illustrates the outcomes of a t-test that compared the academic performance of male & female students, using independent samples. Male students had a slightly lower mean academic achievement score of 62.35 (SD=8.12) than female students did, at 63.78 (SD=7.54). Using a t-test, we could see whether there was a statistically significant difference between the two sets of data. The difference cannot be deemed statistically significant due to the fact that $p > 0.05$ and $T(398) = -1.95$. The data show that the exam scores of Raipur high school seniors are not considerably impacted by gender. If male and female students in this cohort exhibit comparable performance, then a large gender disparity in academic accomplishment is unlikely to exist.

Table 5: Assessment of Academic Performance by School Type through the Use of an Independent Samples t-test

School Type	N	Mean Achievement	SD	t-value	p-value
Government	170	61.25	8.33	2.94	0.004*
Private	230	64.18	7.45		

Results from an independent samples t-test comparing public & private school students' performance in the classroom are revealed in Table 5. Students enrolled in private schools outperformed their public school counterparts on average, with an academic achievement score of 64.18 (SD = 7.45). The results show a notable distinction between the two groups, as supported by a t-value of 2.94 & p-value of 0.004. Based on these results, it seems that public school students do far worse academically than their private school counterparts. The result may reflect differences in resources, teaching methods, and learning environments across school types, which can contribute to variation in student performance.

Table 6: Comparison of Academic Stress in Grades XI and XII using a One-Way ANOVA

Source	SS	df	MS	F-value	p-value
Between Groups	112.45	1	112.45	2.13	0.145
Within Groups	21020.8	398	52.85		
Total	21133.2	399			

As specified in Table 6, the outcomes of an ANOVA evaluating academic stress levels between Class XI & Class XII are displayed. The average amount of academic pressure students feel does not vary significantly by grade, according to the between-groups sum of squares (SS = 122.45) at the $p = 0.145$ significance level and F-value of 2.13. This data reveals that pupils in Raipur's senior secondary school, specifically those in Classes XI and XII, face similar amounts of academic pressure. Academic expectations, demands, & exam pressures are likely common causes of academic stress among students in both grades, according to the research.

Table 7: One-Way ANOVA of Academic Achievement by Parental Education

Source	SS	df	MS	F-value	p-value
Between Groups	545.72	3	181.91	4.28	0.006*
Within Groups	16890.4	396	42.64		
Total	17436.1	399			

Table 8: Analysis of the correlations between academic stress & parental engagement (high, low, & no parental involvement) in higher education

Variable Pair	N	Mean (M)	SD	r-value	Significance (p)	Result
Parental Involvement & Academic Stress	400	62.4	8.9	0.28	0.01 (<0.05)	Significant
High Parental Involvement & Stress	200	65.2	7.8	0.15	0.09 (>0.05)	Not Significant
Low Parental Involvement & Stress	200	59.6	9.4	0.34	0.00 (<0.05)	Significant

Table 8's results show that there is a strong positive relationship between parental involvement and academic stress ($r = 0.28$, $p < 0.05$), suggesting that parental participation has a considerable impact on students' stress levels. There was a weak and statistically non-significant association between academic stress and strong parental participation when the involvement was characterized ($r = 0.15$, $p > 0.05$). It appears that having engaged and encouraging parents may not always lead to increased stress for students, and in fact, it could assist them in better handling the academic pressures they face. The opposite was true for academic stress and limited parental participation, which showed a stronger and more significant positive connection ($r = 0.34$, $p < 0.05$). Stress levels were higher among students who did not receive sufficient emotional and parental support, which may have contributed

Objectives 1: To study the relationship of Parental involvement, High Parental, Low Parental, with Academic Stress among Senior Secondary School students.

Hypothesis 1: There will be no significance correlation between the Parental involvement, High Parental, Low Parental with Academic Stress among Senior Secondary School students.

to their sense of isolation and lack of resources to deal with difficult situations. While parental participation is associated with academic stress, the results show that the nature and quality of that involvement determine the impact. Balanced, supportive involvement acts as a protective factor, whereas insufficient parental engagement increases vulnerability to academic stress.

Objective 2: To study the relationship of High Parental, Low Parental involvement with Academic Stress among Female Senior Secondary School students.

Hypothesis 2: There will be no significance correlation between the High Parental, Low Parental involvement with Academic Stress among Female Senior Secondary School students.

Table 9: Correlation between academic stress & parental participation (high vs. low) among female students in senior high school

Variable Pair	N	Mean (M)	SD	r-value	Significance (p)	Result
High Parental Involvement & Stress (Female)	95	64.8	7.6	0.10	0.21 (>0.05)	Not Significant
Low Parental Involvement & Stress (Female)	95	58.9	8.7	0.32	0.01 (<0.05)	Significant

Table 9 presents gender-specific findings regarding parental involvement and academic stress among female senior secondary students. There was a weak and statistically non-significant association between academic stress and high parental involvement ($r = 0.10$, $p > 0.05$), suggesting that there is no substantial impact of strong parental engagement on stress levels among female students. This provides more evidence that parental involvement, when done so in a positive and encouraging way, may not add stress to their daughters' lives but may instead aid them in properly coping with academic difficulties. On the other hand, academic stress was positively and significantly correlated with limited parental participation ($r = 0.32$, $p < 0.05$). Female students who lacked adequate parental guidance and emotional support reported higher stress levels. The absence

of parental encouragement may lead to feelings of neglect, isolation, and difficulty coping with academic responsibilities. Overall, the findings emphasize that while high parental involvement does not necessarily reduce stress, insufficient parental support significantly increases academic stress among female students.

Objective 3: To study the relationship of High Parental, Low Parental involvement with Academic Stress among Male Senior Secondary School students.

Hypothesis 3: There will be no significance correlation between the High Parental, Low Parental involvement with Academic Stress among Male Senior Secondary School students.

Table 10: Correlation between academic stress & PI (high vs. low) among male students in senior high school

Variable Pair	N	Mean (M)	SD	r-value	Significance (p)	Result
High Parental Involvement & Stress (Male)	105	63.7	7.9	0.14	0.12 (>0.05)	Not Significant
Low Parental Involvement & Stress (Male)	105	60.1	8.5	0.30	0.02 (<0.05)	Significant

Table 10 shows how male high school seniors' academic stress levels correlate with their parents' level of participation in their lives. There was a modest and statistically non-significant association between academic stress and high parental involvement ($r = 0.14$, $p > 0.05$), suggesting that there is no substantial effect of great parental engagement on boys' stress levels. It appears that male students may view their parents' active involvement more as

supportive advise or assistance than as a form of pressure. Academic stress was positively correlated with limited parental participation ($r = 0.30$, $p < 0.05$). Male students who lacked adequate parental guidance and supervision reported higher stress levels. The absence of emotional support and direction may leave boys to manage academic demands independently, increasing their vulnerability to pressure and anxiety. Overall, the findings highlight that

insufficient parental involvement significantly contributes to academic stress among male students, while high parental engagement does not necessarily increase stress, reinforcing the importance of consistent parental support.

Objective 4: To study the relationship of Emotional Competency, High Emotional Competency, Low Emotional

Competency with Academic Stress among Senior Secondary School students.

Hypothesis 4: There will be no significance correlation between the Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Senior Secondary School students.

Table 11: Correlation coefficient between academic stress and student levels of emotional competence (high, low) in senior high school

Variable Pair	N	Mean (M)	SD	r-value	Significance (p)	Result
Overall Emotional Competency & Stress	400	61.5	9.1	-0.36	0.00 (<0.05)	Significant
High Emotional Competency & Stress	200	65.7	8.4	-0.22	0.03 (<0.05)	Significant
Low Emotional Competency & Stress	200	57.4	9.6	-0.41	0.00 (<0.05)	Significant

Table 11 shows that there is a strong negative correlation between emotional competence and academic pressure. Students who possess greater emotional skills tend to have lower levels of academic stress, as indicated by a considerable and statistically significant negative association between overall emotional competency and academic stress ($r = -0.36, p < 0.05$). Although the link was relatively less, those with high emotional competency also showed a significant negative correlation ($r = -0.22, p < 0.05$) with resilience and emotional control, indicating that these factors aid in managing academic pressure. Academic stress was shown to be more strongly correlated with low emotional competency in students ($r = -0.41, p < 0.05$), suggesting that students with weak emotional skills are more susceptible to academic pressure. Difficulties in managing anxiety, frustration, and academic demands

contribute to heightened stress levels in this group. Overall, the findings confirm that emotional competency acts as a protective factor against academic stress, emphasizing the importance of emotional skill development through counseling and school-based interventions.

Objective 5: To study the relationship of Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Female Senior Secondary School students.

Hypothesis 5: There will be no significance correlation between the Emotional Competency, High Emotional Competency, Low Emotional Competency with Academic Stress among Female Senior Secondary School students.

Table 12: Assessment of the correlations between academic stress & emotional competence on the part of female students in senior high school

Variable Pair	N	Mean (M)	SD	r-value	Significance (p)	Result
High Emotional Competency & Stress	95	64.9	7.8	-0.24	0.02 (<0.05)	Significant
Low Emotional Competency & Stress	95	58.7	8.5	-0.38	0.00 (<0.05)	Significant

The results show that when it comes to female students, emotional competency has a markedly negative correlation with academic stress. Academic stress was moderately and statistically significantly correlated negatively with high emotional competency ($r = -0.24, p < 0.05$), indicating that improved emotional control, self-assurance, and coping skills contribute to decreased stress levels. However, the moderate strength of the relationship implies that additional factors such as societal expectations, peer competition, and parental pressure may also influence stress among girls. Alternatively, academic stress was negatively correlated with a stronger and more significant degree among female students who exhibited low emotional competency ($r = -0.38, p < 0.05$). This indicates that limited emotional skills substantially increase vulnerability to anxiety and academic pressure. Difficulty in managing emotions and coping effectively contributes to higher stress levels in this group. Overall, emotional competency functions as a protective buffer against academic stress among female students, highlighting the importance of emotional intelligence development through targeted interventions and counseling support.

Discussion

With a focus on parental participation and emotional competency, this study investigated the factors that

contribute to academic stress in high school seniors. The findings provide meaningful insights into how family and personal emotional resources influence students' stress experiences during a critical academic phase.

Firstly, there is a positive correlation between total parental participation and academic stress, according to the results. Although a complex pattern appeared whether parental participation was classified as high or low, this was not constant. High parental involvement did not show a significant association with stress, whereas low parental involvement demonstrated a significant positive correlation with academic stress across the total sample as well as among male and female students separately. These findings suggest that the absence of parental support may function as a risk factor for heightened stress, while constructive and balanced parental engagement may serve as a protective factor.

Lazarus and Folkman's (1984) [7] stress and coping framework is consistent with this view, since it places an emphasis on the role of social networks in reducing the severity of stress reactions. When parental involvement is supportive rather than controlling, it may enhance students' coping resources. The findings also partially support earlier research by Hill and Tyson (2009) and Jeynes (2012) [5, 6], who reported positive academic outcomes associated with constructive parental engagement. Conversely, the results

are consistent with Deb, Strodl, and Sun (2015) ^[1], who found that inadequate or pressurizing parental behavior can exacerbate stress among Indian adolescents.

Low parental participation was associated with increased academic stress for kids of both sexes, according to gender-specific analyses. Interestingly, high parental involvement did not significantly increase stress for either group, indicating that involvement in itself is not inherently stressful; rather, the quality and presence of involvement matter more. This finding challenges the assumption that greater parental monitoring automatically leads to pressure and instead underscores the importance of emotional support and guidance.

The most substantial findings of the study relate to emotional competency. Emotional competence was found to be negatively correlated with academic stress in both the overall sample and among female students in particular. The amount of academic stress that students reported was much lower among those with good emotional competency and substantially higher among those with low competency. The stronger negative correlations in the low emotional competency groups suggest that emotional deficits significantly intensify vulnerability to academic pressure.

These findings strongly support the theoretical perspectives of Salovey and Mayer (1990) and Goleman (1995) ^[4, 11], who conceptualized emotional competency as a crucial factor in emotional regulation and adaptive functioning. These findings corroborate those of Extremera and Fernández-Berrocal (2006) ^[2], who found that EQ is a marker of mental health and a decrease in stress. It would suggest that emotional competency serves as an internal coping mechanism that helps students deal with test anxiety, manage exam pressure, and stay resilient in highly competitive academic settings. Academic stress is continually high throughout senior high school, since the study did not find a statistically significant difference between pupils in Classes XI and XII. Nevertheless, there were notable disparities in academic performance according to the type of school attended and the level of parental education, suggesting that structural and socio-educational factors play a role in shaping pupils' academic performance. Overall, the findings suggest that academic stress among senior secondary students is not solely a product of academic demands but is significantly shaped by familial support and emotional regulation capacities. Parental involvement acts as a contextual support variable, while emotional competency operates as a personal resilience factor. Students' stress experiences are greatly influenced by the interplay of these internal and external factors.

Conclusion

This study looked at the factors that cause academic stress in high school seniors, specifically how parental participation and emotional competency play a role. There is a strong correlation between academic stress and both internal emotional resources and external family support, according to the results. Academic stress was found to be favorably connected with low parental involvement and not significantly increased with high parental involvement; this suggests that a protective factor is balanced and supportive parental engagement. Academic stress was significantly inversely related to emotional competency, indicating that children who are more adept at controlling their emotions are better able to handle the demands of school. Gender-

based study showed that both male and female pupils exhibited comparable trends, highlighting the need of parental guidance and emotional maturation for all kids. In sum, the research shows that academic stress is influenced by psychosocial factors and is not just a result of academic obligations. One way to help kids deal with stress and improve their health is to use school-based programs that promote emotional competency and strengthen parental guidance.

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