

Research Paper

The Role of Tuition Hours and Parental Employment in Parent–Adolescent Relationships Among Senior Secondary Students

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ABSTRACT

This study investigates the role of tuition hours and parental employment on perceived parent-adolescent relationships. The quality of both mother and father relationship with their child was measured using a Parent-Adolescent Relationship Scale. The research was quantitative with a cross-sectional design employing a purposive sample of 200 students selected from schools all over Ahmedabad, India. A 2×4 factorial design was used with parental employment and tuition hours. Two-way ANOVA with HC3 heteroscedasticity corrections was employed to dependent variables; mother-adolescent relationship and father-adolescent relationship. Tuition hours significantly affected both mother-adolescent, $F(3,192) = 8.62, p < .001, \eta^2p = 0.116$, and father-adolescent relationship scores, $F(3,192) = 6.58, p < .001, \eta^2p = 0.089$. Higher tuition was related to lower relationship scores, particularly in the high tuition group compared to the low tuition group. Findings indicate that tuition involvement outweighs parental employment status in parent–adolescent relationship quality among Indian students.

Keywords: Parent–adolescent relationship, tuition hours, parental employment, adolescents, Indian high school students

Strong relationships between parents and children provide a significant support system for senior secondary school students who face high competition in academics and board exams and dramatic changes in emotions (Nagare & Modi, 2026). Academic engagement and motivation are correlated to having a positive relationship with parents, which includes warmth and good communication.

Support received from parents is also necessary for coping with the extreme stress related to India's board exams (Gupta, 2022). Senior secondary students have high levels of stress, anxiety and fear of failure. When parents are emotionally mindful, it acts as a buffer against anxiety, depression and social withdrawal experienced by their adolescent children (Khodabakhsh et al., 2014; Nagare & Modi, 2026). A lack of parental acceptance causes instability in emotions and may negatively affect how students usually see the world (Parmar & Nathans, 2022).

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Given that academic failure is one of the leading causes of student suicide in India, a home with a safe, open style of communication and interaction is essential for early intervention and also for developing the type of psychological resiliency needed to manage the pressure without becoming burned out (Liang et al., 2022; D. Sharma et al., 2024; Suhas, 2020).

The relationship between tutoring hours and family life is complex. When children spend the majority of their day between school and tuition, meaningful family interaction is side-lined. These students return home exhausted and ordinary family life begins to slowly fade away (Bray, 1999; Bray & Kwok, 2003; Foondun, 2002).

In some Indian households, this is observed as reduced shared activities and a persistent fear among students that academic failure will bring shame upon the family (Suhas, 2020). On the other hand, some families report that assigned homework responsibilities by a tutor reduces domestic conflict and relieves parental stress about academic growth which improves parent-child relationship (Kumar et al., 2024; Otto & Karbach, 2019).

Despite this, parental involvement remains a stronger predictor of academic success than tutoring alone, suggesting that tuition cannot substitute for engaged and emotionally present parenting (Atta et al., 2014).

The broader conclusion in these studies is that, moderate supplementary tuition can ease stress and support learning without disrupting family life but intensive tuition schedules tend to crowd out the relational interactions that help maintain a student's emotional wellbeing (Jansen et al., 2020; Otto & Karbach, 2019; Zheng et al., 2020).

The impact of parental employment on parent-adolescent relationships depends less on employment status itself and more on the nature of work, time availability, and psychological 'spill-over' from the workplace into the home (Nagare & Modi, 2026; Roeters et al., 2010). Research consistently shows that relational quality matters more than whether a parent works full-time or not.

Long working hours reduce shared family activities. The quality of familial relationships may decrease due to work-related contamination (thinking about work during family time) and fragmentation (workplace interruptions) (Roeters et al., 2010). However, the effect is not consistent. Researchers found that self-employed mothers in India maintained engagement with their children comparable to stay-at-home mothers due to more scheduling flexibility. On the other hand, salaried workers with long commutes faced greater "time poverty." Highly educated working mothers tend to control these pressures through access to flexible and high status jobs such as private tutoring (Vikram et al., 2018).

Despite the rise of dual-income households, the maternal role overload remains constant. This is because mothers continue to bear the primary responsibility for care and involvement in their child's academics (Stuckey et al., 1982; Suhas, 2020). Tutoring serves as a buffer for working parents with little time which reduces homework-related conflict and provides both academic continuity for children and mental relief for parents (Kumar et al., 2024).

This current research aims to explore two areas of under-explored determinants of the student-parent relationship quality among senior secondary school students in India which are (a) the total hours students spend receiving private tutoring and (b) parental employment.

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Recognizing the impact of relational quality through structural and employment-related factors during an age of increased academic stress, emotional transitions and reliance on parents may have important consequences for both educational institutions and families.

This study offers many options for future research. There were 200 senior secondary school students surveyed, but this amount of data won't allow the research to be generalised. Further research would benefit from a larger, geographically diverse sample covering semi-urban and rural areas of India. Future researchers could still identify associations only by using quantitative methods. However, to fully understand the student and their parents' perspectives, it would require using both qualitative and quantitative methods. The current study did not examine any moderating variables that may significantly affect the students' relationships.

Future research will be more comprehensive by examining the impact of parenting style, socio-economic status, family structure and the child's mental and academic performance as moderating variables. The current study measured the quality of the relationship based only on the adolescent. Further research could consider incorporating a dyadic approach by looking at how the parent and adolescent perceive the quality of the relationship at the same time. Since the study uses a cross-sectional design, the researcher cannot draw any conclusions regarding cause and effect. Using a longitudinal method to assess the impact of the intensity of tuition and the job status of the parents would provide better information regarding the cumulative effect of tuition intensity and parental employment over the senior secondary years regarding the relational quality between students and their parents.

METHODOLOGY

Research Design

The present study employed a quantitative research design to examine the effect of tuition hours and parental employment on the perceived quality of parent-adolescent relationships among senior secondary school students. Two-way ANOVA was used as the primary statistical technique which was conducted separately for the mother-adolescent and father-adolescent relationship scores.

Participants

The sample comprised 200 senior secondary school students (Grades 11 and 12) recruited from multiple schools in Ahmedabad, Gujarat. Purposive sampling was used to ensure that participants met the following inclusion criteria: (1) enrolled in the senior secondary stage of education (2) the child has both a mother and father (3) the child lives with their parents (4) students were enrolled in recognised in urban areas of Ahmedabad (5) informed consent was given by both parents and schools for participation of the student in the study. Informed consent was taken from either parents or the concerned educational institute for data collection.

Participants were categorised based on two independent variables: tuition hours (no tuition, low, moderate, and high) and parental employment status (one parent working or both parents working).

Tuition hours were categorised into four groups based on the number of hours spent in tuition classes: no tuition (the child does not attend tuition outside of school), low tuition (1-2 hours), moderate tuition (3-4 hours) and high tuition (5 or more hours).

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Measures

The Parent-Adolescent Relationship Scale (PARS-KCRN), developed by Chandra Kumari and Nikita Rastogi, was used to assess the perceived quality of parent-adolescent relationships from the adolescent's perspective. The scale measures relational quality using a 5-point Likert scale format where higher scores indicate more positive relational dynamics.

The PARS-KCRN comprises two independent sections: (1) assessment of the mother-adolescent relationship (2) assessment of the father-adolescent relationship. This provided separate scores for each which were analysed independently in the present study.

Both the mother-adolescent and father-adolescent section had 36 items which contained 21 positive and 15 negative statements in total. These statements were then divided into the seven dimensions which were: affection, conflict, communication, hostility, autonomy, parental involvement and emotional support.

The reliability of the scale was established through two methods. The split-half method which yielded a reliability coefficient of 0.86 for both the mother and father sections. While, Cronbach's Alpha was calculated as 0.91 which indicated strong consistency.

Statistical Analysis

A two-way ANOVA was conducted separately for the mother-adolescent relationship score (PARS_M) and the father-adolescent relationship score (PARS_F), with tuition hours and parental employment as the two independent variables.

Before analysis, Levene's Test of Equality of Error Variances was conducted and the results indicated a violation of the homogeneity of variance assumption. Consequently, HC3 heteroscedasticity consistent standard errors were applied to correct this violation to ensure robustness. Where significant main effects were found, post hoc comparisons were conducted using both Bonferroni and Tukey corrections to identify specific group differences. All analyses were performed using Jamovi (Version 2.6.26.0).

Hypotheses

For Mother-Adolescent Relationship (PARS_M):

- H₀₁: There is no significant effect of tuition hours on the perceived quality of the mother-adolescent relationship among senior secondary school students.
- H₀₂: There is no significant effect of parental employment status on the perceived quality of the mother-adolescent relationship among senior secondary school students.
- H₀₃: There is no significant interaction effect between tuition hours and parental employment status on the perceived quality of the mother-adolescent relationship among senior secondary school students.

For Father-Adolescent Relationship (PARS_F):

- H₀₄: There is no significant effect of tuition hours on the perceived quality of the father-adolescent relationship among senior secondary school students.
- H₀₅: There is no significant effect of parental employment status on the perceived quality of the father-adolescent relationship among senior secondary school students.

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- H_{06} : There is no significant interaction effect between tuition hours and parental employment status on the perceived quality of the father-adolescent relationship among senior secondary school students.

RESULTS

The following section includes the results of two separate two-way ANOVAs measuring the effects of tuition hours and parental employment status on perceived quality of the mother-adolescent relationship (PARS_M) and the father-adolescent relationship (PARS_F).

Results indicated a significant violation for both the mother-child relationship scores ($F(7, 192) = 3.71, p < .001$) and the father-child relationship scores ($F(7, 192) = 2.15, p = .040$).

Table 1: Levene's Test Results for PARS_M

Homogeneity of Variances Test (Levene's)			
F	df1	df2	p
3.71	7	192	<.001

Table 2: Levene's Test Results for PARS_F

Homogeneity of Variances Test (Levene's)			
F	df1	df2	p
2.15	7	192	0.040

Given there were violations in Levene's Tests for both PARS_M and PARS_F, all statistics were adjusted using HC3 heteroscedasticity standard errors.

PARS_M (Mother-Adolescent Relationship)

The overall model was statistically significant ($F(7, 192) = 4.84, p < .001$) explaining that there was 15% of variance in the mother-adolescent relationship scores ($R^2 = 0.150$) which represented a moderate effect.

Table 3: Model Fit Summary for Two-Way ANOVA on Mother-Adolescent Relationship (PARS_M)

Model Fit					
R^2	Adj. R^2	df	df (res)	F	p
0.150	0.119	7	192	4.84	<.001

Tuition Hours was observed to be a significant predictor ($F(3, 192) = 8.622, p < .001, \eta^2p = 0.116$) indicating that the number of hours spent in tuition influences perceived mother-adolescent relationship.

Parental Employment was not a significant predictor ($F(1, 192) = 0.710, p = .400, \eta^2p = 0.003$) which suggested that whether one or both parents work, it does not significantly affect the perceived mother-adolescent relationship.

The interaction between tuition hours and parental employment was also non-significant ($F(3, 192) = 0.813, p = .488$) which meant that the effect of tuition hours on the mother-adolescent relationship does not differ based on parental employment status.

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Table 4: ANOVA Omnibus Test Results for Mother-Adolescent Relationship (PARS_M)

ANOVA Omnibus tests					
	SS	df	F	p	η^2p
Model	33452.231	7	4.835	<.001	0.150
Tuition Hours	24847.628	3	8.622	<.001	0.116
Working Parents	611.481	1	0.710	0.400	0.003
Tuition Hours * Working Parents	2222.568	3	0.813	0.488	0.012
Residuals	189763.564	192			
Total	223215.795	199			

Note. Inferential tests and p-values of the effects are adjusted for heteroschedasticity.

Post hoc comparisons revealed that students in the low tuition group reported significantly better mother-adolescent relationships than both the high (difference = 30.85, $p < .001$) and moderate (difference = 21.95, $p = .036$) tuition groups. Additionally, students who didn't attend tuition reported significantly better relationships than the high tuition hours group (difference = 22.03, $p < .001$). No significant differences were found between students in no tuition and moderate tuition hour groups as well as between high and moderate groups.

Table 5: Post Hoc Comparisons for Tuition Hours on Mother-Adolescent Relationship (PARS_M)

Post Hoc comparison: Tuition Hours								
Comparison								
Tuition Hours	vs	Tuition Hours	Difference	SE	t	df	$p_{\text{bonferroni}}$	p_{tukey}
Low	-	No Tuition	8.825	6.494	1.36	192	1.000	0.527
Low	-	High	30.850	6.787	4.55	192	<.001	<.001
Low	-	Moderate	21.951	7.910	2.78	192	0.036	0.031
No Tuition	-	High	22.025	5.706	3.86	192	<.001	<.001
No Tuition	-	Moderate	13.126	7.004	1.87	192	0.375	0.243
High	-	Moderate	-8.899	7.276	-1.22	192	1.000	0.613

Post hoc comparison for parental employment confirmed no significant difference between students with one working parent and those with both parents working (difference = 4.11, $t(192) = 0.84$, $p = .400$, $d = 0.13$) which is consistent with the non-significant main effect.

Table 6: Post Hoc Comparisons for Parental Employment on Mother-Adolescent Relationship (PARS_M)

Post Hoc comparison: Working Parents								
Comparison								
Working Parents	vs	Working Parents	Difference	SE	t	df	$p_{\text{bonferroni}}$	p_{tukey}
One Parent	-	Both Parents	4.109	4.876	0.843	192	0.400	0.400

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PARS_F (Father-Adolescent Relationship)

The overall model was again statistically significant ($F(7, 192) = 4.37, p < .001$), explaining approximately 13.8% of the variance in father-adolescent relationship scores ($R^2 = 0.138$).

Table 7: Model Fit Summary for Two-Way ANOVA on Father-Adolescent Relationship (PARS_F)

Model Fit					
R^2	Adj. R^2	df	df (res)	F	p
0.138	0.106	7	192	4.37	<.001

Tuition hours had a statistically significant effect on the father-adolescent relationship ($F(3, 192) = 6.579, p < .001, \eta^2p = 0.089$), although the effect size was less than what was found for mother-adolescent relationship.

Parental employment had non-statistically significant effects ($F(1, 192) = 2.660, p = .105, \eta^2p = 0.013$) with the p-value being close to a statistically significant level of $p < .05$. This trend suggests that students who have one employed parent may have a marginally better relationship with their fathers compared with students who do not.

Additionally, there was no significant interaction effect for tuition hours and parental employment on the father-adolescent relationship ($F(3, 192) = 1.272, p = .285$) suggesting that the relationship between tuition hours and father-adolescent relationships does not vary depending on whether fathers are employed.

Table 8: ANOVA Omnibus Test Results for Father-Adolescent Relationship (PARS_F)

ANOVA Omnibus tests					
	SS	df	F	p	η^2p
Model	30099.421	7	4.375	<.001	0.138
Tuition Hours	18416.064	3	6.579	<.001	0.089
Working Parents	2535.818	1	2.660	0.105	0.013
Tuition Hours * Working Parents	3962.152	3	1.272	0.285	0.021
Residuals	188717.859	192			
Total	218817.280	199			

Note. Inferential tests and p-values of the effects are adjusted for heteroschedasticity.

Post hoc comparisons showed that the low tuition group reported significantly better father-adolescent relationships than both the high (difference = 31.06, $p < .001$) and moderate (difference = 23.13, $p = .046$) tuition groups. The no tuition group also differed significantly from the high tuition group (difference = 14.78, $p = .045$ on Tukey). No other pairwise comparisons expressed significance.

Table 9: Post Hoc Comparisons for Tuition Hours on Father-Adolescent Relationship (PARS_F)

Post Hoc comparison: Tuition Hours								
Comparison								
Tuition Hours	vs	Tuition Hours	Difference	SE	t	df	$p_{\text{bonferroni}}$	p_{tukey}

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Low	-	No Tuition	16.285	7.192	2.264	192	0.148	0.110
Low	-	High	31.061	7.246	4.287	192	<.001	<.001
Low	-	Moderate	23.134	8.592	2.693	192	0.046	0.038
No Tuition	-	High	14.776	5.612	2.633	192	0.055	0.045
No Tuition	-	Moderate	6.849	7.266	0.943	192	1.000	0.782
High	-	Moderate	-7.927	7.320	-1.083	192	1.000	0.700

Referring Table 10 below, post hoc comparison for parental employment on the father-adolescent relationship was non-significant (difference = 8.37, $t(192) = 1.63$, $p = .105$, $d = 0.27$), even though the effect size and p-value suggested a trend that may warrant further investigation in studies with larger samples.

Table 10: Post Hoc Comparisons for Parental Employment on Father-Adolescent Relationship (PARS_F)

Post Hoc comparison: Working Parents

Comparison

Working Parents	vs	Working Parents	Difference	SE	t	df	p _{bonferroni}	p _{tukey}
One Parent	-	Both Parents	8.368	5.131	1.63	192	0.105	0.105

DISCUSSION

Referring Table 4, Table 5, Table 8 and Table 9, we can say that high tuition hours deteriorate both mother-child and father-child relationships. Many existing literature support this conclusion as they observe that there are many ways through which long tuition hours can sabotage a parent-child relationship.

One of those observations include that, when children are removed from their home and family-based environments for long periods of time, there would be a ‘crowding out’ of opportunities to engage in leisure activities (Zheng et al., 2020). Since children spend less time at home outside of school and tuition hours, their home will gradually evolve as an extension of their academic life rather than a place to interact with family. As a result, family bonds are inevitably weakened (Bray, 1999; Bray & Kwok, 2003; Foondun, 2002).

Excessive hours in tuition lead to parents inadvertently outsourcing their educational roles as parents (Gupta, 2022; Punjabi, 2020; Suhas, 2020). This, in return, would replace the emotionally supportive and interactive support that quality and involved parenting would provide. This becomes counterintuitive as students require healthy and warm parenting during their crucial academic years (Deb et al., 2010; H. Sharma, 2019).

Additionally, in the Indian context, the extreme financial cost associated with extensive tuition causes families to experience considerable stressful conditions at home. This environment could cause tension between the parents and their child. With that, competitive educational settings may create conditions between academic achievement and family support. For example, if a child does not meet the level of academic achievement necessary

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to be accepted as a member of their family, levels of satisfaction with the parent-child relationship may also become negatively impacted.

The results further explain the intensity threshold model. Here, low levels of tuition may reduce academic related domestic conflict, however, beyond a certain point, the cumulative academic, financial, and psychological pressures override those benefits. Due to this, the parent-child relationship can severely deteriorate.

Referring Table 5 and Table 9, there appear to be no apparent differences in the overall quality of parent-child relationships within the no tuition group in comparison to the low and moderate tuition hour groups. The lack of any significant difference in terms of the two groups may reflect the presence of heterogeneous composition of families within the no tuition group. It can be hypothesized that there exist two distinct groupings of families within the no tuition group: (1) Families that purposely chose not to send their child to tuition reflecting a relaxed attitude toward their academic performance (Bray & Kwok, 2003; Foondun, 2002) (2) Families that wanted to send their child to a tuition-funded school but for financial, logistical, or other reasons could not (Bray & Kwok, 2003; Gupta, 2022; Parmar & Nathans, 2022).

For the first group, due to a more relaxed attitude from the parents and more available time for family bonding, there is improved parent-child relationship quality. Meanwhile, for the second group, there may be available time for family bonding. However, there would also be underlying tension between the parents and the child (Otto & Karbach, 2019). There might be parental stress regarding the child's academic success which might increase domestic conflict (Gupta, 2020; Kumar et al., 2024; Otto & Karbach, 2019).

The average of these two contrasting experiences within the no tuition group may have resulted in a mean relationship score that is neither distinctly high nor distinctly low. This makes it statistically indistinguishable from both the low tuition group and the moderate tuition group. The large difference seen in contrast with the low tuition to both the moderate and high tuition groups (that was not found in the no tuition group) was because being involved in low hours of tuition may have acted as a buffer for the child to receive optimal support academically. This relieved most of the parental stress regarding the child's academic success which may have decreased familial conflicts as discussed before.

According to research, the employed status of a parent itself does not negatively affect how well a parent bonds with their child because the emotional component of bonding is far more pertinent to the child's mental health. In existing literature, there have been consistent findings that quality of time spent together makes up for the lack of quantity. Working mothers' children have similar development patterns, self-esteem scores, and social maturity to those raised by stay-at-home moms (Deb et al., 2010). Additionally, employed parents report higher quality relationships with their child because the energy and sense of competence they gain from their jobs improve their interactions at home (Roeters et al., 2010).

The employment status of a parent rarely affects primary parenting roles or styles, as according to previous research, working parents continue to serve as primary emotional caregivers for their child regardless of their work (Deb et al., 2010; Roeters et al., 2010). With self-employment and transitional economies like India, there is more flexibility in

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balancing both occupational and familial obligations which reduces any familial tension (Vikram et al., 2018).

Moreover, working parents may utilize private tuition to outsource academic supervision which allows them to prioritize leisure and emotional connection during available family time (Bray, 1999; Otto & Karbach, 2019; Zheng et al., 2020).

The lack of a significant interaction effect between tuition hours and parental employment status on parent-child relationship quality suggests that these two variables operate as independent predictors.

One of the explanations could be that maternal employment does not significantly affect fundamental role or behavioural interaction patterns within the family. This is especially observable when mothers remain primary providers of emotional care and positive affect regardless of work status (Stuckey et al., 1982).

This independence between the two variables is further supported by research which has observed that relational factors such as acceptance, emotional support, and conflict resolution outweigh variables like occupational status in determining relationship quality (Bacikova-Sleskova et al., 2011; Lange et al., 2002). Meanwhile, studies of Indian adolescents observe that the primary determinant of wellbeing is the relationship quality between parents and their child and not parental work status (Nagare & Modi, 2026).

Furthermore, literature states that tuition acts as a compensatory response to parental employment rather than as an interacting variable. Working parents enrol children in tuition to compensate for their reduced availability which effectively balances employment related time constraints (D. Sharma et al., 2024; Vikram et al., 2018).

Most of the enrolment decisions are also driven by universal parental anxieties about academic competition and peer pressure that operate equally across working and non-working households (Kumar et al., 2024; Zhou, 2023). This further separates the two variables and explains their statistically independent effects on the parent-child relationship.

CONCLUSION

This study examined the independent and combined effects of tuition hours and parental employment status on parent-child relationship quality among Indian adolescents. Results revealed that tuition intensity is the primary structural determinant of relationship quality. Children attending high tuition hours reported significantly poorer parent-child relationships compared to those attending low and no tuition. The low tuition group emerged as a relational sweet spot as it relieves parental stress of a child's academics without compensating for its relational costs.

Here, parental employment status neither independently predicted relationship quality nor significantly interacted with tuition hours, consistent with literature emphasizing emotional engagement quality as a far more proximal determinant of adolescent well-being than occupational status.

Several limitations can be understood; the binary categorization of parental employment, the heterogeneous composition of the no tuition group, and a small sample size that may have

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been insufficient to detect subtle interaction effects. Future research should utilise longitudinal designs, apply measures of parental stress and involvement quality as mediating variables as well as explore the reasons for tuition enrolment.

These findings highlighted the relational costs of high-intensity tuition culture and emphasised the maintenance of familial bonds that are essential to adolescent wellbeing.

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Conflict of Interest

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