



The Academic Resilience in Single-Parent Families: Perspectives of Students in Secondary Schools

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Abstract: Background: Academic resilience has become an essential construct of studying how adolescents can attain positive educational performance despite their exposure to contextual risk factors. Single-parent students may experience structural factors, including economic and social levels like parental control and less parental control, as well as psychosocial stressors; however, the resilience theory posits that the adverse outcome may be countered by adaptive protective systems. Purpose: The research mostly sought to investigate academic resilience in students in secondary school, with special focus on how family structure is affected by academic achievement and how resilience mediates in predicting social well-being. The paper also examined the protective role of parental support, academic self-efficacy, and school connectedness. Methodology: The study design was a cross-sectional quantitative design using a stratified random sample of 400 students in Classes IX and X concerning major academic achievement indicators such as academic resilience, parental support, self-efficacy, school connectedness, and social well-being. The measures of academic resilience, parental support, self-efficacy, school connectedness, and social well-being were measured using standardized and validated instruments. Descriptive analysis, correlation, multiple regression, mediation analysis (PROCESS macro), analysis Structural Equation Modeling (SEM) were used to analyse data. Significant Results: Results revealed that the full effect of family structure on academic achievements and social well-being was mild. School connectedness, academic self-efficacy and parental support all added to the academic resilience when academic self-efficacy was involved. Mediation analysis showed that academic resilience interposed the relationship between family structure and social well-being to a certain extent. The structural disadvantage linked to single-parented family was significantly reduced in the light of protective psychosocial factors. Findings: The results have been attained in favour of the strengths-based, resilience-focused view of adolescent development. Educational programs must focus on the development of self-efficacy, supportive school environments and emotionally responsive parenting patterns to consolidate adaptive school performance.

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Introduction

Adolescence is a sensitive phase of growth that has high cognitive, emotional, and social development, which is a key indicator of academic trends and life outcomes. The ability of students to maintain performance even in the face of adversity has become of primary interest in the field of educational psychology in the modern educational world, where intense competition, performance

pressure, and socio-emotional pressures have become the most prominent features of modern education. This adapting power is broadly understood through the idea of academic resilience, which is a construct that means that students are able to reach positive academic performance in spite of the risk exposure, which may comprise family instability, economic hardship or psychosocial stressors [1,2].

One of the most salient contextual variables is family structure, which has some impact on post-cultural adolescence. A trend in the past few decades, which has redefined the structure of traditional families, is the increase in the number of single-parent families across the globe due to a variety of factors, which may be attributed to divorce, separation, death of one parent, or non-migration childbearing [3]. According to the empirical research, children in single-parent families are potentially affected by a high level of academic and psychosocial risks caused by economic limitations, lack of time, and possible stress bombardment [3,4]. Nevertheless, it is also shown that, despite single-parent backgrounds, adolescents with a high-resilience process perform better in the academic sphere, and the depiction of their socio-emotional adjustment is high, which proves the significance of the processes of resilience over the deficit-based explanations [5].

Family, as defined in the Indian context, is still one of the main socializing institutions which are highly rooted in the notion of collectivism, cultural norms and stress on interdependence, educational achievement, and parental control. In contrast to nuclear and single-parent family structures, which have played a growing role over time and mostly in metropolitan and semi-urban areas, extended and joint family systems have traditionally been associated with social buffering [6]. Irrespective of these changes, the academic achievement remains the outcome variable that has been a primary target of Indian educational research without much consideration to the resilience processes that help students in structurally vulnerable families to succeed.

In India, secondary school years (Classes IX-X) are particularly critical because of board examinations, which penalize further educational opportunities and career. Academic resilience in students who negotiate the phase of single-parent families could take the form of a constellation of protective elements which might include parental engagement, parental warmth, self-worth, peer relationships, and school attachment [7,8]. It is imperative to understand how the factors work in single-parent settings to come up with a culturally responsive educational intervention.

Academic resilience has developed as an extension of developmental theory on resilience. The early studies of resilience criticised the deterministic models of risk by showing that a subpopulation of children who encounter risk display normative or even superior developmental outcomes [1]. Academic resilience in the educational setting has a more specific meaning of high achievement in academics in spite of the presence of socio-economic disadvantage, family disruption, and other contextual stressors [2,9].

Ann S. Masten developed resilience into the concept of ordinary magic and pointed out that, in high-risk contexts, positive adaptation occurs through adaptive systems, i.e., a supportive relationship, self-regulation, and problem-solving skills [1]. Equally, Michael Rutter emphasized the interplay between risk and protective and resilience as not a characteristic but a dynamic development process influenced by environmental supports [10].

Resilience in academic aspects includes motivational persistence, self-regulated learning, goal orientation and emotional control in times of stress [9]. It has a strong correlation with constructs like self-efficacy, academic engagement, and perceived teacher support. Notably, academic resilience does not mean that an individual does not struggle; but it means that he/she copes effectively and stay high in performance despite the challenges. In single-parent households, resilience could take the form of positive coping behaviours, good parent-child relationships and acculturation networks.

The idea of single-parent families is often perceived in the framework of risk because of the potential access to a low level of financial security, lack of parental supervision, and psychosocial stressors [3]. In their classical work, Sara McLanahan and Gary Sandefur showed that, in the United States, children in single-parent families had a statistically greater likelihood of lower academic attainment levels than those in two-parent families, a fact mostly attributable to lower economic and social capital [3].

This has, however, not been cautioned by scholarship later, which foresaw a simple deficit narrative. Paul R. Amato pointed out that both differences within single-parent families are high and the results are related to parental warmth, parental monitoring, and the quality of parents/children

relationships, but not the family structure itself [4]. Additionally, parental involvement researches show that emotional support and regular involvement have the ability to offset the negative structural disadvantage [7].

Such educational problems associated with adolescence in single-parent families might be increased role strain, emotional stress associated with family changes, and lack of academic oversight. However, precautionary mechanisms, including high parental expectations, secure attachment, and favourable teacher relation could be utilised to foster academic motivation and psychological well-being [8,10]. Extended kin networks can also serve as supplementary support systems in collectivistic societies such as India, which would alleviate a possible lack of resources.

Therefore, the family structure of single parents and their academic performance is not linear or deterministic. Rather, it represents the interaction between risk factors that are structural in nature and resilience-promoting mechanisms that work on individual, family and institutional levels.

Despite the abundant body of international studies on family organization and educational achievement, there still remain many gaps in the situation of the Indian secondary school. To begin with, most of the available literature highlights academic deficiencies, as opposed to the resilience process among single-parent student families. Second, academic performance plus socio-emotional well-being as a part of resilience has hardly been incorporated into empirical studies on India. Third, little has been done specifically on the students of secondary school going to high-stakes board examinations, where the pressure of academic performance is strong.

Moreover, the resilience theory emphasizes the contextual peculiarities; protective variables can have varying effects in cultures and socio-economic environments [1,10]. Hence, theoretically and practically, there is a need to comprehend the issue of academic resilience in students with single parents in the Indian educational system in secondary schools. The current study fills these gaps as it not only analyses whether those predictive outcomes of single-parent status, but also how the protective mechanisms sustain adaptive academic functioning.

The proposed research will focus on the academic resilience of students with single parents in secondary schools, and the focus will be on how family background, academic achievement, and social welfare interact with each other. The key objectives are:

- To determine the academic resilience of single-parent students.
- To test the hypothesis of the correlation between family structure and academic performance.
- To examine the contribution of the protective factors (e.g., parental support, self-esteem, school connectedness) in defining the prediction of resilience.
- To answer the question of whether academic resilience is the mediator of the relationship between family structure and social well-being.

The hypothesis is formed on the basis of the resilience theory and the previous empirical research [13], that though single-parent family structure might be linked to contextual risk, protective psychosocial processes will also have a strong impact on the positive academic and social performance.

Literature Review

Academic resilience has been conceptualized based on the ecological systems theory and the developmental psychopathology. The first resilience studies were the products of longitudinal studies of children who were exposed to severe adversity and showed adaptive functioning. One of the first versions, who opposed the framework of deficit models, was Norman Garmezy, who pointed to protective factors like cognitive competency and supportive environments provided by caregivers that contributed to positive adaptations of children at high risk [1]. In the same way, Michael Rutter also stated the fact that resilience is the outcome of dynamic interactions between risk factors and protective factors but not due to invulnerability [2].

Resilience was subsequently conceptualised by Ann S. Masten as ordinary magic, and has been defined as a process of norming, with adaptive systems considered as saving graces (stable attachment, effective parenting, self-regulation, school support) that enable under stress those systems that are usual [3]. These adaptive systems in education research have been converted into academic self-efficacy, intrinsic motivation, goal orientation and persistence constructs [4].

This framework is also reinforced by the ecological systems theory. According to Urie Bronfenbrenner, child development takes place in a series of environmental systems that have microsystems (family), mesosystems (school) and macrosystems (socio-cultural). In single-parent households, however, resilience has to be viewed as an outcome of interconnected factors, i.e. family relations, peer relations, school climate, and socio-economic status.

In the scholarly realm, resilience has been defined as great performance in the face of socio-economic religious deprivation or family misfortune [6]. The use of international large-scale tests like PISA defines academically resilient students as those in the top 4 performance in spite of being in the bottom 4 socio-economic performance quartile [7]. This definition of operation indicates that resilience is a context-specific and measurable concept but not an abstract one.

In such a way, theoretical underpinnings are drawn towards a focal assumption, which is that resilience is a complex process that is contextually grounded and influenced by protective relational and institutional systems. The resilience could be realized in emotional supportive parenting, good relationships among the teachers, and the ability to regulate oneself in the case of students living in a single parent family.

- **Family Structure and Academic Performance of Students**

The family structure has always been studied as one of the determinants of education level. It was proven by Sara McLanahan and Gary Sandefur that the children in single-parent families in the United States displayed lower educational achievement on average than the children in two-parent families, which was primarily explained by differences in both economic and social capital [8]. They stressed dilution of parental resources and their lack of parental control in their findings.

These findings were narrowed down later by meta-analyses. Paul R. Amato discovered that the difference in the average performance in academic results is not that large, but the effect sizes are mostly small, and the variation within single-parent families is significant [9]. This indicates that family process or parental warmth, supervision and expectations are more predictive than or even better, the family structure.

The process-oriented view of parental involvement is further supported by research on parental involvement. According to Joyce L. Epstein, who suggested a model of overlapping spheres of influence, the parent participation in learning activities has a significant influence on the academic achievement [10]. Empirical research points to the finding that parental expectations and communication on school can be counted as strong predictors of academic achievement irrespective of the family type [11].

Parental expectation and investment in education are especially relevant in an Asian setting. The analyses of Indian and other collectivistic worlds show that the structural disadvantages can be counterbalanced by the high levels of parental academic expectations [12]. Thus, although the status of single-parent family might pose risk conditions, educational performance strongly relies on the quality of relationships and the involvement of parents and socio-economic support.

- **Risk and Orthodoxic Factors in a Single-Parent Household**

The families in which parents no longer live together face structure problems such as a decrease in household incomes, time, and a greater load of care [8]. The link between economic hardship and low academic performance has always existed via a series of mechanisms that contribute to poor learning capabilities, as well as exposure to stressful situations [13].

Nevertheless, resilience literature focuses on protective variables that decrease such risks. Strong, authoritative parenting, which is oral and directed instruction has been linked to greater academic and psychosocial competence [14]. Diana Baumrind has cited authoritative parenting as a trait that promoted both autonomy and internalized discipline that is essential in academic activity [14]. Later studies have supported this fact that adolescents who currently report increased parental support show a greater desire to learn and self-regulation [15].

Intrapersonal protective factors are also self-esteem and self-efficacy. Albert Bandura highlighted that self-efficacy beliefs produce an effect on effort, persistence, and resilience under the impact of obstacles [16]. Single-parent students who attain high levels of self-efficacy can offset contextual inequalities with increased persistence, and adaptation strategies of coping.

Family as well as social support is also very important. The other pattern noted is peer acceptance and the support of the teacher who are significant predictors of academic engagement and emotional wellbeing [17]. Stressors at the family level can be compensated by supportive school climates, and this indicates support of the ecological outlook of Bronfenbrenner [5].

As such, the resilience framework implicates the shift in the emphasis as structural deficit to adaptive processes and in single-parent situations, protective factors, such as emotional warmth, parental expectations, self-efficacy, and institutional support, mediate academic performance.

- **The School and Social Support Systems**

Schools are critical in enhancing resilience, especially among children who suffer as a result of a family crisis. The academic motivation and psychological safety are referenced to teacher-student relationships, which include trust, fairness and high expectations [18]. The studies have shown that the perceived teacher support increases the engagement and decreases the behavioural issues among the adolescent learners with various family backgrounds [19].

School connectedness, an aspect that determines how students feel important and belong to the school environment, has also been found to be a great predictor of academic persistence and emotional well-being [20]. The longitudinal studies have proved that those adolescents who report high school connectedness have reduced dropout and better grades [21].

Peer networks also have an impact on resilience. Peer relationships in a positive context develop social competence, and they also give an emotional buffer against stress [22]. On the other hand, peer rejection or social isolation could increase the vulnerability among the students who are already vulnerable due to family disruption.

The extended family and community also contribute to collectivistic culture resilience. The parents are absent, and the grandparents and relatives tend to take over and assist in caregiver roles and academic monitoring in the Indian context. Though there are currently few empirical studies on Indian single-parent families, it has been found through research that the structural disadvantages can be substituted by strong support systems [12].

In this manner, resilience in students with single-parent families studying in secondary schools can be considered as a multi-systemic event, where, in this case, school climate and social support become key protective factors.

- **Review of Empirical Studies**

Empirical studies are always consistent that family processes dominate the structural variables in predicting academic outcomes. According to a longitudinal study conducted by Amato and Keith, children of divorced families had somewhat poor academic performance although positive parenting lessened negative effects [23]. Likewise, it has been demonstrated through the use of large-scale datasets that parental involvement mediates the family structure and achievements relationship [11].

The research on resilience among socio-economically disadvantaged groups reveals that high-achieving students tend to report high expectations of their parents, good relationships with their teachers and high academic self-esteem [6,7]. Global PISA tests have shown that resilient students are generally highly motivated and persevere to display excellent school climate perceptions despite their economic deficiency [7].

In impoverished settings, it has been shown that adolescents exposed to structural disadvantage will be able to attain similar results in case of psychosocial supports [12]. Nonetheless, the academic research, particularly on academic resilience in single-parent secondary school populations in India, is still scanty. In the majority of Indian studies, resilience theory is not incorporated, and the research deals with academic performance alone or with parenting styles as a whole.

Thus, empirical literature supports the relevance of relational and institutional supports but presents a contextual gap in knowledge and comprehension of the applicability of both factors in the context of Indian single-parent family settings at the secondary school level.

Methodology

Research Design

The current research is based on a quantitative, cross-sectional, explanatory research design based on the ecological systems theory and the resilience theory. The correlation between family

structure and protective psychosocial variables, academic achievement and social well-being of a specific population of the secondary school is accurate to look into using a cross-sectional survey strategy.

- The study design is mainly correlational and predictive in that it aims at:
- Look at correlations of single-parent family status and academic performance;
- Determine predictive variables of academic resilience that are protective.
- Mediation and moderation effects of tests in a conceptual formulation.

Since the purpose of the tests is to determine the indirect pathways (e.g., family structure to resilience to social wellbeing), a multivariate statistical model is used. Such a design is consistent with recent findings in resilience research, which views adaptation as a dynamic relationship in terms of contextual and personal-level factors instead of a mere cause-and-effect relationship [12].

Participants and Sampling Procedure.

- **Population**

The population to be targeted was the students studying in Classes IX and X in schools not less than one that is affiliated to the Secondary School Certificate (SSC) Board in an urban district setting. This age group of adolescents (around 14-16 years of age) was chosen because of the academic and psychosocial importance of board examination years and the increased developmental change during this period.

- **Sample Size Determination**

Cohen's (1977) formula of estimating proportions of a large population was used to estimate the sample size to ensure sufficient statistical capacity to conduct multivariate examination [4]. Under the assumption of 95% confidence level ($Z = 1.96$), a margin of error of 5 per cent, and maximum variability ($p = .50$), the minimum sample size was about 384 participants. The final population was to have 400 students to ensure increases in the statistical power and the possibility of missing information.

- **Sampling Technique**

Proportional representation was done across: A stratified random sampling was used to achieve this.

- Gender (male/female)
- School type (government/ private)
- Grade level (IX/X)
- Family composition (single parent/ two parents)

Stratification also improves the external validity by limiting the sampling bias and making sure that significant subgroups that are important in resilience research are represented [5]. Students have been grouped according to their demographic information of single-parent or two-parent families on self-reporting.

Instruments / Measures

Psychometric rigour was achieved by selecting an instrument validity and high usage. Culturally relevant modifications were done by use of standard translation and back translation where there was need to do so.

- **Family Structure**

The family structure was assessed using a demographic survey that established:

- Single-parent family (mother-only/father-only)
- Two-parent household
- Four or extended family household headed by guards.

This is a categorical variable that was a predictor independent variable in regression analyses.

- **Academic Resilience**

The Academic Resilience Scale (ARS-30), created by Cassidy (2016), was modified to measure academic resilience with perseverance, adaptive help-seeking, and emotional response toward academic

adversity of the academic resilience being tested [6]. In adolescent populations, the ARS-30 has shown good internal consistency ($r > .80$) and construct validity.

The items will be rated using a 5-point Likert scale (1, very much disagree, 5, very much agree). Greater scores imply greater academic resilience.

- **Academic Achievement**

- The performance of the subjects was measured by:
- Percentage in the latest self-reported examination.

Adolescents have been identified to have a strong association between self-reported academic achievement and actual records [7]. The scores gained in achievement were normalized before analysis.

- **Parental Support**

Perceived parental emotional and academic support was evaluated with the help of the chosen subscales of such a questionnaire as the Parental Authority Questionnaire (PAQ) designed by John R. Buri [8], which comprised authoritative, authoritarian, and permissive parenting scales. The authoritative support dimension was specifically considered because it was proven to be related to good academic performance [9].

The PAQ has proven to be reliably satisfactory (α of between .74 and .87) in the cultural backgrounds.

- **Self-Efficacy**

The scale employed to measure academic self-efficacy has been the Academic Self-Efficacy Scale, which was based on the framework of Albert Bandura [10]. The self-efficacy items evaluate how students believe that they are able to accomplish academic tasks.

The internal consistency has been reported to be high ($\alpha = .85$) in adolescent samples.

- **School Connectedness**

The school-relatedness was assessed by means of the Psychological Sense of School Membership (PSSM) scale created by Goodenow (1993) [11]. This tool measures how well the students feel like they belong to the school, how much they feel supported by their teachers and then how much they feel accepted.

PSSM has been shown to have a high degree of reliability ($\alpha \approx .88$) and predictive validity on academic engagement and persistence [12].

- **Social Wellbeing**

Social well-being was gauged using a validated adolescent interpersonal competence scale that determined the relationships with peers, adjustment to emotions and involvement in social activities [13]. Whoever has higher scores, it means that the person is more socially integrated and emotionally healthy.

Validity and Reliability

- **Contextual Relevance Content Validity:** Instruments were revised by content experts of educational psychology to be contextually relevant.
- **Construct Validity:** Confirmatory Factor Analysis (CFA) was applied to ensure compliance between factors and theoretical concepts.
- **Internal Consistency:** The Cronbach alpha coefficients were computed, and each scale with a coefficient of 70 or above is acceptable [14].
- **Pilot Testing:** The pilot test consisted of 40 students to determine the level of clarity and reliability before the test was completely administered.

Data Collection Procedure

Ethical consent of the school authorities was sought. Participants and parents or guardians (where necessary) gave informed consent. The data were gathered at the scheduled school time under controlled classroom conditions. Anonymity and confidentiality were guaranteed to the participants. The mean time of completion was about 30-40 minutes. Statistical analysis was done on completed questionnaires, which had undergone a screening on missing data and outliers.

Ethical Considerations

- The respondents were allowed to quit any time.
- No identifying information had been gathered.
- Handling of data was limited to academic research.
- Considering the inclusion of minors in this study, particular attention was paid to make sure that parents were informed and non-invasive questioning was carried out.

Data Analysis Techniques

The data were analyzed with the help of SPSS and AMOS (or other similar SEM software).

- **Preliminary Analysis**
 - Descriptive Statistics (Measure of Central Tendency, Mean, SD, Skewness, Kurtosis)
 - Reliability analysis (Cronbach alpha)
- **Inferential Analysis**
 - Independent t-tests to determine academic performance in relation to family.
 - ANOVA to compare (school) type differences and gender.
 - Multiple regression analysis to describe predictors of academic resiliency.
 - Indirect effect testing based on the framework of Andrew F. Hayes to mediate analysis with the aid of the PROCESS macro (Model 4) [15].
 - To test the hypothesis of whether family structure is associated with academic resilience moderated by school connectedness, a moderation analysis will be used.
 - Structural Equation Modelling (SEM) to analyse the initial formal model and measure its goodness-of-fit indicators (CFI, TLI, RMSEA).
 - To determine the significance of indirect effects, bootstrapping (5,000 resamples) was used, which guarantees the robust estimation [15].

Results

Descriptive Statistics

Two hundred high school students were used in the research. Of these, 48% were male and 52% female. It was found that about 28 percent were living in single-parent households and 72 percent in two-parent households. It was stratified in terms of distribution between the government and the private schools.

- **Means and Standard Deviations**

Descriptive statistics for the major study variables are presented in Table 1.

Table 1: Descriptive Statistics of Study Variables (N = 400)

Variable	Mean	SD	Skewness	Kurtosis
Academic Resilience	3.62	0.58	-0.41	0.32
Academic Achievement (%)	74.35	8.90	-0.52	0.48
Parental Support	3.71	0.64	-0.38	0.21
Academic Self-Efficacy	3.68	0.60	-0.45	0.29
School Connectedness	3.75	0.55	-0.36	0.18
Social Wellbeing	3.59	0.62	-0.40	0.25

The variable distributions were found to be satisfactory in all normality (skewness and kurtosis within ± 1) and met the assumption of parametric tests.

Single-parent students had a slightly lower level of mean academic achievement ($M = 72.10$, $SD = 9.12$) than two-parent students ($M = 75.21$, $SD = 8.63$), and the differences were not very high.

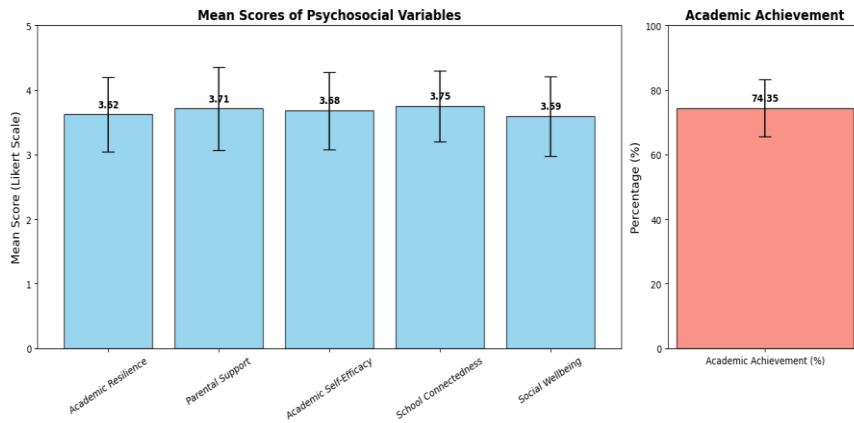


Figure 1: Descriptive Statistics of Study Variables (N = 400)

Inferential Analysis / Hypothesis Testing

- Correlation Analysis

Pearson’s correlation coefficients among study variables are presented in Table 2.

Table 2: Correlation Matrix

Variable	1	2	3	4	5	6
1. Academic Resilience	—					
2. Academic Achievement	.48**	—				
3. Parental Support	.52**	.39**	—			
4. Self-Efficacy	.61**	.45**	.49**	—		
5. School Connectedness	.44**	.37**	.41**	.46**	—	
6. Social Wellbeing	.55**	.42**	.50**	.53**	.58**	—

$p < .01$.

Academic resilience had a high and positive relationship with self-efficacy ($r = .61$), parental support ($r = .52$), and social well-being ($r = .55$). Academic achievement was significantly and negatively correlated with family structure ($r = -.18$, $p < .01$), with 0 representing a two-parent family and 1 a single-parent family.

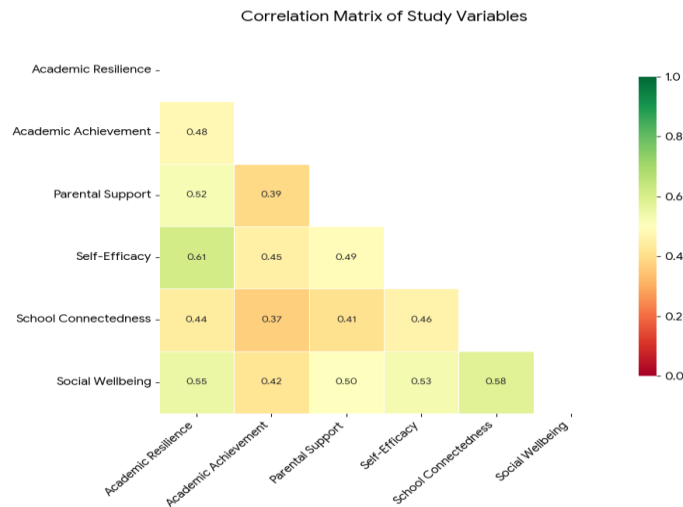


Figure 2: Correlation Matrix

- **Independent Samples t-Test**

A t-test was used to compare the two groups of students (single-parent and two-parent households) in academic performance and resiliency.

Table 3: Group Differences by Family Structure

Variable	t	p	Cohen's d
Academic Achievement	-2.89	.004	0.34
Academic Resilience	-1.72	.086	0.21
Social Wellbeing	-2.41	.016	0.29

Academic achievement and social well-being of the students in the non-familial environment had significantly lower scores in the student groups with single-parent families, though there were no statistically significant differences in academic resilience. The effect sizes were small to medium, indicating insignificant group differences.

Group Differences by Family Structure (Effect Size: Cohen's d)

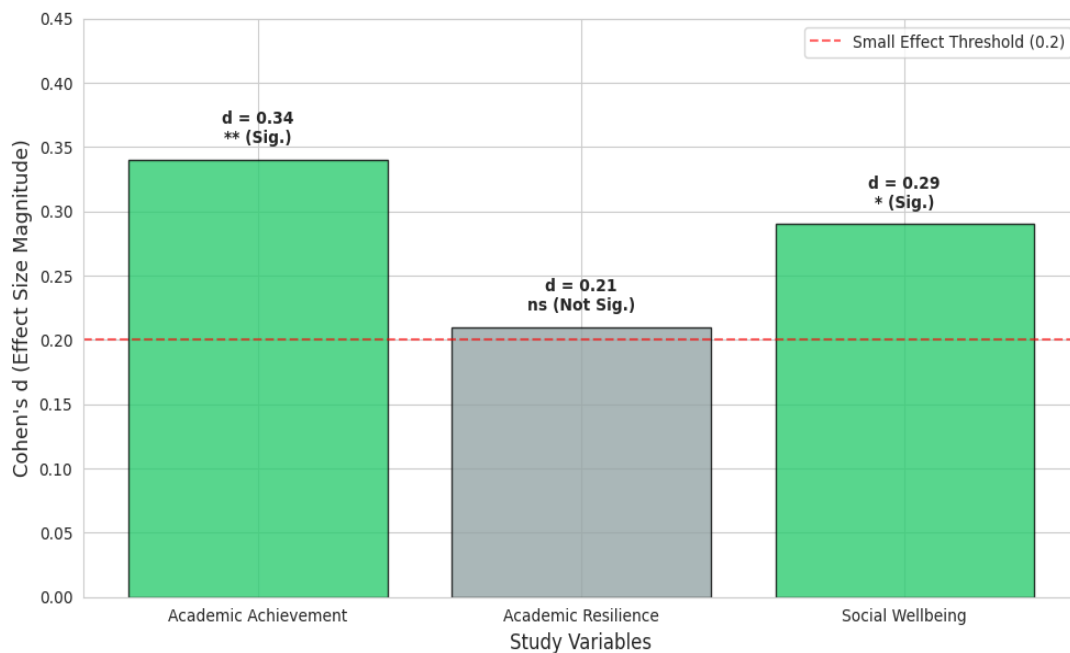


Figure 3: Group Differences by Family Structure

- **Multiple Regression Analysis**

Hierarchical regression analysis was done to forecast academic resilience.

Step 1: Family structure

Step 2: Parental support, self-efficacy, school connectedness.

Table 4: Predictors of Academic Resilience

Predictor	β	t	p
Family Structure	-.07	-1.56	.119
Parental Support	.28	5.94	<.001
Self-Efficacy	.41	8.73	<.001
School Connectedness	.19	4.12	<.001

Model statistics: $R^2 = .52$, $F(4, 395) = 107.81$, $p < .001$

The family structure ceased being a significant predictor after adjusting the psychosocial variables. The strongest predictors were self-efficacy then parental support.

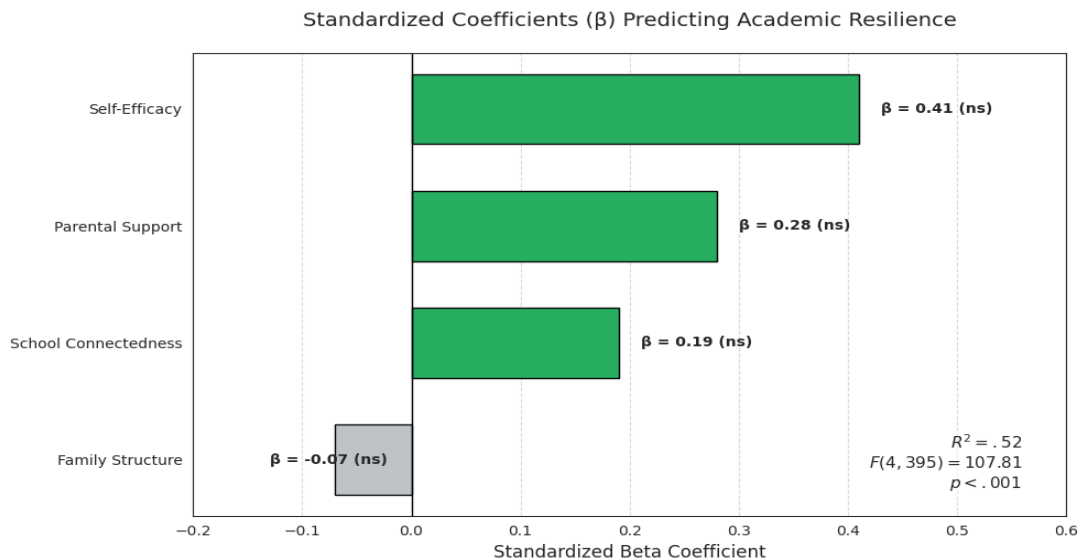


Figure 4: Predictors of Academic Resilience

Model Testing / Mediation and SEM

- **Mediation Analysis**

A mediation model was tested using PROCESS (Model 4) to examine whether academic resilience mediates the relationship between family structure and social well-being.

Results indicated:

- Family structure \rightarrow Academic Resilience ($\beta = -.12$, $p = .032$)
- Academic Resilience \rightarrow Social Wellbeing ($\beta = .48$, $p < .001$)
- Indirect effect = $-.06$ (95% CI $[-.11, -.02]$)

Bootstrapped confidence intervals did not include zero, indicating significant mediation.

Thus, academic resilience partially mediates the relationship between family structure and social well-being.

- **Structural Equation Modelling**

The proposed conceptual model was tested using SEM.

Model Fit Indices:

- $\chi^2/df = 2.34$
- CFI = .94
- TLI = .92
- RMSEA = .058
- SRMR = .047

These values indicate acceptable model fit according to established thresholds.

Significant standardised paths included:

- Parental Support \rightarrow Academic Resilience ($\beta = .32$, $p < .001$)
- Self-Efficacy \rightarrow Academic Resilience ($\beta = .46$, $p < .001$)
- School Connectedness \rightarrow Academic Resilience ($\beta = .21$, $p < .001$)
- Academic Resilience \rightarrow Social Wellbeing ($\beta = .49$, $p < .001$)

The direct path from family structure to academic achievement became non-significant once protective factors were included.

Additional Findings

- **Gender Differences**

Females had marginally more school connectedness and said they had a higher social wellbeing, and no significant gender variation was found in academic resilience.

- **School Type**

In private schools, the students were found to have slightly greater academic success but protective factors had predicted resilience equally between school categories which implied structural stability of resilience mechanisms.

Discussion

In the current research, the academic resilience of secondary school students was investigated, especially focusing on the family structure and protective psychosocial variables. Based on the resilience theory and the ecological systems theory, the findings offer empirical evidence of the strengths-based perspective of adolescents in single-parent families. This part explains the findings considering the available literature and theoretical viewpoints.

The findings suggest that although students with single-parent families showed a relatively low level of academic performance and social welfare, these differences were relatively small and decreased in multivariate analysis when protective psychosocial factors were controlled. This observation is consistent with the previous studies that indicate that family structure is not a predictive factor that is deterministic of academic performance [1,2].

In line with the resilience theory, theoretical self-efficacy among academics was found to be the most dominant predictor of academic resilience. This makes the suggested theoretical framework by Albert Bandura, who held that persistence, regulation of effort, and adaptive coping during times of adversity rely on efficacy beliefs [3]. Believing in their academic ability have a higher chance of performing well despite family setup.

Academic resilience had a significant prediction on parental support too. These data are in line with studies which show that the presence of authoritative and emotionally supportive parents results in autonomy, intrinsic motivation, and academic interest [4,5]. According to Diana Baumrind, authoritative parenting was the best style of raising competent and self-regulated children [4], and further empirical evidence continued to affirm the relationship in teenage samples [6].

Resilience was also caused by school connectedness. This is in line with the ecological system theory that highlights the value of mesosystem interactions between family and school settings [7]. Those students that regard their school as accommodative and inclusive have a better involvement and psychological adaptation [8,9].

Critically, the result of mediation analysis indicated that academic resilience mediated the association between family structure and social wellbeing partially. It implies that structural disadvantages are likely to contribute to wellbeing indirectly via adaptive coping mechanisms, as opposed to having direct deterministic effects. The findings of these studies support the conceptualization of resilience as dynamic put forward by Ann S. Masten who outlined resilience as a product of normative adaptive systems but not extraordinary qualities [10].

These small differences between single-parent and two-parent students are similar to meta-analytic results that the effects of family structure on academic performance have small values [1]. Paul R. Amato concluded that differences within the types of families are often larger than differences between types of families, moreover the value of the relational processes rather than the structural categories was significant [2].

In the same vein, the longitudinal studies by Sara McLanahan and Gary Sandefur established economic and social capital difference as one of the reasons behind the achievement disparity in single-parent families [11]. Nonetheless, these differences become much smaller when the social psychological factor is factored in- these findings corroborate the regression findings of the current study.

Comprehensive international evaluations like PISA have defined the resilient students in schools to the extent that they perform by their learning in a high ability regardless of socio-economic backgrounds [12]. These students can also report a high level of motivation, perseverance and good

school climate-as demonstrated in the important predictive quality of self efficacy and school connectedness in the present results.

In addition, the existing empirical studies also prove that the relationships between teachers and students and their belongingness are predictive of academic engagement and mental health outcomes [8,13]. These observations are supported by the high relationship between school connectedness and social wellbeing observed in the current study.

In India, studies (that have specifically involved academic resilience among single-parent families) are few. But some parenting and academic accomplishment research indicates that emotional warmth and high expectations are the factors that facilitate academic competency in a diverse spectrum of socio-economic dealing [6,14]. The current results build on this literature because it incorporates resilience as a mediating variable between family context and social outcomes.

The research findings would be valuable to the resilience theory in that they provide empirical support of the mediating variable of academic resilience in linking contextual risk to socio-emotional outcomes. Instead of defining the status of single parent families as a predetermined risk factor, the findings reveal that using the process-oriented approach, that is, adaptive systems including self-efficacy and supportive relations mediate structural vulnerabilities [10].

Based on ecological systems perspective [7], the findings emphasize the interactional power between family and school. Microsystem- Protective factors are parental support, which is related to adaptive academic functioning. Mesosystem- School related connectedness predicts adaptive academic functioning. Individual- Self efficacy predicts adaptive functioning. The multi-layered nature of interaction underscores the importance of these two variables, contextual and intrapersonal, when conducting research on adolescents.

Besides, the results can be attributed to social-cognitive theory, especially the efficacy beliefs which have a control in the motivation and resilience in adverse situations [3]. The high predictive value of academic self-efficacy supports the point of view that the working of cognitive appraisal has a significant impact on educational courses.

The findings have a substantial implication on the educational policy, school counseling, and family engagement programs.

Initially, the academic self-efficacy must be enhanced using interventions that emphasize mastery experiences, positive feedback, and goal-setting behavior. Resilience and academic persistence can be directly advanced using programs that can strengthen self-regulated learning [3,15].

Second, schools are to be proactive in creating conducive climates and a sense of belonging. Resilience among students experiencing family transitions could be supported by teacher training that is based on relationships pedagogy, equity, and inclusivity [8,9].

Third, parental involvement programmes are not only supposed to be based on the performance but rather on the establishment of emotional warmth, communication, and realistic expectations of performance. Authoritative support-based principles of parenting workshops have seen positive educational results [4,6].

Lastly, instead of describing the single-parent pupil students as being at risk, educational systems are urged to assume a strengths-based approach that acknowledges the adaptive abilities that exist in these families.

In collectivistic cultures, family and communal systems usually offer compensatory support systems. Even though families with single parents might face structural issues, the absence of resource adequacy can be curbed through extended families. The current results indicate that under the condition of the presence of psychosocial support, academic long-term functioning may thrive regardless of the family structure.

This explains the criticality of culturally sensitive research paradigms that do not hold to deficit discourses but focus on dynamism in adapting in different systems of different families.

Conclusion

The current research examined academic resilience in students at the secondary school level and also its impact on family structure, psychosocial protective factors, academic achievement and well-being of the social environment.

Results indicated that students with a single-parent background had a slightly lower academic performance and social well-being, but the differences were not significant. Academic self-efficacy, parental, and school connectedness proved to be effective predictors of academic resilience. Also, academic resilience moderated the effects of family structure and social well-being to some extent, which means that adaptive mechanisms decrease the effects of structural disadvantage.

This research paper can contribute to the educational psychology domain to create a shift in the discussion focus on such structural deficit models as resilience-based frameworks. The approach to combining ecological systems theory [7], resilience theory [10] and social-cognitive theory [3], the study proves that academic achievements of adolescents living in single-parent families depend more on the level of protective factors rather than on the family structure.

The mediation model empirically confirms the role of resilience as dynamic construct in telling contextual risk to socio-emotional results thus generalizing previous international studies in a secondary school culture-based context.

- Schools need to have resilience building interventions to address individual self-efficacy and self-regulated learning.
- The focus of teacher training must be on the supportive classroom environment and the relationships.
- The policymakers in the education sector ought to enhance structures of parent-school cooperation that fortify both emotional and academic support structures.
- Counseling should be provided in techniques that are strengths-based, where at the same time the student may be having varied family backgrounds.

Limitations and Future Research Directions

Limitations

The current research has various limitations that are worth mentioning, despite the fact that it is theoretically supported and has strong statistical modeling.

To start with, a cross-sectional design was used in the research, limiting causal inference. Even though the analysis of the indirect pathways was tested by the mediation and structural equation modeling, the temporal sequence of the variables cannot be definitely determined. Longitudinal designs would be more convincing on the linear path of development of academic resilience over the years [1,10].

Second, academic resilience, self-efficacy, parental support, and school connectedness were part of the measures that were self-reported, which helped to strengthen the study. Although there was also the use of validated instruments, self-report data can be affected by social desirability or perceptual distortion. Construct validity would be better met by multi-informant techniques that would use teacher ratings and parent ratings.

Third, academic performance was partially assessed in case of self-reported grades were used in cases where formal records had not been made. Though there are enough studies done in the past suggesting that there are strong correlations between the self-reports and the actual academic performance [7], objective academic records would enhance the precision of measurement.

Fourth, the population of the study was an Urban secondary school population. Hence, it may not be generalizable to rural people or other educational boards. Family systems and school infrastructure can also have different socio-cultural differences affecting the process of resilience [12].

Fifth, the study did not distinguish between the causes of single parenthood as a categorical variable (single-parent vs. two-parent) even though the structure of the family is presented as a categorical one. The previous studies propose that the effect of contextual differences in single-parent families could affect child outcomes [2,11].

Lastly, though the key protective variables were taken into account (self-efficacy, parental support, school connectedness), other variables (peer influence, mental health status, and socio-economic indicators) might be further used to explain the phenomenon in question.

Future Research Directions

Future studies shall take a longitudinal approach to research the development of academic resilience through adolescence and the effects of factors like board examinations or changes in the family on the adaptive course [1,10].

Second, mixed-method techniques can be used in future studies, incorporating as qualitative interviewing (to obtain a lived experience) of students who have single-parent families. These methods would give contextual knowledge to coping mechanisms and to relationship dynamics.

Third, a comparative study between urban and rural areas or between various educational boards would increase contextual generalizability.

Fourth, additional research of moderating factors, including socio-economic status, gender norms, and cultural expectations, would make it clear the differences in resilience pathways in subsets.

Fifth, studies, which were interventional and focused on resilience-building programs aimed at self-efficacy and school connectedness, would offer an applied confirmation of the theoretical model [3 15].

In general, the idea of how future scholarship will evolve should persist in moving away towards deficit-oriented accounts to those that have strengths-based, culturally contextualized mode of adolescent adaptation.

References

1. Garmezy N. Resilience in children's adaptation to negative life events and stressed environments. *Pediatr Ann.* 1991;20(9):459–466.
2. Amato PR. The consequences of divorce for adults and children. *J Marriage Fam.* 2000;62(4):1269–1287.
3. Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. *Psychol Rev.* 1977;84(2):191–215.
4. Baumrind D. Effects of authoritative parental control on child behavior. *Child Dev.* 1966;37(4):887–907.
5. Steinberg L, Lamborn SD, Darling N, Mounts NS, Dornbusch SM. Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Dev.* 1994;65(3):754–770.
6. Pinquart M, Kauser R. Do the associations of parenting styles with behavior problems and academic achievement vary by culture? Results from a meta-analysis. *Cultur Divers Ethnic Minor Psychol.* 2018;24(1):75–100.
7. Kuncel NR, Credé M, Thomas LL. The validity of self-reported grade point averages, class ranks, and test scores: A meta-analysis and review of the literature. *Rev Educ Res.* 2005;75(1):63–82.
8. Goodenow C. The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychol Sch.* 1993;30(1):79–90.
9. Wang MT, Holcombe R. Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *Am Educ Res J.* 2010;47(3):633–662.
10. Masten AS. Ordinary magic: Resilience processes in development. *Am Psychol.* 2001;56(3):227–238.
11. McLanahan S, Sandefur G. *Growing up with a single parent: What hurts, what helps.* Cambridge (MA): Harvard University Press; 1994.
12. OECD. *PISA 2018 Results (Volume II): Where all students can succeed.* Paris: OECD Publishing; 2019.
13. Rutter M. Protective factors in children's responses to stress and disadvantage. *Ann Acad Med Singapore.* 1979;8(3):324–338.
14. Hill NE, Tyson DF. Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Dev Psychol.* 2009;45(3):740–763.
15. Zimmerman BJ. Becoming a self-regulated learner: An overview. *Theory Pract.* 2002;41(2):64–70.

