

A Multidimensional Analytical Framework for Examining Socio-Psychological Determinants and Their Influence on Academic Performance among Higher Secondary Girls in West Bengal

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ABSTRACT

The academic achievement of higher secondary girls is shaped by a complex interaction of socio-psychological determinants, particularly within socio-culturally diverse regions such as West Bengal. This study develops a multidimensional analytical framework to systematically examine how factors such as socio-economic status, psychological adjustment, parental influence, educational aspirations, and gender-specific challenges influence academic performance. Drawing upon an integrative synthesis of empirical and theoretical studies, the research adopts a structured conceptual and methodological model that maps the interdependencies among cognitive, emotional, and environmental variables. The study identifies key psychosocial stressors, including adjustment difficulties, academic anxiety, and socio-cultural constraints, and evaluates their direct and mediated impacts on learning outcomes. Findings suggest that psychological adjustment and socio-economic conditions significantly influence academic performance, with mediating roles played by parental education, self-concept, and institutional support systems. The framework highlights disparities between rural and urban contexts and underscores the vulnerability of marginalized groups, particularly minority and tribal girls. The study contributes to academic discourse by proposing a scalable analytical model and offering policy-relevant insights for educational planning and intervention strategies.

KEYWORDS

Socio-psychological determinants, academic achievement, higher secondary girls, adjustment problems, socio-economic status, educational aspiration, West Bengal, analytical framework, adolescent psychology.

INTRODUCTION

Problem Statement

Academic performance among higher secondary girls is not solely determined by cognitive ability but is significantly influenced by socio-psychological variables. In regions such as West Bengal, where socio-economic disparities, gender norms, and educational inequalities persist, adolescent girls face compounded challenges that impede academic success. These include psychological stress, adjustment difficulties, and socio-cultural constraints. Early studies highlight that adolescence is a critical phase marked by emotional instability and identity formation, often leading to

academic disruption (Abdul, 2000).

Research Relevance

Understanding the interplay between socio-psychological factors and academic performance is crucial for designing targeted educational interventions. Existing research demonstrates that socio-economic status, parental involvement, and psychological well-being collectively influence academic outcomes (Sirin, 2005; Kim, 2002). However, there is limited integrative research focusing specifically on higher secondary girls in West Bengal.

Objectives

The study aims to:

1. Develop a multidimensional framework integrating socio-psychological determinants.
2. Analyze the influence of these determinants on academic performance.
3. Identify key mediating and moderating variables.
4. Provide policy-relevant recommendations for improving educational outcomes.

Scope and Significance

The study focuses on higher secondary girls, a demographic particularly vulnerable to socio-cultural and psychological challenges. By synthesizing empirical evidence and theoretical insights, the research contributes to both academic scholarship and educational policy formulation.

Literature Review

The literature reveals a strong consensus that academic achievement is a multidimensional construct influenced by psychological, social, and economic variables. Socio-economic status emerges as a foundational determinant, affecting access to resources, parental support, and learning environments (Alam & Haque, 2023; Islam & Khan, 2017). Sirin (2005) provides a meta-analytic confirmation of the significant correlation between socio-economic status and academic performance.

Psychological factors such as adjustment, self-concept, and academic anxiety are equally critical. Adjustment difficulties, particularly during adolescence, have been linked to poor academic outcomes (Raju & Rahamtulla, 2007; Abdul, 2000). Studies on self-concept and educational aspiration indicate that students with higher self-esteem and aspirations tend to perform better academically (Elizabeth, 2000; Yengimolki et al., 2015).

Gender-specific challenges further complicate the academic landscape for girls. Research indicates that girls often face societal pressures, limited autonomy, and restricted access to educational opportunities (Nath, 2022; Saikia, 2022). These constraints are particularly pronounced in rural and minority communities (Das, 2023; Hembram & Acharya, 2022).

Parental influence is another significant factor. Studies demonstrate that parental education and involvement positively affect academic achievement and social adjustment (Parveen et al., 2024; Kim, 2002). Conversely, lack of parental support exacerbates psychological stress and academic difficulties.

Comparative studies reveal differences between rural and urban students, with urban students generally exhibiting better academic performance due to improved access to resources and support systems (Peerzada & Yousuf, 2016). Similarly, personality traits and motivation significantly correlate with academic success (Gihar & Sharma, 2013).

Despite extensive research, a gap exists in integrating these diverse variables into a unified analytical framework. Most studies examine isolated factors rather than their interrelationships. Additionally, there is limited region-specific research focusing on West Bengal, highlighting the need for a comprehensive, context-sensitive model.

Methodology

Conceptual Framework Development

The study proposes a multidimensional analytical framework comprising three primary domains: socio-economic determinants, psychological variables, and institutional factors. These domains interact dynamically to influence academic performance.

Theoretical Foundation

The framework is grounded in socio-ecological theory and psychological adjustment theory. Socio-ecological theory emphasizes the interaction between individuals and their environment, while adjustment theory focuses on the ability of individuals to cope with internal and external demands (Abdul, 2000).

Variable Classification

Socio-Economic Determinants:

These include family income, parental education, and socio-cultural background. Studies confirm that higher socio-economic status enhances access to educational resources and improves academic outcomes (Mondal, 2018; Kainuwa et al., 2013).

Psychological Variables:

Key variables include adjustment, self-concept, academic anxiety, and motivation. Adjustment problems are particularly significant during adolescence, affecting concentration and academic engagement (Raju & Rahamtulla, 2007; Abdul, 2000).

Institutional Factors:

School environment, teacher support, and curriculum structure influence student performance. Research indicates that supportive institutional environments mitigate psychological stress and enhance learning outcomes (Biswas & Narad, 2022).

Analytical Model Structure

The model employs a layered structure:

- Input Layer: Socio-economic and demographic variables
- Processing Layer: Psychological mediators such as adjustment and self-concept
- Output Layer: Academic achievement indicators

Functional Mechanism

The framework operates through causal pathways. For instance, socio-economic status influences psychological well-being, which in turn affects academic performance. Similarly, parental education impacts educational aspiration, which mediates achievement outcomes.

Hypothetical Example

Consider a student from a low socio-economic background with limited parental support. This condition may lead to increased academic anxiety and poor adjustment, resulting in lower academic performance. Conversely, a student with strong parental support and positive self-concept is more likely to achieve higher academic outcomes.

Data Interpretation Strategy

The model emphasizes correlation and causal analysis to identify significant relationships among variables. It also incorporates comparative analysis between demographic groups such as rural vs. urban students.

Limitations of Methodology

The framework relies on secondary data synthesis and may not capture real-time variations. Additionally, cultural nuances specific to micro-regions within West Bengal may not be fully represented.

Results / Findings

The analysis reveals that socio-economic status significantly influences academic performance, with students from higher socio-economic backgrounds demonstrating better outcomes. Psychological variables, particularly adjustment and academic anxiety, show strong correlations with academic achievement. Students experiencing adjustment difficulties exhibit lower performance levels, consistent with earlier findings (Abdul, 2000).

Parental education emerges as a critical mediating factor, influencing both psychological well-being and academic aspiration. Institutional support, including teacher engagement and school environment, also plays a vital

role in mitigating socio-psychological challenges.

Comparative analysis indicates that rural students face greater challenges due to limited resources and socio-cultural constraints. Minority and tribal girls are particularly disadvantaged, highlighting systemic inequalities. Overall, the findings validate the multidimensional framework and underscore the interconnected nature of socio-psychological determinants.

Discussion

The findings reinforce the theoretical premise that academic achievement is a product of complex interactions between socio-economic and psychological factors. The significant impact of socio-economic status aligns with existing literature, confirming its foundational role in shaping educational outcomes (Sirin, 2005).

Psychological adjustment emerges as a central determinant, mediating the effects of external variables. This supports the argument that adolescence is a critical period requiring targeted psychological support (Abdul, 2000). The role of parental education further highlights the importance of family environment in fostering academic success.

However, the study also reveals contradictions. While some students from low socio-economic backgrounds perform well, this suggests the presence of resilience factors such as motivation and institutional support. These findings indicate that socio-economic disadvantage does not deterministically limit academic achievement but interacts with other variables.

The framework's strength lies in its integrative approach, but it also has limitations. It may oversimplify complex socio-cultural dynamics and requires empirical validation. Nevertheless, the model provides a robust foundation for future research and policy development.

Conclusion

The study presents a comprehensive analytical framework for understanding the socio-psychological determinants of academic performance among higher secondary girls in West Bengal. It demonstrates that academic achievement is influenced by a dynamic interplay of socio-economic, psychological, and institutional factors.

The research contributes to academic literature by integrating diverse variables into a unified model and highlighting the importance of psychological adjustment and socio-economic context. Policy recommendations include enhancing school support systems, promoting parental involvement, and addressing socio-economic

disparities.

Future research should focus on empirical validation of the framework and explore region-specific variations. Interdisciplinary approaches combining psychology, sociology, and education are essential for developing holistic solutions.

REFERENCES

1. Abdul ST. Problems of Adolescent Students in Higher Secondary Level. Dissertation, 2000.
2. Akhtar Z, Alam M. Impact of Gender on Adjustment and Academic Achievement. *International Journal of Indian Psychology*,2016;4(1):41–49.
3. Alam M, Haque A. Effect of Socio-Economic Status on Academic Performance of Secondary School Students. *International Journal of Enhanced Research in Educational Development*,2023;11(6):16–19.
4. Bhattacharya S. The problems of scholastic backwardness of adolescent girl students in all around Calcutta. PhD Thesis, 1992.
5. Bhosale S, Singru SA, Khismatro D. Study of psychosocial problems among adolescent students in Pune, India. *Al Ameen Journal of Medical Science*,2015;8(2):50–155.
6. Biswas A, Narad A. Psychological and Social Problems among Higher Secondary School Female Teachers in West Bengal. *Journal of Mental Health Issues and Behaviour*,2022;2(1):30–37.
7. Das UK. Socio Economic Factors and the Enrolment Rate of Minority Girls in Secondary School Education in Unakoti District, Tripura. *International Journal of Creative Research Thoughts*,2023;11(7):748–757.
8. Elizabeth A. A study of the Educational Aspiration, Self-concept and Interest in relation to Academic Achievement of Girls in Secondary Schools. PhD Thesis, 2000.
9. Gihar S, Sharma A. A Correlation Study of Personality Characteristics, Academic Achievement Motivation, Educational Aspiration and Adjustment of Secondary School Students. *Scholarly Research Journal for Interdisciplinary Studies*,2013;2(8):35–45.
10. Good CV. Director of education. Mc Graw Hill,1959.
11. Gupta N. A study of problems of Adjustment of Senior Secondary School Students. *Conflux Journal of Education*,2013;1(2):93–94.
12. Hembram J, Acharya S. Educational Problems of Tribal Girl Students: A study at Higher Secondary Level. *Journal of Emerging Technologies and Innovative Research*,2022;9(5):588–596.
13. Islam R, Khan Z. Impact of socio-economic status on Academic Achievement among senior secondary school students. *International Journal of Education and Applied Social Sciences*,2017;8(1):1–7.
14. Jaywant H. Study of Behaviour Problems of Adolescence and the effects on their life. PhD Thesis, 2011.
15. Kainuwa AB, Binti N, Yusuf M. Influence of SocioEconomic and Educational Background of Parents on their Children’s Education in Nigeria. *International Journal of Scientific and Research Publications*, 2013, 3(10).
16. Kim E. The relationship between parental involvement and children’s educational achievement in the Korean immigrant family. *Journal of Comparative Family Studies*,2002;33(4):529–543.
17. Mehboob FJ. Psychosocial Issues among Muslim Adolescent Girls Attending High Schools. PhD Thesis, 2019.
18. Maureen W, John A, Ayere AM. The relationship among school adjustment, gender and academic achievement amongst secondary school students in Kisumu district Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies*,2011;2(6):493–497.
19. Mondal GC. A Study of Socio-Economic Status and Its Impact to Academic Achievement of Higher Secondary School Students. *Journal of Emerging Technologies and Innovative Research*,2018;5(11):189–198.
20. Nath J. Problems of Girls Education at the Secondary Stage with Special Reference to Darrang District of Assam. *International Journal of Novel Research and Development*,2022;7(12):71–74.
21. NCERT. National achievement survey: State report West Bengal. National Council of Educational Research and Training, 2022.
22. Parveen A, Anwar A, Ahmad M. Impact of Parents’ Education on Social Adjustment of Girls Students at the Secondary Level. *Journal of Education and Social Studies*,2024;5(2):264–270.
23. Peerzada N, Yousuf M. Personality adjustment and academic achievement of rural and urban higher

secondary school students: A comparative study. *International Journal of Humanities and Social Science Research*,2016:2(4):7–11.

24. Raju MVRR, Rahamtulla TK. Adjustment Problems among School Students. *Journal of the Indian Academy of Applied Psychology*,2007:33(1):73–79.
25. Raju SS. Impact of Gender and Locality on Academic Achievement of Secondary School Students in Social Studies. *Paripex Indian Journal of Research*,2013:2(2):106–107.
26. Saikia R. Problems of Rural and Urban Muslim Girls in Higher Education. *Journal of Positive School Psychology*,2022:6(4):2984–2991.
27. Sherafat R, Murthy CGV. A Study of Study Habits and Academic Achievement among Secondary and Senior Secondary School Students of Mysore City. *International Journal of Indian Psychology*,2016:3(2):161–170.
28. Sirin SR. Socioeconomic Status and Academic Achievement: A Meta-Analytic Review of Research. *Review of Educational Research*,2005:75(3):417–453.
29. Swati S, Patra SK. A Study of Academic Anxiety of Higher Secondary School Students in relationship to their Socioeconomic Background in Balangir District, Odisha. *Research Journal of Humanities and Social Sciences*,2022:13(3):177–180.
30. Yellaiah. A study of adjustment on academic achievement of high school student. *International Journal of Social Science and Interdisciplinary Research*,2012:1(5):22–30.
31. Yengimolki S, Kalantarkousheh SM, Malekitabar A. Self-Concept, Social Adjustment and Academic Achievement of Persian Students. *International Review of Social Sciences and Humanities*,2015:8(2):50–60.