



Influence of Family Dynamics and Peer Pressure on Academic performance: The Mediating Role of Self-Esteem in Pakistan

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ABSTRACT

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The research paper examines the impact of family dynamics and peer pressure on students' academic performance at a public sector university, focusing on the mediating role that self-esteem plays. This study identified four factors that influence such students' academic outcomes: family contact, parental participation, communication, and support. The study also investigated how positive and negative peer pressures influenced these students' performance. In the current study, family dynamics and peer pressure were identified as key elements that can directly or indirectly influence self-esteem and, as a result, academic achievement. A quantitative study design was used to obtain data from a sample of students at a public sector university using a structured questionnaire. Students who receive more support and communication from family members have stronger self-esteem, which translates into improved academic accomplishment. On the other side, negative peer pressure has been linked to lower self-esteem, which has a detrimental impact on academic attainment. The findings underscore the importance of fostering positive family environments and peer relationships to improve students' self-esteem and academic success. This study contributes to the understanding of the complex interplay between family, peers, and individual self-perception in shaping academic performance.

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1.0 Introduction

Family structure and dynamics are crucial aspects that influence a student's life, especially in public colleges where students come from a wide range of backgrounds (Khan et al., 2024). Traditional family structures, such as those found in Pakistan, have close-knit ties and high parental expectations, with sibling influence being particularly strong. For a student from such a family dynamic, intense pressure to reach academic norms may jeopardize academic performance (Habeeb & Odutayo, 2024). More crucially, student peer pressure defined university systems in pluralistic education management. The chagrin of such peer pressure expressed itself in most students' aspirations to belong to a specific clique, affecting the direction each student went. It is vital to consider how these associated factors interacted to positively or negatively affect a student's self-esteem, hence moderating the relationship between self-esteem and academic accomplishment (Malik et al., 2024). Understanding this link in the context of Pakistan is critical in the creation of strategies to improve student outcomes in public universities.

As evidenced by numerous academic researches, family dynamics and peer impacts continue to have a significant impact on academic performance in almost all cultural situations (Ekeze et al., 2024). For example, many leading Western countries see ways in which family impacts might emerge, as the chance of effective academic performance or failure is either driven or impeded by the level of parental involvement in school. Peer pressure, on the other hand, is universal, as students all around the world are concerned about earning the grade among their classmates, which can sometimes distract them from their academic focus (Habeeb & Odutayo, 2024). Self-esteem is a crucial mediating element in this relationship, as it helps a high-self-esteem kid withstand negative peer pressure and get the most out of parental support. This global perspective highlights the need of understanding how these dynamics work in various educational settings, as well as what insights might be implemented to improve academic performance through targeted interventions (Habeeb & Odutayo, 2024).

Although extensive research has been conducted on factors affecting students' performance, family dynamics, peer pressure, and self-esteem remain largely unexplored, particularly in public sector universities (Zhao & Zhao, 2022). Most studies perceive family dynamics and peer pressure as independent variables, but in actuality, they may function synergistically to influence students' academic performance. In other sectors, the mediating role of self-esteem has been examined, but it has not been thoroughly investigated in academia (Mordi & Onoyase, 2023). From a practical standpoint, the vast majority of research focus on private or mixed educational institutions, leaving plenty of room to investigate how these characteristics effect students at public universities. This gap highlights the necessity for a thorough research of these variables within this specific educational system before developing tailored solutions.

The academic performance of students at public universities is worsening, and many of them have low achievement levels. Although family dynamics and peer pressure are thought to be important variables in academic success, their combined impacts are not well understood. Self-esteem, which is often overlooked in the equation, is another aspect that influences personal development and, ultimately, academic accomplishment. The study's goal is to take a step toward

solving the problem by determining how family dynamics and peer pressure interact to influence academic performance of students in public universities, with a focus on the mediating effect of self-esteem. Any relationship that emerges from the two must be a basic requirement for the development of methods for boosting academic performance and assisting public institution students.

As a result, the current study is extremely important because it will clarify how a familial environment and peer pressures combine to influence the academic performance of university students in the public sector, with self-esteem playing a critical role in mediating such phenomena. The family environment and peer relationships of students frequently provide challenges in the academic job environment, which might be the most significant cause of their failure. The current study intends to get important insights into the fundamental mechanisms that govern students' performance by exploring how self-esteem regulates these interactions. This can be utilized to construct targeted interventions and support systems for students, as well as to develop more effective strategies for educational institutions to improve academic standing and overall well-being. Educators, legislators, and mental health professionals must grasp how these factors interact with one another, as they work on a complex set of personal and social problems that impede academic progress.

1.1 Aims and Objectives

- To investigate the impact of family dynamics on the academic performance of public sector university students.
- To examine the influence of peer pressure on academic performance among public sector university students.
- To assess the mediating role of self-esteem in the relationship between family dynamics, peer pressure, and academic performance of public sector university students.

2.0 Literature Review

2.1. Family Dynamics and Academic Performance

Family variables, such as parental participation, structure, and communication patterns, have a significant impact on academic performance. Several studies have found that a supportive family environment correlates with improved student outcomes; they provide critical emotional support, resources, and encouragement (Tause, 2024). Children from stable, involved families perform better academically because their parents provide consistent direction and expectations (Lasisi et al., 2024). Negative home problems, like as conflict or neglect, are far more likely to be associated with poor academic performance, because the stressful atmosphere impairs concentration and learning (Lopez, 1989). Family relations are significant since the majority of their affects can either affect students' emotional well-being or, conversely, influence their participation in school activities (Owopetu & Adebayo, 2016).

2.1.1. Bronfenbrenner's Ecological Systems Theory

According to Bronfenbrenner's Ecological Systems Theory, growth is influenced by multiple layers around the individual, including immediate contexts such as family and broader social factors (Crawford, 2020). Accordingly, the theory maintains that the family microsystem

has a substantial impact on the child's developmental trajectory. According to this viewpoint, family behavior has a significant impact on the microsystem that contributes to and influences a student's academic success (Ettedal & Mahoney, 2017). According to research, a more stable and affectionate atmosphere created by positive family interaction may contribute to improved academic performance. At the same time, negative family interactions may impair a student's attention and performance (Perron, 2017).

2.2 Peer Pressure and Academic Performance

Peer pressure, whether positive or negative, has a significant impact on students' academic achievement. Positive peer pressure drives students to work hard by developing good study habits and joining discussion groups with peers who excel in class (Phuong et al., 2024). On the other hand, negative peer pressure can lead to deviant behavior that diverts a student's attention away from their studies, such as skipping school or partying all the time instead of focusing on schoolwork (Moldes et al., 2019). The impact of peer pressure on academic performance is determined by students' ability to insulate themselves from peer influence as well as their self-esteem. It creates a complex relationship that influences the remainder of a student's life (Khan et al., 2023).

2.3 Self-Esteem as a Mediating Factor

Self-esteem interacts with family dynamics and peer pressure to influence academic performance. High self-esteem boosts confidence and resilience, which improves academic performance through improved motivation and tenacity (Uslu, 2013). However, low self-esteem may increase the student's susceptibility to the detrimental impacts of both family dynamics and peer pressure on academic accomplishment (Supervía et al., 2023). It has been established that students with high self-esteem perform better in stressful situations, create and achieve academic goals, and resist peer-group pressure. Their academic results are higher (Pushkarna, 2017).

2.4 Integrating Family Dynamics, Peer Pressure, and Self-Esteem

This aids in the integration of the effects of family dynamics, peer pressure, and self-esteem into a comprehensive knowledge of their overall impact on academic performance. Family dynamics offer the overall framework of support or problems that characterize a student's early academic experiences, whereas peer pressure impacts shape long-term academic habits and attitudes (Pushkarna, 2017). As a result, self-esteem serves as a powerful amplifier or buffer for these effects on students' reactions to parental and peer pressure. These interrelationships, if recognized, may aid in the development of interventions that provide students with the ability to deal with such external demands while also increasing their chances of success through increased self-esteem and supportive environments (Merkine & Zhao, 2023).

3.0 Methodology

A quantitative technique was used to determine the relationship between family dynamics and peer pressure on self-esteem in terms of students' academic performance. Using this quantitative methodology, the researcher will be able to collect numerical data and statistically analyze it to identify patterns and correlations among variables of interest. Through the exploration of variable interactions, the researcher sought an explanation based on facts and measurements of

how these aspects, when combined with a set of systematic data collection and analysis procedures, truly effect learning outcomes.

The examination was based on positivism, a philosophy that employs factual evidence and scientific procedures to determine whether certain facts are true. Positivism influenced the research since it prioritized observable and measurable events; as a result, the findings were based on facts that could be measured through mathematical analysis. This contribution advocates for the use of structured questionnaires in data collecting for a specific demographic, testing hypotheses and ideas on family interaction, peer pressure, and self-esteem.

The population included 300 students from Punjab University and Sargodha University, and the sample included a varied range of students from public sector universities. Data was collected using a structured questionnaire that asked about family dynamics, peer impact, self-esteem, and academic accomplishment. The data were examined using SmartPLS, a statistical software that allows for the examination of variable correlations through structural equation modeling. This made it possible to test the offered theories. The study's integrity and ethics were upheld by participants' informed consent, anonymity of responses, and assurance that the data would be used solely for research purposes.

4.0 Findings and Results

4.1 Reliability analysis

Table 1: Reliability Analysis

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Academic Performance	0.7408	0.7479	0.8091	0.5226
Family Dynamics	0.8327	0.8329	0.8822	0.6004
Peer Pressure	0.8092	0.812	0.8668	0.5661
Self-Esteem	0.7942	0.805	0.8544	0.5082

The reliability analysis for the study's constructs indicates an adequate to good level of internal consistency and reliability across variables. Cronbach's Alpha ratings range from 0.7408 for Academic Performance to 0.8327 for Family Dynamics, indicating a range of satisfactory to good dependability. Rho_A likewise achieved similarly high values, confirming the dependability measures. The Composite Reliability scores for Academic Performance and Family Dynamics range from 0.8091 to 0.8822, demonstrating the constructs' consistency. The AVE values ranged between 0.5082 and 0.6004. These indicators explain a significant portion of the variance in the constructs; hence the measures are validated for this research project.

4.2 Validity Analysis (HTMT)

Table 2: Validity Analysis (HTMT)

	Academic Performance	Family Dynamics	Peer Pressure	Self-Esteem
Academic Performance	0	0	0	0
Family Dynamics	0.4222	0	0	0
Peer Pressure	0.5918	0.2801	0	0
Self-Esteem	0.3754	0.4261	0.3189	0

This validity analysis will identify the degree of discriminant validity between constructs based on the HTMT ratio. The resulting HTMT values demonstrate an acceptable level of discriminant validity, since none of them exceed 0.85, which is commonly considered as a threshold. The strongest HTMT value was 0.5918 between peer pressure and academic performance, indicating a moderate association; other values, such as 0.4261 between family dynamics and self-esteem, revealed a smaller but still important correlation. This collection of results demonstrates that the constructs are sufficiently dissimilar from one another to support the measurement model's discriminant validity in distinguishing between the numerous variables under examination.

4.3 Factor Loading

Table 3: Factors Loading

	Academic Performance	Family Dynamics	Peer Pressure	Self-Esteem
AP1	0.6447	0	0	0
AP2	0.6284	0	0	0
AP3	0.6201	0	0	0
AP4	0.5192	0	0	0
AP5	0.5585	0	0	0
AP6	0.5031	0	0	0
AP7	0.4794	0	0	0
AP8	0.5079	0	0	0
AP9	0.6216	0	0	0
FM1	0	0.7357	0	0
FM2	0	0.714	0	0
FM3	0	0.8057	0	0
FM4	0	0.809	0	0
FM5	0	0.8044	0	0
PP1	0	0	0.7457	0
PP2	0	0	0.7869	0
PP3	0	0	0.7934	0
PP4	0	0	0.7421	0
PP5	0	0	0.689	0
SE1	0	0	0	0.5398
SE2	0	0	0	0.7548

SE3	0	0	0	0.7822
SE4	0	0	0	0.7766
SE5	0	0	0	0.7104
SE6	0	0	0	0.639

Factor loadings for the constructs in this study all revealed items within each construct that reached or above the 0.40 criterion, indicating that all items are significant in measuring their respective factors. Items in Academic Performance (AP) had loadings of 0.4794 and 0.6447, whereas Family Dynamics had loadings of 0.714 and 0.809, showing that these items provide significant contributions to the factor. The Peer Pressure components ranged from 0.689 to 0.7934, showing that they are extremely closely related to this construct. The range of self-esteem items was 0.5398 to 0.7822, demonstrating a strong relationship with the self-esteem component. These findings demonstrate that each set of questions effectively measures its specific construct.

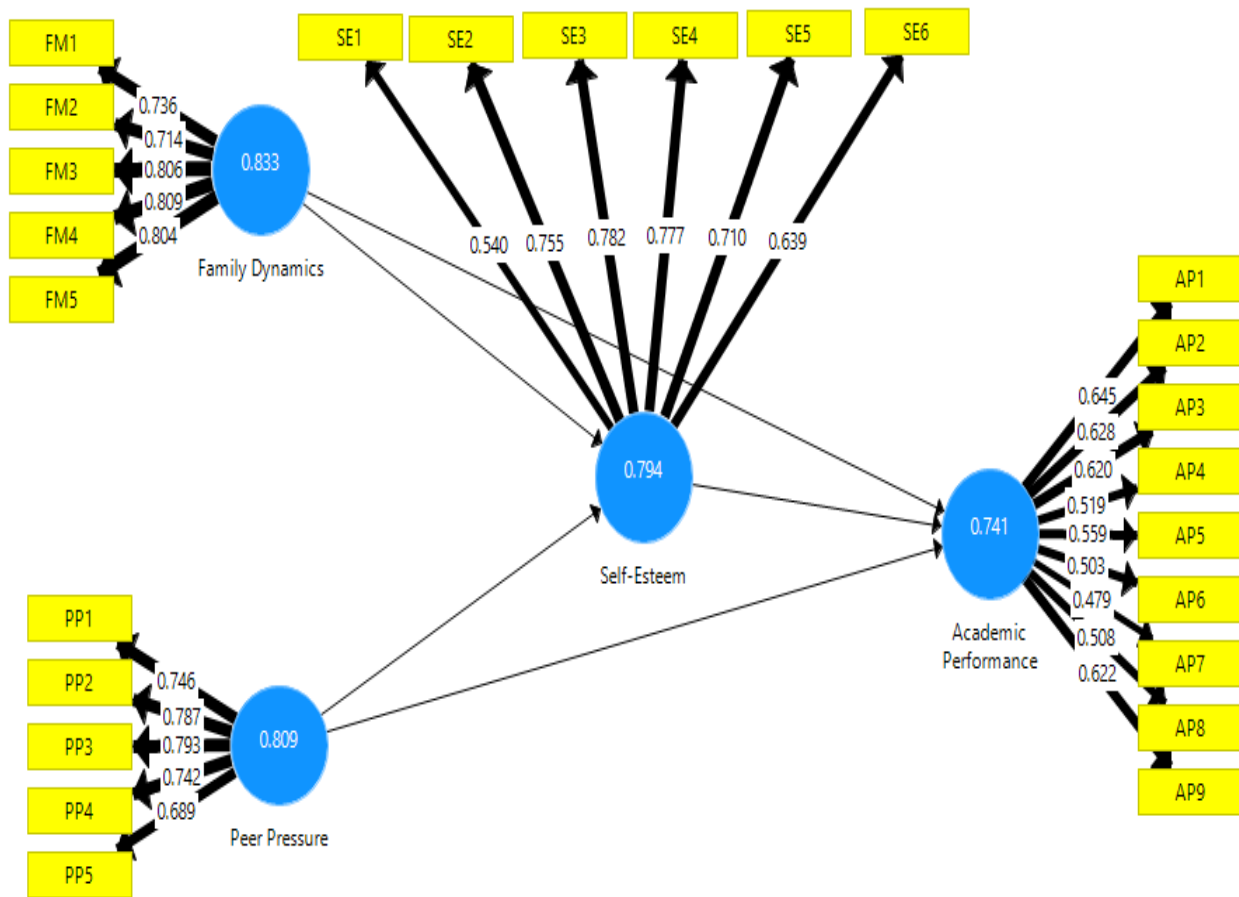


Fig 1: Measurement Model

4.4 Structural Equational Model (Direct Effect)

Table 4: Structural Equational Model (Direct Effect)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Family Dynamics -> Academic Performance	0.2172	0.2006	0.0289	7.5296	0
Family Dynamics -> Self-Esteem	0.3033	0.3288	0.0229	13.2461	0
Peer Pressure -> Academic Performance	0.4094	0.4175	0.0348	11.7698	0
Peer Pressure -> Self-Esteem	0.196	0.1667	0.039	5.0289	0.0005
Self-Esteem -> Academic Performance	0.1176	0.1243	0.0235	5.0031	0.0005

The structural equation model reveals considerable direct effects among the variables being studied. Family dynamics had a positive effect on academic performance (coefficient = 0.2172), while also being a strong predictor of self-esteem (coefficient = 0.3033). Peer pressure had the greatest effect on academic performance, with an estimated coefficient of 0.4094, as opposed to its effect on self-esteem, which was 0.196. Self-esteem also had a beneficial effect on academic performance, with a coefficient value of 0.1176. All of the associations were statistically significant, with high t-values and p-values of zero, indicating a strong effect throughout the model.

4.5 Mediating Effects

Table 5: Mediating Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Family Dynamics -> Self-Esteem -> Academic Performance	0.0356	0.0411	0.0091	3.929	0.0028
Peer Pressure -> Self-Esteem -> Academic Performance	0.023	0.0206	0.0061	3.7671	0.0037

The findings demonstrate that self-esteem strongly affects the relationship between family dynamics and peer pressure in terms of academic performance. The path from family dynamics to academic performance is mediated by self-esteem, with a T-statistic of 3.929 and a p-value of 0.0028, indicating a strong mediating impact. There is also a high association between peer pressure and self-esteem in terms of academic performance (t = 3.7671, p = 0.0037). These findings suggested that self-esteem played a key role in determining how family dynamics and peer pressure affected academic performance.

5.0 Discussion and Conclusion

The findings provide a clear understanding of how family dynamics and peer pressure interact to influence academic performance, with high self-esteem functioning as a mediator. From this, it is clear that healthy family dynamics, as characterized by good connections and effective communication, are strongly linked to improved performance. Students who reported higher levels of parental involvement and family stability performed better on all exams. According to the findings, poor academic performance was linked to family pathology, specifically family conflicts and unloving family relations, emphasizing the importance of a loving family environment for students' academic achievement.

Another important factor in students' academic performance was peer influence. Academic peer support about the value of engaging in academic activities tended to improve academic performance, whereas negative academic peer pressure in terms of diversions and factors impeding students' lines of thinking had a negative impact on performance. This reveals the double-edged sword of peer influence, since the impact varies greatly depending on the type of peer interactions that a kid is able to manage.

Self-esteem emerged as a key mediator of family dynamics, peer pressure, and academic success. More precisely, high self-esteem enabled students to overcome both the positive and negative influences of peers while also becoming more robust in the face of difficult family dynamics. Thus, improving academic performance is a vital strategy to boost self-esteem because it allows one to negotiate such demands while remaining focused on the goals set. The findings reveal that the elements are interconnected, therefore treatments must be designed to address family dynamics, peer pressure, and self-esteem if the student is to be successful in school.

The study provides actionable insights into how family dynamics and peer pressure interact to influence academic performance, highlighting the importance of high self-esteem as a mediator. Schools and educational institutions can use these findings to develop programs that promote healthy family dynamics characterized by good communication and strong connections. These programs can educate parents on the importance of their involvement in their children's academic lives and provide strategies to foster a stable and loving home environment. By encouraging parental engagement and addressing family conflicts, educators can create a supportive atmosphere that enhances students' academic performance.

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Moreover, the study emphasizes the dual role of peer influence on academic outcomes. Educational stakeholders can implement peer mentoring and support programs that emphasize

positive academic peer support while addressing negative peer pressure. These initiatives can include workshops and counseling sessions that help students manage their peer interactions effectively, promoting an environment where academic activities are valued and distractions are minimized. By fostering a community that supports academic excellence and self-esteem, schools can better equip students to navigate the challenges posed by both family and peer dynamics.

The findings extend the theoretical understanding of the interplay between family dynamics, peer pressure, and academic performance by highlighting the mediating role of self-esteem. The study contributes to the literature by providing empirical evidence that healthy family dynamics, characterized by good connections and effective communication, are positively associated with academic success. This reinforces existing theories on the significance of family involvement in education and adds a nuanced understanding of how family pathology, such as conflicts and unloving relationships, negatively impacts academic outcomes.

Furthermore, the study elucidates the complex nature of peer influence, showing that its impact on academic performance is contingent upon the type of peer interactions. Positive academic peer support enhances performance, while negative peer pressure hinders it, demonstrating the double-edged nature of peer influence. The role of self-esteem as a mediator adds depth to theoretical models, suggesting that high self-esteem not only buffers against negative influences but also enhances the positive effects of supportive environments. This integrated approach provides a comprehensive framework for understanding how family, peers, and individual factors collectively shape academic success, offering new avenues for future research and interventions.

Iqra Sultana: Problem Identification and Theoretical Framework

Ayesha Allah Ditta: Data Analysis, Supervision and Drafting

Aqsa Atta: Methodology and Revision

Conflict of Interests/Disclosures

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