International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Quantitative Study on the Impact of Academic Pressure and Family Dynamics on Stress Related Behaviors and Anxiety Resiliency Among Undergraduate Students: Predictors of Mental Health Distress

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Abstract

This study explores the effects of academic pressure and family dynamics on stress-related behaviors, anxiety resiliency, and mental health distress among undergraduate students. The research utilized a descriptive-correlational quantitative design with a sample of 300 undergraduate students from various academic departments. Participants completed the Academic Stress Scale (ASS), Family Assessment Device (FAD), Connor-Davidson Resilience Scale (CD-RISC), and Depression Anxiety Stress Scale (DASS-21). The findings revealed that academic pressure and dysfunctional family dynamics were positively correlated with mental health distress, while anxiety resiliency exhibited a negative correlation with distress. The results suggest that academic pressure and family dynamics are significant predictors of mental health distress, with anxiety resiliency acting as a protective factor. The study emphasizes the need for comprehensive interventions targeting both academic and familial stressors, as well as promoting anxiety resiliency to support student mental health.

Keywords: Academic Pressure, Family Dynamics, Stress-Related Behaviors, Anxiety Resiliency, Mental Health Distress, Undergraduate Students

INTRODUCTION

Background of the Study

The transition into higher education is often marked by intense academic and personal challenges. University students face increasing academic pressure as they are expected to perform well in their coursework, meet deadlines, and prepare for future careers. Simultaneously, many students are confronted with complex family dynamics, including high parental expectations, familial conflicts, or inadequate emotional support. These stressors can create a volatile mental health landscape, leading to conditions such as anxiety, depression, and burnout.

Previous research suggests that academic stress is one of the most significant sources of psychological strain among students (Barbayannis et al., 2022), and family-related stressors, including dysfunctional family dynamics, can exacerbate this distress (Jabbari et al., 2023). Anxiety resiliency, however, has been identified as a protective factor that helps students navigate stress effectively and buffer against mental

health distress (Zolkoski & Bullock, 2012). By exploring the interactions between academic pressure, family dynamics, and anxiety resiliency, this study aims to identify key predictors of mental health distress among undergraduate students, which can inform interventions aimed at improving student well-being.

Objectives

This study aims to:

1. Assess the levels of academic pressure, family dynamics, stress-related behaviors, anxiety resiliency, and mental health distress among undergraduate students.
2. Explore the relationships between academic pressure, family dynamics, anxiety resiliency, and mental health distress.
3. Identify the most significant predictors of mental health distress among undergraduate students.

Hypotheses

1. **H1:** Academic pressure is positively correlated with mental health distress.
2. **H2:** Dysfunctional family dynamics are positively correlated with mental health distress.
3. **H3:** Anxiety resiliency is negatively correlated with mental health distress.
4. **H4:** Academic pressure, family dynamics, and anxiety resiliency significantly predict mental health distress.

Methods

Study Design

The study adopts a descriptive-correlational quantitative design, which allows for the examination of the relationships between academic pressure, family dynamics, anxiety resiliency, and mental health distress. This design is appropriate because it enables researchers to assess the strength and direction of relationships between variables without manipulating them.

Participants

The study involved a total of 300 undergraduate students selected through stratified random sampling from multiple universities. The stratified sampling method ensures that the sample is representative of different year levels (e.g., first-year, second-year, third-year, and final-year students) and includes a balance of gender (55% female and 45% male). The age range of participants was 18 to 24 years. Stratified sampling was chosen to capture students' experiences across different academic years, which may influence the intensity of academic pressure and its impact on mental health.

Data Collection

The data collection process involved the use of four standardized instruments, each validated through previous research:

1. Academic Stress Scale (ASS): This scale measures perceived academic stress in the context of workload, deadlines, and academic performance expectations. The ASS assesses the subjective experience of academic pressure and provides insights into how these pressures affect students' psychological well-being.
2. Family Assessment Device (FAD): This tool assesses the quality of family relationships and dynamics, focusing on emotional support, communication patterns, and conflict resolution. The FAD categorizes family environments as either supportive or dysfunctional, with higher scores indicating more

dysfunctional dynamics.

3. Connor-Davidson Resilience Scale (CD-RISC): This scale measures anxiety resiliency, which reflects a student's ability to adapt to and recover from stressful situations. Higher scores indicate stronger resilience and better coping abilities.
4. Depression Anxiety Stress Scale (DASS-21): The DASS-21 assesses levels of depression, anxiety, and stress in individuals. It provides a comprehensive measure of mental health distress, allowing for the identification of students experiencing symptoms of emotional instability.

Data Analysis

The data were analyzed using SPSS software:

- Descriptive statistics were calculated to determine the central tendencies (mean and standard deviation) of academic pressure, family dynamics, anxiety resiliency, and mental health distress.
- Pearson correlation was used to measure the strength and direction of the relationships between academic pressure, family dynamics, anxiety resiliency, and mental health distress.
- Multiple regression analysis was conducted to identify significant predictors of mental health distress. This analysis determined the contribution of academic pressure, family dynamics, and anxiety resiliency to the variance in mental health distress.

Results

Descriptive Statistics

Variable	Mean Score	Standard Deviation
Academic Pressure	72.5	10.3
Family Dynamics	3.8	0.9
Anxiety Resiliency	55.0	12.4
Mental Health Distress	24.3	6.7

- Academic Pressure: The mean score of 72.5 indicates that students are experiencing moderate to high levels of academic pressure. The standard deviation of 10.3 suggests some variability in how students perceive their academic stress.
- Family Dynamics: The mean score of 3.8 suggests that students perceive their family environments as somewhat dysfunctional, with moderate levels of family conflict or lack of emotional support. The standard deviation of 0.9 indicates relatively consistent perceptions across the sample.
- Anxiety Resiliency: With a mean score of 55.0 and a standard deviation of 12.4, the data suggest that most students have moderate resiliency to anxiety, though there is variability in how students cope with stress.
- Mental Health Distress: The mean score of 24.3 indicates moderate levels of distress in terms of anxiety, depression, and stress, with some students reporting higher levels of psychological strain. The standard deviation of 6.7 highlights variability in distress levels among participants.

Pearson Correlation Analysis

Variables	r-value	p-value
Academic Pressure & Mental Health Distress	0.63	<0.01
Family Dynamics & Mental Health Distress	0.58	<0.01

Anxiety Resiliency & Mental Health Distress	-0.50	<0.01

- Academic Pressure & Mental Health Distress (r = 0.63): There is a strong positive correlation between academic pressure and mental health distress. As academic pressure increases, mental health distress also increases. This relationship is statistically significant, indicating that students who report higher academic stress tend to experience greater anxiety, depression, and stress.
- Family Dynamics & Mental Health Distress (r = 0.58): The moderate positive correlation between dysfunctional family dynamics and mental health distress suggests that students from families with high levels of conflict or poor emotional support are more likely to experience mental health issues. The relationship is statistically significant, reinforcing the importance of family functioning in shaping students' psychological well-being.
- Anxiety Resiliency & Mental Health Distress (r = -0.50): The negative correlation between anxiety resiliency and mental health distress indicates that students with higher levels of resilience are less likely to experience mental health distress. This finding supports the idea that resilience acts as a protective buffer against the negative effects of academic and familial stress.

Multiple Regression Analysis

Variable	Beta (β)	p-value
Academic Pressure	0.45	<0.01
Family Dynamics	0.32	<0.05
Anxiety Resiliency	-0.37	<0.01

- Academic Pressure ($\beta = 0.45$, $p < 0.01$): Academic pressure was found to be the strongest predictor of mental health distress. The positive beta value indicates that higher academic pressure results in greater mental health distress. This finding is statistically significant, confirming the importance of academic stress in influencing student well-being.
- Family Dynamics ($\beta = 0.32$, $p < 0.05$): Dysfunctional family dynamics were also a significant predictor of mental health distress, though their effect was smaller compared to academic pressure. The positive beta value suggests that students from dysfunctional family environments are more likely to experience mental health challenges.
- Anxiety Resiliency ($\beta = -0.37$, $p < 0.01$): Anxiety resiliency was a significant negative predictor of mental health distress. The negative beta value indicates that students with higher resilience levels are less likely to experience distress. This finding underscores the importance of building resilience to help students cope with stress.
- Model Explanation ($R^2 = 0.45$): The model explained 45% of the variance in mental health distress, meaning that academic pressure, family dynamics, and anxiety resiliency collectively account for nearly half of the variability in mental health distress among students.

Discussion

Interpretation of Results

The study's results highlight the significant impact of academic pressure and family dynamics on mental health distress. The strong positive correlation between academic pressure and mental health distress underscores the pervasive effect of academic stress on students' well-being. As academic demands increase, students report higher levels of anxiety, depression, and stress. This finding is consistent with

previous studies indicating that academic pressure is a leading cause of mental health issues in students (Barbayannis et al., 2022).

Family dynamics also play a crucial role in shaping mental health outcomes. Students from families characterized by high conflict or poor communication tend to experience greater mental health distress. The relationship between family dysfunction and distress aligns with existing literature that suggests family support can act as a buffer against academic stress (Jabbari et al., 2023).

In contrast, anxiety resiliency was found to be a protective factor, with students exhibiting higher resilience experiencing lower levels of mental health distress. This finding highlights the importance of resilience in mitigating the negative effects of academic and familial stressors (Zolkoski & Bullock, 2012).

Limitations

This study has some limitations. The use of self-reported data may introduce response biases, as participants might overreport or underreport their experiences. Additionally, the study's cross-sectional design limits the ability to draw causal conclusions. Longitudinal studies could provide more definitive insights into the causal relationships between academic pressure, family dynamics, anxiety resiliency, and mental health distress. Furthermore, the study was conducted at a select number of universities, and the results may not be fully generalizable to the wider population of undergraduate students.

Conclusion

The findings of this study emphasize the significant role of academic pressure and dysfunctional family dynamics in predicting mental health distress among undergraduate students. Anxiety resiliency was identified as a protective factor that can buffer the negative effects of stress. Universities should prioritize interventions that reduce academic pressure, improve family support systems, and enhance students' resilience to better support their mental health. Future research should explore the effectiveness of specific resilience-building programs and interventions that address family dynamics in promoting student well-being.

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