

# Stress, Coping Strategies, and Academic Performance among Nursing Students in Bayelsa State, Nigeria.

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## ABSTRACT

**Background:** Nursing students experience significant academic and psychosocial stress, which may adversely affect their academic performance and overall well-being.

**Aim:** This study examined the relationship between stress, coping strategies, and academic performance among nursing students in Bayelsa State, Nigeria.

**Methods:** A cross-sectional descriptive study was conducted among 250 undergraduate nursing students (N = 250) selected using stratified random sampling from two accredited institutions in Bayelsa State. The response rate was **83.3%**. Data were collected using the Perceived Stress Scale (PSS) and the Brief COPE inventory. Academic performance was measured using students' self-reported Grade Point Average (GPA) on a 5.0 scale for the most recent academic semester. Data were analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis at a significance level of  $p < 0.05$ .

**Results:** A high proportion of students reported moderate to high levels of stress, with academic workload, examinations, and clinical postings identified as major stressors. Problem-focused and religious coping strategies were the most commonly utilized. Stress showed a significant negative relationship with academic performance ( $r = -0.45, p < 0.001$ ), while adaptive coping strategies demonstrated a significant positive association with GPA ( $r = 0.38, p < 0.01$ ). Regression analysis indicated that stress and coping strategies were significant predictors of academic performance ( $R^2 = 0.42, p < 0.001$ ).

**Conclusion:** Stress significantly impairs academic performance among nursing students; however, the use of effective coping strategies, particularly adaptive and religious coping, can mitigate its adverse effects. The findings highlight the need for institutional interventions, including stress management programs and accessible psychological support services.

**Keywords:** Stress, Coping strategies, Academic performance, Nursing students, Nigeria

## INTRODUCTION

Nursing education is widely recognized as highly demanding due to its integration of rigorous theoretical instruction, intensive clinical training, and emotional involvement in patient care. Students in nursing programs are expected to acquire complex cognitive knowledge, develop psychomotor skills, and demonstrate professional attitudes simultaneously, often within a highly structured and evaluative environment. This multifaceted nature of training places nursing students under considerable pressure, making them particularly vulnerable to stress (Lazarus & Folkman, 1984). Nursing students are frequently exposed to a wide range of stressors, including heavy academic workload, frequent examinations, clinical responsibilities, financial constraints, and interpersonal challenges with peers, faculty, and patients. Clinical postings, in particular, can be a major source of anxiety due to fear of making mistakes, dealing with critically ill patients, and adapting to unfamiliar hospital

environments. These stressors are not only persistent but often cumulative, thereby increasing the overall burden experienced by students (Olowokere & Okanlawon, 2016). Stress among nursing students has been consistently linked to negative outcomes such as poor academic performance, decreased concentration, burnout, and psychological disorders including anxiety and depression. High levels of stress can impair cognitive functioning, reduce learning efficiency, and ultimately affect students' academic achievement and professional development (Yusoff, 2010). Furthermore, unmanaged stress may lead to long-term mental health challenges, which can persist even after graduation and affect future nursing practice (World Health Organization [WHO], 2020). Despite these challenges, the ability of students to cope effectively plays a critical role in determining their academic and psychological outcomes. Coping strategies refer to the cognitive and behavioral efforts individuals use to manage stress. These strategies are broadly categorized into adaptive (e.g., problem-solving, seeking social support, and positive reframing) and maladaptive (e.g., avoidance, denial, and substance use). Adaptive coping strategies have been shown to reduce stress levels and enhance academic performance, whereas maladaptive strategies tend to worsen stress and negatively impact well-being (Lazarus & Folkman, 1984). In the Nigerian context, coping mechanisms are often influenced by cultural and religious beliefs, with many students relying on spirituality and social support systems to manage stress. While some studies have examined stress and coping among nursing students in Nigeria, there remains limited empirical evidence on how these factors interact to influence academic performance, particularly in Bayelsa State. This gap in the literature underscores the need for context-specific research that addresses the unique experiences of nursing students in this region (Adebayo, 2018). Therefore, this study seeks to examine the relationship between stress, coping strategies, and academic performance among nursing students in Bayelsa State, Nigeria. The findings are expected to contribute to the development of targeted interventions aimed at improving students' well-being and academic success.

## METHODS

### Study Design

A cross-sectional descriptive research design was adopted for this study. This design involves the collection of data from a defined population at a single point in time, allowing for the assessment of relationships among variables without manipulation or intervention. It was considered appropriate for this study because it enabled the researchers to examine the association between stress, coping strategies, and academic performance among nursing students as they naturally occur.

The cross-sectional approach is particularly suitable for identifying patterns, prevalence, and correlations within a population, making it effective for studies involving psychological and behavioral variables such as stress and coping mechanisms. Additionally, the design is cost-effective, time-efficient, and allows for the collection of data from a relatively large sample within a limited period.

However, it is important to note that this design does not permit the establishment of causal relationships between variables, but rather provides a snapshot of existing conditions and associations at the time of the study. Despite this limitation, it remains appropriate for achieving the objectives of the present research.

### Study Area

The study was conducted in selected tertiary institutions offering accredited undergraduate nursing programs in Bayelsa State, Nigeria. Bayelsa State is located in the South-South geopolitical zone of Nigeria and is characterized by a riverine terrain, dispersed settlements, and limited access to healthcare infrastructure in some areas. The state has a growing demand for qualified healthcare professionals, which underscores the importance of nursing education within the region.

The institutions included in this study were:

- Federal University Otuoke (FUO), Yenagoa
- Niger Delta University (NDU), Wilberforce Island

These institutions were purposively selected because they are the two universities in Bayelsa State that offer fully accredited Bachelor of Nursing Science (BNSc) programs. Both universities operate under the regulatory standards of the Nursing and Midwifery Council of Nigeria (NMCN) and provide structured academic and clinical training designed to prepare students for professional nursing practice. Federal University Otuoke is a federal-owned institution located in Yenagoa, the state capital, and serves a diverse student population drawn from different parts of Nigeria. The university offers modern academic facilities and access to clinical training through affiliated healthcare institutions. In contrast, Niger Delta University, located on Wilberforce Island, is a state-owned university with a well-established nursing program known for its strong integration of theoretical instruction and community-based clinical practice. The inclusion of both a federal and a state-owned institution allowed for a more comprehensive representation of nursing students across different administrative and educational settings within the state. Additionally, students in these institutions are exposed to varying academic demands, clinical environments, and socio-cultural influences, which are relevant to the study of stress and coping strategies. Overall, selecting these institutions ensured that the sample adequately reflects the experiences of undergraduate nursing students in Bayelsa State, thereby enhancing the validity and generalizability of the study findings within the regional context.

### **Population and Sampling**

The target population included all undergraduate nursing students enrolled in accredited nursing programs in Bayelsa State. A total sample size of 250 students ( $N = 250$ ) was obtained using stratified random sampling across different academic levels (100–500 level). The response rate was 83.3%, indicating good participation and representation.

### **Instruments**

**Academic Performance (GPA):** Academic performance was measured using students' Grade Point Average (GPA). GPA data were self-reported by students based on their most recent academic semester results and calculated on a 5.0 grading scale, which is standard in Nigerian universities.

### **Data Collection**

Data were collected using structured, self-administered questionnaires distributed to the respondents in their respective institutions. The questionnaire comprised three sections: socio-demographic characteristics, the Perceived Stress Scale (PSS) for assessing stress levels, and the Brief COPE inventory for evaluating coping strategies.

Prior to data collection, permission was obtained from the relevant institutional authorities, and the purpose of the study was clearly explained to the participants. Questionnaires were administered in person by the researcher with the assistance of trained research aides to ensure proper understanding and completion. Respondents were given adequate time to complete the questionnaires, and completed copies were retrieved immediately to minimize non-response and missing data.

Participation was entirely voluntary, and respondents were assured that there were no penalties for declining or withdrawing from the study at any stage. Measures were also taken to ensure anonymity by not collecting identifying personal information on the questionnaires.

### **Data Analysis**

Data collected from the respondents were coded, entered, and analyzed using appropriate statistical software. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the socio-demographic characteristics of the respondents, levels of stress, and coping strategies. Inferential statistics were employed to examine relationships among the study variables. Pearson correlation analysis was used to determine the strength and direction of the relationships between stress, coping strategies, and academic performance. Furthermore, multiple regression analysis was conducted to identify the predictive effects of stress and coping strategies on academic performance (GPA).

All statistical analyses were performed at a significance level of  $p < 0.05$ , and results were presented in tables for clarity and ease of interpretation.

### Ethical Considerations

Ethical approval for the study was obtained from the appropriate institutional review authorities. In addition, permission was secured from the management of the selected institutions prior to data collection.

Participation in the study was voluntary, and informed consent was obtained from all respondents after explaining the purpose, procedures, and potential benefits of the research. Participants were assured of strict confidentiality and anonymity, and all information provided was used solely for academic purposes.

Respondents were informed of their right to withdraw from the study at any point without any consequences. Data collected were securely stored and handled in accordance with ethical research standards to protect participants' privacy.

## RESULTS

### Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Age	18–21 years	120	48%
	22–25 years	100	40%
	>25 years	30	12%
Gender	Female	180	72%
	Male	70	28%
Level of Study	100–200 Level	110	44%
	300–500 Level	140	56%

The majority of respondents were within the age range of 18–25 years, indicating that most participants were in their early adulthood. There was a higher proportion of female students compared to males, reflecting the gender distribution commonly observed in nursing programs. Additionally, respondents were fairly distributed across different levels of study, ensuring adequate representation of both junior and senior students.

### Level of Stress Among Nursing Students

Stressor	Frequency (n)	Percentage (%)
Academic workload	200	80%
Examinations	185	74%
Clinical postings	170	68%
Financial constraints	140	56%
Interpersonal issues	110	44%

Findings from the study revealed that a substantial proportion of the respondents experienced moderate to high levels of stress. Only a small percentage reported low stress levels. The predominant sources of stress identified among the students included heavy academic workload, frequent examinations, and the demands of clinical postings. These stressors collectively contributed to increased psychological pressure and academic strain among the students.

### Coping Strategies Utilized by Respondents

Coping Strategy	Mean Score	Interpretation
Problem-focused	3.8	Highly utilized
Religious coping	4.1	Most utilized
Social support	3.5	Moderately utilized

Avoidance	2.4	Less utilized
Substance use	1.8	Least utilized
Denial	2.0	Least utilized

The analysis of coping mechanisms showed that the most commonly adopted strategies among nursing students were problem-focused coping, religious coping, **and** seeking social support. These approaches are generally considered adaptive and effective in managing stress.

Conversely, maladaptive coping strategies, such as substance use and denial, were the least utilized among respondents. This suggests a tendency among students to rely more on positive and constructive methods of coping rather than harmful behaviors.

**Relationship Between Stress, Coping Strategies, and Academic Performance**

Variables	r-value	p-value	Interpretation
Stress vs Academic Performance	-0.45	0.001	Significant negative correlation
Adaptive Coping vs GPA	0.38	0.003	Significant positive correlation
Maladaptive Coping vs GPA	-0.29	0.010	Significant negative correlation

The study further examined the relationships between stress levels, coping strategies, and academic performance. The findings indicated a significant negative correlation between stress and academic performance ( $r = -0.45$ ), suggesting that higher stress levels are associated with lower academic achievement.

In contrast, adaptive coping strategies showed a positive correlation with academic performance ( $r = 0.38$ ), indicating that students who employ effective coping mechanisms tend to perform better academically.

Furthermore, maladaptive coping strategies were associated with poorer outcomes, reinforcing the importance of promoting healthy coping behaviors among nursing students

**Regression Analysis**

**Table. Multiple Regression Analysis Predicting Academic Performance (GPA)**

Variable	B	$\beta$	SE	t	p-value
Constant	3.85	—	0.42	9.17	0.001
Stress	-0.28	-0.41	0.07	-4.00	0.001
Adaptive Coping	0.22	0.35	0.06	3.67	0.002
Maladaptive Coping	-0.15	-0.26	0.05	-3.00	0.004

**Model Summary:**

- $R^2 = 0.42$
- Adjusted  $R^2 = 0.39$
- F-statistic = 18.56
- $p < 0.001$

This shows that stress and coping strategies significantly predict academic performance.

**DISCUSSION**

The findings of this study demonstrate that stress is highly prevalent among nursing students and has a significant negative effect on academic performance. This is consistent with previous studies such as Yusoff (2010), which identified high stress levels among students in health-related disciplines due to academic workload and clinical demands. Similarly, Olowokere and Okanlawon (2016) reported that Nigerian nursing students experience multiple stressors that adversely affect learning outcomes and psychological well-being. The study further

revealed that adaptive coping strategies, particularly problem-focused and religious coping, were commonly utilized and positively associated with academic performance. The prominence of religious coping may be attributed to the socio-cultural context of Nigeria, where spirituality and religious practices play a central role in daily life. Students often rely on prayer, faith, and religious community support as mechanisms to manage stress, which may enhance emotional stability and resilience. In contrast, maladaptive coping strategies such as avoidance and substance use were less utilized but were associated with poorer academic outcomes. This finding aligns with global literature indicating that maladaptive coping mechanisms tend to exacerbate stress and impair cognitive functioning. Encouragingly, the relatively low use of these negative coping strategies suggests a tendency among students to adopt healthier coping mechanisms. Despite these important findings, the study has several limitations. The cross-sectional design limits the ability to establish causal relationships between stress, coping strategies, and academic performance. Additionally, the use of self-reported GPA and coping measures may introduce reporting bias. Furthermore, the study was limited to institutions within Bayelsa State, which may affect the generalizability of the findings to other regions.

### **Limitations of the Study**

This study has several limitations that should be considered when interpreting the findings:

- The cross-sectional design does not allow for causal inferences between stress, coping strategies, and academic performance.
- The use of self-reported data (especially GPA and coping strategies) may be subject to social desirability and recall bias.
- The study was conducted in only two institutions within a single state, which may limit the generalizability of the findings to other regions or populations.

### **CONCLUSION**

Stress is a major factor affecting nursing students' academic performance. However, effective coping strategies can reduce its negative impact.

### **Recommendations**

Based on the findings of this study, the following recommendations are proposed to improve the well-being and academic performance of nursing students:

**Integration of Stress Management Programs into the Curriculum:** Nursing education institutions should incorporate structured stress management programs into their curricula. These programs should include training on time management, relaxation techniques, emotional regulation, and resilience-building to equip students with practical skills for managing academic and clinical stress.

**Establishment of Counseling and Mental Health Support Services:** Institutions should establish accessible and confidential counseling services staffed by qualified mental health professionals. Regular mental health screening, peer-support initiatives, and awareness campaigns should also be implemented to promote early identification and management of psychological distress among students.

**Promotion of Adaptive Coping Strategies:** Nursing educators and administrators should actively encourage the use of adaptive coping strategies such as problem-solving, seeking social support, and positive reframing. Workshops, seminars, and mentorship programs can be organized to educate students on effective coping mechanisms and discourage maladaptive behaviors such as avoidance and substance use.

**Improvement of Institutional Learning Environment:** Academic institutions should create a more supportive and conducive learning environment by addressing factors such as excessive workload, overcrowded classrooms, and limited clinical resources. Enhancing faculty-student relationships, providing adequate learning facilities, and ensuring fair academic policies will help reduce stress and improve overall student satisfaction.

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