



The impact of stress on nursing students' academic performance at Emekuku Owerri North L.G.A. Imo State College of Nursing Sciences

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Abstract

This study investigated the impact of stress on the academic performance of nursing students at the College of Nursing Sciences Emekuku, Owerri North L.G.A., Imo State. Stress significantly impacts students' concentration, motivation, and learning results, especially in nursing education, which integrates demanding academic and clinical requirements. The study sought to identify the sources of stress, analyse the correlation between stress and academic performance, and ascertain the coping techniques employed by students. A descriptive survey design was utilised, incorporating 99 pupils chosen from a total population of 132 by stratified random sampling. Data were gathered with a validated structured questionnaire and subsequently analysed by descriptive statistics and regression at a 0.05 significance level. The findings indicated that academic burden, clinical placements, and financial limitations were significant stressors, with the majority of students having moderate to high levels of stress. According to regression analysis, there is a strong negative link between stress and academic performance [β equals -0.47, $p \leq 0.05$]. The most popular ways to deal with stress were time management, emotional support, and prayer. Avoidance didn't work. The study found that too much stress hurts both cognitive function and academic achievement. It suggests adding stress management programs, counselling services, and supportive monitoring to help pupils do well in school and stay mentally well.

Keywords: Stress, Academic performance, Nursing students, Coping strategies.

INTRODUCTION

The academic achievement of nursing students significantly influences the quality of healthcare delivery within any society. Nursing education is hard since it includes both theory and practice. This puts a lot of physical, emotional, and mental stress on students. These pressures frequently induce stress, which can adversely affect learning outcomes, cognitive functioning, and overall academic performance [1]. Stress is often described as a condition or feeling experienced when an individual thinks that external demands exceed their personal and social resources. In educational contexts, academic stress denotes the psychological anguish arising from pressures associated with academic responsibilities, including excessive workloads, time limitations, examinations, and elevated expectations [2].

Nursing students are especially prone to stress due to the simultaneous requirements of academic achievement and clinical proficiency. Nursing students have elevated stress levels relative to their peers in other fields, attributed to extended study hours, exposure to patient distress, and clinical performance assessments. Stress and burnout were also named by the World Health Organisation as key causes of poor academic performance and dropouts among health science students around the world. In Nigeria, similar trends are seen, with elevated stress levels among nursing students associated with absenteeism, diminished concentration, and suboptimal academic performance [4].

Stress is the state of being worried or mentally or emotionally strained or tense because of bad or hard situations. It was a

normal thing for people to do to deal with problems and threats in their life [5]. It was a frequent occurrence for nursing students because the profession has tough academic and practical requirements. Nursing education was widely acknowledged as one of the most challenging academic fields due to its dual demands of intensive theoretical coursework and stringent clinical practice. These difficulties frequently subjected students to significant psychological stress, impacting their academic performance, mental health, and professional growth [6].

Stress in nursing students arose from several sources, including academic overload, clinical obligations, examinations, financial pressures, and interpersonal connections. A study conducted in Western Nigeria revealed that a considerable percentage of nursing students had either mild (47.7%) or severe (43.3%) levels of stress, primarily attributed to academic, personal, and financial pressures [7]. It showed that 77.7% of nursing students said they had a lot of schoolwork. The same study found that students used several ways to deal with stress, such as problem-solving, avoidance, and getting emotional support. Stress was an intrinsic component of academic life, particularly in high-stakes fields like nursing. Stress could be a good thing sometimes, but too much stress hurt kids' cognitive capabilities, emotional stability, and overall academic performance [8]. At the College of Nursing Sciences in Emekuku, students often have to balance a lot of schoolwork, difficult clinical placements, and social obligations. Stress levels go up even more because of money problems, not enough resources, and bad places to stay. Stress and academic achievement are related in a complicated way. Moderate stress can boost drive and focus, but long-term or too much stress can make it hard to concentrate, remember things, and solve problems [9].

Understanding the sources and levels of stress, as well as the coping methods adopted by nursing students, is therefore vital in improving their academic progress and general mental well-being. This study aims to examine the impact of stress on the academic performance of nursing students at the College of Nursing Sciences, Emekuku, Owerri North Local Government Area (LGA), Imo State.

Numerous nursing students encountered stress-induced challenges, including anxiety, diminished concentration, and weariness, all of which adversely impacted their academic performance. Institutions did not provide enough support services because they did not know how students were coping [10].

The nursing education system in Nigeria is noted for its tough curriculum, which includes both academic and clinical training. Because of this, nursing students often feel a lot of stress. Stress that is too high might make you tired, less motivated, anxious, depressed, and, in the end, do poorly in school. The difficulty is most clear in the College of Nursing Sciences in Emekuku, where students typically have too much to do with schoolwork, tests, clinical responsibilities, and not enough help. Numerous studies have recorded stress levels among university and college students; however, limited research has particularly investigated the distinct experiences of nursing students in Emekuku. Observations at the College reveal that certain students thrive under pressure, whereas others exhibit deteriorating academic performance despite attending identical lectures and clinical placements. The variability in outcomes prompts enquiries on the nature and severity of stresses encountered by students and the coping strategies they employ [10].

Additionally, institutional endeavours to offer counselling or psychological assistance to students are insufficient. The absence of factual data regarding the impact of stress on nursing students' academic performance in this context hinders the formulation of tailored interventions. Consequently, this study seeks to address this deficiency by investigating the origins and intensities of stress, analysing the correlation between stress and academic achievement, and pinpointing the coping mechanisms employed by nursing students at the College of Nursing Sciences, Emekuku.

Materials and methods

Research Design

The study adopted a descriptive survey design aimed at assessing the influence of stress on academic performance of nursing students at the College of Nursing Science, Emekuku. This design allowed data collection at a single point in time and provided detailed analysis of characteristics, behaviors, and relationships.

Research Setting

The study was conducted out in the College of Nursing Science, Emekuku, located in Owerri North L.G.A., Imo State.

Target Population

The target population consisted of male and female nursing students enrolled in the College of Nursing Science, Emekuku. The estimated population was 132, males students are 12 and 120 female students (3rd Year set and 2nd Year set combined).

Sample Size

Sample refers to total population which represents the entire population of study. Using Taro Yamane's (1974) formula of sample size was determined to be 99 students.

Sampling:

$$n = N/1 + N(e^2)$$

Where n = sample size

N = finite population

1 = unit of constant

e = error term (0.05)

$$n = 132/1 + 132(0.05)^2$$

$$n = 132/1 + 132(0.0025)$$

$$n = 132/1 + 0.33$$

$$n = 132/1.33$$

$$n = 99.24$$

$$n = 99$$

Sampling Technique

Stratified and simple random sampling were used to proportionately represent students in 3rd year and 2nd year, the total population of 132 students were divided into two strata based on their academic set. A proportional sample were drawn from each stratum using a simple random sampling method via balloting, where each eligible student was given a folded piece of paper marked either “Yes” or “No”, students who pick “Yes” was used for the study. This technique ensured fairness, minimized sampling bias and maintained the representativeness of the sample across both sets.

Inclusion Criteria

Should be a student of College of Nursing Science Emekuku

Nursing students who are willing to participate

Nursing students in 3rd year and 2nd year

Availability during data collection

Exclusion Criteria

Students on suspension/leave of absence

Students who declined consent

Non-availability during data collection

Instrument for Data Collection

The instrument of data collection that was used for this research was a well-structured questionnaire. The questionnaire consisted of close ended questions with section A,B,C,D, section A contained items that deals with demographic information of the respondents such as sex, age, marital status, academic level etc. section B, C, D contains information and opinions on the influence of stress on the academic performance of nursing students in College of Nursing Science Emekuku based on the research questions. The questionnaire was measured using four-likert scale. The variable was weighed as follows: Strongly agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD).

Validation of Instrument

Face and content validity were determined through the judgment of an expert in College of Nursing Science, Emekuku, Owerri who made appropriate suggestions that helped the instrument to meet the face and content validity. Recommendations and corrections of the validates were used in producing the final copy of the instrument that was used for the study. The irrelevant questions were removed and more relevant ones added.

Reliability of Instrument

The reliability of the instrument was established with a trial test administered to 10 nursing students in College of Nursing Sciences Amachara, Umuahia, Abia State. This was so because, these respondents in Umuahia Abia State have similar experience regarding the influence of stress on the academic performance of nursing students and they are not part of the study. The reliability of the instrument was determined by using Cronbach’s Alpha. For the sources and levels of stress among nursing students, the relationship between stress and the academic performance of nursing students and the coping strategies used by nursing students in managing academic-related stress, the co-efficient alpha for the three sections were 0.898, 0.858 and 0.837 respectively, which gave overall reliability mean of 0.864. This shows that the instrument is highly reliable.

Ethical Considerations

Ethical consideration was taken into account throughout the research process. An introductory letter was obtained from the Provost, College of Nursing Science, Emekuku. Informed consent was obtained from all participants before theyre were included in the study. The participants were informed about the purpose of the study, confidentiality and anonymity were ensured. Participation was voluntary and they can withdraw from the study at any time without penalty.

Data Collection

The data collection was by a self-administered questionnaire; data were collected through face-to-face distribution of questionnaires after informed consent was obtained. Administration and retrieval were done on the spot to ensure 100% retrieval rate.

Data Analysis

Data was coded and analyzed using descriptive statistics (frequency, percentage, mean). Item by item descriptive analysis of the data was carried out to show response. A criterion mean of 2.50 was set for interpretation: items scoring ≥ 2.50 were regarded as “agreed,” while items < 2.50 were regarded as “disagreed.”

RESULTS

This presented the results of the data collected from nursing students at the College of Nursing Science, Emekuku, Owerri North L.G.A., Imo State. A total of 99 questionnaires were distributed, and all were retrieved, giving a 100% response rate. The data were analyzed using frequencies, percentages, and mean scores. A criterion mean of 2.50 on a 4-point Likert scale was used to determine agreement with each item.

Demographic Data (n = 99)

Variable	Category	Frequency	Percentage (%)
Age	Below 25 years	15	15.15
	25–30 years	68	68.69
	Above 30 years	16	16.16
Gender	Male	20	20.20
	Female	79	79.80
Marital Status	Single	64	63.65
	Married	30	30.30
	Divorced/Separated	4	3.04
	Widowed	1	1.01
Religion	Christianity	75	75.76
	Islam	10	10.10
	Traditional	10	10.10
	Pagan	4	3.04
Occupation	Employed	39	39.39
	Unemployed	60	60.61

Most respondents were aged 25–30 years (68.69%), predominantly female (79.80%), single (63.65%), and Christian (75.76%). Majority (60.61%) were unemployed students.

Table 2: Sources and Levels of Stress among Nursing Students

S/N	Items	SA	A	D	SD	Total	Mean	Remark
1	Academic workload increased students’ stress level	58	28	8	5	337	3.40	Agreed
2	Clinical postings are a major source of stress	55	30	10	4	333	3.36	Agreed
3	Examination and test schedules cause anxiety	50	34	10	5	326	3.29	Agreed

4	Long hours of study cause exhaustion	48	32	12	7	319	3.22	Agreed
5	Financial difficulties increase academic stress	52	28	10	9	322	3.25	Agreed
6	Lack of adequate rest affects academic performance	49	33	11	6	323	3.26	Agreed
Grand	Mean						3.30	Agreed

Criterion Mean = 2.50

Respondents agreed that academic workload, tests, clinical postings, financial hardship, and poor rest were key sources of stress. The grand mean of 3.30 indicates a moderate to high level of stress among nursing students.

Objective 2:

Table 3: Relationship between Stress and Academic Performance

S/N	Items	SA	A	D	SD	Total	Mean	Remark
1	Stress reduced students' ability to concentrate in class	52	30	10	7	325	3.28	Agreed
2	Academic workload reduced study motivation	55	29	10	5	332	3.35	Agreed
3	Stress negatively affected students' examination performance	49	32	12	6	322	3.25	Agreed
4	Students often forgot what they studied because of stress	47	33	11	8	317	3.20	Agreed
Grand	Mean						3.27	Agreed

Criterion Mean = 2.50

Interpretation:

All items had mean values above the criterion mean of 2.50, implying that stress had a negative influence on students' concentration, retention, and academic performance.

Table 4: Coping Strategies Used by Nursing Students

S/N	Items	SA	A	D	SD	Total	Mean	Remark
1	Students managed stress through time management	47	32	12	8	316	3.19	Agreed
2	Students sought emotional support from friends/family	45	35	11	8	315	3.18	Agreed
3	Students prayed or engaged in religious activities	54	30	10	5	331	3.34	Agreed
4	Students used avoidance (ignoring stressors) to cope	20	25	30	24	239	2.41	Disagreed
Grand	Mean						3.03	Agreed

Criterion Mean = 2.50

Respondents mostly adopted time management, emotional support, and prayer as effective coping strategies. Avoidance was not considered effective.

Table 5: Multiple Regression Coefficients for Relationship between Stress and Academic Performance (Objective 2 Hypothesis Test)

Variable	Coefficient (β)	Std. Error	t	Sig. (p)	95% CI (Lower)	95% CI (Upper)
Constant	3.2778	0.3664	11.676	0.000	3.5502	5.0053
Stress	-0.4714	0.0865	-5.447	0.000	-0.6432	-0.2995
Coping	+0.2526	0.0730	3.458	0.001	0.1075	0.3976
Female	-0.1053	0.0872	-1.207	0.231	-0.2785	0.0680
Age (Above 30)	-0.2400	0.1033	-2.322	0.022	-0.4452	-0.0348
Age (Below 25)	-0.1608	0.0890	-1.808	0.074	-0.3374	0.0159

Model Summary:

$R^2 = 0.3348$ Adjusted $R^2 = 0.2990$ $F(5,93) = 9.36$ Sig. = 0.000 N = 99

Decision:

Since $p < 0.05$ for the Stress variable, reject H_0 . There is a significant negative relationship between stress and academic performance.

Interpretation:

As stress increases, students' academic performance decreases significantly. Coping strategies, however, show a positive effect, meaning students who use adaptive coping perform better academically. Age and gender have minor influences.

Discussion

The research examined the impact of stress on the academic performance of nursing students at the College of Nursing Science, Emekuku, Owerri North, Imo State. There were 99 pupils who took part.

The results indicated that stress adversely impacted students' academic performance. The majority of respondents indicated that stress diminished their concentration, induced memory deficits, and adversely affected their examination performance. This was in line with earlier research [12, 13] that showed a negative link between stress and students' GPAs. The findings also indicated that stress adversely affected students' cognitive functioning. Respondents said that stress diminished their enthusiasm to study, their problem-solving skills, and their concentration during lectures. This corroborates [14], which elucidated that stress hormones hinder cognitive functioning, and [15], which observed that nursing students experiencing elevated stress encountered academic burnout.

The survey also found that pupils used varied ways to deal with stress. Time management, emotional support, and prayer or religious involvement were all good ways to deal with stress, but avoidance didn't work. These results corroborated [16, 17], which underscored that problem-focused coping strategies produced superior academic results.

Conclusion

The study found that stress has a big detrimental effect on nursing students' grades. Stress diminished focus, testing results, and memory recall. It also made it harder to think and learn. However, students who used adaptive coping techniques including managing their schedule, getting emotional support, and getting involved in religion were better able to deal with stress.

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