

Perceived Effect of Stress on Academic Performance and Quality of Life Among Nursing Students in Ado-Ekiti, Nigeria

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Abstract—

Background and objectives: Stress significantly impacts students' academic and personal well-being. This study assessed the perceived effect of stress on academic performance and quality of life among nursing students at the College of Nursing Sciences, Ado-Ekiti, Nigeria.

Methods: A mixed-methods design was employed. A descriptive cross-sectional survey was conducted with 216 students (ND1, ND2, HND1) selected via multistage sampling. Data were collected using a structured questionnaire. Qualitative data were obtained through in-depth interviews with 20 students. Quantitative data were analyzed using SPSS version 28 (descriptive statistics, chi-square). Qualitative data were analyzed thematically.

Results: Quantitative findings revealed a high level of stress knowledge (97.23% recognized its harm). Major stressors were heavy academic workload (86.12%), frequent tests (90.28%), and financial difficulties (79.63%). Stress negatively affected academic performance, with 64.35% reporting their performance suffered, and quality of life, with 69.91% reporting impacts on concentration. Qualitative findings triangulated these results, identifying exams, workload, and financial strain as key stressors leading to sleep disturbances, fatigue, and emotional exhaustion.

Conclusion: Stress adversely affects nursing students' academic performance and quality of life. Institutional interventions such as stress management programs, enhanced counseling, curriculum review, and recreational facilities are recommended.

Keywords: Stress, Psychological; Students, Nursing; Academic Performance; Quality of Life; Nigeria.

I. INTRODUCTION

Background and objectives

In today's high-pressure academic environment, stress has become an almost universal experience among students, significantly affecting both

academic performance and overall quality of life (1, 2). According to the World Health Organization, nearly 35% of university students globally report experiencing moderate to severe psychological stress, with academic workload, financial concerns, and uncertainty about the future ranking as top stressors (3). Recent evidence indicates that nearly two-thirds of university students in Africa experience clinically meaningful perceived stress (4). In Nigeria, factors such as financial hardship, overcrowded classrooms, and heavy workloads are major contributors to academic stress among tertiary students (5).

Nursing students face unique challenges due to the demanding nature of their training, which integrates intense theoretical coursework with clinical responsibilities (6). This rigorous environment can precipitate stress, burnout, and adverse effects on physical and mental health (7). Academic stress is defined as the body's response to academic-related demands that exceed a student's adaptive capability (8). Research consistently links high academic stress to poor academic outcomes, including lower grades, decreased concentration, and increased risk of dropout (9, 10). Furthermore, stress has been associated with diminished quality of life (QoL), affecting physical health, emotional well-being, and social relationships (11, 12).

Despite growing awareness, a gap exists in understanding how nursing students in Nigeria perceive stress and how these perceptions specifically influence their academic outcomes and QoL. Many existing studies focus on physiological and psychological aspects, with fewer exploring the subjective experience within the unique socio-cultural and institutional context of Nigerian nursing education (13). Therefore, this study aims to investigate the perceived effects of stress on

academic performance and quality of life among students in the College of Nursing Sciences, Ado Ekiti. The specific objectives are to: 1) assess the level of knowledge about stress; 2) assess the level of awareness of the causes of stress; 3) identify the effect of stress on academic performance; and 4) assess the effect of stress on quality of life.

II. METHODS

Study Design and Setting

A mixed-methods design incorporating a quantitative descriptive cross-sectional survey and a qualitative exploratory approach was used. The study was conducted at the College of Nursing Sciences, Ado Ekiti, Nigeria, located within the Ekiti State University Teaching Hospital.

Study Population and Sampling

The quantitative study population comprised all ND1, ND2, and HND1 nursing students (N=383). The sample size was calculated as 216 using Taro Yamane's formula, with a 95% confidence level and 5% margin of error, plus a 10% attrition rate. A multistage sampling technique was employed: purposive selection of levels (ND1, ND2, HND1), simple random sampling within levels, and proportionate allocation to achieve the final sample. For the qualitative component, a purposive sampling technique was used to select 20 participants for in-depth interviews (IDIs) until thematic saturation was achieved.

Data Collection Instruments and Procedure

Quantitative data were collected using a structured, self-administered questionnaire with four sections: socio-demographics (Section A), knowledge about stress (Section B, 8 items), awareness of causes of stress (Section C, 9 items), and perceived effect of stress on academic performance and QoL (Section D, 9 items). The questionnaire was adapted from validated tools (14, 15, 16).

Qualitative data were collected using a semi-structured interview guide exploring students'

experiences, sources, effects, and coping strategies related to stress.

Ethical approval was obtained from the Ethics Committee of the Ekiti State University Teaching Hospital (EKSUTH), Ado-Ekiti (Ref: [EKSUTH/A67/2025/07/019]). Written informed consent was obtained from all participants. Confidentiality and anonymity were maintained.

Validity and Reliability

The quantitative instrument's face and content validity were ensured by review from a supervisor and adaptation from standardized tools. Test-retest reliability over a two-week interval showed good consistency (Cronbach's alpha >0.7). For qualitative data, trustworthiness was ensured through member checking, peer debriefing, and triangulation.

Data Analysis

Quantitative data were analyzed using SPSS version 28. Descriptive statistics (frequencies, percentages) were used to summarize data. Inferential statistics (Chi-square test) were used to test hypotheses at a 0.05 significance level.

Qualitative data from audio-recorded interviews were transcribed verbatim and analyzed using thematic analysis involving data familiarization, coding, theme generation, and interpretation.

Ethical Consideration

The study adhered to the Declaration of Helsinki. Participation was voluntary, with the right to withdraw at any time. No personal identifiers were collected.

III. RESULTS

Quantitative Findings

Socio-demographic Characteristics: Of the 216 respondents, 83.33% were female, 93.06% were Christian, 96.30% were single, and the majority (93.06%) were of Yoruba ethnicity. Respondents were distributed across ND1 (34.26%), ND2 (29.63%), and HND1 (36.11%) (Table 1).

Table 1: Demographic Characteristics of Respondents (N=216)

Demographics	Options	Frequency	Percentage (%)
Sex	Female	180	83.33

Demographics	Options	Frequency	Percentage (%)
	Male	36	16.67
Religion	Christian	201	93.06
	Muslim	15	6.94
Marital Status	Single	208	96.30
	Married	8	3.70
Academic Level	ND1	74	34.26
	ND2	64	29.63
	HND1	78	36.11

Level of Knowledge About Stress

A high level of knowledge was observed. Most respondents agreed that stress is harmful to health (97.23%), affects both mental and physical health

(99.54%), and can be reduced by exercise (76.39%) and relaxation techniques (85.65%). Most (81.02%) correctly disagreed that exam anxiety is not a form of stress (Table 2).

Table 2: Respondents' Knowledge About Stress (N=216)

S/N	Item	Agree/Strongly Agree n (%)
1	Stress is always harmful to health.	210 (97.23)
4	Headaches, fatigue, and irritability can be caused by stress.	210 (97.23)
5	Stress affects both mental health and physical health.	215 (99.54)
7	Yoga, deep breathing, and relaxation can reduce stress symptoms.	185 (85.65)

Awareness of Causes of Stress

Heavy academic workload (86.12% rated very/extremely stressful), frequent examinations and tests (90.28%), and financial difficulties (79.63%) were identified as the top stressors (Table 3).

Source of Stress	n (%)
Heavy academic workload	186 (86.12)
Frequent examinations and tests	195 (90.28)
Financial difficulties	172 (79.63)

Source of Stress	n (%)
Pressure to succeed/fear of failure	171 (78.77)

Table 3: Top Sources of Stress Rated as 'Very' or 'Extremely' Stressful (N=216)

Perceived Effect of Stress on Academic Performance and Quality of Life

A majority reported negative effects: 64.35% stated their academic performance had suffered due to

stress; 82.41% reported feeling fatigued; 79.62% reported impaired concentration; and 69.91% felt their overall quality of life was reduced (Table 4).

Table 4: Perceived Effect of Stress (N=216)

Effect	Affected (Sometimes/Often/Always) n (%)
My academic performance has suffered due to stress.	139 (64.35)
I feel fatigued or low in energy due to stress.	178 (82.41)
Stress affects my ability to concentrate in class or while studying.	172 (79.62)
I feel my overall quality of life is reduced due to the stress I experience.	151 (69.91)

Hypothesis Testing

H1: There was no significant relationship between most socio-demographic variables (age, sex, religion, ethnicity) and knowledge of stress ($p > 0.05$). However, a significant relationship was found with marital status ($\chi^2 = 18.412$, $p = 0.03$) and academic level ($\chi^2 = 17.801$, $p = 0.006$).

H2: A significant difference was found between the high level of awareness of causes of stress (e.g., 86.11% for heavy workload) and the reported effect on academic performance (64.35%) ($p = 0.02$).

academic consequences ("low productivity," "reduced motivation to study").

3. Coping Mechanisms: Strategies included adaptive methods ("journaling," "praying," "talking to friends") and avoidant behaviors ("sleeping," "watching movies").
4. Impact on Quality of Life: Many described a declining QoL, with stress causing social withdrawal ("I don't have time for avoidable social interactions") and reducing life satisfaction.

Qualitative Findings

Analysis of 20 IDIs yielded four main themes:

1. Ubiquity and Sources of Stress: Stress was described as an "unavoidable pressure." Key stressors included "bulky notes," "exam tension," "financial instability," and "lengthened lecture hours."
2. Manifestations of Stress: Participants reported physical symptoms ("body pains," "weight loss"), emotional effects ("emotional imbalance," "feeling overwhelmed"), and

IV. DISCUSSION

This study found that nursing students possess a good level of knowledge about stress, consistent with findings among health sciences students in Ghana (17). However, a significant knowledge-practice gap exists, as students reported high stress levels despite this awareness, echoing findings by Ajayi and Olufemi (18).

The primary stressors identified—heavy academic workload, examinations, and financial difficulties—align with research across Nigerian and African

universities (19, 20). The demanding nature of nursing curricula, combining theory and clinical practice, exacerbates these pressures (21).

The significant negative impact of stress on academic performance (reported by 64.35%) corroborates studies from Ethiopia and Ghana linking high stress to poorer academic outcomes (22, 23). Impaired concentration and fatigue were major reported effects, which are known to hinder learning and cognitive function (24).

Stress also significantly diminished students' quality of life, affecting sleep, physical health, and emotional well-being. This finding is supported by studies in Pakistan and South Africa, which reported strong negative correlations between academic stress and QoL domains (25, 26). The qualitative data enriched these findings, providing context to the quantitative results by detailing the lived experience of stress as a pervasive force affecting all aspects of student life.

The significant relationship between higher academic level (HND1) and better stress knowledge suggests that accumulated experience may increase awareness, while married students' higher knowledge may stem from managing dual stressors. The disparity between high awareness of stressors and the slightly lower percentage reporting academic performance impact may indicate resilience or the use of some coping mechanisms.

Limitations

The study was conducted in a single institution, limiting generalizability. Self-reported data are subject to bias. The cross-sectional design cannot establish causality.

V. CONCLUSION

This study concludes that nursing students at the College of Nursing Sciences, Ado Ekiti, have a good understanding of stress and are highly aware of its academic and financial causes. Despite this knowledge, stress profoundly and negatively affects their academic performance and overall quality of life. The findings underscore stress as a critical concern in nursing education.

VI. RECOMMENDATIONS

1. The college management should integrate structured stress management and resilience-training programs into the curriculum.

2. Institutional support systems, including accessible counseling services and peer support networks, should be strengthened.
3. Curriculum planners should review academic workloads and examination schedules to mitigate overwhelming pressure.
4. The government and institution should provide recreational facilities to promote student well-being.
5. Further research should explore longitudinal effects and test interventions across multiple nursing schools.

VII. ACKNOWLEDGMENTS

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Declarations

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Ethics Approvals and Consent to Participate

Ethical approval was granted by the Ethics Committee of the Ekiti State University Teaching Hospital (EKSUTH), Ado-Ekiti (Ref: [EKSUTH/A67/2025/07.019]). Written informed consent was obtained from all participants. All methods were performed in accordance with the relevant guidelines and regulations (Declaration of Helsinki).

Conflict of Interest

The author declares that they have no competing interests.

Authors' Contributions

ARD conceived and designed the study, collected and analyzed the data, and wrote the manuscript.

Consent for Publication

Not applicable.

Highlights

What is the current knowledge?

- Stress is a prevalent issue among university students globally and in Africa.
- It is linked to poor academic performance and reduced quality of life.
- Nursing students face unique stressors due to demanding training.

What is new here?

- This mixed-methods study provides specific insights from Nigerian nursing students.

- Students have high stress knowledge but still experience severe negative impacts.
- Financial difficulties and academic workload are paramount stressors in this context.
- The study clearly links stress to diminished academic performance and quality of life in this population.

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