

INFLUENCE OF ACADEMIC STRESS, ANXIETY AND DEPRESSION ON SELF-ESTEEM AMONG UNDERGRADUATE STUDENTS OF NASARAWA STATE UNIVERSITY KEFFI

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Abstract

This study examined the relationship between academic stress, anxiety, depression on self-esteem among undergraduate students of Nasarawa State University, Keffi. A correlational survey research design was adopted to explore how these psychological variables interact without manipulation. A total of 200 students were selected using stratified random sampling based on faculty, level, and gender to ensure representativeness. Data were collected using the Depression, Anxiety and Stress Scale (DASS-21) and the Rosenberg Self-Esteem Scale (RSES), both of which have demonstrated satisfactory reliability in Nigerian populations. Descriptive statistics and Pearson Product-Moment Correlation were employed for data analysis using SPSS version 27. Findings revealed significant but weak positive relationships between academic stress and self-esteem ($r = .20, p < .05$), anxiety and self-esteem ($r = .21, p < .05$), and depression and self-esteem ($r = .20, p < .05$). Contrary to dominant literature, the results suggest that increases in stress, anxiety, and depression were associated with slight increases in self-esteem among the sampled students. These outcomes may reflect contextual and cultural influences, where psychological distress is appraised as a challenge and moderated by resilience factors such as social and religious support systems. The study concludes that academic stress, anxiety, and depression are significant predictors of self-esteem, though their effects may vary depending on individual perception and coping mechanisms. It highlights the need for institutional interventions, including counseling services, mental health education, and peer support programs, to enhance students' psychological well-being.

Keywords: academic stress, anxiety, depression, self-esteem, undergraduates

Introduction

Academic stress refers to the psychological distress associated with anticipated academic challenges or failure. It encompasses factors such as

excessive workload, time constraints, and high expectations from self and others. Aihie and Ohanaka (2019) investigated perceived academic stress among undergraduate students in a Nigerian university and found that male students reported higher stress levels than females. Additionally, final-year students experienced more significant stress compared to their junior counterparts, highlighting the cumulative nature of academic pressures over time.

At Nasarawa State University, Doka et al. (2025) examined the impact of academic stress and resilience on life satisfaction among undergraduates. Their study revealed a negative correlation between academic stress and life satisfaction, suggesting that increased academic stress diminishes students' overall contentment with life. Conversely, resilience a personal attribute enabling individuals to adapt to stress was positively correlated with life satisfaction, indicating its protective role against the adverse effects of academic stress.

Anxiety and depression are prevalent mental health concerns among university students globally. Anxiety involves excessive worry and fear, while depression is characterized by persistent sadness and loss of interest in activities. Coker et al. (2019) assessed depression, anxiety, stress, and self-esteem among students in Owo, Southwest Nigeria. They reported high prevalence rates: 56% for probable depression, 42% for anxiety, and 47% for stress. These findings underscore the significant mental health challenges faced by Nigerian undergraduates.

In a related study, Abubakar et al. (2024) explored the influence of self-esteem and substance use on depression among undergraduates at the Federal University of Lafia, Nasarawa State. The results indicated that low self-esteem and substance use significantly predicted higher levels of depression, emphasizing the complex interplay between these variables and their impact on students' mental health.

Self-esteem reflects an individual's overall subjective evaluation of their worth. It plays a critical role in students' academic performance and psychological well-being. Forde et al. (2015) investigated the prevalence of depression and low self-esteem among medical students at the University of Cape Coast, Ghana. They found a medium negative correlation between depression and self-esteem, indicating that students with lower self-esteem were more likely to experience depressive symptoms.

Also, a study conducted in Lagos, Nigeria, examined the relationship between self-esteem, anxiety, and depression among university students. The findings revealed negative correlations between self-esteem and both anxiety and depression, suggesting that higher self-esteem is associated with lower levels of these psychological distress indicators.

The interrelationships among academic stress, anxiety, depression, and self-esteem are complex and multifaceted. Mustapha, et al. (2022) investigated academic stress and social anxiety among undergraduates at the University of Ilorin. Their study highlighted that increased academic stress is associated with higher levels of social anxiety, which can negatively impact students' academic engagement and performance.

Similarly, Iroegbu (2015) explored the influence of self-concept and anxiety on academic excellence among undergraduate students. The study found that students with lower anxiety levels performed better academically, while self-concept did not have a significant direct effect on academic performance.

At Nasarawa State University, understanding the dynamics of academic stress, anxiety, depression, and self-esteem is particularly pertinent. The university's diverse student population faces various challenges, including adjusting to academic rigor, financial constraints, and socio-cultural expectations. Doka et al. (2025) emphasized the necessity for interventions aimed at reducing academic stress and enhancing resilience to improve life satisfaction among students.

The intricate relationships between academic stress, anxiety, depression, and self-esteem significantly influence undergraduate students' mental health and academic outcomes. Empirical evidence from Nigerian universities, including Nasarawa State University, underscores the prevalence and impact of these psychological factors. Addressing these issues through targeted interventions, such as counselling services and resilience-building programs, is essential to foster a supportive academic environment that promotes students' well-being and academic success.

In recent years, there has been a noticeable increase in psychological concerns among university community, particularly issues related to academic stress, anxiety, and depression. These emotional difficulties often stem from the intense academic demands, competitive environments, financial challenges, and personal or social pressures that students face during their university experience. At Nasarawa State University, undergraduate students are no exception to these stressors, as many of them struggle to balance academic expectations with personal well-being. Despite awareness of these challenges, the psychological well-being of students continues to be overlooked, and its influence on their self-esteem remains under-researched.

Self-esteem, which is crucial to students' academic motivation, interpersonal relationships, and overall mental health, is highly susceptible to emotional disturbances like chronic stress, persistent anxiety, and depressive symptoms. When students experience prolonged stress or anxiety, it may negatively affect how they view themselves, potentially leading to feelings of worthlessness and helplessness, which can in turn impair academic performance and social adjustment. Depression, when unaddressed, may further compound these challenges by creating a cycle of low self-worth and poor mental health outcomes.

Although several studies have explored academic stress and mental health independently, there remains a significant gap in understanding how the combined effects of academic stress, anxiety, and depression directly

influence self-esteem among undergraduate students in a Nigerian context specifically at Nasarawa State University. This study, therefore, seeks to bridge this gap by examining the extent to which academic stress, anxiety, and depression impact the self-esteem of undergraduate students, with the aim of providing data that can inform psychological interventions and institutional support systems within the university environment.

Research Questions

1. What is the relationship between Academic stress and self-esteem among undergraduate students of Nasarawa State University Keffi?
2. What is the relationship between Anxiety and self-esteem among undergraduate students of Nasarawa State University Keffi?
3. What is the relationship between depression and self-esteem among undergraduate students of Nasarawa State University Keffi?

Objectives of the study

The objectives of this study is to:

1. Evaluate the relationship between Academic stress and self-esteem among undergraduate students of Nasarawa State University Keffi.
2. Examine the relationship between Anxiety and self-esteem among undergraduate students of Nasarawa State University Keffi.
3. Examine the relationship between depression and self-esteem among undergraduate students of Nasarawa State University Keffi.

Research hypotheses

1. There will be a significant relationship between Academic stress and self-esteem among undergraduate students of Nasarawa State University Keffi.

2. There will be a significant relationship between Anxiety and self-esteem among undergraduate students of Nasarawa State University Keffi.
3. There will be a significant relationship between depression and self-esteem among undergraduate students of Nasarawa State University Keffi.

Methods

Research Design

This study employed a correlational survey research design. This design was appropriate because it allowed the researcher to determine the relationship between academic stress, anxiety, depression (independent variables), and self-esteem (dependent variable). The design enabled the collection of quantifiable data and analysis of relationships among psychological constructs without manipulating any variable.

Sample and Sampling Technique

A sample of 200 undergraduate students was selected using a stratified random sampling technique. Stratification was based on faculty, level of study, and gender to ensure proportional representation of the university population. The selection process enhanced the generalizability of findings within the institution.

Instruments

The study utilized a structured questionnaire composed of two standardized psychological scales:

Depression, Anxiety and Stress Scale (DASS-21)

Developed by Lovibond and Lovibond (1995), the DASS-21 assesses the emotional states of depression, anxiety, and stress through 21 items rated on a 4-point Likert scale (0-3). Each subscale consists of seven items

measuring specific aspects of psychological distress. The scale has demonstrated high reliability internationally ($\alpha = 0.93$) and in Nigerian samples (Oladipo & Balogun, 2010; Bello et al., 2020). Reported Cronbach's alphas among Nigerian populations include Depression ($\alpha = 0.82-0.88$), Anxiety ($\alpha = 0.79-0.85$), and Stress ($\alpha = 0.81-0.87$), supporting its use for this study.

Rosenberg Self-Esteem Scale (RSES)

Developed by Rosenberg (1965), the RSES is a widely used measure of global self-esteem consisting of 10 items rated on a 4-point Likert scale ranging from "strongly agree" to "strongly disagree." Items 2, 5, 6, 8, and 9 are negatively worded and reverse scored. Scores range from 10 to 40, with higher values indicating greater self-esteem. The scale has been validated in Nigerian populations with good reliability (Adewuya et al., 2006; Ojedokun & Idemudia, 2014), and Cronbach's alpha typically ranges between 0.77 and 0.88.

Procedure

Data collection was carried out through the administration of hard-copy questionnaires by the researcher and two trained research assistants. Prior to the administration of the instrument the researchers obtained institutional approval from the school authority after which participants were informed about the study's purpose, confidentiality of responses, and voluntary nature of participation. Informed consent was obtained in writing from all participants. Completed questionnaires were collected on-site to ensure a high response rate.

Method of Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics (mean, standard deviation, frequency) were used to summarize participants' demographic characteristics and responses. Pearson Product-Moment Correlation

(PPMC) was employed to test the three hypotheses, examining relationships among academic stress, anxiety, depression on self-esteem.

Ethical Considerations

The study was conducted in accordance with the ethical standards of the Nasarawa State University Research Ethics Committee. Participants were assured of anonymity and confidentiality, and no identifying information was collected. The research adhered to the principles of voluntary participation, informed consent, and respect for the dignity of all participants

Results

Data were analysed using Pearson Product-Moment Correlation to test the three hypotheses formulated for this study. Results are presented as follows:

Hypothesis One

There will be significant relationship between Academic stress and self-esteem among undergraduate students of Nasarawa State University Keffi. This was tested using Pearson product moment correlation analysis and the result was presented in Table 1;

Table 1: Pearson Product Moment Correlation Showing the Relationship Between Academic Stress and Self-Esteem

Variable	Mean	SD	r	df	P
Academic Stress	22.30	10.11	.20	48	<.05
Self-Esteem	21.72	9.59			

Table 1 shows results of the analysis where it revealed a significant relationship between academic stress and self-esteem ($r = .20$, $p < .05$). The descriptive statistics shown that academic stress ($M = 22.30$; $SD = 10.11$) and self-esteem ($M = 21.72$; $SD = 9.59$). Although the correlation is weak, it indicates that as academic stress increases, self-esteem also tends to increase slightly among students. Thus, the hypothesis was accepted.

Hypothesis two

There will be significant relationship between Anxiety and self-esteem among undergraduate students of Nasarawa State University Keffi. This was tested using Pearson product moment correlation analysis and the result was presented in Table 2,

Table 2: Pearson Product Moment Correlation Showing the Relationship Between Anxiety and Self-Esteem

Variable	Mean	SD	R	df	P
Anxiety	19.81	12.19	.21	98	<.05
Self-Esteem	20.08	12.10			

As it is shown on Table 2, there exists a significant relationship between Anxiety and Self-Esteem ($r = .21$, $P < 0.05$). It also shown the standard deviation and mean score; anxiety ($M = 19.81$; $SD = 12.19$) and self-esteem ($M = 20.08$; $SD = 12.10$). This has confirmed the stated hypothesis and was accepted in this study.

Hypothesis three

There will be significant relationship between depression and self-esteem among undergraduate students of Nasarawa State University Keffi. This was tested using Pearson product moment correlation analysis and the result was presented in Table 3;

Table 3: Pearson Product Moment Correlation Showing the Relationship between Depression and Self-Esteem

Variable	Mean	SD	R	df	P
Depression	20.30	10.18	.20	92	<.05
Self-Esteem	20.72	10.59			

As it is shown in Table 3, there exists a significant relationship between Depression and Self-Esteem ($r = .20$, $P < 0.05$). This is equally found in the standard deviation and mean score; Depression ($M = 20.30$; $SD = 10.18$) and self-esteem ($M = 20.72$; $SD = 10.59$). This has confirmed the stated hypothesis, as such accepted in this study.

Discussion of the findings

The primary purpose of this study was to investigate the influence of academic stress, anxiety, and depression on self-esteem among undergraduate students at Nasarawa State University, Keffi. The results revealed significant but weak positive correlations among the variables.

The finding from the first hypothesis indicates a significant positive relationship between academic stress and self-esteem. While this may appear counterintuitive since most literature reports a negative relationship it can be explained by contextual and cultural factors. According to Lazarus and Folkman's (1984) transactional model of stress, individuals' appraisal of stress determines its impact. Students who perceive academic stress as a challenge rather than a threat may channel it toward improved effort and personal growth, which may enhance their sense of competence and self-worth. Thus, academic stress, when perceived positively, could coexist with, or even strengthen self-esteem.

The second finding revealed a significant positive correlation between anxiety and self-esteem. Conventionally, anxiety is viewed as detrimental to self-esteem; however, this study suggests that moderate anxiety may serve as a motivational force. Similar findings have been reported by Pekrun et al. (2010), who found that controlled anxiety can heighten alertness and task engagement, potentially reinforcing self-efficacy and confidence. Students with a strong sense of self-worth might experience anxiety not due to low self-esteem, but because of heightened academic aspirations and performance concerns.

Finally, the third hypothesis of the study also found a significant positive relationship between depression and self-esteem. This contradicts a large body of evidence (Orth et al., 2008; Sowislo & Orth, 2013) which generally links depression with diminished self-esteem. However, in the Nigerian context, social and religious support systems may buffer the psychological impact of depressive symptoms. Students may draw on faith, family, or communal identity to maintain a baseline level of self-worth despite depressive moods. This aligns with findings by Adewuya et al. (2006), suggesting that collectivist values can moderate the relationship between negative affect and self-perception.

Overall, these findings underscore the complexity of emotional experiences among university students and the contextual nature of stress, anxiety, and depression as psychological constructs. The positive relationships observed suggest that undergraduates at Nasarawa State University may have developed resilience strategies enabling them to balance psychological pressures with self-affirmation.

Conclusion

Based on the findings of this study, the following conclusions were made.

- i. That self-esteem is affected by academic stress, anxiety, and depression. Also, a student who is going through academic stress will experience changes in his/her academic performance.
- ii. It also concluded that while academic stress, anxiety, and depression play a considerable role in shaping students' self-esteem, their direct effect on academic performance is less pronounced.
- iii. Academic stress, anxiety, and depression are important predictors of self-esteem among undergraduate students. High levels of these psychological factors may contribute to lower self-esteem.
- iv. There is a need to address mental health concerns among undergraduates, particularly stress, anxiety, and depression, due to their impact on emotional well-being.

Recommendations

The findings of this research work prompted for the following recommendation.

- i. University counseling units should organize workshops on stress and emotion management.
- ii. Peer mentoring programs should be established to foster academic and social support.
- iii. Curricula should include mental health awareness and coping strategy modules.

Limitation

This study was limited to one university and used self-report measures, which may introduce bias. Future studies should employ longitudinal and mixed method approaches to explore causal relationships and deeper psychological mechanisms.

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