



PREDICTORS OF DEPRESSIVE SYMPTOMS AMONG UNDERGRADUATE STUDENTS IN SOUTHWEST NIGERIA: THE MODERATING ROLE OF INSTITUTIONAL SATISFACTION.

Olusegun Akande^{1*}, Jesujoba Olanrewaju², & Bolade Mokuolu³

¹Lead City University, Ibadan, Nigeria.

²North Dakota State University, Fargo, USA

³Ekiti State University, Ado Ekiti, Nigeria

(Corresponding Author: akande03@gmail.com, Mobile: 08034490208)

ABSTRACT

University undergraduates face an alarming burden of depression, a public health issue that undermines educational success and compromises student well-being. This study examined the associations between perceived lecturer competence, institutional satisfaction, academic level, and depressive symptoms among undergraduates in three private and one public Universities across three states of Southwest of Nigeria (N = 401), using a locally adapted Lecturer Competence Scale and the Patient Health Questionnaire-9 (PHQ-9). Linear regression showed that higher perceived lecturer competence predicted significantly lower depressive symptoms ($\beta = -0.22, p < .001$). A one-way ANOVA revealed that institutional satisfaction was associated with fewer depressive symptoms, $F(2, 398) = 11.45, p < .001$. First-year students reported higher depressive symptoms than senior students, $t(399) = 2.61, p = .009$, Cohen's $d = 0.34$. Hierarchical regression demonstrated a significant interaction between perceived lecturer competence and institutional satisfaction ($\Delta R^2 = .016, p = .032$), indicating that the negative association between lecturer competence and depressive symptoms was weaker among students satisfied with their institution, and stronger among students who were not. These findings emphasize the importance of lecturer quality and institutional climate in safeguarding student mental health. Policies that foster supportive learning environments and enhance lecturer competence may help reduce depression among undergraduates.

Key Words: *Depressive symptoms, lecturer competence, institutional satisfaction, academic level, Nigerian undergraduates*

Editor-in-Chief

Assoc. Prof. Johnson Tunde Oyeleke

Associate Editors

Dr. Femi Agberotimi, Dr. Abel Obosi, Dr. Abayomi Daramola, Ajibola Abdul Rahmon Ishola, Prof. A. O. Taiwo, Dr. Joy Ariyo

Consulting Editors

Prof. Peter O. Ebigbo, Prof. Ebenezer O. Akinawo, Prof. Helen O. Osinowo, Prof. Onalapo K. Taiwo, Prof. Erhabor Idemudia, Prof. Harry O. Nwosu, Prof. Obiageli Omeje, Prof. Benjamin O. Olley, Prof. Gboyega E. Abikoye, Prof. Henry Imhonde

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

INTRODUCTION

Depression, also known as depressive disorder, is a common mental health problem. It is characterized by low mood, prolonged sadness, and lack of interest in pleasurable experiences. Approximately 332 million people have depression in the world (World Health Organization [WHO], 2025). Depression is generally considered to be a global public health challenge, contributing significantly to disability and reduced functional capacity. Among undergraduate students, the prevalence of depressive symptoms poses a great problem not only to their academic performance but also to their general psychological well-being (Mgbenkemdi & Okafor, 2021).

Several factors can be responsible for the occurrence of depression. Genetic, social, psychological and environmental factors do interact together to predispose a person to depression or depressive disorder (WHO, 2025). Depression is becoming more commonplace at an alarming rate. The most urgent public health issues are depression disorders, which are linked to significant impairment, comorbidity, low quality of life, and high mortality. It affects people's capacity to engage in community life, economic activity, education, and social and cultural interactions. Young adults with

depression are also at risk for suicide and suicidal thoughts (Ahmed et al., 2020).

In Nigeria, data on the prevalence of mental illness among Nigerian undergraduate students reveal that depression is a serious problem among the population, and the public has not given undergraduate students' mental health issues the attention it deserves. Between October 2022 and May 2023, a cross-sectional study was carried out at Bowen University Hospital in Iwo, Osun State, Nigeria, involving 877 undergraduate students. The percentage of students with mild, moderate, and severe anxiety disorders was 14.9%, 10.4%, and 1.9%, respectively. Comparably, mild, moderate, and severe depression affected 11.2%, 5.1%, and 0.5% of students, respectively. According to the study, anxiety disorders and depression are strongly positively correlated in college students (Adeleke et al., 2023a)

Despite growing awareness, research in the Nigerian context has mostly focused on demographic and economic predictors of depression such as age and household income (Adeleke et al., 2023b). However, less is known about how university-specific variables, such as perceptions of lecturer competence, satisfaction with institutional environment, and academic level, influence depressive symptoms. Meanwhile, Liu and

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Wang, (2024) found that higher student satisfaction with university life has been shown to predict lower depression and anxiety longitudinally, and general life satisfaction is inversely associated with depressive symptoms among students (Kim et al., 2018).

Statement of the Problem

More than 700,000 people die as a result of suicide annually (WHO, 2023). Suicide is the fourth reason for death among the 15-29-year-old people. The prevalence of depression and other mental health problems has led the WHO to come up with a Mental health plan 2013-2030. The program is officially called Mental health Gap Action Programme (mhGAP) (WHO, 2023). Depression and suicide constitute a major priority of this programme.

Depression among young people constitutes a heavy burden in the health care system. One in seven people aged 10 to 19 worldwide suffer from a mental illness, making up 13% of the age group's overall disease burden. Adolescent disease and disability are primarily caused by behavioral disorders, anxiety, and depression. Among those aged 15 to 29, suicide ranks as the fourth most common cause of death. Failing to address mental health issues in adolescents has long-term effects on an adult's physical and mental well-being, as well as fewer opportunities for

an adult to lead a satisfying life (WHO, 2024).

Purpose of the Study

Given this gap, the present study examines how perceived lecturer competence, institutional satisfaction, and academic level relate to depression among undergraduate students in Southwest Nigeria. Understanding these associations is very important.

Objectives

The following objectives will be addressed in this study:

1. Evaluate whether perceived lecturer competence predicts levels of depression in undergraduates.
2. Determine the relationship between institutional satisfaction and student depressive symptoms.
3. Examine differences in depression across academic levels (e.g., first-year vs. final-year students).
4. Explore the interaction effects of lecturer competence and institutional satisfaction on depression across class levels.

By exploring these dynamics, the study seeks to inform university administrators, mental health professionals, and policymakers on how to enhance academic and emotional support systems.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Literature Review

Theoretical Framework

This study is anchored on Person-Environment Fit Theory, which holds that psychological well-being depends on the degree of fit between an individual and the demands, resources, and values of their environment. Applied to the university setting, this theory suggests that a student's depression risk reflects the fit, or mismatch, between the student and two features of the academic environment examined here: the perceived competence of lecturers (a resource dimension) and satisfaction with the institution (a values-and-needs dimension). Poor fit on either dimension, such as perceiving lecturers as incompetent or feeling dissatisfied with the institution, is expected to increase strain and, in turn, depressive symptoms, while good fit on both dimensions is expected to be protective.

Depression Among Undergraduate Students

Depression is one of the most prevalent mental health issues affecting university students globally. It is characterized by persistent sadness, fatigue, lack of interest or pleasure in activities, and cognitive distortions that impact functioning (American Psychiatric Association, 2013). Research shows that the university

environment, though intellectually stimulating, can be emotionally demanding because of academic pressure, social disconnection, and uncertainty about the future. Beiter et al. (2015) found that nearly one-third of the undergraduate students in Franciscan University report experiencing symptoms of depression, a figure that reflects growing mental health challenges in higher education settings. In Nigeria, several studies have echoed these concerns. Adewuya et al. (2006) found that 21.6% of Nigerian university students experienced moderate to severe depression, highlighting the pressing need for institutional and academic reforms that prioritize student well-being. Babu et al. (2022) carried out a study on the prevalence of depression among undergraduate nursing students at Krishna Institute of Nursing Sciences, Karad. It was found that 20% had minimal depression, 35% mild depression, 10% moderate depression, 17% moderately severe depression, and 18% severe depression.

Perceived Lecturer Competence and Student Mental Health

Lecturers are among the most influential figures in a student's academic life. Lecturer competence refers to their subject expertise, communication skills, engagement techniques, and feedback quality and it has a significant effect on students' academic

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

motivation and psychological well-being. According to Kember and Leung (2006), students are more engaged and satisfied when they perceive their lecturers as well versed, systematic, and compassionate. Conversely, when lecturers are perceived as incompetent or disengaged, students may feel frustrated, disconnected, and even anxious, increasing the risk for depression. Eliot and Turns (2011) suggest that the relational dynamic between students and lecturers can either buffer or amplify academic stress. Positive lecturer-student interactions foster belonging and confidence, while negative experiences can aggravate feelings of alienation and helplessness.

Institutional Satisfaction and Psychological Well-being

Institutional satisfaction refers to students' perceptions of the learning environment, administrative processes, facilities, and overall campus experience. Tinto (1993) emphasized that a student's satisfaction with their institution strongly predicts retention and success. Also, Schreiner (2009) found that institutional satisfaction is positively correlated with psychological flourishing and negatively associated with depression and dropout intentions. In Nigeria, Ibrahim et al. (2014) found that dissatisfaction with facilities, unstable academic calendars, and poor academic support services correlate

with increased mental health complaints among undergraduates. Students who feel their university fails to meet their academic and emotional needs are more likely to experience hopelessness and depression.

Class Level and Depression

Gaining admission into university can be a psychologically critical period, especially for first-year students. Research consistently shows that students in lower levels (particularly 100-level) report higher levels of anxiety and depression compared to those in higher years. Stallman (2010) attributes this trend to the sudden loss of known sources of support, adaptation stress, and unclear academic prospect. Conley et al. (2014) observed that students in higher levels tend to develop coping styles and a sense of mastery that buffer the impact of stress. In the Nigerian context, Bayram and Bilgel (2008) found that first-year students often feel overwhelmed by academic demands and are less likely to seek help, making them more susceptible to depression. This highlights the importance of early intervention and orientation programs.

Interaction Between Lecturer Competence and Institutional Satisfaction

Although many studies have examined the individual effects of lecturer competence and institutional satisfaction on student mental

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

health, their interactive influence remains underexplored. The Person-Environment Fit Theory (Edwards et al., 1998) posits that well-being is maximized when there is alignment between an individual's needs and the support provided by their environment.

It is therefore plausible that students who perceive both high lecturer competence and high institutional satisfaction will report lower levels of depression, regardless of class level. This interaction may create a psychologically safe learning environment that promotes resilience and emotional stability. While prior research has established demographic predictors of depression among Nigerian undergraduates, the interaction between pedagogical quality (lecturer competence) and institutional satisfaction

remains under-researched. This study addresses that gap.

Hypotheses

H₁: Perceived lecturer competence will be negatively correlated with depressive symptoms among undergraduate students.

H₂: Students reporting higher institutional satisfaction will demonstrate significantly lower levels of depressive symptoms.

H₃: First-year undergraduate students will exhibit significantly higher levels of depressive symptoms compared to students in higher academic years.

H₄: The association between perceived lecturers' competence and depressive symptoms will be moderated by institutional satisfaction

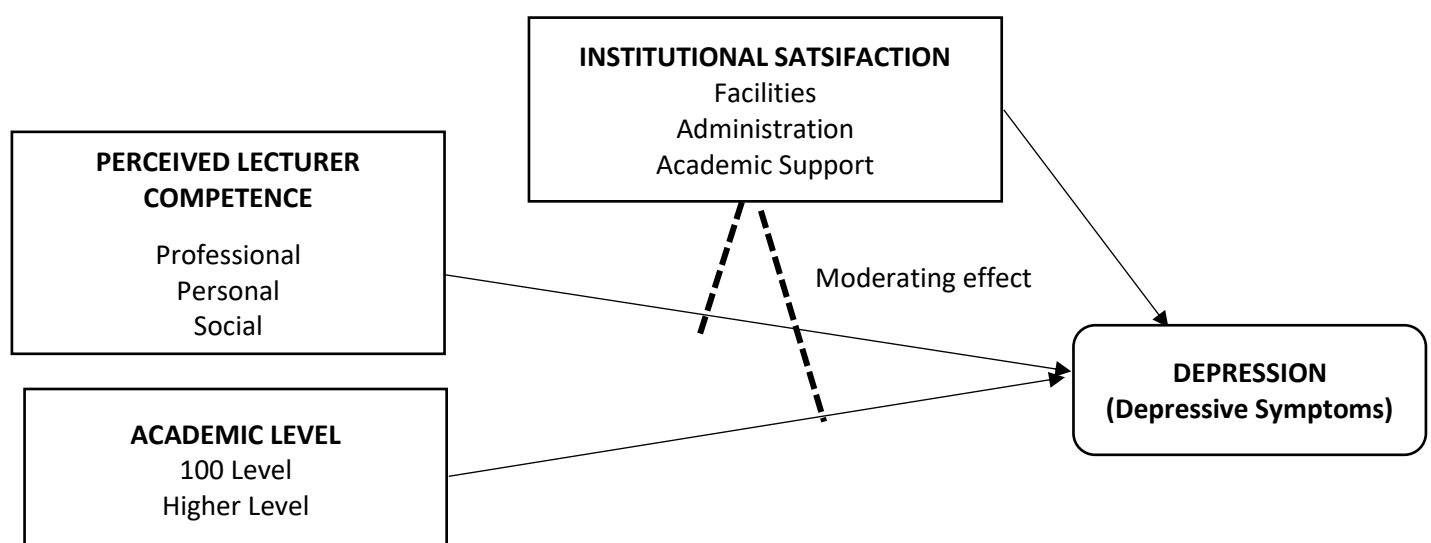


Fig 1: Conceptual Moderation Model of the Relationship Between Perceived Lecturer Competence and Depressive Symptoms as Moderated by Institutional Satisfaction

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

METHOD

Research Design

This study used Correlational Cross-Sectional Design. It is intended to find whether there are relationships between perceived lecturer competence, institutional satisfaction, class level and depression among university undergraduates.

Population of the Study

The population includes all university undergraduates from four universities in the south West of Nigeria namely, University of Ibadan, Lead City University, Ibadan, Oyo State, Babcock University, Ilishan-Remo, Ogun State and Bowen University, Iwo, Osun State.

Sample and Sampling Technique:

A non-probability snowball sampling technique was used with the help of Google form in order to reach the respondents from the four institutions through their class representatives. This also yielded reasonable variation in gender, age, and year of study across both the public and private universities. However, because snowball sampling is a non-probability method, the sample cannot be assumed representative of the full undergraduate population, a limitation addressed later in this paper.

Sample Size: An a priori power analysis for a multiple regression with five predictors ($f^2 = .08$, $\alpha = .05$, power = .80) indicated a minimum required sample of approximately 160 participants (Ryan, 2013). As an additional check, Slovin's formula (Bobbitt, 2023) was used to estimate the minimum sample size needed given the target population and an acceptable margin of error. A total of 715 students completed the survey; 401 fully completed and valid responses were retained for analysis, exceeding both the power-analysis and Slovin's-formula estimates.

Description of the Research Instruments

Data was collected using self-administered questionnaire which comprises three sections (A, B, and C.)

Section A measured socio-demographic variables

The socio-demographic variable are age, sex, study level, Academic Class of Grade, department, faculty, Name of Institution, Satisfaction with Institution and perceived socio-economic status.

Section B measured Depression

Depression was assessed with Patient Health Questionnaire PHQ-9. PHQ-9 contains 9 items and it was developed by Drs. Robert L.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues; it was published in the year 1999. It is used to measure the severity of depression in patients (Kroenke, Spitzer, & Williams, 2001), with strong internal consistency reported in the original validation ($\alpha = .83$).

Section C measured Lecturers' Competence

This study adopted a scale used by a study on how lecturers' competency influences entrepreneurial intention among undergraduate university students in Tanzania (Ismail, 2022). The scale contains 17 items and has four dimensions namely, Professional Competence (PRC: 4 items), Personal Competence (PEC: 3 items), Social Competence (SOC: 4 items), Psychological Contract Fulfilment (PSC: 3 items), Entrepreneurial Intentions (ENI: 3 items). Meanwhile, the Psychological Contract Fulfilment and Entrepreneurial Intentions are removed because the dimensions are not relevant to this study. The relevant dimensions are the PRC, PEC and SOC. Furthermore, the items in the three dimensions were reviewed to fit Nigerian University context. Professional competency (PRC) – items 1-4, Personal competency (PEC) – items 5-7, Social Competence (SOC) – items 8-11 are the outcome of the review. The items were administered unto 21 experts (Lecturers) from different

Universities in the South West of Nigeria. The Content Validity Ratio (CVR) and Content Validity Index (CVI) were calculated and the result indicated that item 8 scored 0.43, below the acceptable threshold for a panel of 21 experts. Therefore item 8 was removed from the scale. Also, an instrument testing was carried out on the remaining items. The remaining 10-item scale demonstrated good internal consistency, with a Cronbach's alpha of 0.86, indicating that the items reliably measure the underlying construct.

Method of Data Collection

Questionnaire was distributed to respondents via the internet platform. The self-administered questionnaire was developed and distributed using the online survey tool namely, the google form. The four university campuses were contacted through various class representatives and were requested to carry out the research among their classmates. Respondents were sent the link that took them directly to the online survey platform where they had access to the questionnaire.

Data Analysis

Data collected from respondents was entered in an excel spreadsheet on Google form and was entered and coded for analysis. The Statistical Package for Social Sciences

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

(SPSS) was used to process data, and results were presented as frequency distributions, charts, tables, means, and standard deviations. Hypothesis 1 was tested using simple linear regression; Hypothesis 2 using a one-way ANOVA; Hypothesis 3 using an independent-samples t-test; and Hypothesis 4 using hierarchical multiple regression with an interaction term.

Results

H₁: Perceived lecturers' competence will be negatively correlated with depressive symptoms among undergraduate students;

Ethical Considerations

Lead City university Institutional Review Board that approved this study. Participants were informed of the purpose of the study, their right to withdraw at any point without penalty, and the confidentiality of their responses. Informed consent was obtained from all participants before they proceeded to complete the Google Form.

this was tested using simple linear regression and summary result is in Table 1.0.

Table 1.0: Linear Regression Predicting Depression (PHQ-9) from Lecturer Competence

Predictor	B	SE	β	t	p	95% CI for B
Constant	13.71	1.06	—	12.93	<.001	[11.63, 15.80]
Perceived Lecturer Competence	-0.25	0.05	-0.27	-5.61	<.001	[-0.34, -0.16]

Model Summary: $R = .27$, $R^2 = .073$, Adjusted $R^2 = .071$, $F(1, 399) = 31.45$, $p < .001$

Hypothesis 1 predicted that perceived lecturer competence would be significantly associated with depressive symptoms among undergraduates. As reported in Table 1.0, this hypothesis was supported: higher perceived lecturer competence significantly predicted lower depressive symptoms. As a supplementary robustness check, lecturer competence scores were also grouped into three categories (competent, average, incompetent) and compared using a one-way ANOVA, which likewise showed a significant group difference, $F(2, 398) =$

7.28 , $p < .01$, partial $\eta^2 = .035$. Students who perceived their lecturers as competent ($M = 7.21$, $SD = 5.88$) reported significantly lower depressive symptoms compared to those who rated their lecturers as average ($M = 9.65$, $SD = 6.44$) or incompetent ($M = 10.04$, $SD = 6.81$). Post hoc analysis indicated that students who viewed their lecturers as incompetent or average were more vulnerable to depressive symptoms.

These findings indicate that perceptions of teaching quality and professional

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

competence are closely tied to students' psychological well-being. Students who trust their lecturers to be knowledgeable, approachable, and effective in delivering academic content are more likely to feel supported, confident, and emotionally secure in their academic pursuits. Conversely, perceptions of poor lecturer competence may contribute to academic stress, frustration, and

feelings of helplessness, which can fuel depressive symptoms.

H₂: Students reporting higher institutional satisfaction will demonstrate significantly lower levels of depressive symptoms. This was tested using One-way ANOVA and summary result is in Table 2.0.

Table 2.0: Means, Standard Deviations, and Sample Sizes for Depressive Symptoms by Institutional Satisfaction Group (N = 401)

<i>Institutional Satisfaction</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Satisfied (1)	6.92	5.52	251
Not Satisfied (2)	10.26	6.75	54
Neutral (3)	9.54	6.37	96
Total	8.00	6.06	401

Table 2.1: Summary of One-Way Analysis of Variance for Institutional Satisfaction Predicting Depressive Symptoms

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2p
Institutional Satisfaction	798.54	2	399.27	11.45	<.001	.054
Error	13,879.45	398	34.87			
Total	14,677.99	400				

Note. η^2p = partial eta squared.

Table 2.2: Tukey HSD Post Hoc Comparisons of Institutional Satisfaction Groups on Depressive Symptoms

Comparison	Mean Difference	<i>p</i>	95% CI for Mean Difference
Satisfied vs. Not Satisfied	-3.34	<.001	[-5.40, -1.28]
Satisfied vs. Neutral	-2.62	.002	[-4.35, -0.89]
Not Satisfied vs. Neutral	0.72	.691	[-1.36, 2.80]

Note. Negative mean differences indicate lower depression scores for the first group in each comparison.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

A one-way ANOVA was conducted to examine the effect of institutional satisfaction on depressive symptoms among undergraduate students. The results indicated a significant effect of institutional satisfaction on depression, $F(2, 398) = 11.45$, $p < .001$, $\eta^2p = .054$, suggesting that about 5.4% of the variance in depression scores can be explained by differences in institutional satisfaction. The descriptive statistics show that students who reported being satisfied with their institution ($M = 6.92$, $SD = 5.52$)

had significantly lower depressive symptoms compared to those who were not satisfied ($M = 10.26$, $SD = 6.75$) or neutral ($M = 9.54$, $SD = 6.37$). These findings support the hypothesis that higher institutional satisfaction is associated with lower levels of depression among undergraduates.

H₃: First-year undergraduate students will exhibit significantly higher levels of depressive symptoms compared to students in higher academic years

Table 3.0: Independent Samples t-Test Comparing Depression Scores of First-Year and Non-First-Year Students ($N = 401$)

Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>df</i>	<i>t</i>	<i>Sig.</i>	95% CI	Cohen's <i>d</i>
First-Year Students	329	8.36	6.20	0.34	399	2.61	.009	0.50, 3.58	0.34
Other Students	72	6.32	5.08	0.60					

Note. *M* = mean; *SD* = standard deviation; *SE* = standard error. Cohen's *d* effect size indicated a small-to-moderate effect ($d = 0.34$).

An independent samples t-test was conducted to compare depressive symptoms between first-year students and their peers in higher academic years. Results indicated that first-year students ($M = 8.36$, $SD = 6.20$, $n = 329$) reported significantly higher depressive symptoms than non-first-year students ($M = 6.32$, $SD = 5.08$, $n = 72$), $t(399) = 2.61$, $p = .009$, 95% CI [0.50, 3.58]. The effect size was small-to-moderate, Cohen's $d = 0.34$, suggesting that academic level accounts for a

modest but meaningful difference in depressive symptoms among undergraduates.

H₄: The association between perceived lecturers' competence and depressive symptoms will be moderated by institutional satisfaction. this was tested using Hierarchical regression and summary result is in Table 4.0.

Table 4.0: Hierarchical Regression Predicting Depression (PHQ-9)

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Model	R	R ²	Adjusted R ²	F	df	p
1	.312	.097	.088	10.65	4, 396	<.001
2	.336	.113	.099	8.35	6, 394	<.001

Model 1 (lecturer competence, institutional satisfaction, and academic year level) explained 9.7% of the variance in depression scores, $F(4, 396) = 10.65$, $p < .001$. Model 2 (adding interaction terms between lecturer competence and institutional satisfaction) explained 11.3% of the variance, $F(6, 394) =$

8.35, $p < .001$. The addition of the interaction terms (Model 2) led to a small but significant increase in explained variance ($\Delta R^2 = .016$, $p = .032$).

Table 4.1: Hierarchical Multiple Regression Predicting Depressive Symptoms from Lecturer Competence and Institutional Satisfaction ($N = 401$)

Predictor	B	SE	β	t	p	95% CI	VIF
Model 1							
Constant	8.89	0.91	—	9.77	<.001	[7.11, 10.67]	—
Lecturer competence (centered)	-0.20	0.05	-0.22	-4.26	<.001	[-0.29, -0.11]	1.12
Institutional satisfaction: Yes	-1.94	0.71	-0.16	-2.73	.007	[-3.34, -0.54]	1.16
Institutional satisfaction: No	0.19	0.99	0.01	0.19	.850	[-1.77, 2.14]	1.08
Academic year level	0.11	0.25	0.02	0.43	.664	[-0.39, 0.61]	1.03
Model 2							
Constant	8.48	0.92	—	9.27	<.001	[6.68, 10.28]	—
Lecturer competence (centered)	-0.36	0.09	-0.38	-3.88	<.001	[-0.54, -0.18]	1.65
Institutional satisfaction: Yes	[not reported]	—	—	—	—	—	—
Institutional satisfaction: No	-0.08	1.11	0.01	-0.07	.942	[-2.26, 2.10]	1.40
Academic year level	0.11	0.25	0.03	0.63	.529	[-0.34, 0.66]	1.03
LC $\times$ Institutional satisfaction: Yes	0.26	0.11	0.20	2.36	.019	[0.04, 0.48]	1.64
LC $\times$ Institutional satisfaction: No	0.03	0.15	0.01	0.21	.837	[-0.26, 0.32]	1.62

Note.

Model 1: $R^2 = .097$, Adjusted $R^2 = .088$, $F(4, 396) = 10.65$, $p < .001$.

Model 2: $R^2 = .113$, Adjusted $R^2 = .099$, $F(6, 394) = 8.35$, $p < .001$.

$\Delta R^2 = .016$, $F(2, 394) = 3.48$, $p = .032$.

Reference category for institutional satisfaction is “I can’t say.” Lecturer competence was mean-centered ($M = 22.74$). B = unstandardized coefficient; β = standardized coefficient; VIF = variance inflation factor.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

In Model 1, lecturer competence significantly predicted lower depressive symptoms ($\beta = -.217$, $t = -4.262$, $p < .001$), and institutional satisfaction was also a significant negative predictor ($\beta = -.155$, $t = -2.726$, $p = .007$). Academic year level was not a significant predictor ($p > .05$). The model accounted for approximately 9.7% of the variance in depressive symptoms ($R^2 = .097$, $F(4, 396) = 10.65$, $p < .001$). In Model 2, the addition of interaction terms significantly improved the model ($\Delta R^2 = .016$, $F(2, 394) = 3.475$, $p = .032$). The interaction between perceived lecturer competence and institutional satisfaction (Yes) was statistically significant ($\beta = .204$, t

$= 2.360$, $p = .019$, 95% CI [0.044, 0.480]), indicating that the negative association between lecturer competence and depressive symptoms was weaker among students who expressed satisfaction with their institution than among students who did not. The interaction between perceived lecturer competence and institutional dissatisfaction, however, was not significant ($p = .837$). These findings suggest that lecturer competence matters most for depressive symptoms among students who are not already satisfied with their institution, while satisfied students' depression levels are less dependent on how competent they perceive their lecturers to be.

DISCUSSION

The present study examined the associations between perceived lecturer competence, institutional satisfaction, academic level, and depression among undergraduate students in Southwest Nigeria. Overall, the findings suggest that institutional and academic variables are significantly associated with students' psychological well-being. Perceived lecturer competence (Hypothesis 1) was found to significantly influence depression levels. Students who perceived their lecturers as competent reported lower depressive symptoms compared to those who viewed their lecturers as average or incompetent. This finding resonates with

prior research highlighting the protective role of supportive and competent teaching on student mental health (Kember & Leung, 2006). Within the Nigerian context, where lecturer-student relationships are often hierarchical, students' perception of lecturer competence likely contributes to their sense of academic security and reduces feelings of helplessness. Poor lecturer competence, on the other hand, may create confusion, academic frustration, and low morale, which in turn elevate depressive symptoms.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Institutional satisfaction (Hypothesis 2) also emerged as a significant predictor of depression. Students who were satisfied with their institutions reported fewer depressive symptoms compared to dissatisfied or neutral students. This supports findings by Schreiner (2009) and Liu and Wang (2024), who demonstrated that institutional satisfaction is positively associated with psychological well-being and student retention. For Nigerian students, institutional challenges such as unstable academic calendars, inadequate infrastructure, and bureaucratic hurdles are major stressors. Satisfaction with institutional systems, therefore, provides a buffer against depression by fostering a sense of stability, belonging, and value within the academic environment.

Academic level (Hypothesis 3) was examined to determine whether depression varies across stages of undergraduate study. The results indicated significant differences, with higher levels of depression reported among first-year students compared to students in later years of study. This is consistent with research showing that first- and second-year students often report higher depression, anxiety, and stress than students in later years (Bayram & Bilgel, 2008). First-year students in Nigeria face a demanding transition to university life, including new academic expectations, unfamiliar social

environments, and distance from established support networks, all of which may contribute to psychological distress. Although the present sample showed first-year students at greatest risk, final-year students face distinct stressors, such as employment uncertainty and financial pressure, that merit separate investigation in future research.

Hypothesis 4, which tested the joint contribution of perceived lecturer competence, institutional satisfaction, and academic level, revealed that these predictors jointly accounted for a significant proportion of the variance in depression scores. This underscores the multidimensional nature of depression among undergraduates: it is associated with academic and institutional factors, not only individual psychological factors. The result aligns with the Person–Environment Fit Theory (Edwards et al., 1998), which posits that psychological well-being is enhanced when individual needs align with environmental support. In this study, when institutional structures, lecturer quality, and academic progression aligned with student expectations, depressive symptoms were reduced.

From a cultural perspective, the findings hold important implications. Nigerian society places strong emphasis on education as both a personal achievement and a family

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

investment. When students perceive barriers to their academic success—whether through incompetent lecturers, poor institutional practices, or overwhelming academic demands—they may experience guilt, shame, or hopelessness. Conversely, when their academic environment feels supportive, they are more likely to thrive both emotionally and academically.

Implications of the Study

The findings highlight the need for proactive mental health support in universities. Universities should consider integrating psychological counseling services, resilience-building programs, and peer support groups to address depression among students. Additionally, interventions aimed at boosting self-esteem and promoting adaptive coping strategies may help mitigate the risk of depression.

Overall, the study contributes to the understanding of depression among university undergraduates by identifying key institutional factors. Future research should explore longitudinal data to establish causal relationships and develop more targeted interventions to support students' psychological well-being.

Limitations of the Study

The study utilized a cross-sectional design, which limits the ability to establish causal

relationships between the independent variables. Longitudinal studies are needed to better understand the temporal dynamics and causality of these relationships. The reliance on self-reported measures for depression and socio-demographic factors may introduce response biases, such as social desirability or inaccurate self-assessment. Future studies could incorporate additional methods, such as clinical interviews or behavioral observations, to provide a more objective measure of depression. Although the sample includes students from both public and private universities, the study is still limited to only four institutions within Nigeria. The use of snowball sampling through an online form may also have introduced self-selection bias, and likely excluded students without reliable internet access. The comparison of academic levels grouped all non-first-year students together rather than isolating final-year students specifically, which may obscure differences between intermediate and final-year students. The findings may not be fully representative of students across different regions or countries. Further research could extend the study to other universities within and outside Nigeria, use probability-based sampling, and compare each academic level separately, to improve the generalizability of the results.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

The study's findings are based on the experiences of Nigerian university students, and cultural factors may influence the perception and expression of depression. Cultural norms and stigma surrounding mental health could affect the way students

Conclusion

This study provides evidence that depression among Nigerian undergraduates is significantly associated with institutional and academic factors. Specifically, perceived lecturer competence, institutional satisfaction, and academic level each predict depression independently, while their combined effect is even more pronounced. Students who are satisfied with their institutions and perceive their lecturers as competent report fewer depressive symptoms, whereas dissatisfaction, poor perceptions of teaching quality, and higher academic levels are associated with greater vulnerability.

The findings highlight the need for multilevel interventions. At the individual level, early screening and mental health services should be made more accessible to students. At the institutional level, universities must prioritize lecturer training, infrastructural improvements, transparent administration, and responsive student support systems. At the policy level, reforms to stabilize academic calendars and expand mental

report symptoms of depression. Thus, caution should be taken when applying these findings to populations with different cultural backgrounds.

health awareness campaigns are urgently needed.

Ultimately, addressing depression among undergraduates in Nigeria requires a holistic approach that acknowledges the interplay between student experiences, institutional structures, and cultural context. Such interventions will not only enhance student well-being but also contribute to producing resilient graduates equipped to face the demands of the future.

Recommendations

Capacity Building for Lecturers: Universities should prioritise continuous professional development for lecturers to enhance teaching competence, effective communication, and student mentorship. This will not only improve learning outcomes but also reduce depression linked to poor perceptions of lecturer competence.

Improving Institutional Satisfaction – Management should address areas that affect student satisfaction, such as hostel facilities, administrative responsiveness, and access to academic resources. A more student-friendly

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

environment will help buffer psychological distress.

Academic Level-Specific Support: First-year undergraduates should receive tailored interventions, including stress management workshops, academic workload planning, and orientation-based peer support, to ease the pressures of transitioning into university life.

B. Policy Recommendations

Higher Education Reforms: Policymakers should ensure stability in the academic calendar by addressing the frequent disruption of university activities (e.g., strikes). Stable educational environments will help reduce uncertainty and associated depressive symptoms among students.

Investment in Infrastructure: Government should allocate adequate funding to universities for the provision of modern learning facilities, conducive hostel environments, and recreational spaces to foster both academic success and student well-being.

Policy on Student Mental Health: National policies on higher education should include

frameworks for mandatory mental health programmes within institutions, ensuring that student psychological well-being is recognised as a core component of academic success.

C. Clinical Recommendations

Integration of Mental Health Services in Universities: University authorities should establish accessible mental health units on campuses, providing confidential counselling, routine psychological screening, and referral pathways for students with severe depression.

Psychoeducation and Awareness Campaigns: Mental health awareness programmes should be incorporated into student orientation and ongoing campus activities to reduce stigma and promote early help-seeking behaviour.

Family and Community Engagement: Families should be sensitised on recognising symptoms of depression and encouraged to provide emotional and financial support. Community-level sensitisation can further reduce stigma surrounding student mental health issues.

Funding

Declaration of Originality

I declare that this manuscript is my original work and has not been submitted or published elsewhere. I have reviewed and approved the final version of the manuscript.

Conflict of Interest

I declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgements

REFERENCES

Adeleke, O. T., Opadola, O. A., Rufai, M. M., Samuel, Y. A., Adeleke, O. V.,

& Adedeji, A. S. (2025). A cross-sectional study of anxiety and

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

- depression in a cohort of Nigerian undergraduates. *Annals of Health Research*, 11, 20–28. <https://doi.org/10.30442/ahr.1101-03-267>
- Adeleke, O. R., Aderonmu, K. A., Elumaro, A. I., Akomolafe, M. J., Adedayo, O. O., Olawale, J. O., & Oladimeji, A. A. (2023b). Determinants of depression among university students in Nigeria. *Journal of Educational and Psychological Studies*, 17(4), 391–397. <https://doi.org/10.53543/jeps.vol17iss4pp391-397> (jeps.squ.edu.om)
- Adewuya, A. O., Ola, B. A., Aloba, O. O., Mapayi, B. M., & Oginni, O. O. (2006). Depression amongst Nigerian university students. *Social Psychiatry and Psychiatric Epidemiology*, 41(8), 674–678.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Babu, L. K., Pawar, A. A., Shinde, M., Patil, S. S., Anjana, J., & Prasad, P. (2022). Depression within undergraduate students. *Journal of Pharmaceutical Negative Results*, 13(Special Issue 6), 586–590. <https://doi.org/10.47750/pnr.2022.13.S06.083>
- Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, 43(8), 667–672. <https://doi.org/10.1007/s00127-008-0345-x>
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, 173, 90–96.
- Ryan, T. P. (2013). *Sample size determination and power*. Wiley.
- Bobbitt, *What is Slovin's Formula? (Definition & Example)* <https://www.statology.org/slovins-formula/>, January 20, 2023.
- Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the transition to college. *Emerging Adulthood*, 2(3), 195–210.
- Edwards, J. R., Caplan, R. D., & Harrison, R. V. (1998). Person-environment fit theory. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 28–67). Oxford University Press.
- Eliot, M., & Turns, J. (2011). Constructing professional portfolios: Sense-making and professional identity development for engineering undergraduates. *Journal of Engineering Education*, 100(4), 630–654. <https://doi.org/10.1002/j.2168-9830.2011.tb00030.x>

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

- Ahmed, G., Adinew, Y. M., Yalew, A. W., & Kassahun, W. (2020). *Prevalence and associated factors of depression among Jimma University students: A cross-sectional study*. International Journal of Mental Health Systems, 14(52), 1–10. <https://doi.org/10.1186/s13033-020-00384-5>.
- Ibrahim, O. M., Obarisiagbon, E. I., & Oyeniran, T. E. (2014). Depression among Nigerian university students. *African Journal for the Psychological Study of Social Issues*, 17(3), 234–246.
- Isara, A. R., Ogbeiwi, O. I., Igwe, O., & Adewole, D. A. (2022). Prevalence and correlates of depression among university undergraduates in Edo State, Nigeria. *Nigerian Postgraduate Medical Journal*, 29(3), 193–199. https://doi.org/10.4103/npmj.npmj_149_22
- Ismail, I. J. (2022). My intentions, my choice! How does lecturers' competency influence entrepreneurial intention among undergraduate university students in Tanzania? *Cogent Education*, 9(1), 2151237. <https://doi.org/10.1080/2331186X.2022.2151237>.
- Kember, D., & Leung, D. Y. (2006). Characterising a teaching and learning environment. *Studies in Higher Education*, 31(2), 185–198.
- Kim, H., Park, S., & Smith, J. (2018). Life satisfaction and happiness associated with depressive symptoms among university students: A cross-sectional study in Korea. *Annals of General Psychiatry*. <https://doi.org/10.1186/s12991-018-0223-1> (BioMed Central)
- Liu, X., & Wang, J. (2024). Depression, anxiety, and student satisfaction with university life among college students: A cross-lagged study. *Humanities and Social Sciences Communications*, 11(1), 1–11. <https://doi.org/10.1057/s41599-024-03686-y>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606–613.
- Mgbenkemdi, E. H., & Okafor, I. A. (2021). The relationship between depression and life satisfaction among university undergraduates. *ESUT Journal of Social Sciences*, 6(2). (esutjss.com)
- Perera, M., Tham, J., & Azam, S. M. F. (2023). Factors associated with depression among undergraduates: A review of existing literature. *The Journal of Desk Research Review and Analysis*, 1(1), 65–83.
- Schreiner, L. A. (2009). Linking student satisfaction and retention. *NACADA Journal*, 29(1), 44–56.

Akande, O., Olanrewaju, J., & Mokuolu, B. (2026). Predictors of depressive symptoms among undergraduate students in Southwest Nigeria: The moderating role of institutional satisfaction.

Schreiner, L. A. (2009). Linking student satisfaction and retention. *Springer International Handbook of Educational Evaluation*, 617–635. https://doi.org/10.1007/978-1-4020-9014-0_37

Stallman, H. M. (2010). Psychological distress in university students. *Australian Psychologist*, 45(4), 249–257.

Suraj, A., Omigbodun, O., & Adewuya, A. (2021). Prevalence and factors associated with depression among university students in Nigeria. *Nigerian Postgraduate Medical Journal*, 28(3), 193–199. https://journals.lww.com/npmj/fulltext/2021/28030/prevalence_and_factors_associated_with_depression.8.aspx

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.

WHO, “Mental Health of Adolescents”, October 10, 2024 <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>.

WHO, *Depressive Disorder (Depression)*, March 31, 2023, [https://www.who.int/news-room/fact-sheets/detail/depression#:~:text=Depressive%20disorder%20\(also%20known%20as,and%20feelings%20about%20everyday%20life](https://www.who.int/news-room/fact-sheets/detail/depression#:~:text=Depressive%20disorder%20(also%20known%20as,and%20feelings%20about%20everyday%20life).

World Health Organization. (2025, August 29). *Depressive disorder (depression)*. <https://www.who.int/news-room/fact-sheets/detail/depression>