

Mental Health As A Correlate Of Academic Engagement Among Third Year Undergraduate Students In Kenyan Public Universities

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Abstract

Background: The Main Goal Of Universities In Kenya Is To Bestow Growth Experiences, Knowledge, Skills And Education For Their Students, But Low Academic Engagement Hinders This Goal. Low Academic Engagement In Kenyan Universities Could Be Linked To Students' Mental Health. This Study Set Out To (I) Determine The Relationship Between Depression And Academic Engagement Among Third Year Undergraduate Students In Kenyan Public Universities, (Ii) Establish The Relationship Between Anxiety And Academic Engagement (Iii) Find Out The Relationship Between Stress And Academic Engagement.

Materials And Methods: The Study Used Descriptive Correlational Research Design To Establish The Relationships And The Degree Of Association Among Variables. In This Study 415 Participants Were Selected From The Population Using Simple Random Sampling, Stratified And Purposive Sampling. Data Were Analyzed Using Spss (V.24). Data Were Analyzed Using T-Test For Independent Samples And Pearson's Product Moment Correlation Coefficient. Hypotheses Were Tested At $P = 0.05$.

Results: The Study Found A Zero Correlation Between Depression And Academic Engagement ($R(413) = 0.01$, $P < 0.05$). Anxiety Had A Non Significant Correlation With Academic Engagement ($R(413) = 0.06$, $P < 0.05$). A Non Significant Correlation Was Found Between Stress And Academic Engagement ($R(413) = 0.00$, $P < 0.05$).

Limitations: First, The Descriptive Correlational Research Design Means We Cannot Conclude On The Causal Relations. Second, The Self-Report Questionnaire Embeds Subjectivity Issues. Last, The Generalizability Of The Sample To The Whole Student Population In Kenya Is Limited, Considering The Sampling Method.

Conclusion: In Conclusion, The Zero And Non Significant Associations Between Depression, Anxiety, Stress And Academic Engagement Imply Least Importance In Academic Engagement. Therefore, The Study Recommended That, Lecturers, Administrators And All Stakeholders Should Create An Enhancing Environment To Foster Improvement Of Mental Health And Reduce Stigma Among Third Year Undergraduate Students As The Relationship Between Mental Health And Academic Engagement Was Inconsequential.

Key Words: Mental Health, Depression, Anxiety, Stress, Academic Engagement

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I. Background to the study

Academic engagement is a construct that highlights students' investment, commitment, active participation and identification with school-related activities to increase students' performance. Although researchers may define academic engagement differently, they all agree that academic engagement is multidimensional and encompasses three aspects, behavioural, cognitive, and emotional engagement all operating together to enhance students' learning (Alrashidi et al. 2016; Carter et al., 2012; Phan, 2014; Zhoc et al., 2019). The behavioral dimension includes student's involvement in both extracurricular and academic activities. Behaviourally, engaged students attend all classes, concentrate and do their school work on time. Participation in extra-curricular activities and socialisation in school lead to psychological wellbeing (Pachucki et al., 2015; Reis et al., 2015). The cognitive dimension explains student's mental effort to gain proficiency in difficult skills. This dimension directly impacts on academic engagement. Finally, the emotional dimension suggests student's

reactions to other students, school and teachers. Students who are not emotionally engaged are restless, irritable, lack concentration and are basically disinterested in school.

Miranda et al. (2020) further explains that mental health can affect students adversely affecting their cognitive, emotional, and physical emotional and cognitive resources necessary for engagement. In the contrary, a major outcome of student engagement is wellbeing which can alleviate stress, anxiety and depression of tertiary students (McIntyre et al., 2018). Some of the negative outcomes of low academic engagement include, absenteeism, failure to do continuous assessment tests and exams which lead to poor performance and alienation (Boulton et al., 2019). Research has shown that academic engagement is affected by students' mental health.

Over the last few decades, research has focused on impact, quality and outcomes of higher education and concerns raised on attrition (Burke, 2019; Crosling, 2017) which have risen in part by financial implications, civil rights of disadvantaged students and an increased demand for accountability of universities (Beer & Lawson, 2016; Crosling, 2017). Institutions that are rated highly are those that have incorporated student retention and academic engagement as part of their student operations, policy and strategic plan. (Beer & Lawson, 2016). In Africa, a study done in 30 predominantly Low and Medium Income Countries (LMICs) found high depressive and anxiety symptoms among university students (Bantjes et al., 2016; Peltzer & Pengpid, 2017). In South Africa research by Maunze et al. (2020) found that lack of internal branding had no effect on academic engagement. In Ghana, Essiam (2019) found that student learning experience, student experience with faculty, academic challenge, lecturer feedback and learning with peers significantly predicted student engagement.

In Kenya, university students were found with moderate or severe depressive symptoms (Othieno et al., 2015; Peltzer et al., 2013). In different situations, students need to use adaptive coping strategies to avoid stress, anxiety and depression (Ribeiro et al., 2017). Social stigma also had an impact on mental illness (Al Ali et al., 2017) which may prevent students from seeking help. Stress among students affect physical, psychological well-being and consequently academic engagement (Beiter et al., 2015; Hamaideh, 2015; Singh et al., 2015). Student engagement has also been studied with student retention by Ndege (2010) and results show that active student faculty interactions, collaborative learning and positive campus environment have significant impacts on student retention.

Mental health conditions that are of interest in this study are depression, anxiety and stress. The Depression, Anxiety and Stress Scale-21 (DASS-21) was used for this study. Third year undergraduate students were targeted in this study because it is a critical stage. Third year is the time to think seriously about expectations for the final year and the future. Diligence on how to manage time and resources in third year is important because the student's actions affect the final year performance and future. The students feel stressed, overwhelmed and anxious during this stage leading to mental illness that may affect their academic engagement.

The Purpose of the Study

This research purposed to establish if mental health correlates with academic engagement among third year undergraduate students in Kenyan public universities.

Objectives of the study

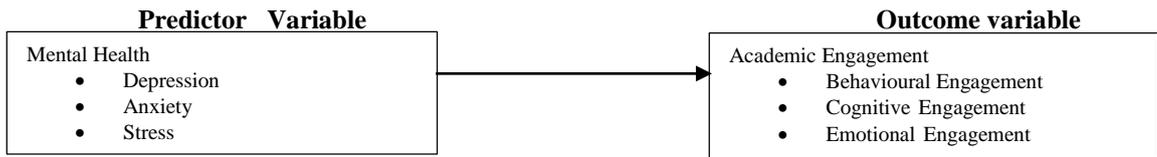
- i. Determine the relationship between depression and academic engagement among third year undergraduate students in Kenyan public universities.
- ii. Establish the relationship between anxiety and academic engagement.
- iii. Find out the relationship between stress and academic engagement.

Theoretical Framework: Tripartite Model of Anxiety and Depression (Watson & Clark, 1991).

This model was used to elucidate mental health. It divides the symptoms of depression and anxiety into three groups: positive affect, negative affect and physiological hyperarousal (Clark & Watson, 1991). Negative effect of anxiety-depression comorbidity include restlessness, insomnia, poor concentration, irritability, increased alcohol and drug abuse, suicidal ideation and conduct disorder (Watson et al., 1995). However, physiological hyperarousal only depicts in anxiety disorders with symptoms including, feeling dizzy, shortness of breath, dry mouth, sweaty palms and trembling (Watson et al., 1995). Finally, positive affect reflects ones pleasurable engagement with the environment (Clark & Watson, 1991). High positive affect include; interest, enthusiasm, mental alertness, adventurousness and activeness while low positive affect characterises depression (Gençöz, 2002). If a student suffers from mental health then they are prone to academic disengagement.

Tripartite model of anxiety and depression were important to the study as they explained probable correlations between the variables. If the students do not achieve identity development then they suffer mental illness explained by tripartite model of anxiety and depression and consequently academic disengagement.

Conceptual Framework



II. Research Methodology

This scientific inquiry utilized a predictive correlational research design. This design is used to measure and explain the extent of association between two or more variables and identify predictive associations between the independent and the dependent variable (Kalan & Luca 2022). It was considered appropriate for this research that examined relationships between mental health and academic engagement. The design was the best for this study because it permits the researcher to analyze the relationships among many variables and is suitable for quantitative data collection and analysis (Creswell, 2018).

Purposive sampling was utilized to choose one university in four regions from the eight regions in Kenya to achieve a national outlook. The sample was stratified proportionately in all four universities by gender. To select the third year students within one university systematic random sampling was used. The sample was 422 students (227male and 195 female) aged between 20 to 28 years. The researcher collaborated with the lecturers for data collection.

III. The Study Findings

Descriptive statistics

Depression, anxiety and stress was measured by analysing the respondents' scores in the specific components in the DASS-21. For each component in the depression, anxiety and stress items, scores were from 0 to 3 as participants responded to a four-point Likert-type scale ranging 0 = did not apply to me at all to 3 = Applied to me very much or most of the times. The participants' depression tally were analysed to obtain the, mean, standard deviation, range, skewness and kurtosis. The outcomes are displayed in Table 1.

Table 1
Description of Participants' Depression, Anxiety and Stress Scores

	N	Min	Max	M	SD	Sk	Kur
DEPRESSION	415	.00	21.00	7.55	5.88	.28	-1.11
ANXIETY	415	.00	21.00	7.89	5.19	.16	-.75
STRESS	415	.00	21.00	8.48	5.26	.08	-.83

Note. N = 415. Sk = skewness; Kur = kurtosis; SD = standard deviation

The obtained results in Table 1 indicated that the maximum score was 21 while the minimum score was 0. The mean of the scores were depression, anxiety and stress 7.55 (SD = 5.88), 7.89 (SD = 5.19) and 8.48 (SD = 5.26) respectively. The scores were positively skewed with the coefficient of skewness as 0.28, 0.16 and 0.08. This indicated that most respondents were low on the depression, anxiety stress scale. The Kurtosis of the scores was -1.11, -0.75 and -0.83 implying a platykurtic distribution which shows a negative excess kurtosis. It has a flat tail that indicates the small outliers in a distribution.

The distribution of scores for all the subscales were found to be positively skewed, which implied that participants rated themselves lowly on these subscales. The coefficient of skewness and kurtosis values for all the subscales were less ± 2. This indicated a normal distribution as per the criteria outlined by (Mishra et al 2019). Hence the data met the assumptions of Pearson's product moment correlation coefficient bivariate analysis.

The researcher conducted a further analysis to compute the levels of participants' depression, stress and anxiety scores. The participants were categorized as having either normal, mild, moderate, severe or extremely severe levels.

Table 2
Description of Participants Depression, Anxiety and Stress Levels in Percentage

Variable	Level	Scores	%
Depression	Normal	0-9	56.4
	Mild	10-13	8.9
	Moderate	14-20	21.4
	Severe	21-27	12.8
Anxiety	Extremely Severe	28+	0.5
	Normal	0-7	28.4
	Mild	8-9	4.1

	Moderate	10-14	12.8
	Severe	15-19	51.6
	Extremely Severe	20+	3.1
Stress	Normal	0-14	42.2
	Mild	15-18	13.7
	Moderate	19-25	23.5
	Severe	26-33	15.8
	Extremely Severe	34+	5.3

As observed in Table 2, there was a very low percentage of students with extremely severe depression scores while more than half of the participants had a normal level of depression. 8.9% had mild, 21.4% had moderate while 12.8% had severe depression. In this study, normal levels of depression were (0-9), mild (10-13), Moderate (14-20), severe (21-27) while extremely severe depression were (above 28+). Although the highest percentage were normal 56.4%, those with mild to extremely severe depression were 43.6%. These depression levels are alarming as almost half of the participants had some level of depression.

As observed in Table 2, there was a very low percentage of students with extremely severe anxiety scores while more than half of the participants had severe level of anxiety. 28.4% had normal, 4.1% had mild while 3.1% had extremely severe anxiety. In this study, normal levels of anxiety were (0-7), mild (8-9), Moderate (10-14), severe (15-19) while extremely severe anxiety was (above 20+). The highest percentage were severe anxiety 51.6%, those with normal anxiety were 28.4%, mild anxiety 4.1%, moderate anxiety 12.8% and extremely severe anxiety were 3.1%. These anxiety levels are alarming as 71.6% (almost three quarters) of the participants had some level of anxiety.

The results in Table 2 indicated that majority of the participants (42.2%) were categorized as having normal levels of stress, while (13.7%) had mild stress (26%) had moderate, (13.5%) had severe, and (4.6%) had extremely severe stress. In this study, normal levels of stress were (0-14), mild (16-18), Moderate (19-26), severe 27-34) while extremely severe stress was (above 34+).

Having analysed and interpreted the participants' depression anxiety and stress scores, Pearson's product moment correlation coefficient bivariate analysis was computed to establish the inter-correlations among the subscales.

Hypothesis Testing

To establish if the relationship between depression and academic engagement was significant or not, the following null hypothesis was advanced:

H₀₁: There is no significant relationship between depression and academic engagement.

In order to determine the relationship between depression and academic engagement a bivariate correlation analysis using Pearson product moment correlation coefficient was performed. The results are presented in Table 3.

Table 3
Correlational Matrix for Depression and Academic Engagement

		AE
DEPRESSION	Pearson Correlation	.00
	Sig. (2-tailed)	.93
	N	415

Table 3 reveals that there was a zero correlation ($r(413) = 0.00, p < 0.05$). The results indicate that when depression scores go up, there is no change in the academic engagement scores. The results imply that pupils who are depressed are likely to have no change in the academic engagement score. Based on these results, we fail to reject the null hypothesis.

In order to determine the relationship between anxiety and academic engagement, the following null hypothesis was advanced:

H₀₂: There is no significant relationship between anxiety and academic engagement.

In order to determine the relationship between anxiety and academic engagement a bivariate correlation analysis using Pearson product moment correlation coefficient was performed. The results are presented in Table 4.

Table 4
Correlational Matrix for Depression and Academic Engagement

		AE
ANXIETY	Pearson Correlation	.06
	Sig. (2-tailed)	.21
	N	415

Table 4 reveals a negligible positive non-significant correlation ($r(413) = .06, p < .05$). Based on these results, we fail to reject the null hypothesis.

In order to determine the relationship between stress and academic engagement, the following null hypothesis was advanced:

H₀₃: There is no significant relationship between stress and academic engagement.

In order to determine the relationship between stress and academic engagement a bivariate correlation analysis using Pearson product moment correlation coefficient was performed. The results are presented in Table 5.

Table 5
Correlational Matrix for Depression and Academic Engagement

		AE
STRESS	Pearson Correlation	.01
	Sig. (2-tailed)	.92
	N	415

Table 5 reveals that there was a weak positive and non significant correlation ($r(413) = 0.01, p < 0.05$). The results indicate that when stress scores go up, there is no change in the academic engagement scores. The results imply that pupils who are stressed are likely to have no change in the academic engagement score. Based on these results, we fail to reject the null hypothesis.

IV. Discussion of the Findings

a. Depression

The first objective was to describe the relationship between depression and academic engagement among third year undergraduate students in Kenyan public universities. The descriptive results revealed that 56.4% had normal levels of depression while those with mild to extremely severe depression were 43.6%. This showed that a high percentage (43.6%) of students had some form of depression. The results from Pearsons product moment correlation indicated that there was a statistically non-significant weak positive correlation between participants' depression and academic engagement. Therefore the null hypothesis was accepted. In addition, there was a non-significant mean difference in depression of participants. Specifically, participants who had high depression did not attain significantly higher academic engagement. The finding that depression had a zero correlation with participants' academic engagement implied that as depression scores increased there was no change in academic engagement scores.

A study done in Norway by Garvik, (2014) on possible correlates of depressive symptoms with school engagement and disengagement concurs with this findings. The results indicated that moderate associations were found and that many depressed students manage to keep up their school engagement. On the contrary, Kaggwa et al. (2022) conducted a cross-sectional study in Uganda aimed at determining the prevalence of depression and suicidal ideation, and associated factors among undergraduate university students. Results show a significant relationship between depression and academic engagement specifically, it was deduced that a higher academic engagement would reduce the levels of depression and consequently suicidal ideation. Similarly, a study done in Ethiopia by Bitew and Birhan (2021) on the potential effect of depression on academic outcomes of students in higher educational institutions of northwest Ethiopia negates the results of the current study. Their results showed that depressive symptoms were associated with perceived difficulties in learning.

b. Anxiety

The second objective of the study sought to establish the relationship between anxiety and academic engagement. The findings indicated that there was a weak positive and significant correlation between participants' anxiety and academic engagement. In addition, there was a significant mean difference in anxiety of participants. Specifically, participants who had negative anxiety did not attain a higher academic engagement.

Most studies on anxiety deal with prevalence, (Osborn et al. 2019), mental health (Bantjes et al. 2019; King et al. 2021) and academic achievement (Abu Ruz et al. 2018). Other studies negate the results of the current

study. Ng et al. (2022) in their research on effects of anxiety and sleep on academic engagement among university students in Australia and Hong Kong sought to explain how poor sleep quality resulting from experiencing anxiety, and low adherence to sleep hygiene behaviours, may lead to poorer academic engagement. Results showed that the effect of anxiety on academic engagement via sleep hygiene and sleep quality was significant, and fully mediated the effects of anxiety on academic engagement. Similarly a study done in China by Mou et al. (2022) on the relationship between social anxiety and academic engagement among Chinese college students found that Social anxiety had a significantly direct effect on academic engagement.

In Iran Maralani et al. (2016) did a study with a major objective to determine the relationship between basic psychological needs, academic engagement, and test anxiety with regard to structural equation modeling. Results showed a positive and significant effect on academic engagement. Nakhla (2019) in the relationship between fear of failure, academic motivation and student engagement in higher education. Results of the study showed that fear of failure had direct and indirect effects on motivation and engagement. It can be inferred that fear of failure may be an aspect of anxiety and that there exists significance in the relationship with academic engagement.

The results corroborate the research findings of Brathwaite, (2014). Research on the effect of student anxiety, student engagement, and student performance on retention revealed that students' engagement and anxiety was not significantly related to retention and student engagement.

c. Stress

The third objective of the study sought to establish the relationship between stress and academic engagement. The findings indicated that there was no significant relationship between participants' stress and academic engagement.

Some studies concur with the results of the current study, Pascoe et al. (2020) asserts that students in secondary and tertiary education settings face a wide range of ongoing stressors related to academic demands. This narrative review presents the most recent research concerning the impact of academic-related stress, including discussion of the impact on students' learning capacity and academic performance, mental health problems, such as depression and anxiety, sleep disturbances and substance use. This study negates the results of the current study which found a non significant relationship between stress and academic engagement.

A descriptive study by Young (2017) with a main objective to examine students' engagement and stress levels at Eastern Illinois University, found that there was no statistical significance found between the stress levels of students and academic engagement. Further, Nelson, (2018) examined the relations between stress and the intrinsic aspects of academic engagement; effort, attention, note-taking, attendance, asking for help. Results indicated that there was no significant relationship between stress and academic engagement.

Several other studies negated the results of the current study. In a study done in Peru, Latin America by Oliver et al. (2021) titled Procrastination, stress in academic engagement in Medicine students, academic stress was found to have a significant influence on academic engagement.

We can infer that stress has an effect on academic engagement from several studies. One such study was done in Australia by Trpcevska, (2017) who studied predictors of psychological well-being, academic self-efficacy and resilience in university students, and their impact on academic motivation. The major objective of the study was to explore factors which contribute to psychological well-being, academic self-efficacy and resilience in students and their impact on motivation. Results showed that psychological well-being, academic self-efficacy and resilience jointly predicted motivation.

Another study that negates the results of the current study is on done most recently in China by Chyu & Chen, (2022). They researched on how academic stress affects mental distress, academic self-disclosure to parents and school engagement and explores gender differences in the risk for the outcomes of academic stress. Using a sample of 1804 students from eight secondary schools in Hong Kong. The results indicated that academic stress has a significant association with all three outcomes, but the correlation with school engagement is positive.

Wamala (2019). Academic stress, engagement, and academic performance among third year students in the school of social sciences Makerere University, a case study of sociology students. Findings of the study indicated that there is a non significant relationship between academic stress and academic engagement hence there is no relationship between academic stress and engagement. The researcher, therefore, concluded that academic stress does not necessarily affect students' engagement.

V. Conclusions and Recommendations

The study's objectives were to determine if there was a relationship between depression, stress, anxiety and academic engagement. Based on the findings, it was established that there was evidence of a zero correlation and non significant associations between mental health and academic engagement. A statistically non-significant weak positive relationship was established between participants' depression, anxiety, stress and academic engagement. The findings implied that the students' mental health was important in determining the students'

academic engagement. It was recommended that students should be encouraged to seek treatment for extreme cases of depression, anxiety and stress that would need medication. They are advised to update mental health specialists' knowledge on mental health in the universities. It was also recommended that future studies may be considered for aspects that were not included in the study.

Conflicts of Interest Statement

There is no conflict of interest at all.

Funding Statement

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Data Availability Statement

The raw data supporting the findings of this study will be made available by the author.

Ethics Statement

Letters of permission were availed by all participating universities. The researcher assured the participants of confidentiality in handling their responses.

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