Correlations Between Stress, Coping Strategies and Academic Performance of Undergraduate Students of Federal University Birnin-Kebbi, Kebbi State, Nigeria

*Muza, Shehu Haruna[1]
Email: muzask38@gmail.com
Tel: 07034907238

Umar Basiru Aliero[1]
Email: basiruumaraliero@gmail.com
Tel: 09037222255

Muhammad Hauwa'u Sama[1]
Email: hauwasama3127@gmail.com
Tel: 08144109550

Isah Salamatu Illo[1]
Email: salamatuillo863@gmail.com
Tel: 08033038863

Zara'u A. Gwandu[1]
Email: zaagwandu@gmail.com
Tel: 08067022094

[1]Department of Education, Kebbi State University of Science and Technology, Aliero

Abstract

The paper investigated the relationships among stress, coping strategies and academic performance of undergraduate students of Federal University Birnin-kebbi, Kebbi State. A correlational type of survey design was used for the study. Three faculties were randomly selected from the university. A Random sampling technique was used in selecting 337 students, both male and female for the study. The two research instruments were adopted from Okorie (2016): The Students Stress Questionnaire (SSQ) and Students Coping Strategy Questionnaire (SCSQ), Students Academic Performance Scores (SAPS) was constructed by the researchers. All the questionnaires have 25 items, each scored on a four-point Likert Scale ranging from (Strongly Agreed, Agreed, Disagreed, and Strongly Disagreed). Pearson Product Moment Correlation Coefficient (r) was used to test hypothesis 1, and hypothesis 2 was analyzed using the t-test analysis. The finding of the study revealed that negative relationship exists between stress and academic performance of students with (r= -0.850, p=0.000) and significant difference existed between male and female students in their coping strategies with (t=0.5823, p=0.000). It is therefore concluded that stress constitute serious problems that distract the students from maximum academic output and effective social life. It was recommended among others that university environment should be made conducive by improving on hostel accommodation, conducive classrooms for lectures and amenities such as light and water.
Keywords: Stress, Coping strategies, Academic performance, undergraduate students

Introduction

Stress is a nonspecific response of the body to a demand. It is the consequence or failure to adapt to change, specifically the inability to respond appropriately to emotional or physical threats to the organism whether actual or imagined. Stress is personal and unique to each individual such that what may be relaxing to one person may be stressful to another (Keil, 2014). Stress has been adjudged as a phenomenon that affects human life in different dimensions. Psychologists describe stress as uncomfortable and unhealthy situation that places demands on an individual thereby upsetting the physical, psychological, emotional and cognitive wellbeing which is caused by different activities, events and life experience (Okorie, 2016). Stress can be internal to us; we can think of it as the feeling we experience when events are too much to handle. According to Umar

(2008) the response view of stress has focused on the physiological changes that occur when someone encounters an excessively challenging situation. Clearly, stress is much more than being in certain situations and it is much more than physiological responses. It exists within the relationship between the external events and the internal responses. Stress emerges from people's interpretations of the relevance of certain stressors to their lives and their ability to deal with them.

Interest in stress among college students is related to the recognition that excessive stress is harmful to academic performance (Steckler, Kalin & Reul, 2015) and may lead to dropping out. Bolger, et al. (2010); Felsten and Wilcox (2012) found that higher levels of stress reduce grade point averages (GPA's) among 146 college men and women and led to increase in psychological and somatic symptomology. Research has demonstrated that high stress can lead to hyper-vigilance, inability to arrive at a solution. In their own words, Steckler, Kalin and Reul (2015) said high levels of stress have negative effects on academic performance. It is an inner or outer demand which may be physiologically arousing and emotionally taxing and call for cognitive or behavioural response that affect learning environment and the efficacy of learning (Keil, 2014). Stressful life experiences as well as acute or chronic stress usually lead to depression which can interrupt the normative progression of developmental mile stones in students, both at home and in school. As such, stressful experiences and emotional difficulties are likely to undermine a variety of school-related competencies, including academic motivation and school engagement, scholastic performance and school conduct (Balarabe, 2003).

In Nigerian universities, the main task that faces the students is their academic achievement and is affected with a unique set of stressors that may be overwhelming, thus, altering the ability to cope with the situations. It has been widely recognized that learning is not an isolated process but is profoundly embedded in the complex biological, psychological and social aspect of an individual's functioning. Therefore, the academic successes of students depend largely on how conducive and safe the university environment is. Furthermore, emerging theories of human development as well as numerous empirical studies by psychologists, counselors, and education researchers have pointed to the critical impact of stress and coping strategies on learning (Mary & Jennifer, 2013). Productive interaction depends on how well balanced a student is both cognitively and psychologically. When a student is mentally well organized and balanced, the issue of good relationship, abstract thinking that demonstrated creative potentials, which leads to quality interaction can be guaranteed. Stress and how students are able to cope with it may affect their academic performance.

Students react differently to stress, but common stress symptoms include irritability, muscular tension, inability to concentrate, trembling, anxiety, irrational behaviour, loss of appetite and a varied of physical reactions such as headaches and accelerated heart rate (Heath, 2018). All these symptoms are seen to affect the academic performance of an individual. The relationship between stress and academic performance has been well established to the extent that Coleman (2009) posits that stress results to low concentration in class, increased aggression, violence and subsequent abuse. This affects the student's social interactions with his family, friends and his colleagues.

University students are occasionally placed under condition of stress and conflict that cause them to experience strong feeling of frustration, role ambiguity, role strain and role overload. Lahey (2014) states that some individuals by virtue of their biological make-up, the techniques they have developed to handle conflict and the amount of support provided by their environment are better able to withstand stress than others. Some are able to adjust and adapt, while some are more vulnerable. He however confirmed that there are no such things as ideally adjusted person. While a few get along in the world exceptionally well, and most are fairly successful in their environment, a few have problems that make them seriously unhappy.

It is against this background that the researchers deem it necessary to investigate into the relationship among stress, coping strategies and academic performance of undergraduate students of Federal university Birnin-kebbi. Kebbi state.

In most universities, if not all in Nigeria, the atmosphere of the school is no longer humane; it is characterized by lack of security. There is lack of communication between teachers, students and administration, and community at large. The physical, psychological and social aspects of the university environment have become a source of stress, which may affect the academic performance of students. Despite the increasing awareness of stress and its impact on academic performance, there is a lack of comprehensive research examining the relationships between stress, coping strategies, and academic performance among university undergraduate students. This gap in knowledge inhibits the development of effective interventions and support systems that can assist students in managing stress, improving coping strategies, and ultimately enhancing their academic performance. Understanding the interconnectedness of these variables is crucial for addressing the mental health and academic needs of the undergraduate student population, and thus, conducting research in this area is imperative.

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Objectives of the Study
1. To determine the relationship between stress and academic performance of undergraduate students.
2. To examine the differences in coping strategies between male and female undergraduate students.

Hypotheses
1. There is no significant relationship between stress and academic performance of undergraduate students.
2. There is no significant difference in coping strategies between male and female undergraduate students.

Methodology

The study used correlation design. This is justified based on the views of McMilla and Schumacher (2012) that, correlational type is a type of correlational research design in which information on at least two variables are collected in order to investigate the relationship between the variables. The population of this study comprised all 30 level undergraduate students of Federal University, Birnin Kebbi in 2021/2022 Academic session. The use of this group of undergraduates is due to the fact that they are the category of students that are assumed to represent the population. The population cut across the four faculties in the University: across the Faculties of Agriculture, Education, Life Sciences and Physical Sciences of Federal University, Birnin Kebbi. The sample size of the study is 337 undergraduate students which was determine using Krejcie and Morgan (1970). The sample size was selected using Proportionate stratified random sampling techniques to select the faculties and the process of obtaining 337 was done through simple random sampling technique to draw 180 male participants and 157 female participants from the selected departments. This will be meant to ensure fair representation of the participants. Students' Stress Questionnaire and Students' Coping Strategy Questionnaire was used for data collection. The instrument was validated by three senior lecturers; two experts from the field of Educational Psychology and one expert in the field of Measurement and Evaluation from the Department of Education Foundations. The Reliability coefficient of SSQ (0.881) and SCSQ (0.790) were established using Cronbach alpha method. Copies of SSQ and SCSQ was administered to the respondents in their classes by the researchers with the help of three research assistance. On-the-spot method of administration was employed which ensured high response rate. In addition, first semester examination results 2021/2022 in two core courses (Use of English and General Mathematics lll) were used in order to assess respondents' academic performance. Pearson Product Moment Correlation Coefficient (r) was used to test hypotheses 1, hypothesis 2 was analyzed using the t-test analysis. To analyze the data, IBM Predictive Analytic Software (PASW) version 24 was used to analyze the data. The null hypotheses was tested at 0.05 level of significance by computed correlation index for appropriate decision.

Results

Hypothesis 1
There is no significant relationship between stress and academic performance of undergraduate students of Federal University, Birnin Kebbi.

Table 1: Pearson Product Moment Correlation (r) statistics on the relationship between stress and academic performance of students

Variables	N	Mean	S.D	Correlation Index r	p
Stress	164	38.8720	6.10657		
				.850	0.000
Academic performance	164	29.4451	.58878		

(Field work, 2023)

Table 1 revealed that significant relationship exist between stress and academic performance of undergraduate students. This is because the calculated p value of 0.000 was found to be lower than the 0.05 alpha level of significance at a correlation index (r) value of 0.850. This implies that the higher their stress, the lower their academic performance, and the lower their stress the higher their academic performance. Therefore, the null hypothesis is rejected.

Hypothesis 2
There is no significant difference between male and female students in their coping strategy.

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Table 2: Independent t test statistics on the differences between male and female students in their coping strategy

Variable		N	Mean	Std. dev.	df	t-cal	P
Coping Strategy	Male	153	64.5882	2.08860			
					316	0.5823	0.000
	Female	165	63.0061	2.69258			

(Field work, 2023)

The table showed that significant differences exists between male and female students in their coping strategy. This implies that the mean coping strategies are 64.5882 and 63.0061 by male and female students respectively showed that male had higher coping strategies than their female counterparts. The t-cal was 0.5823 which are greater than the p-value of 0.000 at 0.05 level of significance. Therefore, the null hypothesis is rejected.

Discussion of Findings

The findings of the present study are discussed in the following manner. From the analysis of the data in table 1, it was found that, significant relationship exists between stress and academic performance of students (r= 0.850, p=0.00). This shows that the academic performance of students is inversely affected by their stress experiences. The higher the stress, the lower the academic performance. These findings corroborate the study of Balarabe (2007) who found that excessive stress is harmful to academic performance and may lead to dropping out. Felsten and Wilcox (2012) found that higher levels of stress reduce grade point averages (GPA) which led to increase in psychological and somatic symptomology.

An additional result yielded by the analysis of the data in the present study in table 2 indicated significant difference in coping strategies between male and female students. (t=5.823, p=0.000). These findings corroborate the work of Ptacek, Smith and Zanas (2011) who found that men use problem-focused coping as the first strategy when they confront a stressor. Heath (2018) also found that men use ineffective coping method of taking tobacco, alcohol, and other drugs.

Conclusion

Based on the findings of the study, the following conclusions are made: It is therefore concluded that stress constitute serious problems that affects students' academic performance. Differences exist between male and female in their coping strategies. That is, male students use more coping strategies than female students.

Recommendations

The following recommendations were made based on the findings.
1. University should organize programs on stress management that will teach students how to appraise stressful events, develop coping skills and put the skills into practical use.
2. That guidance and counseling units in the university should develop programs that will bring members of the University into close contact with each other, in order to harmonize various segments of the university, for effective interpersonal relationships.

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