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Stress and Academic Performance of Undergraduate Students of University of Calabar, Cross River State, Nigeria

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Abstract

In this paper, stress and academic performance of undergraduate students in the University of Calabar is investigated. Three hundred and forty two (342) undergraduate students were selected to participate in this research, using cluster sapling technique. The College Undergraduate Stress Scale (CUSS) was adopted to assess level of stress in students. The stress levels of undergraduate students were compared based on their year of study and degree programs. Findings indicated moderate levels of stress among undergraduates. The medical students had the highest stress level among the students. Moreover, findings showed that the first-year students had low stress level. It was also found that there is a significant but weak negative relationship between undergraduate students' stress level and their academic performance. The study recommended that undergraduate students should always be conscious of the enormity of pressure that accompanies their course of study and therefore make up their minds as well as develop capacity to cope; Students should be guided by lecturers and university management to reduce their stress levels as this can enhance their academic performance.

Keywords: Stress, Academic Performance, Achievement, Undergraduate Students, University.

I. INTRODUCTION

The university system is generally considered to be a training ground for upcoming graduates, who are expected to acquire functional skills, capable of engendering transformational change in the society. When students enrol in the universities, it is always their desire and expectations to make judicious use of the time and ensure excellence and enhanced performance; this to some extent is often being confronted with externalities and factors that are not easily ascertained. Ndum and Udoye (2020) indicated that university education in Nigeria has a significant role to play in national development including the attainment of the Millennium Development Goals (MDGs). Over the years, most Nigerian and African universities have responded to this role, including through research and innovations, but under several constraints, stress and strain.

According to Ndum and Okey (2013), stress on campus is growing in number, kind, and complexity. The current university context is clearly more challenging than in the past. The levels of stress and the available means of management are much more far-reaching than ever before. In short, society has changed, and so has the university.

Stress has become an important topic in academic discourse as well as in the society. It can come in different ways in an individual's daily life (Agolla, 2008). When there is a change in life, we adjust ourselves to fit in the new condition. For a student, stress may be caused by failure in academic, financial and health problems or loss of a family member as well as close associates.

Situations that breed stress are called stressors. A sudden change in life or stressors may affect a person's life style or even his/her physical and mental health. The impact a stressor leaves on a person depends on how the person takes the tension. If the person takes the event positively by accepting it as a part of challenge in life and finds ways to deal with it, the stress will fade away and he/she gets over it.

Stress is also viewed as the body's reaction, both neurologically and physiologically, to adapt to a new condition (Franken, 1994). When there is a change in life, we adjust ourselves to fit in the new condition. For a student, stress may be caused by failure in academic or sports, financial problems, health problems or loss of a family member or close friend. Such events that bring stress are called stressors. A sudden change in life or stressors may affect a person's life style or even his/her physical and mental health. The impact of a stressor leaves on a person depends on how the person takes the tension. If the person takes the event positively by accepting it as a part of challenge in life and find ways to deal with it, the stress will fade away and go when he/she gets over it.

Conversely, the consequence may leave the person a prolonged emotional disturbance. University provides students' tertiary education and psychosocial development. Besides pursuing knowledge in university, a student also gets to socialize with different kinds of people and undergo psychological development. Studies show that entering university may bring strain or stress (Gall, Evans and Bellerose, 2000). Ndum and Onukwugha (2013) indicated that policies and practices of guidance and counselling should be put in place to curb with the scourging trend of stress and strain among undergraduates in Nigerian universities. It becomes even more serious since students in higher education are often confronted by educational configuration that is dynamic in nature, behavioural pattern and environment that is socially inclined. The academic achievement to be attained by students is usually informed by their output during assessment and evaluation (Ong, Bessie and Cheong, 2009). First-year university students were found to be particularly prone to stress (Pancer, Wintre and Yaffe, 2000) and experience high levels of stress (Wintre and Yaffe, 2000) due to the college life transition. Many of them face culture shock as university life is different from secondary school life.

Any student who fails to brace up with the stress and strain would certainly have their grades lowered and thereby increasing mental and emotional instability. (Dwyer and Cummings, 2001). The rise in stress during the first year predicted the decrease of overall adjustment and lower grade point average (GPA) (Wintre and Yaffe, 2000). In an attempt for students to fresh relationships and interactions, students end up playing off their personal confidence and ego, while concurrently attempting to keep up with the workload in their studies (Dwyer and Cummings, 2001).

Choi, Abbott, Arthur and Hill (2007) listed stress sources common among students in the medicals, some of which are: semester evaluation and assessment, extensive curriculum to be covered, limited revision time, poor marks, high personal expectancy, inadequate skills, inability to adhere to the study roster and timetable, huge workload. Several studies carried out to ascertain the link between stress and academic achievement of undergraduates; the result indicated that stress impacts greatly on academic achievement of students (Elliot, Shell, Henry and Maeir , 2005). Bennett (2003) conducted a related study that showed clearly the relationship between stress and poor academic performance among undergraduate students. Nevertheless, very few studies have been conducted to capture the University of Calabar, hence, the justification of this study.

II.   STATEMENT OF PROBLEM

It is observed that Stress can become a way of life to university students. Different types of stress are experienced by students which may affect their mental-cum intellectual, social and academic achievement and performance. In many cases, university students' stress leads to a terrible effect that can change their lives completely. It is observed that university lecturers often emphasize the acquisition of knowledge to the neglect of the emotional feelings of students during the teaching process, which may cause emotional stress and learning problem for students.

It is often reported that students of Universities prospect of having to sit for examination is stressful because of the pressure to review all the learned materials within a giving period of time which leads students to feel unfamiliar situations like nervousness, frustration, abasement, depression. Time management skill is stressful because most of the University students find it difficult to achieve a balance between continuous assessment test and examination.

The instabilities of these emotions easily initiate unusual behaviours which may affect their learning ability and academic performance. It is also observed that outcomes associated with high level of peer academic stress such as suicide, violence, drug abuse, feeling of inferior to others, not being able to think properly, worrying too much, feeling that life is not worth living, feeling anxious without any apparent reason have been witnessed in the institutions often and are worth paying attention to. It is also observed that stress management techniques are very poor and ineffective in the University. Sequel to the above, the study is focused on ascertaining the relationship between stress and academic performance among the undergraduate students of the university of Calabar.

III.   OBJECTIVES

Basically, this study is aimed at examining the stress levels and academic achievement of undergraduate students in the University of Calabar.
Specifically, the study attempts to:

i   Examine the difference in undergraduate students' stress level based on their year of study in the University of Calabar

ii   To examine the relationship between stress and academic achievement of undergraduate students in the University of Calabar

IV. HYPOTHESES

Two null hypotheses formulated to guide this study include:

i. There is no significant difference in undergraduate students' level of stress based on year of study in university.

ii. There is no relationship between undergraduate students' stress level and academic performance.

V. METHOD

This is a quantitative research and it involves descriptive and inferential analysis. The sample was 342 randomly selected undergraduate students from a population of approximately 20,000 undergraduate students in University of Calabar. Undergraduate students from every faculty were taken as the sample. Table 1 shows the distribution of respondents by degree programme.

Table 1. Distribution of Respondents by Degree Programme

Degree Programme/Faculty	n	%
Medical school	30	8.8
Management sciences	30	8.8
Education	30	8.8
Social sciences	30	8.8
Arts	30	8.8
Inst.of pub. policy	25	7.3
Law	25	7.3
Biological sciences	25	7.3
Physical sciences	25	7.3
Engineering & technology	23	6.7
Pharmacy	23	6.7
Agriculture	23	6.7
Oceanography	23	6.7
Total	342	100

A cross-sectional design was used to obtain data from undergraduate students of different year of study in university. From the sample, there were 30.3% first-year undergraduate students, 48.7% middle-year(s) students and 21% final-year students. Middle year(s) means the year(s) of study in university between the first year and the final year. For example, particular university degree programs demand at least 4 years of study, hence, second and third year are considered middle years of study.

The study had 2 structured instruments designed for data collection. The College Undergraduate Stress Scale (CUSS), measured stress. It consisted of 39 items and the total score for the instrument was 2709. It evaluated students' stress levels from four aspects namely; academic stress, intrapersonal stress, interpersonal and environmental stress. The total score of stress was obtained by adding scores of all four aspects. A total score of 903 and below was categorized as low level of stress; a total score of 904 to 1806 was categorized as moderate level of stress; and a total score of 1807 and above was categorized as high level of stress. A low score indicates that the respondent is less vulnerable to stressors and a high score, indicates higher vulnerability to stressors. A pilot study was done on a sample of 30 undergraduates and the instrument was found to be reliable to be used for this study with Cronbach Alpha of 0.728. To measure undergraduate students' academic achievement, GPAs of students in their middle year(s) and final year of study in university in the previous semester was referred. The data collected were analyzed descriptively to determine respondents' stress level and the source(s) of stress. Correlation analysis was also done to determine the relationship between students' stress levels and academic achievement.

VI. RESULTS AND DISCUSSION

Stress Levels of Undergraduate Students by Year of Study in University

The first objective of this research was to identify the difference in undergraduate students' stress level based on their year of study in university. It was hypothesized (HO1) that there is no significant difference in undergraduate students' level of stress based on year of study in the university of Calabar. Table 2 shows the mean stress scores of the respondents by year of study in university.

Table 2: Respondents' Mean Stress Score by Year of Study in University

Year(s)	n	Mean	Standard Deviation
First	119	833.40	216.17
Middle	154	911.19	311.96
Final	69	1012.70	2656.60
Total	342	923.30	276.37

The final-year students (n=69) were found to be the most stressful group among the undergraduate students with the mean stress score of 1012.70 and standard deviation of 2656.60, followed by the middle year(s) undergraduate

students (n=154) with the mean stress score of 911.19 and standard deviation of 311.96. The first-year undergraduate students (n=119) scored the least, with the mean stress score of 833.40 and standard deviation of 216.17. Both the middle(s) and final- year students faced moderate level of stress while the first-year students experienced low level of stress. The finding of first-year undergraduate students having low stress level contradicts with the past research (Pancer et al., 2000; Wintre and Yaffe, 2000) which found first-year students to be at high risk of stress. The reason for this is that first-year students can adjust to the new change of environment faster than expected. Comparatively, the stress experienced by first year students was less than that of those in the middle year. This may possibly be because of the increase in course difficulty as the years progress (Pattengale and Schrienner, 2000) where students try to change their academic major (Ong, Bessie, and Cheong, 2009). The final-year students were also in moderate levels of stress but among the undergraduate students, they scored the highest. This may be due to the higher level of university education which causes more academic stress (Fan and Wang, 2001) or their consideration about their job opportunities as they graduate. Seeking for internships or job are the identified stressors among the students (Fan and Wang, 2001; Li and Lin, 2003). Arising from the above, it can be concluded that year of study has significant effect on stress among the undergraduates. This also implies that the first hypothesis, HO1, which stated that there is no significant difference in undergraduate students' level of stress based on year of study in university, is rejected. It goes to confirm therefore that students' year of study has a major role to play in determining their stress level.

Relationship between Undergraduate Students' Stress Level and Academic Performance

The second objective of this study was to identify the relationship between stress and academic performance of the undergraduate students. It was hypothesized that there is no relationship between undergraduate students' stress level and academic achievement. Table 3 shows the relationship between stress and academic performance of the respondents.

Table 3. Correlation between Stress and Academic Performance

	Academic achievement	
Stress	Pearson correlation	-0.195
	Sig. (2-tailed)	0.000
	n	342

Considering Table 3, stress is shown to be very significantly correlated to academic achievement (p=0). The relationship between stress and academic achievement is negative and weak (r=-0.195). This finding is in line with the past researches (Choi, Abbott, Arthur and Hill, 2007; Rafidah, Azizah Noraini, Chong and Salwani 2009). This also indicates that the second hypothesis for this study, HO2, which stated that there is no relationship between undergraduate students' stress level and academic achievement, is rejected.

VII.   CONCLUSION

The undergraduate students have always experienced stress in various areas of their academic pursuit, as ably represented by past research and this is considered to be significantly correlated to their academic performance and output. In this study therefore, effort is made to investigate the stress levels of the undergraduate students in the University of Calabar. Besides ensuring that the students develop in both cognitive and psychological aspects, this study also helps in considering the need of designing stress interventions for the students. From this present research, undergraduate students were found to be having moderate vulnerability to stress and academic stressors topped the sources of stress. Medical students and final-year students were more likely to experience higher levels of stress compared to the other students. There was a significant, but weak and negative relationship identified between stress and academic achievement. Although the recent finding shows that undergraduate students were in moderate levels of stress, related research is encouraged to be conducted in other Nigerian universities periodically. This is important for the discovery of the latest state of psychological well-being and new sources of stress among undergraduate students.

VIII.   RECOMMENDATIONS

i.   Students should be guided by management and lecturers to reduce their stress levels as this can enhance their academic achievement.

ii.   Undergraduate students should always be conscious of the enormity of pressure that accompanies their course of study and therefore make up their minds as well as develop capacity to cope.

iii.   Proper and regular orientation should be organised on effective time management as a recipient for academic excellence.

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