**Influence of Perceived Stress on Academic Performance**

**among Undergraduate of Colleges of Education in Nigeria**

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**Abstract**

*The purpose of this research study is to examine the Influence Of Perceived Stress On academic performance among undergraduate of colleges of education in Nigeria. Two Research questions and two Research hypotheses guided the study. A non-experimental correlational research design is used here, as we have two variables and both are observed independently without any manipulation. This study was done by taking a sample of Undergraduate College students of 18-23 years of age from colleges across Nigeria. A total of 13,364 FCES students made up the sample size. The sample was collected from the population using a non-probability convenience sampling method in which any individual who belonged to the population that was intended for the study and had access to the Google form link could complete the information. A google form was sent to a total of 100 participants, of which 96 participants completed the survey. Ethical considerations included informed consent and voluntary participation of the participants. The study revealed that academic-related stress is real, serious and common among students regardless of discipline of study or gender. Students have various ways they respond to and cope with stress; and most students adopt several strategies and not just a particular strategy to cope with academic-related stress. It is recommended that schools conduct more researches on stress and ways to relive students so their academic performances are not affected.*

**Keywords:** Academic Stress, Academic Achievement, Gender, Students

**Introduction**

Stress is a natural condition that every individual experiences throughout his/her life. It can be defined as “any factor, acting internally or externally, which makes adaptation to environment difficult and which induces increased effort on the part of the individual to maintain a state of equilibrium between himself and herself and the external environment. It can be said that stress is how the body in its entirety relates to the changes and unfamiliar situations that present themselves over time. Academic stress is a product of a combination of academic related demands that exceed the adaptive resources available to an individual (Kadapatti and Vijayalaxmi, 2012). Bisht (1989) cited in Krishan (2014) defined academic stress as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively appeared by the student involved. According to her, academic stress echoes individual’s perception of academic frustration, academic conflict, academic pressure and academic anxiety which are synonymous with the components of academic stress. Institutional stress on the other hand occurs as a result of problems encountered in the institution’s environment (Adesola and Arowolo, 2014). Institutional level stressors examined in the literature include overcrowded lecture halls, inadequate resources to perform academic work. Others include pressure to perform well in the examination, and test and time allocated (Erkutlu and Chafra, 2006; Polychronopoulou and Divaris, 2005; Misraand McKean, 2000).

Numerous research studies have been conducted about the impact of stress on the academic performance of students. Physiologically, stress related diseases in the form of reproduction, cardiovascular, metabolism, and gastrointestinal diseases are largely determined through genetic and developmental factors. These factors may differ from person to a person but symptoms of this disease may also be similar among individuals at times. Wheeler (2007), on the other hand, said that stress is a physics word that refers to the amount of force used on an object. These all carry force or pressure on a person’s body, mind and spirit. Some of the pressure or force originates from the environment but most often comes from within a person’s head in the form of fear, anxiety, guilt, shame, discouragement, and low self-esteem. For some people, the effect is minimal which means they can endure pressure while in others the effect is enormous and has an adverse effect. This paper aims to present studies about the stress related to the academic performance of students. The scope will be limited to the definition of academic stress, the sources of stress, factors affecting it, and its impact on the academic performance of students.

**Academic Performance**

Academic performance can be operationally defined as a measure of the level of learning in a particular area of the subject in terms of knowledge, understanding, skill, and application. In other words, it is the result of a process of education or training. For Caballero et al. (2007), academic performance involves meeting goals, achievements, and objectives set in the program or course that a student attends. These are expressed through grades which are the result of an assessment that involves passing or not certain tests, subjects, or courses. In addition, academic performance involves several factors such as intellectual level, personality, motivation, skills, interests, study habits, self-esteem, or the teacher-student relationship (Marti, 2003). Students’ academic performance is a key characteristic of education (Rono 2013). It is considered to be the centre around which the entire education system evolves. Some factors influencing high academic achievement include daily hours of study, parents' economic status and good learning facilities (Singh, Malik & Singh 2016). Students face challenges in their studies due to the ineffective use of these factors to improve academic performance. In this sense, this study seeks to discover the negative impact of stress on student achievement, the relationship between school stress and students’ achievement, and finally, to recommend strategies for managing stress in schools, the reason being that complex results on how academic stress relates to students’ performance can be provided effectively.

**Statement of the Problem**

Undergraduate students in recent times have been known to complain a lot about stressors in the academic environment. This is particularly true for 1st year students because the first year in college is usually a period of massive adjustment. This study aims to examine the stress faced by college students and how it relates to difficulty with social skills, academic performance as well as managing everyday aspects of being a student.

**Objective of the Study**

This study aims to establish if stress and academic achievement are correlated; as stress level increases, Academic Achievement decreases and vice versa.

**Research Hypotheses**

**H01**: There is no significant difference between stress and Academic achievement in undergraduate students.

**H02**: There is a no significant difference between stress experienced by male and female.

**Literature Review**

The main aim of this study is to investigate the impact of stress on the academic performance of students, and related risk when stress is not handled properly. Additionally, there is discussion of acute and chronic stress, which is linked to the stress period. Academic stressors like academic success, economy, social ties and managing time management is debated in detail. What's more, this study details how students deal with stress. Various techniques to reduce, avoid and manage school stress are recommended for use in practice. A lot of researches had been done on school stress and student performance. For example Geng G.and Midford R. (2015) Investigated First Year Education Students’ Stress Level using Perceived Stress Scale (PSS) Results from the PSS-10 and questionnaire found that the first-year education students had higher stress levels than other years’ education students. Contributing stressors included the following: academic work commitment, completing placement and related performance assessments in schools and universities, lack of a good understanding of the teaching profession, such as understanding and applying classroom management techniques, and working with mentor teachers and conflicting work and family commitments. The existence of stress according to Chen (2009) depends on the presence of the stressors. Feng (1992) and Volpe (2000) defined stressor as anything that challenges an individual’s adaptability or stimulates an individual’s body or mentality. Similarly, Basavanthappa (2004) suggests a stressor is an event or any stimulus that cause an individual to experience stress. Two of the most important categories of stressors that have been researched at the tertiary environment are academic and institutional stressors. McLean L., Gaul D. & Penco R. (2022) examined the role of Perceived Social Support and Stress of 1st Year Students in Ireland in the sample consisted of 368 students in their first semester at university using The Perceived Stress Scale (PSS) and The Multidimensional Scale of Perceived Social Support (MSPSS). This research identified that the majority of students reported experiencing stress during the initial weeks of commencing university, with female students reporting significantly higher levels than male students.

Problems occur when there is a gap between the academic performance and the student’s expected performance. According to Wilks (2008), academic performance-related stress is the product of a combination of academic-related high demands that exceed the adaptive resources available to an individual. In addition, Sohail (2013) has shown the relationship between stress and academic performance of first-year medical students, which found high levels of stress associated with poor academic performance. Also, Safree et al. (2010) have found that depression, anxiety, and stress are negatively correlated with academic achievement, which is also indicated the higher the stress, the lower the academic achievement of students. In addition, research has indicated the ability for students to manage stress is equally important as non-students (Safree,et al., 2010). Findings from the studies conducted by Khan, Altaf and Kausar (2013) shows that academic stress is higher in younger students than the older students; this is because younger students have problem in adjusting to academic requirements compared to the older ones. This finding agrees with the findings of Thawabieh and Qaisy (2012), Bayram and Bilgel (2008) who both reported higher level of social stress among younger students than older ones. Findings from a study conducted by Raja (2001) in Ramachandiran and Dhanapal (2018) shows that the students in educational programme that was not their first choice experience higher stress than those who are studying their preferred educational programme. Khan, Altaf and Kausar (2013) found that there was no significant difference in perceived stress between male and female students and no significant difference in stress level at the beginning or end of semester among students. However, Thawabieh and Qaisy (2012) and Bayram and Bilgel (2008) in their research findings found that female university students experience more stress than their male counterparts do. Bayram and Bilgel (2008) also found that students who were satisfied with their academic performance experience lower stress than those who were not, and students from poor families had higher stress than those from wealthier families. The way students perceive stress is an important factor in its seriousness. Negative or excessive stress perception contributes to the students experiencing psychological and physical impairment (Murphy & Archer, 1996). That shows students who can effectively handle or manage their stress can perform much better than those who are unable to manage or control their stress on a regular basis.

**Methodology**

 A non-experimental correlational research design is used here, as we have two variables and both are observed independently without any manipulation.

**Sampling Procedure**

The sample was collected from the population using a non-probability convenience sampling method in which any individual who belonged to the population that was intended for the study and had access to the Google form link could complete the information.A total of 13,364 FCES students made up the sample size*.*  A google form was sent to 100 participants, of which 96 participants completed the survey. Ethical considerations included informed consent and voluntary participation of the participants. The participants were informed about the purpose, duration, procedure and cause of this study which also included a standardized questionnaire of Stress level Inventory. Measurement of Academic Achievement: Given that the respondents to this study were undergraduate students, their average semester score of 2nd year was used to assess their academic progress. Higher academic achievement is indicated by a higher average score.

**Procedure of the Research**

This study was done by taking a sample of Undergraduate College students of 18-23 years of age from Federal College of Education (Sp) Oyo. A Stress Level Inventory (SLN) questionnaire was distributed via a Google form in accordance with a standard data collection procedure for the current study respondents. They were made aware of the test’s written instructions. In order to ensure that they provide honest responses, it was made clear that their responses would be kept private. The subject’s responses were automatically submitted when they were finished. After that, a manual was used to score the tests. In order to analyse the data, appropriate statistical tools, and raw scores were used. A total of 96 responses were obtained from 52 males and 44 females for this study. The descriptive statistics was used to find the mean and standard deviation of the data collected. The correlation between the variables (Stress level and Academic Achievement) was also found out to analyse the hypothesis. Spearman’s rank order Correlation test, and Mann Whitney test were used to establish the correlation between stress and academic performance.

**Statistical Techniques**

The data collected was entered into the excel sheet. For further analysis of result the data was categorized and then the application SPSS was used. In this study there were three analyses performed for the collected data. For the Test of Normality, Shapiro wilk Test was done. This test shows that the data is not normally distributed, thus, the Spearman’s Correlation test was used. The Spearman’s rank order correlation was used to assess the relationship between level of stress and academic marks. Mann Whitney U test was used to assess the gender difference in stress. The collected data was coded and analysed using SPSS.

**Analyses of Data and Presentation of Results**

|  |  |
| --- | --- |
|  | **Table 1: The following table shows the descriptive statistics of males and females.** |
| 2nd Semester Average | Stress Level Scores | 2nd Semester Average | Stress Level Scores |
| Mean  | 55.52  | Mean  | 25.22  |
| Standard Error  | 3.52  | Standard Error  | 1.71  |
| Median  | 72.55  | Median  | 23.00  |
| Mode  | 79.00  | Mode  | 26.00  |
| Standard Deviation  | 34.52  | Standard Deviation  | 16.77  |
| Sample Variance  | 1191.96  | Sample Variance  | 281.33  |
| Kurtosis  | -1.04  | Kurtosis  | -0.87  |
| Skewness  | -0.85  | Skewness  | 0.41  |
| Range  | 99.50  | Range  | 61.00  |
| Minimum  | 0.50  | Minimum  | 0.00  |
| Maximum  | 100.00  | Maximum  | 61.00  |
| Sum  | 5329.97  | Sum  | 2421.00  |
| Count  | 96.00  | Count  | 96.00  |
| Confidence Level(95.0%)  | 7.00  | ConfidenceLevel (95.0%)  | 3.40  |

From the table 1, the mean score of students’ 2nd semester mark is 55.52 and for Stress Level Score is 25.2. Their respective standard deviations are 34.52 and 16.77.



Table 2 revealed that, As the sample size is 95, Shapiro-Wilk test is done. From table above it can be observed that the data is not normally distributed, thus, the Spearman Rank Order Correlation, a non- parametric test of correlation was used.

|  |
| --- |
| **Table 3: Correlation** |
|  | Sem. Avg Marks | Stress Level  |
| Spearman’s rho | Sem. Avg Marks | 1.000 | -263\* |
| . | .010 |
| 95 | 95 |
| Stress Level 1 | -263\* | 1.000 |
| .010 | . |
| 95 | 95 |

\*\* Correlation is significant at the 0.05 level (2-tailed).

From Table 3 it can be observed that there is a significant correlation between undergraduate college students' average semester marks and their level of stress. The scores indicate that there is a negative correlation between individuals’ semester average marks and stress level. This means that individuals with high stress scores are more likely to have lower semester grades, while those with high average semester grades are more likely to have lower levels of stress level. Thus, null hypothesis which states that **H01** ‘There is no significant relationship between Stress level and Academic Achievement in Undergraduate students’ is not accepted. R = -.26, N= 95, P= < .05, (Two-tailed)

|  |  |  |  |
| --- | --- | --- | --- |
| Table 4: Rank |  |  |  |
| Stress level | Gender | N | Mean Rank | Sum of Ranks |
| Female | 53 | 49.14 | 2604.50 |
| Male | 42 | 46.56 | 1955.50 |
| Total | 95 |  |  |

|  |
| --- |
| Table 5: Test Statistics |
|  | Stress level |
| Mann-Whitney U | 1052.500 |
| Wilcoxon W | 1955.500 |
| Z | -.454 |
| Asymp. Sig (2-tailed) | .650 |
| Grouping Variable: Gender |

From Table 5, it can be observed that there is no difference in stress level experienced between male and female, Z= -.45, P=.650. Thus, the null hypothesis **H02**: There is no difference in stress level experienced by male and female is accepted. The purpose of the study was to determine whether there was a significant correlation between academic achievement and stress level among college students and to find whether there is gender difference in the stress level experienced by the college students. Since, there have not been many studies on stress level and how it affects college students' academic success in the Nigerian context, this study made a special contribution to the body of knowledge. The study employed the data collected from 96 individuals with 52 numbers of males and 44 females of age group 18 – 23 years.

**Discussion of Findings**

The results of the study showed that that there is a negative correlation between individuals’ semester average marks and stress. This means that stress has no significant correlation with academic performance. The negative correlation obtained accepts the hypothesis **H01** which states that “there is a no significant relationship between Stress level and Academic Achievement in Undergraduate students”. While assessing gender differences, Mann Whitney U test was used to assess the gender difference in stress and it shows that there is no difference in Stress level experienced by male and female, thus the hypothesis **H02** “There is a non-significant difference between Stress level experienced by male and female” is accepted. The findings highlight the need for universities and policymakers to implement effective strategies to promote mental well-being and reduce social anxiety among undergraduate students in Nigeria. Further research with a larger sample size and diverse student populations is recommended to gain a deeper understanding of social anxiety among undergraduate students in India and inform targeted interventions.

**Limitations of the Study**

The limitations the researcher faced while conducting this research was that Sample Representativeness: The undergraduate student population in Nigeria is vast and diverse, with students coming from different socioeconomic backgrounds, regions, and educational institutions. Accessing a representative sample of undergraduate students may be challenging, as some students may be less willing to participate due to cultural or social reasons, and sampling from only one institution may not provide a comprehensive picture of stress level among undergraduate students in Nigeria. Also, there was no measure taken to understand and combat the influence social desirability if there are any.

**Conclusion and Recommendation**

The aim of the research is to establish the relationship between stress level and academic achievement among undergraduate students of colleges of education in Nigeria. The specific research questions asked were ‘‘Is there a non-significant relationship between Stress level and Academic Achievement?” and Is there any gender difference in stress level experience by undergraduate students in Nigeria.” A total 96 samples were collected; 52 males and 44 males. The consent from each participant was taken. The data collected was scored according to manual and was analysed using Statistical Package for the Social Science (SPSS). Firstly, the test of normality was run. Since the data was not normally distributed, non-parametric test i.e., spearman correlation and Mann-Whitney U test were used for further analysis. In conclusion, the study revealed that academic-related stress is real, serious and common among students regardless of discipline of study or gender. Students have various ways they respond to and cope with stress; and most students adopt several strategies and not just a particular strategy to cope with academic-related stress. On the basis of the findings a qualitative in-depth study be carried out on the stress coping strategies adopted among students to ascertain pattern, time spent and specific outcomes (positive or negative) of these strategies as against academic performance. School management should encourage further research on ways to alleviate academic-related stress and best stress coping strategies to adopt among students.

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