

Cognitive Stress Experienced by University Undergraduates in South West Nigeria

David Olumide Arowolo (Ph. D)
Student Affairs Division (Counselling Unit), Federal University Lafia, Nasarawa State, Nigeria
davidarowolo46@gmail.com

Folasade Adesola Alade (Ph. D)
Institute Of Education, Ekiti State University Ado- Ekiti, Ekiti State, Nigeria
sadealade@yahoo.com

Abstract

The study investigated cognitive stress experienced by University undergraduates in South West Nigeria. The design for the study was descriptive research of the survey type. The population consisted of all the Universities in South West Nigeria. A sample size of one hundred thousand, one hundred and ten students were selected for the study by stratified and random sampling techniques. An instrument in form of questionnaire titled "Cognitive Stress rating scale" designed and validated by Akinleye and Arowolo(2008) was used to collect data from the respondents. Data were analyzed by descriptive and inferential statistics. One research question was raised, two hypotheses were formulated to guide the study and tested at 0.05 level of significance. Results from the finding showed that there is significant difference in the cognitive stress experienced by students in different faculties and that the level of stress was highest in the faculty of science. The study also revealed that crowded lecture periods, lack of hostels on the campus, distance from place of residence to the campus, insufficient seats in the library, examination phobia and poor study habits were sources of stress on the university campuses. Counselling implications were enumerated and recommendations were made.

Keywords: Cognitive stress

INTRODUCTION

Stress has been defined in different ways by different authors. Akinboye (2002) described stress as the body's response to any undesirable mental, physical, emotional, social or environmental demand. Akinade (2005) also defined stress as a pattern of cognitive appraisal, physiological responses and behavioural tendencies that occur in a response to a perceived imbalance between situational demands and the resources needed to cope with them. It is something that occurs when people are faced with events they perceive as endangering their physical or psychological wellbeing.

It is any stimulus that creates a state of tension or threat or challenge and requires change or adaptation. It may be seen as a chronically high level of mental arousal and body tension that exceeds a person's capacity to cope. Arowolo (2007) in his own submission believed that stress among university undergraduates may be as a result of physical environment, personal/social, health/emotional, educational and lack of career/vocational counseling. Akinade (2007) also opines that stress is any stimulus that either raises your excitement or anxiety level beyond what you regard as above your usual or personal capabilities. From the above definitions, stress can be described as an ineffective and unhealthy reaction to change. It leads to metabolic disturbances and anxiety, which challenges body's homeostasis.

Causes of stress are known as stressors. Stressors can be as a result of natural calamity such as earthquakes, hurricanes that can cause devastating effects. Omoniyi (2000) classified stressors into social stressors, emotional stressors, physical stressor, and environmental stressors among others which are related to the study. Environmental stressors occur as a result of noisy environment, smoke filled rooms, cramped offices, choking exhaust fumes and the burning heat of the sun. The extreme conditions in which we are exposed can be either too much or too little.

Loud noise is stressful but studies in sound-insulated room called anechoic chambers have demonstrated that total silence is also highly stressful, (Edward, 1982). In such sensory deprivation, people may experience boredom, perceptual distortions and even hallucinations.

In addition to the stressors enumerated above, another group of stressors identified by the researchers is the group of institutional stressors on the University Campus. These institutional stressors lead to institutional stress experienced by the University students and they occur as a result of inadequate infrastructure facilities, activities of secret cults and academic failure.

Stress affects human effectiveness and precipitates health problems. Hooke's law of electricity states that if the strain produced by a given stimulus is removed, the material will simply return to the original condition. If however, the strain passes beyond the elastic limit, then some permanent damage results. Applying Hooke's law to human *body*, Olagunju (2004), observed that people have some in-built resistance to stress and

can only be tolerated to a point, when it becomes intolerable, physiological and psychological disorders result.

Stress depends on the interaction between an individual and his or her environment and virtually all human activities seem to generate stress. Specifically, educational problems being encountered on University's premises may be possible sources of stress to them. For example, students who are from rich parents come to schools everyday with their personal cars and live flamboyantly on the campus, may find the campus environment interesting and less stressful. Whereas, students who often trek some kilometers before coming to the campus may become stressed and frustration can easily set in. In the same vein, some students are stressed when: (i) they are faced with abrupt changes in the school calendar or (ii) when examination date is postponed suddenly or (iii) irregularities in the school calendar due to incessant strikes by the University staff or (iv) indefinite closure due to students' riots.

Apparently, students that are subjected to these types of hard conditions in the various campuses are likely to experience cognitive stress. Cognitive changes however when students have difficulties in concentrating during lectures, some may lose ability to read, think and comprehend what is being taught which may lead to poor study habits. As a result, frustration and conflicts occur and stress may set in and eventually lead to poor academic performance. Elegbeleye (2004) opined that universities generally are experiencing acute shortage of basic infrastructural facilities worsened by the depressed economy and harsh economic policies. Consequently, learning has become burdensome and difficult.

Uwakwe and Osiki (1996) discovered a significant difference between the levels of depression among male and female Nigerian undergraduates. De Rubels and Feeley (1990) agreed that women tend to manifest more anxiety about achievement than men. Also, Ranjita (2000) found out that significant gender difference existed among males and females undergraduates in their behavior. This finding was in line with Pihl and Spiers (1978), Regier et al. (1984) that males are more involved in alcoholism than females when in a stressful condition.

The main purpose of this study however is to find out the cognitive stress experienced by university undergraduates in South West Nigeria. It will also investigate whether there is gender difference in the manifestation of stress and also to find out the stress levels in various faculties.

The study therefore is to answer this question: To what extent do the university students experience stress?

Research Hypotheses.

Two hypotheses were tested at 0.05 level of significance.

- i: There is no significant difference in the cognitive stress experienced between male and female undergraduates in South West Nigeria.
- ii: There is no significant difference in the cognitive stress experienced between students in different faculties in South West Nigeria.

Methodology

The descriptive research of the survey type was adopted in this study. The population consisted of all the full-time undergraduates in South West Universities in Nigeria. A sample size of one thousand, one hundred and ten students were selected through stratified and random sampling techniques. Cognitive stress rating scale instrument designed by Akinleye and Arowolo (2008) was used to collect data from the respondents. Two hypotheses were tested at 0.05 level of significance. Experts determined the appropriateness of the instrument through face and content validities. Reliability of the instrument was ensured through test-retest method. The instrument was administered to undergraduates that were not part of the samples that were used twice at an interval of two weeks. Pearson Product Moment Correlation formula was used to analyse the result. A coefficient of 0.84 was obtained which was found to be reliable for the study. The instrument was administered by the researchers with due consultation with the Heads of department who helped to select the research assistants. The data collected were analyzed using descriptive and referential statistics.

Descriptive Analysis

Do University Undergraduates in South West Nigeria Experience Cognitive Stress

TABLE ONE

S/N	ITEM	AGREE		DISAGREE	
		F	%	F	%
1	Not able to pay attention to my studies	404	40.4	596	59.6
2	I feel apprehensive during examination periods	488	48.8	512	51.2
3	I become panic when the time table for examination is out	448	44.8	552	55.2
4	I feel tensed up when the time table for examination is out	474	47.4	526	52.6
5	I am always uncomfortable when lectures are crowded together	509	50.9	491	49.1
6	I become impatience when attending long hours lectures	577	57.7	423	42.3
7	I go to the toilet frequently when in an examination hall	428	42.8	572	57.2
8	Experiencing lack of concentration when reading in the hostel	514	51.4	486	48.6
9	I easily forget what I learnt when writing exams.	432	43.2	568	56.8
10	Always pre occupied with odd feelings whenever I begin to study	520	52.0	480	48.0
11	Experiencing distorted thought process during classroom lectures	521	52.1	479	47.9
12	Not able to concentrate when reading in the library	497	49.7	503	50.3
13	At times, I feel like abandoning my course	545	54.5	455	45.5

In table 1 above, 509 (50.9%) of respondents indicate that they were always uncomfortable when lectures are crowded together: 577 (57.7%) undergraduates indicated that they visited the toilet frequently when in examination hall, 514 (51.4%) were always experiencing lack of concentration when reading in the hostel, 520 students out of 1000 samples indicated that they were always preoccupied with odd feelings whenever they begin to study, while 520 (52%) experience distorted thought process during classroom lectures.

Hypothesis Testing

Hypothesis One: There is no significant difference in the cognitive stress experienced between male and female undergraduates.

In testing this hypothesis, the student's t-test statistic was used to analyze the data collected

Table 2

Group	N	X	SD	DF	t-Cal	t-table
Male	620	59.8	11.23	998	3.419	1.960
FEMALE	380	57.2	9.71			

Table 2 shows that t-calculated (3.419) is great than t-table (1.960) at 0.05 level of significance. The null hypothesis is thereby rejected. This means that there is significant difference in the cognitive stress experienced between male and female undergraduates.

Hypothesis 2: There is no significant difference in cognitive stress experienced between students in different faculties. This hypothesis was tested by one –way analysis of variance (ANOVA)

Table 3

Source	Ss	Df	Ms	F-cal	F-table
Between group	6059.538	4	1514.681	10.136	2.37
Within group	1090.469	995	109.595		
Total	1151.064	999			

$P < 0.05$

The null hypothesis was rejected because F-calculated (10.136) is greater than F-table (2.37) at 0.05 level of significance. Therefore, there is significant difference in the cognitive stress experienced among undergraduates in the three faculties.

DISCUSSION

It was revealed in hypothesis one that there was significant difference in the stress Experienced by male and female students. This could be due to the fact that males are known to develop certain attitude in coping with various types of stress such as smoking, consumption of alcoholic drinks, visits to clubs, use of tranquilizer/drugs and exercises, while females prefer relaxation, talking to friends, and crying. Uwakwe and Osiki (1996) discovered a significant difference between the level of depression among male and female Nigerian undergraduates. DeRubels and Feeley (1990) agreed that women tend to manifest more anxiety about achievement

than men.

The view of Ranjita (2000) supported the finding which stated that significant gender difference existed among males and females undergraduates in their behavior. This finding was in line with Pihl and Spiers (1978), Regier Myer, Kramerin, Robins Blazr, Hough, Eaton and Locke (1984) that males are more involved in alcoholism than females when in a stressful condition.

Hypothesis two revealed that there is significant difference in the level of stress based on faculties. From the data collected and analyzed using descriptive statistic, 58.5% of students in faculty of science experienced high level of stress, 40% in arts, and 45% in social science. This highest level of stress experienced in science could due to the abstract and practical nature of the courses being taught in the department. This notwithstanding, institutional stressors like infrastructural facilities, activities of secret cults and academic failure, identified by the researchers could also be a contributing factor of stress on University campuses.

CONCLUSION

The following conclusions were drawn from the findings of the study:

1. University students experienced cognitive stress.
2. There is gender difference in the cognitive stress experienced by university Undergraduates. Female undergraduates experienced more stress than their male Counterpart on the campus.
3. There is significant difference in the cognitive stress experienced by students in different

MPLICATONS FOR COUSELLING.

The study has a far reaching implication for counselling. Counselling is a process of helping an individual become fully aware of himself and the ways in which he is responding to the influences of his or her environment. Hence, importance should be attached to University environment to enhance better academic performance of students. Therefore, centres should be established in all universities with trained counsellors. Students should be exposed to various stress management techniques by the counselors which could help the students to cope with various types of stress on the campuses.

Counsellors should help students realize the importance of the following:

- Students must be aware of stressors on the campus and their emotional and physical reaction.
- Recognize what can be changed in their life pattern.
- Learn to moderate physical reactions to stress. Slow, deep breathing will bring the heart rate and respiration back to normal. Relaxation techniques can reduce muscle tension.
- Build the physical reserves: Exercise the cardiac vascular fitness three to four times a week. Eat well, avoid nicotine, excessive caffeine, and other stimulants.
- Mix leisure with work. Take breaks and get enough sleep.
- Think positive thoughts, adopt positive statements.
- Do things that make you happy.

RECOMMENDATIONS

Based on the findings of this study, it was recommended that the university management should establish student public forum where students and the university management can interact and discuss issues bordering on the welfare of the students. This could ameliorate cognitive stress among the university undergraduates.

Also, the university stakeholders like the joint admission and matriculation board and the university commissions should ensure that the number of students in each university is based on the carrying capacity, which means the physical facilities and the number of lecturers available for the programme of study should be taken into consideration during admission.

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