



## WORKLOAD AND AREAS OF SPECIALISATION AS CORRELATES OF JOB STRESS AMONG UNIVERSITY LECTURERS IN SOUTHWESTERN NIGERIA

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### Abstract:

This study investigated the influence of workload and areas of specialization on job stress among university lecturers in Southwestern Nigeria. A survey research design was used in the study. The population of this study comprised all university lecturers in Southwestern Nigeria. The sample consisted of 1358 lecturers selected through stratified random sampling technique. An instrument titled "Questionnaire on Stress Assessment" was used to collect data. The validity of the instrument was ascertained while test-retest reliability method was used to determine the reliability and a reliability coefficient of 0.92 was obtained. Data collected was analysed using Analysis of Variance (ANOVA) and Scheffe Multiple Comparison test. The results showed that lecturers' workload and areas of specialization have significant influence on lecturer stress level ( $F = 5.178, p < 0.05$ , and  $F = 10.503, p < 0.05$  respectively). It was concluded that lecturers' workload and areas of specialization have significant influence on stress experienced by university lecturers. It was therefore recommended that the university administrator and government or private owners should look into lecturers' workload and consider the excess so that necessary steps could be taken on how to normalize it. There should be an improvement in the working conditions of university lecturers.

**Keywords:** workload, areas of specialization, job stress, Nigeria

### 1. Introduction

The work of a university lecturer involves a lot of responsibilities which require long working hours. These responsibilities majorly can be categorized into teaching, conducting research and community service. Lecture preparation and delivery,

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students' continuous assessment, setting of examination questions, invigilation of examination, preparation of examination results, grading of papers and student project/thesis supervision are responsibilities which have the potential to induce stress.

University lecturers also engage in research, which involves going for field work or staying in the laboratory for several hours, preparing conference papers, and travelling for conferences, which take them away from comfort of their homes. Some lecturers are given administrative responsibilities like being Course Advisers, Heads of Departments, Coordinators of programmes and Deans of Faculties. These responsibilities are time consuming, leaving lecturers with little time for rest or leisure.

Stress is the greatest assault on human psychological, health, cognitive, emotional and behavioural integrity in the 21st century (Akinboye, Akinboye & Adeyemo, 2002). Stress brings about illness, sleeplessness, chronic fatigue, awareness of heartbeat, tension, headache and so on. Emotionally, the warning signs of stress are anxiety, depression, denial of problems, anger etc. Akinbo (2004) noted that there is much more stress today and that the nature of contemporary stress is somehow different and more dangerous than could be imagined. Negative effects of stress on individuals and the society call for attention. Studies have shown that a lot of money is lost annually as a result of lowered productivity at work, absenteeism at work, poor decision making or stress-related mental illness and substandard job performance (Akinboye et al, 2002).

Keeny and Cooper (2003) referred to two competing conceptualizations of job stress as personal trouble and stress as public trouble. In considering stress as public trouble, the emphasis is on work characteristics. There is the need to carry out research on how work characteristics such as workload and areas of specialization can influence the level of stress of university lecturers so that work place interventions can be developed by the management, the government or other relevant stakeholders.

To guide the study, the following hypotheses were formulated.

1. There is no significant influence of lecturers' workload on lecturer stress level
2. There is no significant influence of areas of specialization on lecturer stress level.

## **2. Method**

This study adopted a survey research design. The population comprised all university lecturers in Southwestern Nigeria. Six universities were purposively selected on the basis of ownership; two each of the federal, state and private universities were selected in order to have equal representation. Using Maccor (2008), sample size formula, a sample of 1358 lecturers was selected for the study. An instrument titled "Questionnaire on Stress Assessment" was used to elicit information from the lecturers. The questionnaire was divided into two sections. Section A consist of socio-demographic and work characteristics of the respondents while section B consists of 20-item inventory on lecturer stress level adapted from Akinboye, Akinboye and Adeyemo Stress Assessment Test. The validity of the instrument was determined by giving it to experts in education, tests and measurement. The test-retest reliability method was

used to determine the reliability of the instrument which yielded a coefficient of 0.92. Data collected was analysed using Analysis of Variance (ANOVA) and Scheffe Multiple Comparison Test.

### 3. Results

**Hypothesis 1:** There is no significant influence of lecturers' workload on lecturer stress level. In testing this hypothesis, lecturers who participated in the study were classified into four groups based on their workload, and their scores on the Stress Level Inventory. The descriptive statistics of lecturer's workload are presented in Table 1.

**Table 1:** Descriptive Statistics of Lecturers' Workload and Lecturer Stress Level

	N	Mean	Standard Deviation
Low Workload	173	34.68	9.566
Moderate Workload	507	35.648	8.879
High Workload	353	35.915	9.319
Extremely High Workload	201	33.064	7.836
<b>Total</b>	<b>1235</b>	<b>35.17</b>	<b>8.99</b>

Data collected on hypothesis 1 were subjected to one-way analysis of variance (ANOVA) to determine the difference in the stress level of lecturers in the four workload groups. The results are presented in Table 2.

**Table 2:** Influence of Workload on Lecturer Stress Level

Source of Variance	Sum of Squares	Df	Mean Square	F	P
Between Groups	1244.023		414.674		
Within Groups	98574.268	3 1231	80.077	5.178	0.001
<b>Total</b>	<b>99818.291</b>	<b>1234</b>			

As shown in Table 2, the mean squares between groups and within groups are 1244.023 and 98574.268 respectively. These yielded an F-value of 5.178 which is significant at the 0.05 level. This implies that lecturers' workload has a significant influence on lecturer stress level.

A further attempt was made to compare the stress level of lecturers in the four groups of lecturers' workload to ascertain which of the groups has higher stress level over the others. In this respect, a multiple comparison test using the Scheffe formula was performed on the four groups. The results are presented in Table 3.

**Table 3:** Multiple Comparisons of Mean Values of Lecturer Stress Level with Different Workload

Type of Workload	N	X	SD	Mean Difference	Standard Error	P
Low Workload	173	34.6879	9.56652	-0.96105	0.78792	0.223
Moderate Workload	507	35.6489	8.87924			
Low Workload	173	34.6879	9.56652	-1.27739	0.83011	0.140

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High Workload	354	35.9153	9.31924			
Low Workload	173	34.6879	9.56652	1.62318	0.92804	0.081
Extremely High Workload	201	33.0647	7.83650			
Moderate Workload	507	35.6489	8.87924	-0.26634	0.61980	0.667
High Workload	354	35.9153	9.31924			
Moderate Workload	507	35.6489	8.87924	2.58424*	0.79031	0.001
Extremely High Workload	201	33.0647	7.83650			
High Workload	354	35.9153	9.31924	2.85058*	0.79031	0.000
Extremely High Workload	201	33.0647	7.83650			

\* Significant at 0.05 level

As shown in Table 3, multiple comparisons of the mean values of the four workload groups show a mean difference of -0.96105 between lecturers having low and moderate workload. This difference is not significant at 0.05 level. Also, a mean difference of -1.22739 which is not significant at 0.05 level was obtained between the low and high workload group. Likewise, the mean differences between low and extremely high workload group, moderate and high workload group yielded values of 1.62318 and -0.26634 respectively which are not significant at 0.05 level. However, when the mean values of moderate and extremely high workload group, high and extremely high workload group were compared, mean differences of 2.5844 and 2.85058 were obtained respectively. These were significant at 0.05 level. These results suggest that lecturers having extremely high workload have higher level of stress than those in the other groups. However, the stress levels of lecturers in the low, moderate and high workload groups were not significantly different. This may indicate that there are other responsibilities not quantifiable or identified in the study, which expose lecturers to stress regardless of the number of hours involved in teaching or supervising projects/theses.

**Hypothesis 2:** There is no significant influence of areas of specialization on lecturer stress level.

In testing this hypothesis, areas of specialization were categorized into four groups (Science, Technology, Social Sciences and Humanities). The descriptive statistics of lecturers' areas of specialization and lecturer stress level are presented in Table 4.

**Table 4:** Descriptive Statistics of Lecturers' Areas of Specialization and Lecturer Stress Level

	N	Mean	Standard Deviation
Science	523	33.894	8.042
Technology	162	34.481	7.806
Social Sciences	241	35.541	9.367
Humanities	309	37.394	10.302
<b>Total</b>	<b>1235</b>	<b>35.170</b>	<b>8.993</b>

First, to determine whether there is a significant relationship between lecturer stress level and their discipline, the data were subjected to one-way analysis of variance (ANOVA), the results of which are presented in Table 5.

**Table 5:** Influence of Lecturers' Areas of Specialization on Lecturer Stress Level

Source of Variance	Sum of Squares	df	Mean Square	F	P
Between Groups	2491.098	3	830.366	10.503	0.000
Within Groups	97327.193	1231	79.064		
<b>Total</b>	<b>99818.291</b>	<b>1234</b>			

As shown in Table 5, the mean squares between groups and within groups are 2491.098 and 97327.193 respectively. These yielded an F-value of 10.503 which is significant at the 0.05 level. This implies that lecturers' discipline has significant influence on lecturer stress level.

A further attempt was made to compare the lecturer stress level in the four areas of specialization groups to ascertain which of the groups has higher stress level over the others. In this respect, a multiple comparison test using the Scheffe formula was performed on the four groups. The results are presented in Table 6.

**Table 6:** Multiple Comparisons of Mean values of Lecturer Stress level with Different Areas of Specialization

Areas of specialization groups	N	X	SD	Mean Difference	Standard Error	P
Science	523	33.8948	8.04266	-0.58664	0.79951	0.463
Technology	162	34.4815	7.80605			
Science	523	33.8948	8.04266	-1.65288*	0.69227	0.017
Social Sciences	241	35.5477	9.36788			
Science	523	33.8948	8.04266	-3.49998*	0.63800	0.000
Humanities	309	37.3948	10.30222			
Technology	162	34.4815	7.80605	-1.06624	0.90339	0.238
Social Sciences	241	35.5477	9.36788			
Technology	162	34.4815	7.80605	-2.91334*	0.86251	0.001
Humanities	309	37.3948	10.30222			
Social Sciences	241	35.5477	9.36788	-1.84710*	0.76416	0.016
Humanities	309	37.3948	10.30222			

\* Significant at 0.05 level

As shown in Table 6, multiple comparisons of the mean values of groups show a mean difference of 0.58664 between lecturers in Science and Technology, This difference is not significant at 0.05 level. Also, a mean difference of -1.06624 which is not significant at 0.05 confidence level was obtained between the Technology and Social Sciences groups. However, when the mean values of the Science and Social Sciences, Science and Humanities, Technology and Humanities, Social Sciences and Humanities were compared, mean differences of -1.65288, -3.49998, -2.91334 and -1.84710 which are significant at 0.05 level, were obtained respectively. These results suggests that lecturers in Science experience higher level of stress than those in Social Sciences and Humanities, Likewise, the lecturers in Technology experience higher level of stress than those in Humanities and also those in Social Sciences than those in Humanities. However, the stress level of lecturers in Science and Technology and those in Technology and Social Sciences were not significantly difference.

#### 4. Discussion and Conclusion

This study revealed that lecturers' workload has significant influence on lecturer stress level. Work overload has been identified as one of the antecedents of stress common among academics in studies conducted around the world (Boyd & Wylie, 1994; Harrison, 1997; Seldin, 1987). Gillespie, Walsh, Winefield, Dua & Stough (2001) explored stress among university staff and identified work overload as one of the causes of stress. Excessive overload is also the most frequently reported stressor by academics (Association of University Teachers, 2003). The study also showed that the stress levels of lecturers in the low, moderate and high workload groups were not significantly different. This indicates that lecturers are exposed to high levels of stress regardless of the number of hours involved in teaching and supervising projects/theses. This study did not consider the number of hours that lecturers are involved in research work and this form an important part of their workload. Winefield and Jarret (2001) found that stress was highest and job satisfaction lowest among staff whose workload involved a combination of teaching and research.

This study also revealed that lecturers' areas of specialization have significant influence on lecturer stress level. The analysis of data collected on lecturer stress level and areas of specialization revealed that lecturers in Science experience higher stress level than those in Social Sciences and Humanities. Likewise, the lecturers in Technology experience higher stress level than those in Humanities and also those in Social Sciences than those in Humanities. However, the stress level of lecturers in Science and Technology and those in Technology and Social Sciences were not significantly different.

Difference in certain aspects of responsibilities being carried out by lecturers in various disciplines may justify the difference in their stress level. For example, lecturers in Science do practicals most of the time, which tend to add to their workload. So also those in Technology, which explains why there is no significant difference in the stress level of the two groups. What tends to bring about this difference in the stress level is the additional workload through certain aspects of their responsibilities.

From the results of this study, it is concluded that university lecturers are exposed to high level of stress. It is also concluded that workload and areas of specialization have significantly influence on lecturer stress level. It is therefore recommended that the university administrators and the government or private owners should look into lecturers' workload and consider the excess so that necessary steps could be taken on how to normalize it. There should be an improvement in the working condition of university lecturers.

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