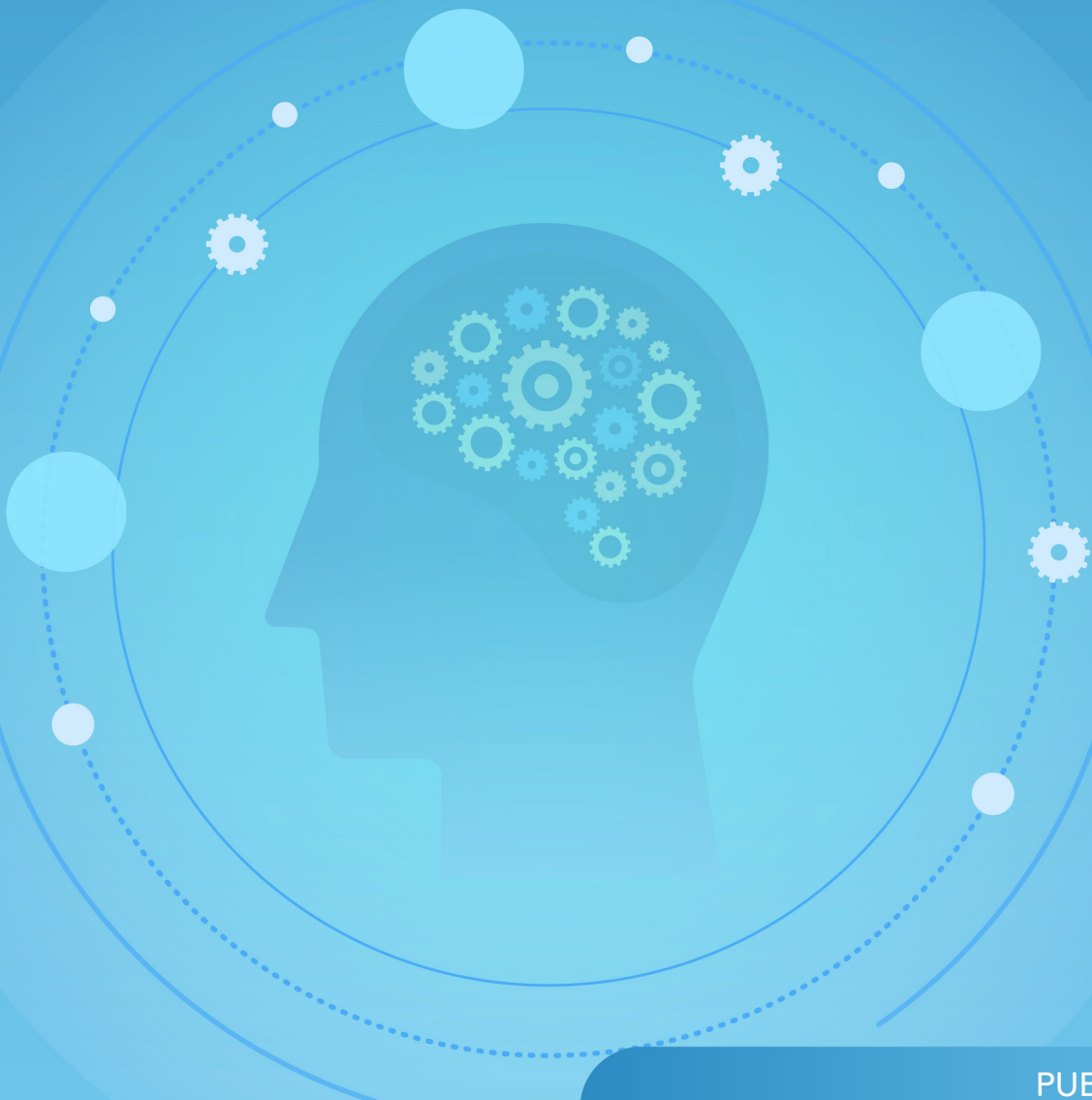




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A Comparison Study of the Influence of Work Stress and Productivity of Lecturers Vs Medical Doctors

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ABSTRACT

This study examined and compared the influence of work stress on the productivity of university lecturers and Medical Doctors in selected federal universities and the affiliated teaching hospitals in Nigeria. A descriptive survey design was adopted. The population comprised 5,917 lecturers and medical doctors, from which a sample of 375 respondents (266 lecturers; 70.9% and 109 medical doctors; 29.1%) was selected using proportionate random sampling. Data were collected using the Influence of Work-Stress on the Productivity of Lecturers and Medical Doctors Questionnaire (IWSPLMDQ), a 57-item instrument with a reliability index of 0.82. Data were analysed using mean statistics, t-test and one-way ANOVA at 0.05 level of significance. Findings revealed a high level of occupational stress among respondents, with an overall sectional mean of 2.81 for sources of stress, 2.60 for manifestations, and 2.61 for management strategies. Major stressors included lack of instruments and obsolete infrastructure (Mean = 3.15), long working hours (Mean = 3.11), work-family conflict (Mean = 3.04), and frequent call or lecture duties (Mean = 2.95). Common manifestations were constant fatigue (Mean = 2.94), body pain and headaches (Mean = 2.92), lack of concentration (Mean = 2.89), and sleep disturbances (Mean = 2.88). The most frequently adopted coping strategy was relaxing or sleeping in a quiet environment (Mean = 3.17). Significant differences were found between lecturers and medical doctors in sources of stress ($t = 6.764, p < 0.001$), manifestations ($t = 5.170, p < 0.001$), and management strategies ($t = 3.520, p < 0.001$). Among lecturers, rank significantly influenced sources of stress ($F = 7.639, p = 0.001$) and management strategies ($F = 4.111, p = 0.017$), whereas among medical doctors, rank had no significant effect. The study concludes that work stress is prevalent among both lecturers and medical doctors and significantly affects their productivity, with variations across profession, gender, and rank. It recommends institutional stress-management programmes, improved work environments, staff recruitment to reduce workload, and the integration of stress education into professional training.

INTRODUCTION

Work-related stress is a pervasive occupational health issue with significant implications for employee productivity, wellbeing, and organizational effectiveness. While moderate levels of stress may enhance motivation and performance, prolonged or excessive stress has been consistently associated with burnout, reduced efficiency, absenteeism, and adverse physical and psychological health outcomes (Ganster & Rosen, 2013). The transactional theory of stress explains this phenomenon as a dynamic interaction between job demands and an individual's coping resources, emphasizing that high-responsibility professions with sustained workload pressures are particularly vulnerable (Ganster & Rosen, 2013). University lecturers and medical doctors represent two strategically important professional groups whose productivity directly influences educational quality, healthcare delivery, and national development. Lecturers are expected to balance teaching large student populations, conducting research, publishing for career progression, performing administrative duties, and fulfilling community service roles. Empirical evidence indicates that academic work stress is associated with diminished teaching effectiveness, lower research output,

job dissatisfaction, and psychological distress (Kinman & Wray, 2018). In many low- and middle-income countries, including Nigeria, these stressors are intensified by limited institutional resources, high student staff ratios, inadequate research funding, and promotion-related pressures. Similarly, medical doctors operate in highly demanding environments characterized by long working hours, night calls, emotional labour, patient overload, and high-stakes clinical decision-making. Extensive literature has documented high levels of occupational stress and burnout among physicians, linking these conditions to reduced productivity, increased medical errors, poor quality of care, and compromised patient safety (West *et al.*, 2018). Chronic exposure to work stress among doctors has also been associated with depression, cardiovascular disease, substance use, and premature mortality, raising concerns about workforce sustainability and health system performance (Ganster & Rosen, 2013). Although stress among lecturers and medical doctors has been widely studied independently, there is a clear gap in the literature regarding comparative empirical analyses of how work stress affects productivity across these two professions within the same socio-economic and institutional context. Existing studies are largely profession-specific and focus

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predominantly on prevalence and sources of stress, with limited attention to comparative productivity outcomes (Ojji & Ojiah, 2026). Furthermore, the moderating roles of rank and gender remain underexplored, despite evidence suggesting that career stage and gender-based role expectations significantly influence stress exposure, coping capacity, and work performance (Dyrbye *et al.*, 2014; Kinman & Wray, 2018).

Recent observations within universities and teaching hospitals in Nigeria suggest increasing cases of burnout-related absenteeism, reduced service delivery, and stress associated health crises among lecturers and medical doctors. These trends raise critical concerns for students, patients, and policymakers, yet robust comparative evidence is lacking to guide targeted interventions. Without such evidence, institutional and policy responses remain fragmented and largely reactive.

Therefore, a comparative examination of the influence of work stress on the productivity of lecturers and medical doctors is both timely and necessary. This study is justified by the pivotal roles these professionals play in human capital development and healthcare delivery, as well as the urgent need for evidence-based occupational health strategies. This study contributes to the occupational stress literature and provides actionable insights for improving productivity, wellbeing, and institutional effectiveness in higher education and healthcare systems.

MATERIALS AND METHODS

Population of the Study

The target population of this study comprised all lecturers, resident doctors, and Hospital consultants in four federal universities and the affiliated teaching hospitals in Nigeria which the study was restricted. These Universities are:

- i. University of Ibadan and University College Hospital, Ibadan.
- ii. Ahmadu Bello University and Ahmadu Bello University Teaching Hospital, Zaria.
- iii. University of Nigeria and University of Nigeria Teaching Hospital, Enugu.
- iv. University of Abuja and University of Abuja Teaching Hospital, Abuja.

The male and female university lecturers working at the selected universities this study was within the rank of

professor, senior lecturer and lecturer I. While the male and female medical doctors who were practicing at the teaching hospitals affiliated to the selected universities belonged to the rank of consultant, senior registrar and registrar. These universities and teaching hospitals were chosen because the respondents for the study must be within federal universities with affiliated teaching hospitals. Also, the institutions were selected based on regions and there are only one teaching hospital affiliated to a university in a city. Available records from the administrative departments of the selected federal universities gave the total population of university lecturers as four thousand one hundred and ninety-two (4,192). The population of the doctors from the record of the Administrative departments of the affiliated teaching hospitals, Association of Resident Doctors (ARD) and Medical and Dental Consultants Association of Nigeria (MDCAN) Secretariats of these teaching hospitals indicate that the population of the medical doctors was one thousand seven hundred and twenty-five (1,725) medical doctors, giving a total population of five thousand nine hundred and seventeen (5,917) university lecturers and medical doctors.

Sample Size and Sampling Procedure

The sample size for the study was determined using the Table of Sample Size by Glen (2009) where appropriate sample sizes for specific populations have been stated. The sample size for this study therefore was 375 lecturers and medical doctors. Using purposive sampling strategy, only lecturers who were within the ranks of Lecturer I to Professor and medical doctors who were consultants and resident doctors were selected to participate in the study. Random proportionate sampling technique was used to arrive at the distribution of the sample size. Proportionate sampling is a sampling strategy (a method for gathering participants for a study) used when the population is composed of several subgroups that are vastly different in number. The number of participants from each subgroup is determined by the number related to the entire population. Since the sample size had been determined to be 375 respondents, proportionate random sampling from each stratum was taken in a number proportional to the stratum's size when compared to the population.

Table 1: Table of Population and Sample Size

Name of Institution	Population			Samples	
Status	Lecturers	Medical Doctors	Total	Lecturers	Medical Doctors
University of Abuja	328	276	604	21	17
University of Ibadan	859	540	1399	55	34
University of Nigeria, Nsukka	1530	330	1860	96	21
Ahmadu Bello University, Zaria	1475	579	2054	94	37
Total	4192	1725	5917	266	109

Instrumentation

The data for this study was obtained using a 57-item questionnaire. developed from journals, previous studies,

books, internet and researchers' observations. The researcher designed a questionnaire titled: Influence of Work-Stress on the Productivity of Lecturers and Medical

Doctors Questionnaire (IWSPLMDQ). The four-point Likert type scale questionnaire which had four sections- A to D elicited responses on personal data, sources of stress, manifestations of stress and management of stress respectively.

Validity and Reliability of the Instrument

The validation of the instrument was done through content and construct validity by ensuring that the instrument measured what it was purported to measure in terms of the variables, the research questions and hypotheses. Also, all vague and ambiguous items were clarified and reconstructed in a simple and easy way to be understood. The reliability of the instrument was determined through a pilot test using the test re-test method of reliability. The instrument was administered to fifteen (15) lecturers and fifteen (15) medical doctors in a department at the university of Jos and Jos University Teaching Hospital, who did not participate in the main study. The administration of the test was carried out twice at interval of two weeks. At the end of the entire exercise, all the responses were collated and analyzed using Pearson's Product Moment Correlation Co-efficient (PPMC) Statistics to determine its reliability which gave an index of 0.82 which was judged suitable for the study.

Data Collection Procedure

In collecting the data, the Ethical clearance was sought and obtained from University of Abuja and University of Abuja Teaching Hospital, Ahmadu Bello University and Ahmadu Bello University Teaching Hospital, Zaria and University of Ibadan and University College Hospital, Ibadan. The Ethical clearance of University of Abuja and University of Abuja Teaching Hospital and Ahmadu Bello University and Ahmadu Bello University Teaching Hospital, Zaria was accepted at University of Nigeria and University of Nigeria Teaching Hospital, Enugu for data collection. The researcher employed the services of research assistant at each university and teaching hospitals. By qualifications, the research assistants were master's degree holders in the field of education and public health. Then, the researcher had to brief the research assistants on what is expected of them on the field a day before the data was collected. That was done in each university and teaching hospitals. The contents of the briefing includes; how to address the respondents, brief

explanation on the title of the thesis, the time to start and end the administration of the questionnaire, the duration of administering the questionnaires and what to look out for in the filling of the questionnaire and the collation of the questionnaire after filling. The instrument was then administered to the university lecturers and medical doctors individually within the period of two (2) days in each university and teaching hospital. The complete copies of the questionnaire were checked to ensure good completion. All the collected copies of the questionnaire were handed over to the researcher for analysis.

Method of Data Analysis

The data generated was analyzed using both descriptive and inferential statistics. Descriptive statistical tools such as percentages, frequency count and mean statistics were applied to the analysis of demographic data and answering of the research questions. The t-test of inferential statistical tool was applied in testing hypotheses 1-3, seeking significant difference between two groups (gender), while One-Way Analysis of Variance (ANOVA) was used in analyzing hypotheses 4-5 for test of significant differences among three groups (rank). The decision rule for the hypotheses was based on comparison of the significant value of 0.05 level of significance. The significant value that was more than 0.05 level meant that the hypothesis was accepted, while the values that was

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{S_{\bar{x}_1 - \bar{x}_2}}$$

where

$$S_{\bar{x}_1 - \bar{x}_2} = \sqrt{\frac{S_{pooled}^2}{n_1} + \frac{S_{pooled}^2}{n_2}}$$

One way ANOVA;

Steps for ANOVA calculations

[A] Calculate the correction factor

[B] Calculate the Sum of Squares Total value (SS Total)

SS Total = $\sum X^2$ - CF

[C] Calculate the SS Group value

[D] Calculate the SS Error value

SS Error = SS Total - SS Group

[E] Calculate MS Group value

[F] Calculate MS Error value

[G] Calculate F value (V.R.)

Table 2: Distribution of Respondents According to Status

Status	Frequency	Percentage (%)
Lecturers	266	70.90
Medical Doctors	109	29.10
Total	375	100.00

Table 3: Distribution of Respondents According to Sex

Status Gender	Lecturers		Medical Doctors		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage

Male	177	66.50	86	78.90	263	70.10
Female	89	33.50	23	21.10	112	29.90
Total	266	100.00	109	100.00	375	100.00

RESULTS AND DISCUSSION

Table 2 & 3 depicts the distribution of respondents according to status. Out of the 375 (100.00%) respondents, 266 (70.90%) are lecturers while the remaining 109 (29.10%) of the respondents are medical doctors. The result from status gender distribution revealed that out

of the 266 (100.00%) respondents that were lecturers, 177 (66.50%) were males while 89 (33.50%) of the respondents that are lecturers were females. Out of the 109 (100.00%) of the respondents that were medical doctors, 86 (78.90%) were males while the remaining 23 (21.10%) of the respondents that were medical doctors

Table 4: Distribution of Respondents According to Status Rank

Status Rank	Lecturers		Medical Doctors		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Professor	50	18.80	-	-	50	13.30
Senior Lecturer	80	30.10	-	-	80	21.30
Lecturer I	136	51.10	-	-	136	36.30
Consultant	-	-	18	16.50	18	4.80
Senior Registrar	-	-	39	35.80	39	10.40
Registrar	-	-	52	47.70	52	13.90
Total	266	100.00	109	100.00	375	100.00

were females.

The result from status rank distribution revealed that out of the 266 (100.00%) respondents that were lecturers, 50 (18.80%) of the respondents were Professor, 80 (30.10%) were Senior Lecturer, while the remaining 136 (51.10%) of the respondents were Lecturer 1.

The result from status rank distribution revealed that out of the 109 (100.00%) of the respondents that were

medical doctors, 18 (16.50%) of the respondents were Consultants, 39 (35.80%) were Senior Registrar, while the remaining 52 (47.70%) of the respondents were Registrar. The result revealed that majority of the respondents were Lecturers. According to the result from status rank, majority of the lecturers' rank is Lecturer 1 and for the medical doctors is Registrar while the minority for the lecturers and the medical doctors were professor and

Table 5: Sources of Stress among Lecturers and Medical Doctors

S/N	Sources of Stress	Overall Mean	Lecturers	Medical Doctors
			Mean $\pm$ SD	Mean $\pm$ SD
4	I work for long hours and become exhausted every day	3.11	3.30 $\pm$ 0.88	2.83 $\pm$ 0.79
5	Frequent call duties or lecture hours weigh me down	2.95	3.10 $\pm$ 0.85	2.72 $\pm$ 0.77
6	Insufficient time to write and publish papers	2.77	2.90 $\pm$ 0.81	2.58 $\pm$ 0.74
7	Fear of meeting promotion requirements	2.41	2.55 $\pm$ 0.79	2.20 $\pm$ 0.71
8	Hostility in the work environment	2.6	2.75 $\pm$ 0.83	2.38 $\pm$ 0.75
9	Inconsiderate senior/professional colleagues	2.71	2.85 $\pm$ 0.84	2.50 $\pm$ 0.76
10	Lack of instruments and obsolete infrastructure	3.15	3.35 $\pm$ 0.92	2.85 $\pm$ 0.82
11	Large number of students/patients	2.89	3.05 $\pm$ 0.86	2.65 $\pm$ 0.78
12	Poor remuneration compared to workload	2.91	3.05 $\pm$ 0.87	2.70 $\pm$ 0.80
13	Limited opportunity for personal development	2.9	3.05 $\pm$ 0.85	2.70 $\pm$ 0.78
14	Unachievable deadlines	2.67	2.80 $\pm$ 0.82	2.45 $\pm$ 0.74
15	Combining professional and family demands	3.04	3.20 $\pm$ 0.90	2.80 $\pm$ 0.81
16	Meeting expectations of home and career	3.02	3.18 $\pm$ 0.89	2.78 $\pm$ 0.80
17	Stress from promotion requirements	2.62	2.75 $\pm$ 0.83	2.40 $\pm$ 0.75
18	Personality type and other factors	2.45	2.58 $\pm$ 0.80	2.25 $\pm$ 0.72
	Sectional Mean	2.81	2.96 $\pm$ 0.86	2.58 $\pm$ 0.77

consultant respectively.

Table 5 presents the mean scores and standard deviations on Sources of Stress among Lecturers and Medical Doctors. The result revealed that items 10, 4, 15, 16, and 5 were the top 5 major stressors for lecturers and medical doctors. Item 10 (Lack of instruments and obsolete infrastructure) with a mean score (3.35, 2.85) and Standard Deviation (0.92, 0.82). followed by item 4 (I work for long hours and become exhausted every day) with the mean score (3.30, 2.83) and S.D (0.88, 0.79). Item 15 (Combining professional and family demands) with the mean score (3.20, 2.80) and S.D (0.90, 0.81), followed by item 16 (Meeting expectations of home and career) with the mean score (3.18, 2.78) and S.D (0.89,

0.80) and item 5 (Frequent call duties or lecture hours weigh me down) with the mean score (3.10, 2.72) and S.D (0.85, 0.77) respectively were the 5 major stressors for lecturers and medical doctors. Furthermore, items 7, 18, 8, 17, and 14 were the least 5 stressors for lecturers and medical doctors, item 7 (Fear of meeting promotion requirements) with the mean score (2.55, 2.20) and S.D (0.79, 0.71), followed by item 18 (Personality type and other factors) with the mean score (2.58, 2.25) and S.D (0.80, 0.72), followed by item 8 (Hostility in the work environment) with mean score (2.75, 2.38) and S.D (0.83, 0.75), item 17 (Stress from promotion requirements) with the mean score (2.75, 2.40) and S.D of (0.83, 0.75) and item 14 (Unachievable deadlines) with the mean score

Table 6: Manifestations of Stress among Lecturers and Medical Doctors

S/No	Manifestations of Stress	Overall Mean	Lecturers	Medical Doctors
			Mean $\pm$ SD	Mean $\pm$ SD
19	General body pain, headache, migraine, back pain	2.92	3.05 $\pm$ 0.87	2.72 $\pm$ 0.78
20	Constant body weakness, tiredness and fatigue	2.94	3.10 $\pm$ 0.88	2.75 $\pm$ 0.79
21	Eating frequently / over-eating when stressed	2.03	2.15 $\pm$ 0.76	1.85 $\pm$ 0.68
22	Diarrhea or constipation when stressed	1.77	1.88 $\pm$ 0.72	1.60 $\pm$ 0.65
23	Frequent upper respiratory infection (flu/cold)	2.3	2.45 $\pm$ 0.79	2.10 $\pm$ 0.71
24	Sleepless nights or sleeping too much	2.88	3.05 $\pm$ 0.86	2.65 $\pm$ 0.77
25	Palpitations and anxiety	2.55	2.70 $\pm$ 0.82	2.35 $\pm$ 0.74
26	Impatience and feeling of failure	2.59	2.75 $\pm$ 0.83	2.38 $\pm$ 0.75
27	Reduced sexual urge	2.74	2.90 $\pm$ 0.85	2.50 $\pm$ 0.77
28	Loss of appetite when stressed	2.63	2.78 $\pm$ 0.82	2.40 $\pm$ 0.74
29	Tremor in the limbs	2.23	2.35 $\pm$ 0.78	2.05 $\pm$ 0.70
30	Dizziness, memory loss, irritability	2.77	2.92 $\pm$ 0.85	2.55 $\pm$ 0.76
31	Depression and mood swings	2.73	2.90 $\pm$ 0.84	2.50 $\pm$ 0.75
32	Frustration, aggression, hostility	2.83	3.00 $\pm$ 0.86	2.60 $\pm$ 0.78
33	Lack of concentration, interest, confidence	2.89	3.05 $\pm$ 0.87	2.65 $\pm$ 0.79
34	Absenteeism, lateness, excuse duties	2.42	2.55 $\pm$ 0.80	2.25 $\pm$ 0.72
35	Procrastination and reduced performance	2.62	2.78 $\pm$ 0.83	2.40 $\pm$ 0.75
36	Clinical errors in diagnosis/treatment	2.72	2.85 $\pm$ 0.84	2.50 $\pm$ 0.76
37	Errors in marking and scoring scripts	2.9	3.05 $\pm$ 0.87	2.65 $\pm$ 0.79
38	Constant worry, nervous habits, restlessness	2.54	2.70 $\pm$ 0.82	2.30 $\pm$ 0.74
39	Loss of interest in personal hygiene	2.51	2.65 $\pm$ 0.81	2.28 $\pm$ 0.73
40	Withdrawal from colleagues, family, activities	2.57	2.72 $\pm$ 0.82	2.35 $\pm$ 0.74
41	Becoming hypercritical of self and others	2.71	2.85 $\pm$ 0.84	2.50 $\pm$ 0.76
	Sectional Mean	2.6	2.76 $\pm$ 0.84	2.38 $\pm$ 0.75

(2.80, 2.45) and S.D (0.82, 0.74).

Table 6 presents the mean scores and standard deviations on manifestations of stress among Lecturers and Medical Doctors. The result revealed that items 20, 19, 33, 37, and 24 were the top 5 major manifestations of stress among Lecturers and Medical Doctors. Item 20 (Constant body weakness, tiredness and fatigue) with a mean score (3.10, 2.75) and Standard Deviation (0.88, 0.79) followed by item 19 (General body pain, headache, migraine, back pain) with

the mean score (3.05, 2.72) and S.D (0.87, 0.78). Item 33 (Lack of concentration, interest, confidence) with the mean score (3.05, 2.65) and S.D (0.87, 0.79), followed by item 37 (Errors in marking and scoring scripts) with the mean score (3.05, 2.65) and S.D (0.87, 0.79) and item 24 (Sleepless nights or sleeping too much) with the mean score (3.05, 2.65) and S.D (0.86, 0.77) respectively were the 5 major manifestation of stressors for lecturers and medical doctors. Furthermore, items 22, 21, 29, 23, and 34 were the least

manifestation of stressors for lecturers and medical doctors. Item 22 (Diarrhea or constipation when stressed) with the mean score (1.88, 1.60) and S.D (0.72, 0.65), followed by item 21 (Eating frequently / over-eating when stressed) with the mean score (2.15, 1.85) and S.D

(0.76, 0.68), followed by item 29 (Tremor in the limbs) with mean score (2.35, 2.05) and S.D (0.78, 0.70), item 23 (Frequent upper respiratory infection (flu/cold)) with the mean score (2.45, 2.10) and S.D of (0.79, 0.71) and item 34 (Absenteeism, lateness, excuse duties) with the mean

Table 7: Stress Management Strategies among Lecturers and Medical Doctors

S/No	Stress Management Strategies	Overall Mean	Lecturers	Medical Doctors
			Mean $\pm$ SD*	Mean $\pm$ SD*
42	Relaxing or sleeping in a quiet environment	3.17	3.35 $\pm$ 0.90	2.90 $\pm$ 0.81
43	Engaging in sports and recreational activities	2.86	3.00 $\pm$ 0.86	2.65 $\pm$ 0.78
44	Attending religious programmes	2.6	2.75 $\pm$ 0.83	2.38 $\pm$ 0.75
45	Deliberate diversion of thoughts from stressors	2.78	2.95 $\pm$ 0.85	2.55 $\pm$ 0.77
46	Avoiding stressful people or situations	2.99	3.15 $\pm$ 0.88	2.75 $\pm$ 0.80
47	Taking time out for social functions/parties	2.8	2.95 $\pm$ 0.85	2.55 $\pm$ 0.77
48	Watching movies and films	2.94	3.10 $\pm$ 0.87	2.70 $\pm$ 0.79
49	Listening to music and religious tapes	2.95	3.10 $\pm$ 0.87	2.70 $\pm$ 0.79
50	Taking alcohol, red wine or smoking	1.66	1.75 $\pm$ 0.70	1.52 $\pm$ 0.63
51	Shedding tears to relieve stress	2.11	2.25 $\pm$ 0.78	1.92 $\pm$ 0.70
52	Discussing with spouse, friends or professionals	2.41	2.55 $\pm$ 0.81	2.20 $\pm$ 0.73
53	Singing and dancing	2.66	2.80 $\pm$ 0.83	2.45 $\pm$ 0.75
54	Social media engagement and chatting	2.64	2.78 $\pm$ 0.82	2.42 $\pm$ 0.74
55	Engaging in extra work or overworking	2.11	2.25 $\pm$ 0.78	1.92 $\pm$ 0.70
56	Taking drugs (prescribed or non-prescribed)	2.07	2.20 $\pm$ 0.77	1.88 $\pm$ 0.69
57	Relaxation time, healthy diet and regular exercise	3.04	3.20 $\pm$ 0.89	2.80 $\pm$ 0.80
	Sectional Mean	2.61	2.77 $\pm$ 0.85	2.40 $\pm$ 0.76

score (2.55, 2.25) and S.D (0.80, 0.72).

Table 7 presents the mean scores and standard deviations on stress management strategies among Lecturers and Medical Doctors. The result revealed that items 42, 57, 46, 48, and 49 were the top 5 major stress management strategies among Lecturers and Medical Doctors. Item 42 (Relaxing or sleeping in a quiet environment) with a mean score (3.35, 2.90) and Standard Deviation (0.90, 0.81) followed by item 57 (Relaxation time, healthy diet and regular exercise) with the mean score (3.20, 2.80) and S.D (0.89, 0.80). Item 46 Avoiding stressful people or situations) with the mean score (3.15, 2.75) and S.D (0.88, 0.80), followed by item 48 (Watching movies and films) with the mean score (3.10, 2.70) and S.D (0.87, 0.79) and item 49 (Listening to music and religious tapes) with the

mean score (3.10, 2.70) and S.D (0.87, 0.79) respectively were the 5 major stress management strategies among Lecturers and Medical Doctors.

Furthermore, items 50, 56, 55, 51, and 52 were the least stress management strategies among Lecturers and Medical Doctors. Item 50 (Taking alcohol, red wine or smoking) with the mean score (1.75, 1.52) and S.D (0.70, 0.63), followed by item 56 (Taking drugs (prescribed or non-prescribed)) with the mean score (2.20, 1.88) and S.D (0.77, 0.69), followed by item 55 (Engaging in extra work or overworking) with mean score (2.25, 1.92) and S.D (0.78, 0.70), item 51 (Shedding tears to relieve stress) with the mean score (2.25, 1.92) and S.D of (0.78, 0.70) and item 52 (Discussing with spouse, friends or professionals) with the mean score (2.55, 2.20) and

Table 8: Differences in Sources, Manifestations and Management Strategies of Stress among Lecturers and Medical Doctors

Variable Status	Source		Manifestations		Management Strategies	
	N	Mean	N	Mean	N	Mean
Lecturers	266	2.72	266	2.53	266	2.57
Medical Doctors	109	3.04	109	2.77	109	2.71

S.D (0.81, 0.73).

Table 8 shows the differences in sources, manifestations and management strategies of stress among Lecturers

and Medical Doctors. The result revealed that among the respondents there were 266 lecturers and there were 109 doctors. The result for the differences in means for

sources of stress among Lecturers and Medical Doctors revealed that Lecturers have the minimum mean (2.72) compared to that of Medical Doctors' mean (3.04). This revealed that the medical doctors have a higher average of handling stress compared to Lecturers. The result for the differences in means for manifestation of stress among Lecturers and Medical Doctors revealed that Lecturers have the minimum mean (2.53) compared to

that of Medical Doctors' mean (2.77). This revealed that the medical doctors have a higher average of manifesting stress compared to Lecturers.

The result for the differences in means for management strategies of stress among Lecturers and Medical Doctors revealed that Lecturers have the minimum mean (2.57) compared to that of Medical Doctors' mean (2.71). This revealed that the medical doctors have a higher average

Table 9: Differences in Sources, Manifestations and Management Strategies of Stress Male and Female University Lecturers

Variable Gender	Source		Manifestations		Management Strategies	
	N	Mean	N	Mean	N	Mean
Male	177	2.75	177	2.54	177	2.62
Female	89	2.66	89	2.49	89	2.47

of managing stress compared to Lecturers.

Table 9 shows the differences in sources, manifestations and management strategies of stress among male and female University Lecturers. The result revealed that that among the Lecturers there were 177 male Lecturers and there were 89 female Lecturers. The result for the differences in means for sources of stress revealed that female Lecturers have the minimum mean (2.66) compared to that of male Lecturers' mean (2.75). This revealed that the male Lecturers have a higher mean of handling stress compared to female Lecturers.

The result for the differences in means for manifestation of stress revealed that male Lecturers have higher mean (2.54) compared to female Lecturers' mean (2.49). This revealed that the male Lecturers have a higher mean of manifesting stress compared to female Lecturers.

The result for the differences in means for management strategies of stress revealed that male Lecturers have higher mean (2.62) compared to female Lecturers' mean (2.47). This revealed that the male Lecturers have a higher mean of developing management strategies of stress compared to female Lecturers.

Table 10: Differences in Sources, Manifestations and Management Strategies of Stress Male and Female Medical Doctors

Variable Gender	Source		Manifestations		Management Strategies	
	N	Mean	N	Mean	N	Mean
Male	86	3.05	86	2.79	86	2.73
Female	23	3.02	23	2.73	23	2.64

Table 10 shows the differences in sources, manifestations and management strategies of stress among male and female Medical Doctors. The result revealed that that among the Medical Doctors there were 86 male Medical Doctors and there were 23 female Medical Doctors. The result for the differences in means for sources of stress revealed that female Medical Doctors have mean (3.02) and male Medical Doctors have mean (3.05). This means are almost the same revealing that the male and female Medical Doctors mean of handling stress are the same. The result for the differences in means for manifestation of stress revealed that female Medical Doctors have mean (2.73) and male Medical Doctors have mean (2.79).

Although this means are almost the same revealing that the male and female Medical Doctors mean of manifesting stress are almost the same. The result for the differences in means for sources of stress revealed that female Medical Doctors have the minimum mean (2.64) compared to that of male Medical Doctors' mean (2.73). Although this means are almost the same but there is a slight difference revealing that the male Medical Doctors have higher means of developing strategies to manage stress compare to their female colleagues.

Table 11 shows the differences in sources, manifestations and management strategies of stress among University Lecturers' rank. The result revealed that among the 266

Table 11: Differences in Sources, Manifestations and Management Strategies of Stress among University Lecturers in terms of Rank

Variable Rank	Source		Manifestations		Management Strategies	
	N	Mean	N	Mean	N	Mean
Professor	50	2.81	50	2.65	50	2.70
Senior Lecturer	80	2.83	80	2.47	80	2.51
Lecturer I	136	2.62	136	2.51	136	2.56

University Lecturers, there were 50 lecturers with the rank of Professors, 80 Senior Lecturers and 136 with the rank of Lecturer 1. The result for the differences in means for sources of stress revealed that Senior Lecturers have the highest mean (2.83), followed by Professors with mean (2.81) and lastly Lecturer one with the minimum mean (2.62). Although the means for the senior lecturer and the Professor are almost the same but there is a slight difference revealing that the senior lecturer have higher means of handling stress compared to Professor and Lecturers 1 while Professor also has a higher means of handling stress compared to lecturer 1. The result for the differences in means for manifestation of stress revealed that Professors have the highest mean (2.65), followed by Lecturer 1 with mean (2.51) and lastly Senior Lecturer with the minimum mean (2.47). Although the means for

the senior lecturer and the Lecturer 1 are almost the same but there is a slight difference. This reveals that Professor have higher means of manifesting stress compared to Senior Lecturer and Lecturers 1 while Lecturer 1 also have a higher mean of handling stress compared to Senior lecturer.

The result for the differences in means for management strategies of stress revealed that Professors have the highest mean (2.70), followed by Lecturer 1 with mean (2.56) and lastly Senior Lecturer with the minimum mean (2.51). Although the means for the senior lecturer and the Lecturer 1 are almost the same but there is a slight difference. This reveals that Professor has higher means of developing management strategies for stress compared to Senior Lecturer and Lecturers 1 while Lecturer 1 also has a higher means of developing management strategies

Table 12: Differences in Sources, Manifestations and Management Strategies of Stress of Medical Doctors due to Rank

Variable Rank	Source		Manifestations		Management Strategies	
	N	Mean	N	Mean	N	Mean
Consultant	18	3.13	18	2.76	18	2.69
Senior Registrar	39	3.11	39	2.78	39	2.74
Registrar	52	2.96	52	2.77	52	2.69

for stress compared to Senior lecturer.

Table 12 shows the differences in sources, manifestations and management strategies of stress among Medical Doctors due to rank. The result revealed that that among the 109 Medical Doctors, there were 18 consultants, 39 Senior Registrar and 52 Registrar. The result for the differences in means for sources of stress revealed that Consultants have the highest mean (3.11), followed by Senior Registrar with mean (3.11) and lastly Registrar with the minimum mean (2.96). Although the means for the ranks are almost the same, however; there is a slight difference revealing that the consultant have higher means of handling stress compared to senior registrar and registrar.

The result for the differences in means for manifestation of stress revealed that Senior registrar has the highest means (2.78), followed by registrar with mean (2.77) and lastly consultant with the minimum mean (2.76). Although the means for ranks are almost the same but there is a slight difference. This reveals that consultants, senior registrar and registrar have the same means of manifesting stress. The result for the differences in means for management strategies of stress revealed that Senior registrar has the highest mean (2.74), compared to registrar and consultants with mean (2.69) Although the means for ranks are almost the same but there is a slight difference. This reveals that consultants and registrar have the same means of manifesting stress. Senior registrar has

Table 13: t-test Results on Responses on Difference in Sources, Manifestations and Management Strategies of Stress between Lecturers and Medical Doctors

Variable	Status	N	Mean	S.D.	t-value	df	Sig(2tail)	Decision
Sources of Stress	Lecturers	266	2.71	0.44	6.764	373	0.000	Rejected
	Medical Doctors	109	3.04	0.38				
Manifestations of Stress	Lecturers	266	2.52	0.46	5.170	373	0.000	Rejected
	Medical Doctors	109	2.77	0.31				
Management Strategies of Stress	Lecturers	266	2.57	0.37	3.52	373	0.000	Rejected
	Medical Doctors	109	2.71	0.29				

higher mean compared to the consultants and registrar.

Table 13 presents the t-test results on responses on differences in sources, manifestations and management strategies of stress between Lecturers and Medical Doctors. The result from sources of stress revealed that the t value is 6.764 with 373 degrees of freedom and a p-value of 0.0000. Since the p-value is less than

0.05 level of significance, we reject the null hypothesis. Hence, we conclude that there is a statistically significant difference in the sources of stress between Lecturers and Medical Doctors. The result from manifestations of stress revealed that the t value is 5.170 with 373 degrees of freedom and a p-value of 0.0000. Since the p-value is less than 0.05 level of significance, we reject the

null hypothesis. Therefore, we conclude that there is a statistically significant difference in the manifestations of stress between Lecturers and Medical Doctors. The result from management strategies revealed that t-value

is 3.52 with 373 degrees of freedom and a p-value of 0.0000. Since the p-value is less than 0.05 level of significance, we reject the null hypothesis. Therefore, we conclude that there is a statistically significant difference in management

Table 14: t-test Results on Responses on Difference in Sources, Manifestations and Management Strategies of Stress between Male and Female Lecturers

Variable	Gender	N	Mean	S.D.	t-value	df	Sig(2-tailed)	Decision
Sources of Stress	Male Lecturers	177	2.75	0.46	1.478	264	0.141	Accepted
	Female Lecturers	89	2.66	0.40				
Manifestations of Stress	Male Lecturers	177	2.54	0.48	0.843	264	0.400	Accepted
	Female Lecturers	89	2.49	0.42				
Management Strategies of Stress	Male Lecturers	177	2.62	0.37	3.090	264	0.002	Rejected
	Female Lecturers	89	2.47	0.36				

strategies of stress between Lecturers and Medical Doctors. Table 14 presents the t-test results on responses on difference in sources, manifestations and management strategies of stress between Male and Female Lecturers. The result from sources of stress revealed that the t value is 1.478 with 264 degrees of freedom and a p-value of 0.141. Since the p-value is greater than 0.05 level of significance, we do not reject the null hypothesis. Therefore, we conclude that there is no statistically significant difference in the sources of stress between Male and female Lecturers. The result from manifestation of stress revealed that

the t value is 0.843 with 264 degrees of freedom and a p-value of 0.400. Since the p-value is greater than 0.05 level of significance, we do not reject the null hypothesis. Therefore, we conclude that there is no statistically significant difference in manifestation of stress between Male and female Lecturers. The result from management of stress strategies revealed that the t value is 3.090 with 264 degrees of freedom and a p-value of 0.002. Since the p-value is less than the 0.05 level of significance, we reject the null hypothesis. Therefore, we conclude that there is a statistically significant difference in management strategies of stress

Table 15: t-test Results on Responses of Difference in Sources, Manifestations and Management Strategies of between Male and Female Medical Doctors

Variable	Gender	N	Mean	S.D.	t-value	df	Sig(2-tailed)	Decision
Sources of Stress	Male Medical Doctors	86	3.05	0.36	1.478	107	0.716	Accepted
	Female Medical Doctors	23	3.02	0.43				
Manifestations of Stress	Male Medical Doctors	86	2.79	0.32	0.843	107	0.401	Accepted
	Female Medical Doctors	23	2.73	0.29				
Management Strategies of Stress	Male Medical Doctors	86	2.73	0.29	3.090	107	0.194	Accepted
	Female Medical Doctors	23	2.64	0.28				

between Male and female Lecturers.

Table 15 presents the t-test results on responses on difference in sources, manifestations and management strategies of stress between Male and Female Medical Doctors.

The result from sources of stress revealed that the t value is 1.478 with 107 degrees of freedom and a p-value of 0.716. Since the p-value is greater than 0.05 level of significance. Therefore, no statistically significant difference in the sources of stress between Male and Female Medical Doctors.

The result from manifestation of stress revealed that the t value is 0.843 with 107 degrees of freedom and a p-value of 0.401. Since the p-value is greater than 0.05 level of significance, we do not reject the null hypothesis. Therefore, we conclude that there is no statistically significant difference in manifestation of stress between

Male and Female Medical Doctors.

The result from management of stress strategies revealed that the t value is 3.090 with 264 degrees of freedom and a p-value of 0.194. Since the p-value is greater than the 0.05 level of significance. Therefore, the null hypothesis was not rejected, which implies no statistically significant difference in management strategies of stress between Male and Female Medical Doctors

Table 16 presents one-way ANOVA for difference in sources, manifestation and management strategies of stress among University Lecturers in terms of Rank.

The result from sources of stress revealed that the F value is 7.639 with p-value of 0.001. Since the p-value is less than 0.05 level of significance, the null hypothesis cannot be rejected. This implies, statistically significant difference in the sources of stress among University Lecturers in terms of Rank.

Table 16: One-way ANOVA for Difference in Sources, Manifestation and Management Strategies of Stress among University Lecturers in terms of Rank

Variables	Factors	Sum of Squares	df	Mean Square	F	Sig.	Decision
Sources of Stress	Between Groups	2.816	2	1.408	7.639	0.001	Rejected
	Within Groups	48.481	263	0.184			
	Total	51.298	265				
Manifestation of Stress	Between Groups	1.060	2	0.530	2.541	0.081	Accepted
	Within Groups	54.828	263	0.208			
	Total	55.887	265				
Management Strategies of Stress	Between Groups	1.104	2	0.552	4.111	0.017	Rejected
	Within Groups	35.313	263	0.134			
	Total	36.417	265				

The result from manifestation of stress revealed that the F value is 2.541 with p-value of 0.081. Since the p-value is greater than 0.05 level of significance, which indicates is no statistically significant difference in manifestation of stress among University Lecturers in terms of Rank

The result from management of strategies of stress

revealed that the F value is 4.111 with p-value of 0.017. Since the p-value is less than the 0.05 level of significance, it means that there is a statistically significant difference in management strategies of stress among University Lecturers in terms of Rank

Table 17: One-way ANOVA for Difference in Sources, Manifestations and Management Strategies of Stress among Medical Doctors in terms of Rank

Variables	Factors	Sum of Squares	df	Mean Square	Sig.	Decision
Sources of Stress	Between Groups	0.625	2	0.313	0.109	Accepted
	Within Groups	14.648	106	0.138		
	Total	15.273	108			
Manifestation of Stress	Between Groups	0.004	2	0.002	0.981	Accepted
	Within Groups	10.641	106	0.100		
	Total	10.645	108			
Management Strategies of Stress	Between Groups	0.076	2	0.038	0.643	Accepted
	Within Groups	9.132	106	0.086		
	Total	9.209	108			

Table 17 presents one-way ANOVA for difference in sources, manifestation and management strategies of stress among the Medical Doctors in terms of Rank.

The result from sources of stress revealed that the p-value is 0.109. Since the p-value is greater than 0.05 level of significance. Therefore, no statistically significant difference in the sources of stress Medical Doctors in terms of Rank

The result from manifestation of stress revealed that the p-value is 0.981. Since the p-value is greater than 0.05 level of significance, this indicates that there is no statistically significant difference in manifestation of stress among the Medical Doctors in terms of Rank

The result from management of strategies of stress revealed that the p-value of 0.643. Since the p-value is greater than the 0.05 level of significance, this implies that there is no statistically significant difference in management strategies of stress among the Medical Doctors in terms of Rank.

Discussion of Findings

The findings revealed that university lecturers and medical doctors experience high levels of occupational stress, with a sectional mean of 2.81, indicating agreement that the listed factors constitute major sources of stress. The dominant stressors include work-overload, long working hours, insufficient time for research, work-family conflict, and career development pressures. This supports the findings of Masuku and Muchemwa (2015), who reported that increased workload and long working hours were the major stressors among university lecturers, and the British Medical Association (1993), which identified workload and its impact on personal life as the main source of stress among medical doctors. Similarly, Ahsan *et al.* (2009) identified workload pressure, role conflict, homework interface, and performance pressure as key stressors among lecturers and healthcare professionals. Stress manifestations were also prominent, with a sectional mean of 2.60, indicating that most respondents

experienced physiological, psychological, and behavioural symptoms of stress. This finding aligns with Ukwayi *et al.*, (2013), who reported widespread stress-related symptoms among academic staff, and Bouwari (2017), who confirmed that stress among medical doctors has adverse effects on their health. With respect to stress management, respondents agreed on common coping strategies, with a sectional mean of 2.61. The highest mean score (3.17) was recorded for resting, relaxation, and sleep, supporting Safaria *et al.*, (2012), who identified relaxation and sleep as the most common coping strategies among lecturers. This is further corroborated by Ozor (2016), who reported that medical doctors commonly adopt relaxation, humour, exercise, sleep, and entertainment as stress management strategies. A significant difference was found between lecturers and medical doctors in sources, manifestations, and management of stress, leading to the rejection of the first hypothesis. This confirms that stress does not originate from the same sources nor manifest or get managed in the same way across both professions, due to differences in work environment and professional demands (Archibong *et al.*, 2010).

Gender analysis showed that male and female lecturers did not differ significantly in sources and manifestations of stress (mean = 2.75 vs 2.66 for sources; 2.54 vs 2.49 for manifestations) but differed significantly in management strategies (2.62 vs 2.47). This supports Omoniyi (2013) who found no gender difference in stress exposure among lecturers. However, female lecturers were reported to experience higher work-life balance stress. For medical doctors, no significant gender difference was found in sources, manifestations, or management of stress, confirming the third hypothesis. This supports Bouwari (2017), who reported elevated stress levels among all doctors regardless of gender and gender-related differences in experience but not necessarily in stress exposure.

Academic rank influenced sources and management strategies of stress among lecturers but not stress manifestations, indicating that while stressors vary across ranks, the physiological and psychological impact remains similar (Atindanbila, 2011). Among medical doctors, rank did not significantly influence sources, manifestations, or management of stress, reflecting the demanding nature of medical training and practice across all cadres.

Overall, the study confirms that occupational stress is prevalent among both university lecturers and medical doctors, with variations in sources, manifestations, and coping strategies shaped by professional role, gender, and rank.

CONCLUSION

The study on Influence of Work-Stress on the Productivity of Lecturers and Medical Doctors in Nigerian Federal Universities and Teaching Hospitals: Implications for Counselling concluded that stress exists among university lecturers and medical doctors which has influence on their health and productivity.

Recommendations

In reference to the findings and conclusion from this study, the following recommendations were made:

- i. There is need to provide a triage of stress management in the education and medical sectors doctors by the universities and teaching hospitals managements because the evidence of stress among them is still very high.
- ii. Periodic or annual holiday, relaxations and vacations should be encouraged by the association bodies of university lecturers and medical doctors. Also, government or professional associations of these professions should endeavor to provide relaxation outfits at their various institutions.
- iii. Ministries of education and health should inculcate stress education into the education and medical curriculum in Nigeria as this will equip the lecturers and medical doctors on the influence of stress on them.

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