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ORIGINAL

Percieved occupational stress and its influences on the mental health of radiography and medical laboratory science lecturers in tertiary institutions in Nigeria

Estrés laboral percibido y su influencia en la salud mental de profesores de radiografía y ciencias del laboratorio médico en instituciones terciarias de Nigeria

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ABSTRACT

Background: the workplace environment has been severely affected by globalization and the global financial crisis, leading to an increase in demand as well as stress and related problems. This study was designed to assess effects of perceived occupational stress on the mental health of radiography and medical laboratory science lecturers in tertiary institutions in Nigeria, as well as to determine relationships between levels of occupational stress on mental health and the socio-demographic variables of the lecturers.
Methods: a cross-sectional questionnaire-based survey design was adopted to ascertain the aims of this study among 65 lecturers of the aforementioned departments. Obtained data were analyzed using both descriptive and inferential statistical tools.
Results: out of 65 respondents, 38(58,46 %) were males while females accounted for 27(41,54 %). Majority 36(55,38 %) of the participants were lecturers from radiography department and large proportion 39(65 %) of the respondents were within the age of 38-47 years. All (n=16, 100 %) the respondents were full-time lecturers. Most 26(40 %) of the respondents had master's degree. Greater number 30(46,15 %) had 3-8years working experiences. Majority of the lecturers from both departments reportedly felt emotionally drained from work sometimes, which is 28(96,55 %) and 22(61,11 %) for MLS and Radiography respectively. Twenty three (63,88 %) of the radiography (RAD) lectures reported to had found themselves getting upset by quite trivial/little things sometimes, while in Medical Laboratory Science (MLS), 16(55,17 %) of the lecturers sometimes gets upset by quite trivial things. Furthermore, the majorities of the lecturers from both departments sometimes felt pressure to beat deadlines, which is 25(86,21 %) and 21(58,33 %) for MLS and Radiography respectively. There were no statistically significant relationships between impact of occupational stress on the mental health of MLS lecturers and their socio-demographic variables such as gender (x^2 = 3,000, df= 2, p= 0,33), Age (x^2 = 6,000, df=3, p= 0,11), and years of experience (x^2 = 3,333, df=3, p= 0,34). There were no statistically

significant relationships between impact of occupational stress on the mental health of Radiography lecturers and their socio-demographic variables such as gender(x^2 = 5,312, df= 6, p= 0,38), Age (x^2 = 11,000, df=15, p= 0,75), and years of experience (x^2 = 7,000, df=5, p= 0,22).
Conclusion: there was mild level of impact of occupational stress on the mental health of lecturers from the departments of interest. The impact of occupational stress on the mental health of Radiography and MLS lecturers by gender, years of experience, age and level of education did not vary within the population of study. More lecturers should be employed to meet up the recommended students to lecturer's ratio so as to reduce the level of perceived mental stress among the lecturers.

Keywords: Laboratory Sciences; Lecturers; Mental Health; Occupational Stress; Radiography.

RESUMEN

Antecedentes: el entorno laboral se ha visto gravemente afectado por la globalización y la crisis financiera mundial, lo que ha provocado un aumento de la demanda, así como estrés y problemas relacionados. Este estudio se diseñó para evaluar los efectos del estrés laboral percibido sobre la salud mental de los profesores de radiografía y ciencias médicas de laboratorio en instituciones terciarias de Nigeria, así como para determinar las relaciones entre los niveles de estrés laboral sobre la salud mental y las variables sociodemográficas de los profesores.
Métodos: se adoptó un diseño de encuesta transversal basada en un cuestionario para determinar los objetivos de este estudio entre 65 profesores de los departamentos mencionados. Los datos obtenidos se analizaron mediante herramientas estadísticas descriptivas e inferenciales.
Resultados: de los 65 encuestados, 38 (58,46 %) eran hombres y 27 (41,54 %) mujeres. La mayoría, 36 (55,38 %), eran profesores del departamento de radiografía y una gran proporción, 39 (65 %), tenía entre 38 y 47 años. Todos los encuestados (n=16, 100 %) eran profesores a tiempo completo. La mayoría, 26 (40 %), tenía un máster. El mayor número, 30 (46,15 %), tenía entre 3 y 8 años de experiencia laboral. La mayoría de los profesores de ambos departamentos se sentían emocionalmente agotados por el trabajo a veces, 28 (96,55 %) y 22 (61,11 %) para MLS y Radiografía respectivamente. Veintitrés (63,88 %) de los profesores de Radiografía (RAD) declararon que a veces se enfadaban por cosas triviales, mientras que en Ciencias Médicas de Laboratorio (MLS), 16 (55,17 %) de los profesores a veces se enfadaban por cosas triviales. Además, la mayoría de los profesores de ambos departamentos a veces se sienten presionados para cumplir los plazos, lo que supone un 25 (86,21 %) y un 21 (58,33 %) para MLS y Radiografía respectivamente. No hubo relaciones estadísticamente significativas entre el impacto del estrés laboral en la salud mental de los profesores de MLS y sus variables sociodemográficas como el género (x2 = 3,000, df= 2, p= 0,33), la edad (x2 = 6,000, df=3, p= 0,11) y los años de experiencia (x2 = 3,333, df=3, p= 0,34). No hubo relaciones estadísticamente significativas entre el impacto del estrés laboral en la salud mental de los profesores de Radiografía y sus variables sociodemográficas como el género (x2 = 5,312, df = 6, p = 0,38), la edad (x2 = 11,000, df = 15, p = 0,75), y los años de experiencia (x2 = 7,000, df = 5, p = 0,22).
Conclusión: el impacto del estrés laboral sobre la salud mental de los profesores de los departamentos de interés fue leve. El impacto del estrés laboral en la salud mental de los profesores de Radiografía y MLS en función del sexo, los años de experiencia, la edad y el nivel de estudios no varió dentro de la población de estudio. Debería contratarse a más profesores para alcanzar la proporción recomendada de alumnos por profesor, a fin de reducir el nivel de estrés mental percibido entre los profesores.

Palabras clave: Ciencias de Laboratorio; Profesores; Salud Mental; Estrés Laboral; Radiografía.

INTRODUCTION

Stress can be defined as any type of changes or interference that can cause disturbance or strain to an individual's well being physically, emotionally and psychologically.[1,2]It can be categorized based on the degree of its physical and physiological effects on a person, and can be a mental, physical or emotional strain. The workplace environment has been severely affected by globalization and the global financial crisis, leading to an increase in demand as well as stress and related problems.[2] Stress related to a profession such as lecturing in a University is termed occupational stress.[3] This includes thoughts, feelings and physiological reactions that can occur as a result of stressful events,[4] which can on the long run be detrimental to the professional in relation to his profession. Occupational stress can occur in various professions.

Stress, in general, and occupational stress, in particular, is a part of modern day life that seems to have been on the increase.[5] The topic is, therefore, still popular, although it occupies academics' and practitioners'

attention now for more than half a century. Numerous studies have explored stress, primarily from the psychological, sociological, and medical perspective. From the business perspective, researchers dealt with the issue of occupational stress, as job/work causes a great deal of stress to contemporary employees.[5] As well, there is a vast amount of research on individual differences involved in the work-stress process. Researchers have studied individual differences in the belief that they influence reactions to objectively stressful events or appraisals of events as being stressful, or they simply add to the variance explained in the stress outcomes.[6]

Stress in the learning environment affects both the teacher and the learners in the teaching process.[7] Teacher stress is defined as the experiencing of unpleasant feelings such as depression, anger, worry and tension which are formed as a result of working as a teacher or lecturer.[8] This situation is not peculiar to secondary education level but to tertiary institutions in developed nations as well as developing countries such as Nigeria. Stress among lecturers has prevailed despite the nation's declaration of the importance of university education in national development and the role it plays in satisfying human needs.[9] However, there are growing evidence that no Nigerian university either private or government owned can genuinely claim to be immune from stress.[9] This is a scenario where by, university lecturers in Nigeria grapple daily with overcrowded classrooms, outdated laboratory facilities for research activities and teachings and also poor working condition among others.[9] Therefore, this study is aimed to evaluate the effects of perceived occupational stress on the mental health of radiography and medical laboratory science lecturers in Nigeria, as well as to determine relationships between levels of perceived occupational stress on mental health and the socio-demographic variables of the lecturers.

MATERIALS AND METHODS

A cross-sectional questionnaire-based survey study was conducted among 65 Radiography and Medical Laboratory Science (MLS) lecturers in Nigeria to evaluate the effects of perceived occupational stress on their mental health. The consent of the respondents were duly sought and obtained using written informed consent form. No information that revealed the identity of the respondents was included in this study. The nature of participation was entirely voluntary and nobody was harmed in any way due to this research. All information that was obtained was held in strict confidence and used for this study only. The study lasted for a period of six months (November 2022- April, 2023). Only academic lecturers of Radiography and Medical Laboratory Science Departments in higher institutions of learning with at least two months lecturing experience before the commencement of this study were included in this study.

A simple self-administered questionnaire designed in English Language, according to the objectives of the research was used as the instrument for data collection. This was to ensure simplicity, a guided response towards answering the questions as well as objectivity.

The questionnaire consisted of three sections, A, B and C. Section A: captured information on respondents' socio-demographic variables. Section B contained questions relating to the impact of occupational stress on the mental health of the respondents. Section C captured questions relating to the level of occupational stress on the mental health of the respondents.

Reliability and Validity Test

A pilot study was carried among lecturers who were not included in this study before it's commencement. The Cronbach alpha reliability test was calculated and the questionnaire had an acceptable internal consistency (Cronbach's alpha = 0,91). The validity of the questionnaire was determined using the Index of item Objective Congruence (IOC) method used by previous authors.[10,11,12,13] This was done by calculating the index of item-objective congruence (IOC). According to the index parameters, an IOC score higher than 0,6 was assumed to show adequate content validity , and all the scores obtained in this study for all the items of the questionnaire after IOC analysis was higher than 0,6.

The questionnaire was designed in line with the objectives of study and was prepared in both hard copy and electronic versions. The electronic version was constructed using Google form, which was distributed electronically to the email addresses and WhatApp platforms of Radiography and Medical Laboratory lecturers in Nigeria and the completed electronic version of the questionnaire, was retrieved electronically, while the administration of the hardcopy version was done using one-to-one method by the main researchers and the completed filled copies were retrieved immediately. A total of 65 respondents participated in the survey and their responses were collected using data capture sheet.

Method of data analysis

The obtained data were analyzed in line with the objectives of the study using Statistical Package of Social Science (SPSS), version 20.0 and both descriptive (frequencies, percentages and bar charts) and inferential (Chi-square contingency) statistical tools were adopted statistical analysis. Chi-square contingency table of independence was used to test the variables. Probability values of $p<0,05$ or lower was considered if statistically significant. Respondents indicated on a scale from 1 ("almost never") to 4 ("usually") how frequently they

experience certain stress-related feelings. Higher scores indicated greater levels of stress.

RESULTS

Socio-demographic characteristics of the respondents

Out of 65 respondents, 38(58,46 %) were males while females accounted for 27(41,54 %). Majority 36(55,38 %) of the participants were lecturers from radiography department and large proportion 39,65 %) of the respondents were within the age of 38-47 years. All (n=16, 100 %) the respondents were full-time employed lecturers. Most 26(40 %) of the respondents had master's degree and the least 4(6,15 %) had professional diploma. Greater number 30(46,15 %) had 3-8years working experiences (table 1).

Table 1. Frequency distribution of the Socio demographic Characteristics

Variables	Frequency(F)	Percentage(%)
Gender		
Male	38	58,46
Female	27	41,54
Department		
Medical Laboratory Science	29	44,62
Radiography	36	55,38
Age		
18-27 years	3	4,62
28-37 years	12	18,46
38-47 years	39	65,00
Above 47 years	11	16,92
Employment type		
Full time	65	100,0
Part time	-	-
Educational Level		
Bachelor's degree	11	16,92
Master's degree	26	40,00
Professional Diploma	4	6,15
Doctorate degree	24	36,93
Years of Experience		
1-2 years	21	32,31
3-8 years	30	46,15
9-14 years	8	12,31
Above 14 years	6	9,23

Impact of occupational stress on the mental health of Radiography and MLS lecturers

The result of the present study showed that majority of the lecturers from both departments reportedly felt emotionally drained from work sometimes, which is 28(96,55 %) and 22(61,11 %) for MLS and Radiography respectively. Twenty three (63,88 %) of the radiography (RAD) lectures reported to had found themselves getting upset by quite trivial/little things sometimes, while in Medical Laboratory Science (MLS), 16(55,17 %) of the lecturers sometimes gets upset by quite trivial things. Furthermore, the majorities of the lecturers from both departments sometimes felt pressure to beat deadlines, which is 25(86,21 %) and 21(58,33 %) for MLS and Radiography respectively. More so, more than 50 % of the lecturers from both departments reported that students are not cooperative sometimes, which is 23(79,31 %) and 21(58,33 %) for MLS and Radiography respectively. The majority of the lecturers reported that sometimes they do not have enough time for themselves because of their job, which is 21(72,41 %) and 27,75 %) for MLS and Radiography respectively. Greater proportions of the lecturers sometimes feel distress symptoms such as headaches, backaches, stomach pain, etc. during working, which is 21(72,41 %) and 28(77,77 %) for MLS and Radiography respectively. Furthermore,13(44,82 %) of MLS lecturers reported to often feel anxious and depressed due to heavy workload, while most 17(47,22 %) of RAD lecturers almost never felt feel anxious and depressed due to heavy workload (table 2a and table 2b).

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Table 2a. Impact of perceived occupational stress on the mental health on MLS and Radiography Lecturers

Variables	MLS Frequency(%)	Radiography Frequency(%)
Do you feel emotionally drained from work?		
Almost Never	0(0,0)	7(19,44)
Sometimes	28(96,55)	22(61,11)
Often	1(3,45)	3(8,33)
Usually	0(0,0)	4(11,12)
Do you find yourself getting upset on quite trivial things?		
Almost Never	13(44,83)	13(36,1)
Sometimes	16(55,17)	23(63,88)
Often	0(0,0)	0(0,0)
Usually	0(0,0)	0(0,0)
Do you feel pressure to beat up deadlines?		
Almost Never	0(0,0)	10(27,77)
Sometimes	25(86,21)	21(58,33)
Often	4(13,79)	4(13,9)
Usually	0(0,0)	0(0,0)
Do you feel distance from home to work affect your stress level?		
Almost Never	0(0,0)	5(13,89)
Sometimes	7(24,14)	23(63,89)
Often	19(65,52)	2(5,56)
Usually	3(10,34)	3(16,66)
Do you feel students are not co-operative?		
Almost Never	0(0,0)	0(0,0)
Sometimes	23(79,31)	21(58,33)
Often	0(0,0)	11(30,55)
Usually	6(20,69)	4(11,12)
Total	29(100,0)	36(100,0)

Table 2b. Impact of perceived occupational stress on the mental health on MLS and Radiography Lecturers

Variables	MLS Frequency(%)	Radiography Frequency(%)
Do you feel you do not have enough time for yourself because of your job?		
Almost Never	0(0,0)	0(0,0)
Sometimes	21(72,41)	27(75,00)
Often	5(17,24)	5(13,88)
Usually	3(10,35)	4(11,12)
Do you feel distress symptoms such as headaches, backaches, stomach pain etc. during working?		
Almost Never	5(17,24)	2(5,55)
Sometimes	21(72,41)	28(77,7)
Often	0(0,0)	0(0,0)
Usually	3(10,35)	6(16,68)

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Do you feel anxiety and depression due to heavy workload		
Almost Never	9(31,03)	12(33,33)
Sometimes	4(13,79)	17(47,22)
Often	13(44,82)	2(5,55)
Usually	3(10,36)	5(13,9)
Do you feel you don't get enough rest or sleep after working?		
Almost Never	7(24,14)	2(5,57)
Sometimes	17(58,62)	11(30,55)
Often	5(17,66)	23(63,88)
Usually	0(0,0)	0(0,0)
Do you feel your working environment is poor? (e.g. noise, lighting, ventilation)		
Almost Never	0(0,0)	0(0,0)
Sometimes	20(68,97)	7(19,45)
Often	2(6,90)	11(30,55)
Usually	7(24,13)	18(50,0)
Total	29(100,0)	36(100,0)

Perceived level of occupational stress on the mental health of MLS and RAD lecturers

Among the MLS lecturers, mild level of perceived occupation stress was highest 18(62,1 %) and the least 4(13,8 %) was severe level of occupational stress on their mental health (figure 1). Out of 36 radiography lecturers, those that reported mild level of perceived stress were 21(58,3 %) and the least 6(16,7 %) reported severe level of occupational stress on their mental health. (figure 2)

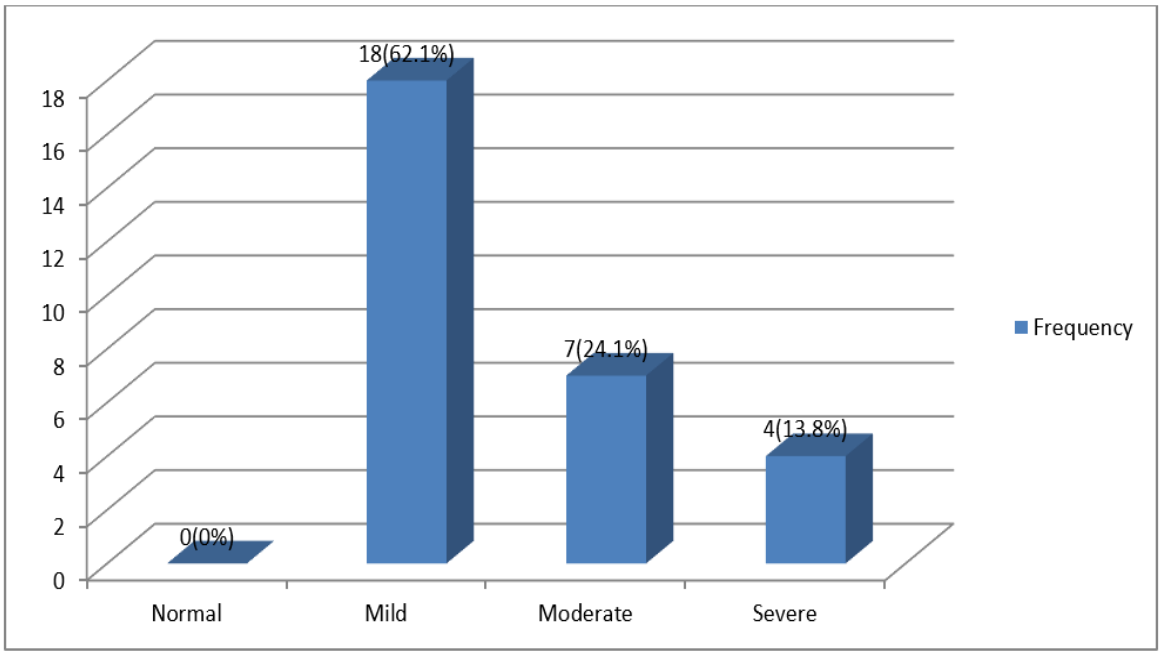

Figure 1. Chart showing the level of perceived occupational stress by MLS Lecturers

The relationships between impact of occupational stress and Socio-demographic variables among Radiography and MLS Lecturers

There were no statistically significant relationships between impact of occupational stress on the mental health of MLS lecturers and their socio-demographic variables such as gender (x^2 = 3,000, df= 2, p= 0,33), Age (x^2 = 6,000, df=3, p= 0,11), and years of experience (x^2 = 3,333, df=3, p= 0,34). There were no statistically significant relationships between impact of occupational stress on the mental health of Radiography lecturers and their socio-demographic variables such as gender (x^2 = 5,312, df= 6, p= 0,38), Age (x^2 = 11,000, df=15, p= 0,75), and years of experience (x^2 = 7,000, df=5, p= 0,22).(table 3)

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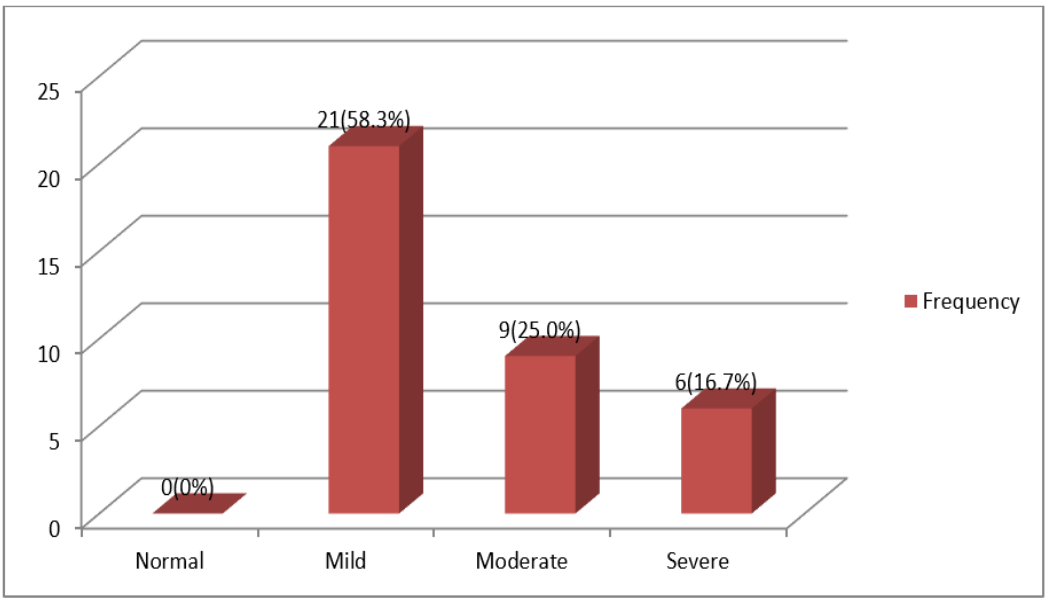

Figure 2. Chart showing the level of perceived occupational stress by Radiography Lecturers

Table 3. Chi-square table showing the relationships between impact of perceived occupational stress and socio-demographic variables among Radiography and MLS Lecturers

Variables	x^2	Df	P-value	Remark
Gender				
Medical Laboratory Science	3,000	2	0,33	N/S
Radiography	5,312	6	0,38	N/S
Age group				
Medical Laboratory Science	6,000	3	0,11	N/S
Radiography	11,000	15	0,75	N/S
Educational Level				
Medical Laboratory Science	3,000	6	0,81	N/S
Radiography	8,750	10	0,56	N/S
Years of Experience				
Medical Laboratory Science	3,333	3	0,34	N/S
Radiography	7,000	5	0,22	N/S

DISCUSSION

According to Houtman et al.[14], work-related stress follows a pattern of reactions that occurs when workers are presented with work demands not matched to their knowledge, skills or abilities and which challenge their ability to cope. This study found that the average impact of occupational stress on the mental health of lecturers from the departments of interest was mild. Consistent with the result of this study, Akah et al.[15], reported that stress occurrence among university academic staff or other workers is a pervasive trend in almost all nations worldwide. More so, with the development of society and continuous advancement in science and technology, the work requirements for professional people are constantly improving, and the detection rate of occupational stress also increases.[16] A recent survey carried out by the Association of University Teachers found that 69 % of academic and related staff found their job to be stressful and 50 % reported psychological distress.[17]

The results of the present study revealed that most of the lecturers sometimes feel emotionally drained from their work. This is finding is in keeping with the result of the study conducted by Salleh[18], which revealed that emotional stress is a major contributing factor to the six leading causes of death in the United States. Given this outlook, stress can be considered one of the most formidable health and performance threats of the 21st century.[15] This is because no one is immune to stress [19,20,21] since it occurs in every occupation.[22,23,24] Furthermore, the participants further revealed that they sometimes get upset about trivial things. This was in line with the results of previous studies that suggested that occupational stress may result to aggressive behavior in some individuals.[25,26] More so, more than half of the participants reported that they feel pressured to beat deadlines sometimes, and further suggested that distance from home to work place also contribute to

their stress level. This may be due to much workload that comes with their job description, as such; proximity to workplace can be a factor as some lecturers work till late in the evening and may have to endure a long distance drive home which can be even more stressful on its own. In line with the result of this study, stress may be triggered by events of little time, such as the pressure of exams or work deadlines, or by ongoing circumstances such as family pressures, job uncertainty, or long journeys to work.[27,28,29] It was discovered by Akinmayowa et al.[30] in their study that academic employees were highly stressed by a variety of factors, including their workload, research, and professional growth, as well as administrative concerns. An increased stress level may likely affect lecturers' effectiveness in performing their job and result in them rushing over job tasks by not necessarily doing them well.[15] Furthermore[31], submitted that lecturers' workload influenced their performance. However, more than half of the lecturers in the present study almost never felt like they don't have enough time for themselves due to their work. In addition, more than half of the lecturers admitted to students not being cooperative as a contributory factor to their stress level. Consistent with the result of the present study,[15] in a study to determine occupational stress and academic staff job performance in two Nigerian Universities reported that students' delinquencies can be a stressor to lecturers.

Furthermore, majority of the lecturers reported to have felt distress symptoms such as headaches, backaches, stomach pain, etc. during working. Consistent with the findings of this study, Ubangari et al.[27] stated that frequent headaches, neck ache, back pain and muscles spasms were some of the common effects of stress on University lecturers. Additional anxiety, depression, lack of proper rest, and sleep were also reported by the participants of this study as a result of stress from their job. In line with the result of the present study, insomnia, nightmares, disturbing dreams was reported by Klinic community health centre[32] as a result of work related stress on University lecturers. Furthermore, Ubangari et al.[27] suggested that stress can result to reduced work productivity as well as depression in University lecturers. More so, poor working environment was also reported to contribute to the lecturers stress level. According to Hafeez et al.[33], the work environment makes up an essential aspect of employees' work-life and affects them in one way or the other. Ogedi et al.[34] observed that learning environment in Nigerian universities is not conducive as a result of congested classroom. Omoniyi[35] also observed that learning environment in Nigerian universities is seriously compromised by over-congested classrooms and laboratories. Furthermore, there seems to be growing evidence that there are really no private, states or federal owned universities that will genuinely claim to enjoy basic facilities and resources. [35] Studies have also revealed that spacious office(s) with good lighting and ventilation, devoid of noise, will boost staff performance.[36] However, in contrast, another research found that their work environment does not influence academics' job performance.[37] Furthermore, this study did not find any significant association between impact of occupation stress on mental health or level of stress and some socio-demographic variables (gender, age, level of education, and years of experience) in both departments. However, this was in contrast with the results of previous studies. [38,39,40,41,42,43,44]

CONCLUSION

There was mild level of impact of perceived occupational stress on the mental health of lecturers from the departments of interest. Factors such as lack of adequate rest or sleep, students' delinquencies, poor working environment etc. contribute to the level of impact of occupational stress on mental health. Socio-demographic variables such as gender, age, level of education, and years of experience, was not significantly associated with impact of perceived occupation stress on mental health or level of occupational stress within the population of study; thus we can say that the impact of perceived occupational stress on the mental health of Radiography and MLS lecturers by gender, years of experience, age and level of education did not vary within the population of study.

REFERENCES

1. Ogolodom, M., Okankwu, E. A. Chiegwu, H. U. Okeke, J. S. Joseph, D. Z. ., Ugwuanyi, D. C. Maduka, B. U. ., Egbeyemi, O. O. Nyenke, C. U, Egop, E. B. Occupational Stress Level and the Associated Factors among Intern Radiographers in Anambra State, Nigeria. Tropical Journal of Medical Research, 2022, 21(2), 1–9. https://doi.org/10.5281/zenodo.7255594

2. International Labor Organization. Workplace Stress: A Collective Challenge; International Labor Office: 2016.

3. Ugwu, Egwu, Ochie, Ewononu, Ovuoba et al., (2007) Incidence of Occupational Stress among Radiographers: A population Based Zonal Survey; Nigerian Journal of Physiological Sciences. 2007; 22(1-2):123-7

4. Lightfoot. Its Incidence and effect on Radiographers; Radiography Today. 1997.

5. Muse L, Harris SG, Giles WF, Field HS. 'Work-life benefits and positive organization behaviour: Is there a connection?. J organizational Behaviour, 2008, 29(2):171-192.

6. Nnabuife, E., Onyeizugbe, Onwuka. 'Stress management and occupational performance among female lecturers in Nigeria'. African Journal of Social Sciences, 2012, 2(3) 166-174.

7. Kyriacou, C. (2015). "Teacher Stress and Burnout: Methodological Perspectives," in International Encyclopedia of the Social & Behavioral Sciences (Elsevier), 72–74. doi:10.1016/B978-0-08-097086-8.92087-7

8. Ashipala, D. O., and Shilunga, A. P. Stress: An overview. In S. Taukeni (Ed.), Biopsychosocial Perspectives and Practices for Addressing Communicable and Non-Communicable Diseases, 2020, 135-150). IGI Global. https://doi.org/10.4018/978-1-7998-2139-7.ch008

9. Adebiyi. Prevalence of Stress among University of Ado-Ekiti Lecturer. Unpublished Thesis.2011.

10. Turner RC, Carlson L. Indexes of item-objective congruence for multidimensional items. Int J Test, 2003; 3: 163-171. https://doi.org/10.1207/S15327574IJT0302_5

11. Ogolodom MP, Mbaba AN, Alazigha N, Erondu OF, Egbe NO, et al. (2020) Knowledge, Attitudes and Fears of HealthCare Workers towards the Corona Virus Disease (COVID-19) Pandemic in South-South, Nigeria. Health Sci J 1:002

12. Mbaba AN, Ogolodom MP, Abam R, Akram M, Alazigha N, et al. Willingness of Health Care Workers to Respond to Covid-19 Pandemic in Port Harcourt, Nigeria. Health Sci J. 2021; 15 (1) 802.

13. Ogolodom MP, Mbaba AN, Johnson J, Chiegwu HU, Ordu KS, Okej MC, et al. Knowledge and perception of healthcare workers towards the adoption of artificial intelligence in healthcare service delivery in Nigeria. AG Salud [Internet]. 2023 Oct. 31 [cited 2024 Mar. 29];1:16. Available from: https://salud.journalageditor.org/index.php/salud/article/view/16

14. Houtman, I., Jettinghof, K., Cedillo, L. and World Health Organization. Raising awareness of stress at work in developing countries: advice to employers and worker representatives. 2007.

15. Akah LU, Owan V.J, Aduma P.O, Onyenweaku EO, Olofu MA, Alawa DA, Ikutal A, Usoro AA.. Occupational Stress and Academic Staff Job Performance in Two Nigerian Universities. Journal of Curriculum and Teaching, 2022, 11(5), p.64. doi:10.5430/jct.v11n5p64.

16. Zhu D, Wang J, Zhao Y, Yang L, Gao J, Chang X, Li S, Zheng Y.The Status of Occupational Stress and Its Influence on the Health of Medical Staff in Lanzhou, China. Int J Environ Res Public Health, 2022, 19(17):10808.

17. El Shikieri AB, Musa HA. Factors Associated with Occupational Stress and Their Effects on Organizational Performance in a Sudanese University. SciRes. 2012, .3(1):134-144.

18. Salleh, M.R., (2008). Life event, stress and illness. The Malaysian journal of medical sciences: MJMS, [online] 15(4), pp.9–18. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3341916/.

19. Alam, T., Lúcia, V., Santos, C. G., and Woo, K.. Optimising quality of life for people with non-healing wounds. Wounds Int, 2018, 9(3), 6-14.

20. Ashipala, D. O., Shilunga, A. P. Stress: An overview. In S. Taukeni (Ed.), Biopsychosocial Perspectives .2020.

21. Chowdary, M. D., Kumar, K. A. Study on stress management at BHEL, Hyderabad Limited. Journal of Science and Technology, 2018.

22. Breitenbach, M., Kapferer, E., Sedmak, C. Stress and poverty: A cross-disciplinary investigation of stress in cells, individuals, and society. Springer. 2021.

23. Masih, S. A study to evaluate the effect of a psychotherapeutic intervention on the level of confinement

at selected jail of Durg (Chhattisgarh). International Journal of Neurological Nursing, 2016, 2(2), 1-5.

24. Jessop. The power of positive stress and a research roadmap. Stress, 2019, 22(5), 521-523. https://doi.org/10.1080/10253890.2019.1593365

25. Leila, B., Hayedeh, S., and Amin, S. Prediction of the level of aggression and interpersonal problems in Ed nurses based on their occupational stress. Journal of Urmia Nursing and Midwifery Faculty, 2017, 6(95), 478-487.

26. Masa'Deh, R., Masadeh, O., Jarrah, S., AlAzzam, M., Alhalaiqa, F. Effect of aggression management training on perceived stress levels of nurses working in mental health care settings in Jordan. Journal of Psychosocial Nursing and Mental Health Services, 2020, 58(10), 32-38.

27. Ubangari, A.A. Bako. Relationship of Stress among University Lecturers in Nigeria. IOSR Journal of Humanities and Social Science, 2014, 19(1):.98–104.

28. Michie, S. Causes and management of stress at work. Occupation Environment Medicine. 2002.

29. Oketunbi, O. and Peter, O. Job Stress and Job Performance among Academic Staff in Public Universities in Ogun State. Lagos Education Review.2019.

30. Akinmayowa, J. T, Kadiri, P. A. Stress among academic staff in a Nigerian university. Covenant Journal of Business and Social Science, 2014, 65(1), 73-91.

31. Osaat, D. A, Ekechukwu, R. Managing workload of academic staff in Nigerian universities. A study of the University of Port Harcourt in south-south geopolitical zone of Nigeria. International Journal of Humanities Social Sciences and Education, 2017,4(12), 102-108. https://doi.org/10.20431/2349-0381.0412013

32. Klinic Community Health Centre. Stress and Stress Management. Klinic Community Health Centre, Winnipeg, 2010.

33. Hafeez, I., Yingjun, Z., Hafeez, S., Mansoor, R., Rehman, K. Impact of workplace environment on employee performance: Mediating role of employee health. Business, Management and Education.2019.Iz

34. Omoniyi. Sources of work place stressors among university lecturers in South West Nigeria: Implications for counseling. First annual international interdisciplinary conference: AIIC 2013, 24-26 April, Azons. Portugal-Proceedings

35. Agba, M. S. Ocheni, S. I. An empirical study of the effects of work environment (electric power supply) on job performance of academic staff in Nigeria public and private universities. Higher Education of Social Science, 2017, 12(2), 11-20. https://doi.org/10.3968/9737

36. Onoyase, A. Motivation and job performance of lecturers of tertiary institutions in Nigeria: Implication for counselling. Journal of Educational Research, 2017, 4(2), 280-289. https://doi.org/10.22158/wjer.v4n2p280

37. Ye Y., Huang Q, Li F. Research of working pressure and mental health on nurses in Huizhou private hospitals. 2011.

38. Samson-Akpan, P. E., John, M. E., Edet, O. B., & Uka , V. K. (2016). Undergraduate nursing students" experiences with stress in

39. Nigeria. Poster presentation during College of Nursing International Nursing Research Conference, 6-8 April, 2016. University Edinburgh, Scotland.

40. Wright, E., Matthai, M.T., Budhathoki, C. Midwifery Professional Stress and Its Sources: A Mixed-Methods Study. Journal of Midwifery & Women's Health, 2018, 63(6): 660–667.

41. Xu, A, Hu, Z. The current situation and influence factors of mental workers' occupational stress. Chin J Gen Pract, 2020, 10(18): 1758-1761.

42. Gao, Y. Challenges and countermeasures of human resource manage in the post-epidemic Period. Int. J. Manage Educ. Human Dev. 2021, 1: 036–040.

43. Huang, Y., Yao, D., Zhou, H., Xi, X., Wang, Y, Yao, W.. Association of hospital pharmacy-related knowledge and skills with occupational stress of clinical pharmacists in tertiary hospitals of China. Journal of the American Pharmacists Association 2021. 61(3):266-275

44. Lu, Y., Liu, Q., Yan, H., Gao, S, Liu, T. Job burnout and its impact on work ability in biosafety laboratory staff during the COVID-19 epidemic in Xinjiang. BMC Psychiatry, 2021, 21(1). doi:10.1186/s12888-021-03555-x.

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