

Work Place Stress Amongst Health Workers at the University of Benin Teaching Hospital, Benin City, Nigeria

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ABSTRACT

Background: An individual's health and outlook on life are both improved in many ways by having a job. The amount of stress that some individuals experience at work, however, far surpasses any potential advantages and sometimes endangers their health. One of the most serious concerns linked with having a job is stress. Therefore, the aim of the study was to assess workplace stress among healthcare workers at the University of Benin Teaching Hospital (UBTH, Benin City).

Methods: A descriptive cross-sectional study was conducted at UBTH, Benin City from June to December 2022. Simple random sampling technique was applied to recruit study participants. Data were collected using structured self-administered questionnaire. Descriptive univariate and bivariate statistics were carried out. The statistical association was declared using adjusted odds ratio at 95% confidence interval (CI) and P-value of less than 0.05.

Results: A total of 101 study participants were involved in the study, and the response rate was 100%. More than half, 61 (60.4%) of the participants were females. Forty-one (40.1%) of the participants were between the ages of 30 – 39 years. The prevalence of work-place stress in this study was 18.8%. There was no significant association between socio-demographic characteristics and prevalence of workplace stress.

Conclusion: Workplace stress among the health-care personnel in this study is low.

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INTRODUCTION

An individual's health and outlook on life are both improved in many ways by having a job. The amount of stress that many individuals experience at work, however, far surpasses any potential advantages and even endangers their health. One of the most serious concerns linked with job possession is stress.

The National Institute for Occupational Safety and Health of the United States describes job stress as the detrimental physical and emotional reactions that happen when the demands of the job did not meet the worker's talents, resources, or needs. Job stress might result in ill health or even damage.

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Also, World Health Organization states that "work-related disorders constitute a vast spectrum of disease with a complex aetiology that is partially associated with profession or working circumstances." Acute or long-term physical, mental, and work-related stressors can all contribute to stress. Due to their particular job duties, health care workers frequently experience workplace stress. Workplace stress caused various physical and emotional issues, including worker burnout, injuries related to the job, and a reduction

in health condition. High workload, workplace conflict, demanding jobs, inadequate supervision, and a lack of assistance are all linked to poor physical and mental stress (Milutinovi et al., 2012). Over the past ten years, work stress has grown to be a major concern both nationally and locally. Due to its critical role in achieving maximum job output and the best working conditions, it is a significant concern for healthcare professionals.

Previous studies have frequently used the terms occupational stress, job stress, and work (or work-related) stress interchangeably because the precise meaning and a general definition of occupational stress have not yet been established. Job stress was defined as the harmful physical and emotional responses which occurred when the requirements of the job do not match the capabilities, resources, or needs of the worker (Sauter et al., 1999)

In its early phases, workplace stress may actually stimulate the body and improve work performance, so it is not always seen as a bad thing. However, it will not start to damage someone's productivity unless it is repeatedly stimulated and left unchecked, which might have unintended effects on a person's health. Even worse, prolonged professional stress can lead to burnout, a state of mental and emotional tiredness that is characterized by depersonalization and a diminished feeling of personal accomplishment (Braithwaite, 2008). Additionally, hospital staff must accommodate demanding patients, particularly those with chronic, incapacitating illnesses and those who are in excruciating pain. This can place a lot of physical and emotional demand on staff causing stress.

Acute conditions requiring urgent intervention, ongoing contact with death, serious illness, or people with physical disabilities, as well as the unpleasant feeling of not being able to help the patient enough, are all specific causes of stress in the medical profession in addition to the usual workplace stressors. Particularly in developing nations, where material factors and a lack of resources have a significant impact on treatment, it can be assumed that the risk of professional failures can have grave effects on patients' health (Conway et al., 2008).

There hasn't been much done to produce scientific evidence on how to effectively address stress within the Nigerian health care delivery system, despite the perceived, felt, and expressed needs that exert varying amounts of pressure and stress in the health workplace, their work outputs, and service delivery. According to research, efforts to reduce stress at work can enhance or consolidate service delivery by creating friendly working

conditions for health professionals, who will then feel less stressed overall (Akinboye, 2002), hence this study determined work place stress among health workers at the University of Benin Teaching Benin City.

MATERIALS AND METHODS.

The study is a descriptive cross sectional study of workplace stress among health care workers in UBTH, Benin City over a period of 4 months from 1st June to 30th September, 2022.

A sample size of 92 was calculated for the study and 10% added for attrition, bringing the sample size to 101. This was used for the study.

The minimum sample size was calculated using the formula:

$$n = \frac{Z_{\alpha/2}^2 pq}{d^2}$$

n = Minimum sample size.

Z = Standard normal deviation, which is 1.96 at 95% confidence interval.

p = Proportion of units to be measured, which is 6.4% obtained from work related to prevalence, of workplace stress among healthcare worker in Vietnam (Nguyen Ngoc, 2018).

d = the margin of error = 5%

A simple random sampling was used for the total population survey for all clinical staff in UBTH. This was achieved by administering the study questionnaire to every 3rd clinical staff as they came into the main clinical service areas of the hospital on the day assigned for each clinical department by the research team. Care was taken to ensure that no staff was sampled twice by asking them as they were handed over the questionnaires if they had filled it earlier. More so, most staff due to the work demand on them also quickly notified the research team at the point of filling the questionnaire if they had been earlier served. All clinical departments were involved. The relevant clinical sections of the hospital used includes the Consultant-Out-Patient Departments (COPD), General Practice Clinics (GPC), Emergency Departments and the In-Patient Wards.

Self-administered questionnaire was used for data collection. The questionnaire contained three sections;

Section A comprised of questions which focused on the respondent's bio-data such as name, age, sex, marital status, religion, job specialization, working experiences.

Section B comprised of questions which focused on the prevalence of workplace stress among healthcare workers

Section C focused on factors affecting stress among healthcare workers.

Workers whose response to the stress at work was stressful and very stressful were considered to have a high level of work place stress. Those who responded that their work was less stressful or not stressful were considered to have a low work place stress.

Ethical approval was obtained from the ethics and research committee of the UBTH. Data was analyzed by the use of the Statistical Package for Social Sciences (SPSS) version 18 for windows. Frequencies and proportions were generated for categorical data. Charts and tables were used where appropriate. Relevant inferential statistical tools were also used.

RESULTS

A higher percentage of the respondents, 40.6% (n = 41) were between 30 – 39 years of age while 34.7% of total respondents were between 20 – 29 years of age. The mean $\pm$ SD age (years) of study participants was 33.3 ± 6.8 years. A higher proportion, 60.4% (n = 61) of the respondents were female while 45.5% of respondents were male. Less than half of total respondents 47.5% (n = 48) of the respondents were married while twenty 45.5% of respondents were single. Majority of respondents, 85.1% (n = 86) were Christians while 7.9% of total respondents were Muslims. Other sociodemographic characteristics are shown in Table 1b below. The mean $\pm$ SD years in current employment of study participants was 7.0 ± 4.2 years.

Table 1: Socio-demographic characteristics

Variable	Frequency (n = 101)	Percentage (%)
Age group (years)		
20 - 29	35	34.7
30 - 39	41	40.6
40 - 49	21	20.8
50 - 59	4	4.0
Mean $\pm$ SD	33.3 ± 6.8	
Sex		
Male	40	39.6
Female	61	60.4
Marital Status		
Single	46	45.5
Married	48	47.5
Divorced	3	3.0
Separated	4	4.0
Religion		
Christian	86	85.1
Muslim	8	7.9
African Traditional Religion	7	6.9

Table 1b: Socio-demographic characteristics (contd.)

Variable	Frequency (n=101)	Percent
Designation		
Doctor	19	18.8
Nurse	34	33.7
Paramedic	13	12.9
Laboratory Scientist	15	14.8
Pharmacist	14	13.9
Unidentified	6	5.9
Years in service	(n = 98)	
1 - 10 years	81	82.7
11 - 20 years	16	16.3
21 - 30 years	1	1.0
Mean $\pm$ SD	7.0 ± 4.2	

Around half, 52.5% (n = 53) of the respondents often have time to finish their assigned assignments while 23 (22.8%) seldom do. Around a third, 35.6% (n = 36) of the respondents stated their views are considered by their supervisors while about a quarter stated it seldom is. A Higher proportion, 40.6% (n = 41) of the respondents often

have the freedom to decide on work place while about a third, 32.7% (n = 33) seldom do. (Table 2) Thirty (29.7%) of the respondents always found it hard to be with the nearest relatives due to work while 29 (28.7%) seldom had the difficulty. Thirty-one (30.7%) of the respondents often found it hard to be with friends due to work while 30 (29.7%) stated they always found it hard. (Table 3)

Table 2: Behavioural and work-related characteristics

Variable	Always n(%)	Often n(%)	Seldom n(%)	Never n(%)
Have time to finish your assignments	16 (15.8)	53 (52.5)	23 (22.8)	6 (5.9)
Have the possibility to influence decisions at work	25 (24.8)	41 (40.6)	26 (25.7)	7 (6.9)
Supervisor considers views	31 (30.7)	36 (35.6)	25 (24.8)	6 (5.9)
Freedom to decide on work pace	21(20.8)	41 (40.6)	33 (32.7)	4 (4.0)

Table 3: Effects of Workplace stress on personal life among participants

Variable	Always	Often	Seldom	Never
Due to work, find it hard to be with nearest relatives.	30 (29.7)	24 (23.8)	29 (28.7)	10 (9.9)
Due to work, find it hard to be with friends	30(29.7)	31 (30.7)	27 (26.7)	10 (9.9)
Due to work, find it hard to find time for recreational activities	33 (32.7)	30 (29.7)	29 (28.7)	9 (9.0)

Around a quarter, 26.7% (n = 27) of the participants stated that they have a stressful amount of increased workload. A higher proportion, 36.6% (n = 37) of the participants stated they have clear workplace goals while 34 (33.7%) of the participants sated they do not as it was stressful to them. A higher proportion, 35.6% (n = 36) of the participants stated they know what their work tasks assignment includes while 24 (23.8%) of the participants sated they do not as it was stressful to them. Around half, 51.5% (n = 52) of the respondents stated there are no conflicts at work while 21 (20.8%) stated they are as it was stressful to them. Over three-quarters, 77.2% (n = 78) of the respondents stated they had not been involved in conflict at workplace while 12(11.9) stated they have been as it was stressful to them. (Table 4a)

A total 44.6% (n = 45) of the participants stated that they have a stressful and very stressful amount of responsibility at work than they ought to. A quarter, 24.8% (n = 37) of the participants stated they often gets engaged with work as it was stressful to them while 44 (43.6%) of the participants sated they do not. A higher proportion, 44.6% (n = 45) of the participants stated they do not think about work after your working-day while 23 (22.8%) of the participants

sated they do as it was stressful to them. Around half, 52.5% (n = 53) of the respondents stated they do not find it hard to set limit to work assignment although being currently busy while 26 (25.7%) stated they do as it was stressful to them. A higher proportion, 41.6% (n = 42) of the respondents stated they have not been working ordinary working hours to finish assignments while 25(24.8) stated they have been as it was stressful to them. (Table 4b)

Eight (19.5%) study participants with high level of workplace stress were between 30 – 39 years while 6 (16.2%) were between 20 - 29 years. The association between age and level of workplace stress was not statistically significant (p = 0.694). Eleven (18.0%) of the respondents with high level of workplace stress were females to while 8 (20.0%) were males. There was no statistically significant difference in level of workplace stress were among male and female study participants (p = 0.805). Five (33.3%) study participants with high level of workplace stress were paramedics while 5 (22.7%) were doctors. There was no statistically significant association between designation and level of workplace stress among participants (P = 0.112). (Table 5)

Table 4a: Work place stress assessment

Variable	Stressful		Not stressful	
	Very stressful n(%)	Stressful n(%)	Less Stressful n(%)	Not Stressful n(%)
Increased workload				
Yes	23 (22.8)	27 (26.7)	12 (11.9)	3 (3.0)
No				36 (35.6)
Clear workplace goals				
Yes				37 (36.6)
No	13 (12.9)	34 (33.7)	15 (14.9)	2 (2.0)
Know what work tasks assignment includes				
Yes				36 (35.6)
No	12 (11.9)	36 (35.6)	14 (13.9)	3 (3.0)
Know who is responsible for making workplace decision				
Yes				65 (64.4)
No	9 (8.9)	24 (23.8)	3 (3)	0 (0.0)
Presence of conflict at work				
Yes	12 (11.9)	21 (20.8)	8 (7.9)	0 (0.0)
No				52 (51.5)
Involved in workplace conflict				
Yes	6 (5.9)	12 (11.9)	3 (3.0)	2 (2.0)
No				78 (77.2)
Superior has done something to resolve conflict				
Yes				24 (23.8)
No	13 (12.9)	9 (8.9)	2 (2.0)	1 (1.0)
Put high demand on self at work				
Yes	5 (5.0)	24 (23.8)	12 (11.9)	2 (2.0)
No				58 (57.4)

Table 4b: Work-place stress assessment

Variable	Stressful		Not stressful	
	Very stressful n(%)	Stressful n(%)	Less Stressful n(%)	Not Stressful n(%)
Take more responsibility at work than ought to				
Yes	22 (21.8)	23 (22.8)	2 (2.0)	1 (1.0)
No				53 (52.5)
Often gets engaged with work				
Yes	20 (19.8)	25 (24.8)	5 (5.0)	7 (6.9)
No				44 (43.6)
Think about work after your working-day				
Yes	13 (12.9)	23 (22.8)	15 (14.9)	5 (5.0)
No				45 (44.6)
Find it hard to set limit to work assignment although being currently busy				
Yes	9 (8.9)	26 (25.7)	5 (5.0)	8 (7.9)
No				53 (52.5)
Work after ordinary working hours to finish assignments				
Yes	20 (19.8)	25 (24.8)	10 (9.9)	4 (4)
No				42 (41.6)
Find it hard to sleep because of occupied mind with work				
Yes	11 (10.9)	25 (24.8)	3 (3)	4 (4)
No				58 (57.4)

Table 5: Relationship between socio-demographic characteristics and work-place stress level of participants

Variable	Work Stress Level		Test statistics	P-value
	High	Low		
Age group (years)				
20 – 29	6 (16.2)	31 (83.8)	$\chi^2=1.451$	0.694
30 – 39	8 (19.5)	33 (80.5)		
40 – 49	4 (19.0)	17 (81.0)		
50 – 59	1 (50.0)	1 (50.0)		
Sex				
Male	8 (20.0)	32 (80.0)	$\chi^2=0.061$	0.805
Female	11 (18.0)	50 (82.0)		
Marital status				
Single	7 (15.2)	39 (84.8)	$\chi^2=1.714$	0.634
Married	11 (22.9)	37 (77.1)		
Divorced	0 (0.0)	3 (100.0)		
Separated	1 (25.0)	3 (75.0)		
Religion				
Christian	15 (17.4)	71 (82.6)	$\chi^2=2.029$	0.363
Muslim	3 (37.5)	5 (62.5)		
ATR	1 (14.3)	6 (85.7)		
Designation				
Doctor	5 (22.7)	17 (77.3)	$\chi^2=3.878$	0.650
Nurse	4 (11.8)	30 (88.2)		
Paramedic	5 (33.3)	10 (66.7)		
Lab. Scientist	2 (12.5)	14 (87.5)		
Pharmacist	11 (78.6)	3 (21.4)	$\chi^2=4.201$	0.122
Length of service				
1 - 10 years	15 (18.5)	66 (81.5)		
11 - 20 years	3 (18.8)	13 (81.3)		
21 - 30 years	1 (100)	0 (0.0)		

DISCUSSION

Poor health and accidents at work might result from workplace stress. A significant percentage of people, including health care workers, are stressed and emotionally impacted by their particular work environment. Important variables that affect the individual's productivity are the employee's degree of stress or pleasure experienced at work. In health care, employee job stress can have a negative impact on the quality of patient care (Salam et al., 2016).

The highest age group of respondents is 30 – 39 years with the mean and standard deviation of their age being 33.3 years (± 6.8), in which majority of them were females sixty-one (60.4%). This is in line with a research done in western Ghana to assess the predictor of stress and associated factors among health workers in which majority, 57.5% of the respondent were between the ages of 25 – 35 years and majority 68.0% also were females (Odonkor et al., 2021).⁷ It is also in line with a study done in National Dermatology hospital Vietnamese, to assess the prevalence of occupational stress and to explore the association with some associated factors among them of

which majority were female 72.5% with mean age of 34.6 year (Nguyen Ngoc, 2018). This could be explained by the fact that the most working age group in the country falls within this range, and thus form the larger part of the study. Females are more represented possibly because a good part of the work forces in any clinical setting are nurses and the nursing profession is dominated by the female gender.

Eighty-one (80.2%) of the respondents are between 1-10 years of working experience. This is in tandem with a study done in northwest Ethiopia to assess how workload determines workplace stress among health-care professionals working in Felege-Hiwot referral hospital (Birhanu et al., 2018), and in line with a study done in South Africa to assess effect of personal and work stress on burnout, job satisfaction and general health of hospital nurses (Khamisa et al., 2017), of which a larger proportion, 59.1% and 18.0% of the respondents have between 1-7 years and 6-10 years of working experience respectively. This may reflect the employment pattern in the institution. The majority of the work force were possibly employed within the last 10 years.

Furthermore, findings from this study revealed majority 81.0% of the respondents have a low overall prevalence of work place stress. This is in line with a study done in India, to assess the prevalence of stress among resident doctors working in four medical colleges and associated hospitals of Delhi (Saini et al., 2010), University College Hospital, Ibadan to assess the prevalence and correlation of job stress among junior doctors (Adeolu et al., 2016), and also in line with a study done in western Ghana to assess the predictor of stress and associated factors among health workers (Odonkor et al., 2021), of which majority 67.2%, 68.4% and 69.5% of the respondents respectively had low prevalence of workplace stress. However, this is contrary to a study done in South Africa to assess effect of personal and work stress on burnout, job satisfaction and general health of hospital nurses (Khamisa et al., 2017). It is also contrary to a study done in northwest Ethiopia to assess how workload determines workplace stress among health-care professionals working in Felege-Hiwot referral hospital of which a large proportion 58.0% and 68.2% of the respondents respectively had high level of workplace stress (Birhanu et al., 2018). The reasons for these differences might be due to variation in tools used in the present study, the low level of stress prevalence is possibly due to the study setting, tools used, and target population. Furthermore, Nigerians have been known to be a resilient group of people. This is occasioned possibly by many factors that has posed some level of stress to the average Nigerian and they have always found ways to cope. Such situations include economic challenges, political issues in the country, terrorism, and other aspects of insecurity. Thus, the challenges in the work place that could have caused stress are considered as a non-issue. In addition to these, employment has been a challenge in Nigeria. Thus, those who are gainfully employed in the hospital and possibly any other settings may see this as a great privilege in comparison to the possible number of years they have gone through without a job, making the possible stress at work a non-issue.

The effect of work place stress on personal life cannot be over-emphasized. Since job satisfaction contributes a lot of personal life satisfaction, when there is significant level of work place stress, then the personal life of the worker will definitely be impacted. When work place stress escalates, there is usually a drop in work performance. There could also be depression, anxiety and sleeping disorder. When all these comes up, then the quality of the individual's personal life will take a decline. It is

expedient that employers of labour should ensure that workers are not exposed to undue stress in their work environment (Work Related Stress; Better Health by Victoria State Government). Furthermore, work place stress and sleep have an inter-relationship. When an individual feels overwhelmed by stress in their work place, they may sleep poorly eg from the bottled up concerns of unfinished work. On the other hand, when an individual does not sleep well, job performance is reduced and the worker would have a reduced capacity to cope with stress.

There was no significant association between the socio-demographic characteristics and the prevalence of workplace stress. This is line in with a study done in western Ghana to assess the predictors of stress and associated factors among health workers, and also in line with a study done in northwest Ethiopia to assess how workload determines workplace stress among health-care professionals working in Felege-Hiwot referral hospital (Birhanu et al., 2018).

CONCLUSION

Workplace stress among the health-care personnel in this study is low. There is no significant association between socio-demographic characteristics and prevalence of work-place stress.

It is recommended that continual efforts be made to engage health care workers about possible upsurge in their experience of work place stress and put in place modalities to take care of it. This will require a continual effort.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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