



Research Paper

Factors Associated with Workplace Stress among Nurses in Osun State University Teaching Hospital, Osogbo, Osun State

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ABSTRACT: Nursing practice is full of potential stressors and nurses are experiencing workplace stress at higher rates than most other professions. Therefore, this study aimed at determining the factors associated with workplace stress among nurses in Osun State University Teaching Hospital, Osogbo. The study adopted descriptive research design. Sample size for the study was two hundred and four (204) nurses who were selected using convenience sampling technique at Osun State University Teaching Hospital, Osogbo, Osun State. An adapted questionnaire on Expanded Nursing Stress Scale final version (ENjSS) by French et al (1995) were used to collect data. Cronbach's Alpha value was 0.97. The data were analyzed using descriptive statistics of frequency and percentage while inferential statistics of Chi-square was used to test the hypotheses. The finding from the study revealed that 92(46.9%) of the respondents had high level of workplace stress with overall mean of 49.3 (65.7%). Workplace environment ($\chi^2=29.876$; $p=0.000$), work-family conflict ($\chi^2=18.109$; $p=0.000$) and perceived supervisor's support ($\chi^2=19.657$; $p=0.000$) were factors associated with workplace stress among Nurses at 0.05 level of significance. Finding from the study also revealed a significant relationship between socio-demographic characteristics of age ($\chi^2=16.813$; $p=0.005$), gender ($\chi^2=8.809$; $p=0.000$), work unit ($\chi^2=18.121$; $p=0.006$), year of experience ($\chi^2=13.820$; $p=0.000$) and work place stress at 0.05 level of significance. This study concluded that level of workplace stress was high among nurses, workplace environment, work-family conflict and perceived supervisor's support were factors associated with workplace stress. Therefore, effective stress management can be achieved through close collaboration between the team leaders, nurses and the management when deciding the type of coping strategies to be implemented.

KEYWORDS: Factors, Stress, Workplace, Nurses

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I. INTRODUCTION

Caring as a therapeutic way of paying attention to the patient is the main and unique concept of nursing which describes human acts of doing something with people, for people, to people and together as people in a specified therapeutic environment. The hectic pace of the bedside nurse may be perceived by the patient as lack of caring or may result in a nurse's inability to demonstrate behaviors discernible by the patient as caring, even while the nurse is making effort to give a satisfying care to the patient with all her strength [1]. This can at one time or the other lead to stress on the path of the nurse, as they become stressed up due to work overload, frequent occurrence of conflicts between the nurse and her colleagues and even with their superiors, poor communication gap between the nurses and poor health of the nurse [1]. According to [2][3] stress is a global epidemic, observed to be associated with 90% of visits to physicians and 9.2% to 68% of nurses may be faced with it.

Olayinka and Osamudiamen [4] stated that workplace stress is related to situations when caring demands of the patients exceed the ability of the nurse to handle them, or when the conditions and resources available for care are insufficient to meet those demands. In other words, stress is a chronic issue and a phenomenon that is known worldwide which causes many health related problems and narrow down competences among nurses leading to harmful outcomes and effects on the physical, mental, and feeling of well-being of nurses [4]. Stress disorder among nurses in the workplace, may be associated with several psychological problems such as anxiety, depression, exhaustion and poor concentration, physical symptoms like

increased heart rate and blood pressure, cardiovascular disease and musculoskeletal pain or workplace associated problems like job absenteeism, lack of job satisfaction and lack of quality in job performance [5].

Most often, the cause of nurses workplace stress may be associated with excessive care demands by the patients, decision making, taking responsibility, difficulty balancing home and work responsibilities, lack of resources, management issues, physical demands, which in turn can predispose nurses to illness [5]. However, nursing is a profession that is obviously placed among other health professions, and has been identified as the most stressful throughout the world [6]. Nurses perform their caring act in a harsh environment, and this contributes to the work stress they encounter [6]. Most times, nurses do not have enough time to find out the factors that might be responsible for their poor caring act and workplace stress, as the profession is generally known to be stress filled, and the stress experienced will in one way or the other affect their caring behaviours to their patients. In view of this, the study aimed at identifying the factors associated with workplace stress among nurses in Osun State University Teaching Hospital, Osogbo. This study is guided by the following research questions

1. What is the level of workplace stress among nurses?
2. What are the factors associated with workplace stress?

II. MATERIAL AND METHODS

Design: This study used descriptive research design. The population comprised of nurses that are working in Osun State University Teaching Hospital, Osogbo, Osun State. The sample consisted of 204 registered nurses using convenience sampling technique. The sample size for this study was obtained through sample size calculation using Cochran Formula at 95% level of confidence (1.96) and 5% margin of error $N= 385$ which was calculated as 185 and 10% attrition rate was added to make 204.

Setting: The study was conducted among registered nurses in Osun State University Teaching Hospital, Osogbo, Osun State using convenience sampling technique.

Instruments: An adapted questionnaire on Expanded Nursing Stress Scale final version (ENjSS) by [7] was used to collect data. The questionnaire was modified into four sections viz; Section A: This section elicited information on socio- demographic factors such as Age, Gender, Ward/unit, Years of experience. The items were four (4). Section B: This section elicited information on the workplace stress factors, comprised of fourteen(14) items, constructed on a five-point likert scale in which 5 indicates “very high level”, 4 indicates High level”, 3 indicate Moderate level”, “2 indicates low level” and “1 indicates very low level” and it consists of fourteen (14) questions. Very high level is categorized as (76-99 points), High level (51-75points), moderate level (26-50points), Low level (1-25 points). Section D: This section elicited information on associated factors of workplace stress, and it contains 18 items using likert scale of strongly agree, agree, disagree and strongly disagree. This has 3 subdivisions as follows: D1-D6: 6 questions on ‘Workplace Environment’. D7-D12: work-family conflict’. D13-18: 6 questions on ‘Perceived Supervisors Support’.

For the validity of the instrument, the psychometric properties of the questionnaire was checked by experts in the field and confirmed that the contents and the structure of the questionnaire were satisfactory. To reduce response error a pilot study was conducted among 20 nurses in another setting that has similar characteristics with the research setting.

Internal Reliability of the questionnaire was determined using Cronbach Alpha coefficient and value obtained was 0.97.

Statistical analysis: The data from the study was checked for completeness. The data was then coded and analyzed using Statistical Package for Social Sciences (SPSS) version 25. The data were analyzed, using descriptive statistics of frequencies, percentages, mean and presented in table and hypotheses were tested using chi-square at 0.05 level of significance.

Ethical consideration: Ethical approval was collected from Babcock University Health Research Ethics Committee with reference number BUHREC 372/21. The researcher had obligation to the subjects by getting their informed consent consistent with the principle of individual autonomy. Their voluntary participation, anonymity, privacy and confidentiality when collecting the data was assured. Their right to participate and not to participate was also respected. Data was collected over a period of 8 weeks.

III. RESULTS

Table 1: Respondents' Demographical Data (n-196)

SN	Variable (N =196)		Frequency	Percent
1	Age	21-30yrs	36	18.4
		31-40yrs	86	43.9
		41-50yrs	49	25.0
		51yrs above	25	12.7
		Total	196	100.0
	Mean Age	33.9± 7.01		
2	Gender	Male	58	29.6
		Female	138	70.4
		Total	196	100.0
3	Work unit	Medical	81	41.3
		Surgical	54	27.6
		Clinics	42	21.4
		ICU	19	9.7
		Total	196	100.0
4	Years of Experience	0-5	23	11.7
		6-10	51	26.0
		11-15	81	41.9
		16-20	20	10.2
		21 yrs above	21	10.7
		Total	196	100.0

Seventy point four percent of the respondents were female, within the age range of 23 to 56 years with mean age of 33.9 ± 7.01 (SD), 86(43.9%) were between 31 and 40 years, 121(61.7%) were married, 97(49.5%) had between 3 to 4 children, and 81(41.9%) had between 11 to 15 years of experience as presented in Table 1.

Table 2: The level of workplace stress among nurses (n-196)

Workplace Score level	Criteria	Frequency	%	Remark
51-75	High	92	46.9	Respondents with high level of stress
26-50	Moderate	69	35.2	Respondents with moderate level of stress
1-25	Low	35	17.9	Respondents with low level of stress
N = 196; Mean = 49.3 (65.7%); SD = 11.73				

The level of workplace stress among nurses was categorized as high (51-75), moderate/average (26-50) and low (1-25). Forty-six point nine percent of the respondents had high level of workplace stress, 69 (35.2%) had moderate level of workplace stress and the remaining 35 (17.9%) had low level of workplace stress. The overall weighted mean is 49.3 (65.7%). The result therefore showed that the level of workplace stress among Nurses is high. Workplace stress among nurses was presented in Table 2.

Table 3: Relationship between nurses' socio-demographic characteristics and workplace stress (N=196)

SN	Variable (N =196)		Frequency	Percent	X ²	P
1	Age	21-30yrs	36	18.4	16.813	.005
		31-40yrs	86	43.9		
		41-50yrs	49	25.0		
		51yrs above	25	12.7		
		Total	196	100.0		
2	Gender	Male	58	29.6	8.809	.000
		Female	138	70.4		
		Total	196	100.0		
3	Work unit	Medical	81	41.3	18.121	.006
		Surgical	54	27.6		
		Clinics	42	21.4		
		ICU	19	9.7		
		Total	196	100.0		
4	Years of Experience	0-5	23	11.7	13.820	.000
		6-10	51	26.0		
		11-15	81	41.9		
		16-20	20	10.2		
		21 yrs above	21	10.7		
		Total	196	100.0		

There is a significant relationship between socio-demographic characteristics of age ($x^2 = 16.813$, $p = .005$); gender ($x^2 = 8.809$, $p = .000$); workunit ($x^2 = 18.121$, $p = .006$); work experience ($x^2 = 13.820$, $p = .000$) and workplace stress among nurses at 0.05 level of significance.

Table 4: Relationship between Factors associated with workplace stress and level of workplace stress among nurses (N-196)

Associated Factors	Workplace stress					X ²	df	P
	VHL 5	HL 4	ML 3	LL 2	VLL 1			
Work unit environment	60	40	35	34	27	29.876	4	.000
Work-family conflict	43	50	40	30	33	18.109	4	.000
Perceived supervisor's support	51	49	36	35	25	37.540	4	.000

There is significant relationship between workplace environment and workplace stress ($x^2 = 29.876$, $p = .000$), work-family conflicts and workplace stress ($x^2 = 18.109$, $p = .000$) as well as perceived supervisor's support and workplace stress ($x^2 = 37.540$, $p = .000$) at the significant levels of less than 0.05 as presented in Table 3. Therefore, workplace environment is an indicator of very high level of stress among nurses, work-family conflict is also associated with high level of workplace stress while perceived supervisor's support is also an indicator of very high level of stress among nurses. This denotes that workplace environment, work-family conflict and perceived supervisor's support are significant factors associated with workplace stress among nurses.

IV. DISCUSSION

The finding from the study showed that the level of workplace stress is high among the nurses. Since nursing involves promotion of health, prevention of illness, and care of ill, disabled and dying people, the likelihood of being stressed up and experiencing burnout is sure. Moreso, nursing is a profession that is obviously placed among other health professions, and has been identified as the most stressful profession throughout the world. This is supported by the result of [3] that workplace stress among nurses is a global problem and 9.2% to 68% of nurses were faced with it. Nurses perform their duty in a harsh environment, and this contributes to the work stress encountered [6]. However, nurses role has long be regarded as stress-filled based upon the physical, human suffering, work hours, staffing and interpersonal relationship that are central to the work of nurses [8]. In support of this finding, [9] reported work-related stress of 66.2%, however, [10] reported workplace stress of 48.6% among nurses. Salam [11] also reported high rate of workplace stress among nurses.

The finding from the study showed that workplace environment, work-family conflict and perceived supervisor's support are significant factors associated with workplace stress among nurses. This finding is similar to the results of [9] that reported a significant correlation between workplace environment and workplace stress. Moreso, [12] stated that workplace environment is a significant predictor of workplace stress among nurses. According to [12].conditions such as poor physical working conditions, overcrowding of wards, noise, lack of proper ventilation, air pollution, reduced lighting, poor ergonomics and inflexible or unpredictable hours have been recorded as contributory factors. In providing essential services and health care support, the average nurse's daily workload to meet up with the clinical requirements of patients is enormous [13].

The finding from the study also revealed a significant relationship between socio-demographic characteristics of age, gender, work unit year of working experience and workplace stress. This result is in tandem with the report of [12][15] that age was statistically significant with job-related stress among health practisonal including nurses. [16] Also reported that occupational stress is related to working experience and level of education of nurses. However, in contrast to result of this study, [17] revealed no significant relationship between work unit and job-related stress which was associated with manpower/allocation differences among units. [12] also reported that age, gender, marital status, length of service, educational qualification. Position, salary and work unit were found to be statistically significant predictors of job-related stress among nurses. Baye [9] reported a significant association between child-rearing and work-related stress indicating that nurses who reared children were more likely to experience work-related stress than who did not rear child. Study conducted among Nurses in south Korea also revealed that nurses working stress had significant association with parenting [18]

Ahmed and Abdallah [19] in their study on occupational stress, job satisfaction and state of health in Brazilian nurses, reported that lack of recognition, lack of status of the nursing profession, lack of autonomy, low salaries, lack of resources, and assignments outside the individual's specialty were sources of stress for nurses. Ethical conflicts are another factor that had been identified as sources of job related stress and anxiety [20]. Working with difficult patients, the nurses' feelings about death and dying, interpersonal conflicts, managing the patients' pain and the presence of the family also contribute to occupational stress among nurses

[21]. To corroborate the finding from this study, [22] stated that perceived lack of social support from supervisors and peers can also produce stress in the workplace. Therefore, Nursing is invariably assumed to be a stressful profession within the health care service, and nurses experience a variety of workplace stress, the most common source being the pressure of workload, insufficient time for patient care; poor work environment and difficult patients are also frequently mentioned as main sources of workplace stress being experienced [22]. Nwozichi and Ojewole [23] also observed that, in addition to stressful factors intrinsic to nursing, organizational and management attributes influenced work-related stress among nurses. Lack of participation by nurses in decision-making, poor communication within the organization and lack of family-friendly policies all form part of the management style influencing stress among nurses [24].

The conditions found in the hospital environment can be unpleasant or may threaten the physical well-being of nurses. Adil and Qaizer [25] stated that nurses experience a variety of workplace stress, the most common source being the pressure of workload, high work demand, insufficient time for patient care; poor work environment and difficult patients are also frequently mentioned as main sources of workplace stress being experienced. Other stress factors experienced at work are degree of responsibility; the presence of possible role conflict; interpersonal relationships with peers, supervisors and patients; organizational climate; irregular work schedule, and maintenance of professional training [26]. Angioha et al. [27], it was reported in their findings that surplus workload leads to stress of workers have more workload than they were supposed to have, and it affects the wellbeing of the nurses. Nelson [28] reported that stress has increased along with the increased demand and progress in the nursing profession. Response to it can be physical, psychological, emotional or spiritual in nature, and it is usually a combination of these dimensions. Stress can arise from one or more dimensions, and can be either internal or external [29]. However, nurses have enormous responsibilities, tasks, and dealing with all kinds of challenges because it has been reported that nurses are more prone to experiencing stress compare with other healthcare professionals [30][31].

V. CONCLUSION

Workplace stress is serious issue among nurses in health care system which should be addressed since it affects the quality of care given to the patients. The result from this study showed high level of workplace stress among nurses. Workplace environment, work-family conflicts and perceived supervisor's support were identified as factors associated with workplace stress among nurses. Moreso, there was a significant relationship between socio-demographic characteristics of nurses, identified factors and workplace stress among nurses. Therefore, it is recommended that a clear protocol that will guide nurses on how to go about their day to day tasks to avoid issues like role confusions should be instituted and there should be enough supervision and guidance when dealing with stressful situations.

Limitation of the study: This study focused on nurses working in tertiary health facility, the result may not be generalized to other nurses working in secondary and primary level of health facilities.

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