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ORIGINAL ARTICLE

Self-Reported Occupational Stress, Environment, Working Conditions on Productivity and Organizational Impact among Nursing Staff in Nigerian Hospitals

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ABSTRACT

Background: Occupational stress and burnout are both one of the factors that bedevil the healthcare sector in developing countries, particularly in Nigeria. The study explored the perceived impact of working condition on the productivity of nursing staffs in selected hospitals in south-west Nigeria.

Methodology: Descriptive survey design, comprising of 200 respondents selected randomly. Data were collected using questionnaires and descriptive statistics were used to analyze the data generated. The reliability of the instrument was determined using test-re-test at the interval of two weeks.

Results: Majority 106 (53%) of the respondents reported that work stress caused increased rate of absenteeism among nurses, high staff turnout and deterioration in quality of service provided to patients. Majority (87.0%) of the respondents were females, while (13.0%) were males. Respondents were aged between 26 and 35 years and were married. About 79% of respondents agreed that their workplace had a warm, friendly and a pleasant atmosphere. However, 47.5% of respondents said that the work overload was too high and they were unable to cope with its demands.

Conclusions and Implications for Practice: Stress arising from poor working conditions can have adverse impact on the organization with the most common detrimental effects being increased absenteeism, deterioration in the morale of nurses, lack of job satisfaction and performance. To improve the organization's effectiveness, employer must implement strategies that are beneficial to both employees and health organization because hospital workers face variety of highly stressful working conditions while meeting the physical and psychological needs of patients.

Key words: Perception • Working conditions • Nursing staff • Productivity • Hospitals, South-West • Nigeria

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1. Introduction

Work is very important to people and it plays a fundamental role in their lives. Work provides for basic sustenance needs and decent living conditions, but above all work is an activity through which an individual fits into a livelihood, creates new relations, uses his/her talents, learns and develops his/her identity and a sense of belonging.[1] Work can therefore is seen as a major activity for human beings that meets several needs in their lives. These needs include economic survival, life satisfaction and the provision of a sense of reality. People work in different work settings with different situations. The workplace is a complex environment with different situations, such as having too much or too little to do, being subjected to conflicting demands, feeling distracted by family problems, and working for demanding and unhelpful managers.[2] Furthermore, McConnell opined that physical working conditions such as heating, lighting, furnishing, space, noise, and equipment can also create stress for employees.[2] The physical environment of the health care facility greatly influences the physical and mental health of all those who are in that facility. The physical environment influences how nurses deliver health care services; it influences the patients' well-being; and it interferes in achieving the facility's goals.[3] Nurses are working in health care organizations that are battling with staff shortage, increasing patient loads, shrinking reimbursement and growing regulating pressure.[4] Therefore, nurses face a variety of stressful working conditions while meeting the physical and psychological needs of patients. Managers need to assess the work environment and the working conditions, and they need to take action to improve them. As nursing staff is exposed to stressful working conditions on an on-going basis, it has an impact on their well-being and the quality of patient care work performance.[3] Hospital workers face a variety of highly stressful working conditions while meeting the physical and psychological needs of patients. The nursing professionals also suffer higher levels of stress and are at an increased risk of burnout and according to Leka, Griffiths and Coxstate, workers who are stressed do not perform well because they are poorly motivated and are likely to be unhealthy.[5] The work environment and the working conditions are very important in any organization. If employees have a negative perception of their working environment, they are likely to be absent, have stress-related illnesses, and their work performance, productivity and commitment tend to be lowered. On the other hand, organizations that have a friendly, trusting and safe environment, experience greater productivity, communication, creativity and financial health.[6] Most nursing errors occur when individual nurse is stressed, overwhelmed and lacking assistive support. Assistive personnel play a vital role in reducing nurse burnout and clinical errors; however the delegation of direct and indirect care to assistive nursing personnel can be a hefty task.[7] Nevertheless, work stress and burnout remain significant concerns in nursing, affecting both individuals and organizations.[8]

According to Asuquo, Ackley Akpan-Idiok, and Ijabula, work place policies that promote nurses autonomy, good nursing leadership and supervision, implement WHO nurse-patient ratio of 1:4 can facilitate stress free work environment for nurses, and translate to positive health for nurses, decrease lack of job satisfaction, increase nurses productivity, efficiency and quality of care.[9] Gandi, Wai, Karick, and Dagona showed no gender differences in burnout levels among Nigerian nurses, who experience medium to high levels of emotional exhaustion, medium levels of depersonalization and high levels of personal accomplishment.[10] Work–home interference (WHI) and home–work interference (HWI) were found to mediate the relationship between work characteristics and burnout. The meditational relationship differs between genders. The study calls for further research into gender and burnout among the caring professions, especially in under-developed and developing economies of the world.[10] Therefore, this study was conducted to explore the perceived impact of working conditions on productivity of nursing staff in two hospitals in South Western state of Nigeria, as a follow up of

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these two studies conducted in different selected regions of Nigeria.

2. Methodology

The study locations were Adeoyo Maternity Hospital (AMH) and Oluyoro Catholic Hospital (OCH) both located in Ibadan, Oyo State, Southwest Nigeria. AMH was one of the earliest hospitals established in Nigeria by the British colonial administration in 1923. It was established mainly for the care of pregnant mothers and children. The hospital specifically takes care of pregnancies, delivery cases and health conditions affecting mothers and their children; minor medical ailment are also attended to at the hospital. It is mostly referred to as the "baby hospital of the region." The patient inflow is about 2,000 per week. Oyo State government subsidizes the cost of care in the hospital. OCH, on the other hand, was established by the Catholic Christian missionaries in the 1940s. The hospital takes care of all cases affecting the health of the people including maternal and childcare. OCH strictly runs on a fee-for-service model and it serves as alternative source of care for people in Ibadan and environs during the occasional industrial strike embarked upon by health workers. The patient inflow is about 500 per week. The study adopted the descriptive survey design. A total number of 100 nurses were randomly selected from each of the two locations to form 200 sample for the study. Through a structured questionnaire, information was elicited from the respondents on the perceived impact of working condition on productivity of the Nursing staff. The reliability of the instrument was determined using test-re-test methods. Data from the two study locations were merged for joint analysis and presented with simple statistical means like frequency, percentages, and tables. The study was carried out in June 2015 and was approved by the ethical board of the Ministry of Health Oyo State and by the University College Hospital, Ibadan, Nigeria.

3. Results

3.1. Socio-demographic characteristics

All the 200 questionnaires administered were retrieved resulting in 100% response rate from the respondents from the two study locations. Ages of the respondents ranged from 24 to 59 mean 37 ± 3.6. Socio-demographic characteristics of the respondents showed that 174 (87.0%) respondents were females, while 26 (13.0%) were males. Majority of respondents 111 (55.5%) were between 26 and 35 years, followed by 52 (26.0%) who were between 36 and 45 years. About 33(16.5%) were between 16 and 25 years, while 4 (2.0%) were above 46 years of age. Also, 147 (73.5%) respondents were married, 51 (25.5%) were single. The results further showed that 70 (35.0%) of the respondents were Muslims and 130 (65.0%) Christians. The ethnic inclination showed that 141 (70.5%) were Yorubas, 48 (24.0%) Igbos and 11 (5.5%) Hausa. Majority of respondents 99 (49.5%) had 3 to 5 years' experience, 53 (26.5%) had 6 years, while others 2 (1.0%) had less than 2 years. The respondents' ranks varied from Assistant Director of Nursing to Nursing Officer II (Table 1).

3.2. Work environment and working conditions

Table 2 presents respondents' responses on the situation of their work environment. On the respondents responses on the working environment and working condition 158 (79.0%) respondents agreed that their workplace has a warm, friendly and a pleasant atmosphere that they are happy, while. 122 (61.0%) of respondents agreed that culture diversity sometimes cause interpersonal conflict in their unit, 95 (47.5%)of respondents agreed that their work overload is too high and they are unable to cope with its demands, almost equal number of respondents 89 (44.5%) disagreed. 98 49.0% of respondents agreed that the duties delegated to them were sometimes outside their scope of practice and that made them feel inadequate and frustrated, 85 (42.5%) disagreed, 77 (38.5%) of the respondents agreed that participating in training and development programs that improve their capacity to do their work properly encouraged them, surprisingly 101 (50.5%) disagreed. 46 (23.0%) of respondents agreed that there is high tolerance for workplace violence in their hospital with the result that the reported incidents are not dealt with effectively; surprisingly 136 (68.0%) however disagreed. About 152 (76.0%) of respondents agreed to been given sufficient information to protect themselves against

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Table 1: Socio-Demographic characteristics of the study participants (n=200)

Variable	Frequency (N) (%)
Gender	
Male	26 (13.0)
Female	174 (87.0)
Age group	
16-25	33 (16.5)
26-35	111 (55.5)
36-45	52 (26.0)
46+	4 (2.0)
Marital status	
Married	147 (73.5)
Single	51 (25.5)
Divorced	1 (0.5)
Widowed	1 (0.5)
Religion	
Islam	70 (35.0)
Christianity	130 (65.0)
Tribe	
Yoruba	141(70.5)
Hausa	11 (5.5)
Igbo	48 (24.0)
Years in service	
1-2 years	46 (23.0)
3-5 years	99 (49.5)
>=6 years	53 (26.5)
Months	2 (1.0)
Rank/Position	
AND	3 (1.5)
CNO	31 (15.5)
PNO	41 (20.5)
SNO	44 (22.0)
NO I	46 (23.0)
NO II	35 (17.5)

hazards that may result from their work, while 40 (20.0%) of respondents disagreed.

3.3. Impact of Stress on Nurses

On the impact of work stress on the nurses, 136 (65.0%) respondents agreed that some nurses become sometimes got ill and stayed away from work, 64 (32.0%) disagreed, while 6 (3.0%) respondents were undecided. Similarly, 136 (66.5%) respondents agreed that some nurses suffered from burnout and become physically and emotionally exhausted while 61 (30.5%) disagreed and six (3.0%) were undecided. The results further revealed that 136 (65.5%) respondents agreed that some nurses became frustrated and quit job, 51 (25.5%) disagreed and 18 (9.0%) respondents were undecided. It was also shown that 115 (57.5%) respondents agreed that some nurses were willing to extend themselves their duty call period while 60 (30.0%) disagreed and 25 (12.5%) were undecided. It was also reported that 95 (47.5%) respondents agreed that some nurses used to come to work but would not do anything worthwhile and another 91 (45.5%) respondents agreed that some nurses became less committed to work due to inadequacy of materials and equipment to work with.

3.4. Interaction between personal life-Stressors and Work-related Stressors

The study shows that 117 (58.5%) respondents agreed that some nurses used to withdraw from interaction with their colleagues and patients due to their personal home frustration brought to workplace. For the same home problem brought to workplace, 112 (56.0%) respondents agreed that some nurses developed negative attitude towards their colleagues and patients. Similarly, 152 (76.0%) respondents agreed that nurses were more negatively affected by work stress than other health care professionals.

3.5. Organizational Impact of Occupational Stress

On the perceived impact of work stress on the healthcare organization, Table 3 shows the respondents' views.

3.6. Awareness of Worker's Assistance Programs

Response to workers assistance program (WAP) shows that 116 (58.0%) respondents were aware of the existence of workers assistance program (WAP) in their respective places of work, 53 (26.5%) respondents knew the location of (WAP) office while 147 (73.5%) respondents did not. Also, 40 (20.0%) respondents have utilized the services of the WAP before and 34 (17.0%) respondents

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Table 2: Perceptions of study participants on work environment and working conditions (n=200)

Statements	Frequency (%)		
	Disagree	Undecided	Agree
My workplace has a warm, friendly and a pleasant atmosphere that I am happy with	34 (17.0)	8 (4.0)	158 (79.0)
Cultural diversity is sometimes causing interpersonal conflict in our unit	68 (34.0)	10 (5.0)	122 (61.0)
The managers and the staff in the unit work together to provide quality patients' care	35 (17.5)	8 (4.0)	157 (78.5)
My manager recognizes and appreciates my input at work and that inspires me to work harder	70 (35.0)	12 (6.0)	118 (59.0)
Our managers keep us informed on regular basis about important issues and new development regarding the hospital and its management	57 (28.5)	15 (7.5)	128 (64.0)
My workload is too much that I am unable to cope with its demands	89 (44.5)	16 (8.0)	95 (47.5)
Duties delegated to me are sometimes outside my scope of practice and that makes me feel inadequate and frustrated	85 (42.5)	17 (8.5)	98 (49.0)
The staff shortage in this unit forces me to work extra shifts	77 (38.5)	34 (17.0)	89 (44.5)
My workload often increased because my co-workers are often absent	102 (51.0)	20 (10.0)	78 (39.0)
There is a high staff turnover in our unit that leads to loss of experienced colleagues	89 (44.5)	20 (10.0)	91 (45.5)
I am encouraged to participate in training and development programs that improve my capacity to do my work properly	101 (50.5)	22 (11.0)	77 (38.5)
I am involved in decision making at our unit level which allows me to implement the required change	94 (47.0)	17 (8.5)	89 (44.5)
There is high tolerance for workplace violence in our hospital with the result that the reported incidents are not dealt with effectively	136 (68.0)	18 (9.0)	46 (23.0)
I am given sufficient information to protect myself against hazards that may result in my work	40 (20.0)	8 (4.0)	152 (76.0)

Table 3: Perceived impact of work stress on the health care organization (n=200)

Statements	Frequency (%)		
	Disagree	Undecided	Agree
There is an increased rate of absenteeism among nurses.	85 (42.5)	9 (4.5)	106 (53.0)
Nurses' loyalty towards the organization decreases	99 (49.5)	16 (8.0)	85 (42.5)
There is high staff turnout	75 (37.5)	13 (6.5)	112 (56.0)
There are more error and accidents	85 (42.5)	39 (19.5)	76 (38.0)
The quality of service provided to patients deteriorates	89 (44.5)	21 (10.5)	90 (45.0)
There is increase in patient complaints	111 (55.5)	13 (6.5)	76 (38.0)
It becomes difficult to attract and retain quality nursing staff	98 (49.0)	23 (11.5)	79 (39.5)
More agency staff has to be utilized	66 (33.0)	34 (17.0)	100 (50.0)
There is increase in liability to legal claims	107 (53.5)	31 (15.5)	62 (31.0)

said that they were referred by a supervisor to the WAP office when they needed work related assistance. The results showed that 46 (23.0%) respondents had recommended WAP to their fellow workers when they experienced personal and work related problem. As a sign of satisfaction with the programme, 42 (21.0%) respondents said that WAP had made their working condition easier when they had opportunity to contact it for help

4. Discussion

Majority of the respondents agreed that their workplace has a warm, friendly and a pleasant atmosphere; that they are happy with work

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environment and working condition. Kreitzer et al. opined that organizations that have friendly, trusting, and safe environments experience greater productivity, communication, and financial health.[6] Gerber et al indicated that working conditions are created by the interaction of employee with their organizational climate, and includes psychological as well as physical working conditions.[11] Furthermore, Gerber et al stated that supportive work environment attracts individuals into the health professions, encourages them to remain in the health workforce and enables them to perform effectively.[11] Lewy in his study also affirmed that hospital workers face a variety of highly stressful working conditions while meeting the physical and psychological needs of patients.[12] This is supported by the perception of the respondents from this study that work stress among nurses is high and has impact on the nurses' health. Schoombie et al. argue that nurses form the largest part of the healthcare workforce and they are likely to influence the experience and quality of care for patients the most.[13] Therefore, nurses suffer higher levels of stress and are at risk of burnout regardless of whether the stress was perceived positively or negatively, which may contribute to illness eventually.[8]

Majority of the respondents agreed that work stress causes increased rate of absenteeism among nurses, high staff turnout and deterioration in quality of service provided to patients. This finding supports Lewy, who indicated that the nature of the physical condition under which employees work is important to output.[12] Bornstein stated that in organizations where employees are exposed to stressful working conditions, productivity is negatively influenced and that there is a negative impact on the delivery of service.[14] On the other hand if working conditions were good, productivity increase and there is a positive impact on the delivery of service.[15] In fact, work environment related issues have been prioritized in labor policy debates throughout the industrialized nations. Improving the general work environment has been declared a target of the European Union, as stated in the consolidated version of the Treaty establishing the European Community.[16]

5. Conclusions and Implications for Translation

From the findings of the study, it can be concluded that stress arising from poor working conditions and can have an adverse impact on the organization. The most common detrimental effects on the organization are increased absenteeism, high turnover, and deterioration in the morale, job satisfaction and job performance of employees. In order to improve the organization's effectiveness, the employer must implement strategies that are beneficial to both the employees and the health organization; nurses face a variety of highly stressful working conditions while meeting the physical and psychological needs of patients. Nurses form the largest part of the health care workforce and they are likely to influence the experience and quality of care for patients the most. The nursing professionals also suffer higher levels of stress and are at an increased risk of burnout. The work environment and the working conditions are very important in any organization. If employees have a negative perception of their working environment they are likely to be absent, have stress-related illnesses, and their work performance, productivity and commitment tend to be lowered. On the other hand, organizations that have a friendly, trusting and safe environment, experience greater productivity, communication, creativity and financial health.

5.1. Recommendations

Considering the findings of this study, we make the following recommendations:

- Health workers should be encouraged to improve their skills on stress risk management.
- Stakeholders, more especially those concerned with recruitments of health workers, need to review the employment policy in recruitment for a better future.
- Staff development and training programs should be designed for health workers to involve them in areas that they had no proper training and knowledge, such as stress management and personal social wellbeing of the nurse.
- Government should improve working conditions which can increase job satisfaction and

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improve retention which reduce costs of staff turnover.

Compliance with Ethical Standards

Conflict of Interest: *The authors declare no relevant conflict of interest.* ***Ethics Approval:*** *Ethics boards at the Ministry of Health, Oyo State, and the University College Hospital, Ibadan approved the study.*

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