



Available online at www.ijtmrph.org

INTERNATIONAL JOURNAL OF TRANSLATIONAL
MEDICAL RESEARCH AND PUBLIC HEALTH
ISSN 2576-9499 (Online)
ISSN 2576-9502 (Print)
DOI: 10.21106/ijtmrph.50

ORIGINAL ARTICLE | OCCUPATIONAL STRESS

Working Conditions and Productivity among Nurses in Selected Hospitals in Southwest Nigeria

Victoria Funmilayo Hanson, RN, PhD;¹✉ Olayinka A. Onasoga, RN, MSc;² Christianah Olayemi Babalola, RN³

¹National Open University of Nigeria, Ibadan Study Centre, Ibadan, Oyo State, Nigeria; ²Department of Nursing Science, Faculty of Clinical Sciences, College of Health Sciences, University of Ilorin, Ilorin, Nigeria; ³Open University of Nigeria, Ibadan Study Centre, Ibadan, Oyo State, Nigeria

✉ Corresponding author email: Hanson: toriasonus@yahoo.com

ABSTRACT

Background: Occupational stress and burnout are both factors that bedevil the healthcare sector in developing countries, particularly in Nigeria. This study explored the perceived impact of working conditions on the productivity of nursing staff in selected hospitals in southwest Nigeria.

Methods: This was a cross-sectional study comprising of 200 respondents randomly selected from two hospitals in the study area. Data were collected using a standardized study questionnaire. The reliability of the study questionnaire was determined using the test-retest method conducted at the interval of two weeks. Data were analyzed using Microsoft Excel and descriptive statistics were reported.

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

Conclusion and Implications for Translation: Stress arising from poor working conditions can have an adverse impact on the organization. The most common detrimental effects are increased absenteeism, deterioration in the morale of nurses, lack of job satisfaction and performance. To improve the organization's effectiveness, employers should consider implementing strategies that are beneficial to both employees and the health organization. This is important because hospital workers face a variety of highly stressful working conditions while meeting the physical and psychological needs of patients.

Keywords: Perception • Working conditions • Nursing staff • Productivity • Hospitals, Southwest • Nigeria

Copyright © 2017 Hanson et al. Published by Global Health and Education Projects, Inc. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in this journal, is properly cited.

I. 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 be 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. 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 influences in achieving the facility's goals.³ Nurses are working in health care organizations that are battling with staff shortages, increasing patient loads, shrinking reimbursement and growing regulatory 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 ongoing 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 an individual nurse is stressed, overwhelmed or 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, workplace policies that promote nurse's autonomy, good nursing leadership and supervision, and implement WHO nurse-patient ratio of 1:4 can facilitate a stress free work environment for nurses that translates to positive health for nurses, decreased lack of job satisfaction, increased 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 mediational 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 these two studies conducted in different selected regions of Nigeria.

2. Methods

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 ailments 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 child care. OCH strictly runs on a fee-for-service model and it serves as an 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. This was a simple descriptive cross-sectional study comprising of a sample of 200 Nurses. Participants were randomly selected from the two hospitals. One hundred participants were drawn from each hospital. Data on perceived impact of working conditions on productivity were collected using a structured questionnaire administered in English language. The reliability of the questionnaire was determined using the test-retest method at two week-intervals. Responses from participants at the two locations were merged and jointly analyzed. Analysis was completed using Microsoft Excel (Microsoft Corporation, 2013) and presented with simple statistics including frequencies and percentages. 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 2 others (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. The majority, 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 cultural diversity sometimes causes interpersonal conflict in their unit. The data shows that 95 (47.5%) of respondents agreed that their work overload is too high and they are unable to cope with its demands, however, an almost equal number of respondents 89 (44.5%) disagreed. Ninety-eight (49%) of respondents found the duties delegated to them were sometimes outside their scope of practice and that made them feel inadequate and frustrated, 85 (42.5%) disagreed. Seventy-seven (38.5%) of the respondents agreed that participating in training and development programs that improve their capacity to do their work properly encouraged them, but, surprisingly, 101 (50.5%) disagreed. Forty-six (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, however, surprisingly, 136 (68.0%) disagreed. One hundred fifty-two (76.0%) (76.0%) of respondents agreed to have been given sufficient information to protect themselves against hazards

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)

AND = Assistant Nursing Director; CNO = Chief Nursing Officer; PNO = Principal Nursing Officer; SNO = Senior Nursing Officer; NO I = Nursing Officer I; NO II = Nursing Officer II

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

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 became 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 their 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 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 problems 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 Assistance Programs

Response to the workers assistance program (WAP) section shows that 116 (58.0%) respondents were aware of the existence of the workers assistance program (WAP) in their respective places of work, 53 (26.5%) respondents knew the location of WAP

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 patient 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 developments regarding the hospital and its management	57 (28.5)	15 (7.5)	128 (64.0)
My workload is so 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 errors 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 an 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)

offices 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 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 problems. As a sign of satisfaction with the program, 42 (21.0%) respondents said that WAP had made their working conditions 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 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 employees with their organizational climate, and includes psychological as well as physical working conditions.¹¹ Furthermore, Gerber et al. stated that a 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 impacts 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

A 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 increased and there was 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 This study has a number of limitations and our results must be interpreted with caution. Our study was a cross-sectional study; thus, we are unable to make any causal inferences. The study was conducted at two locations, so our findings cannot be generalized across the country. Finally, our study presented simple descriptive statistics to capture the items of interest. Future studies should explore other potential factors that may impact the findings of the present study.

5. Conclusion and Implications for Translation

From the findings of the study, it can be concluded that stress arising from poor working conditions 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, 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 well-being of the nurse.
- Government should improve working conditions which can increase job satisfaction and improve retention, which reduces staff turnover costs.

Compliance with Ethical Standards

Conflicts of Interests: The authors declare no competing interests.

Financial Disclosure: Nothing to declare. **Funding/Support:**

There was no funding for this study. **Ethics Approval:** Ethics boards at the Ministry of Health, Oyo State, and the University College Hospital, Ibadan, approved the study. **Acknowledgments:** None.

Disclaimer: None.

References

1. Morin EM. The meaning of work in modern times. Paper presented at the 20th World Congress of Human Resources Management, Rio de Janeiro, RJ., August 2004.
2. McConnell CR. *The Health Care Supervisor: Effective Employee Relations*. 4th ed. Canada: Aspen Publishers; 2010.
3. Gifford B, Zammuto RF, Goodman EA. The relationship between hospital unit culture and nurses' quality of work life. *J Healthc Manag*. 2002;47(1):13-25.
4. Sullivan EJ, Decker PJ. *Effective Leadership and Management in Nursing*. 7th ed. New Jersey: Pearson Prentice Hall; 2009.
5. Leka S, Griffiths A, Cox T. *Organisation & Stress: Systematic Problem Approaches for Employers, Managers and Trade Union Representatives No. 3*. International Labor Office; 2003. Protecting Workers' Health Series.
6. Kreitzer MJ, Wright D, Hamlin C, Towey S, Marko M, Disch J. Creating a healthy work environment in the midst of organizational change and transition. *J Nurs Adm*. 1997; 27(6):35-41.
7. McNeese-Smith D. Staff nurse views of their productivity and non- productivity. *Health Care Manage Rev*. 2011; 26(2):7-19.
8. Jennings BM. Work stress and burnout among nurses: role of the work environment and working conditions. In: Hughes RG, ed. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville, MD: Agency for Healthcare Research and Quality (US); 2008.
9. Ella RE, Asuquo EF, Akpan-Idiok PA, Ijabula JI. Impact of job stress on nurses' job satisfaction in a public hospital, Cross River State, Calabar, Nigeria. *Int J Hum Soc Sci Educ*. 2016;3(9):57-66.
10. Gandi JC, Wai PS, Karick H, Dagona ZK. The role of stress and level of burnout in job performance among nurses. *Ment Health Fam Med*. 2011;8(3):181-194.
11. Gerber PD, Nel PS, Van Dyk PS. *Human Resource Management*. Johannesburg: International Thomson Publishing; 1998.
12. Lewy RM. *Employees at Risk: Protecting the Health of the Health Care Worker*. New York: Van Nostrand Reinhold; 1991.
13. Schoombee JC, Van Der Merwe JM, Kruger LM. The stress of caring: the manifestation of stress in the nurse-patient relationship. *Social Work/Maatskaplike Werk*. 2005; 41(4):388-408.
14. Bornstein T. Quality improvement and performance improvement: different means to the same end? *QA Brief*. International Society for Performance Improvement. 2001;6-12.
15. Schabracq MJ. What an organisation can do about its employees' well-being and health: an overview. In Schabracq MJ, Winnubste JAM, Cooper CL, eds. *The Handbook of Work and Health Psychology*. 2nd ed. Wiley; 2003.
16. EUR-Lex-Access to European Union Law, Treaty establishing the European Community (Nice consolidated version) *Official Journal C 325, 24/12/2002 P. 0033 – 0184 Official Journal C 340, 10/11/1997 P. 0173 - Consolidated version, available from <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12002E137>. Accessed December 12, 2014.*