

Occupational Stress among Nurses in Referral Hospitals in Botswana: Controlling the Risk to Health

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Abstract

The prevalence of occupational stress among nurses is an endemic problem. This study was undertaken on an academic journey to determine the current levels of occupational stress among nurses in referral hospitals in Botswana. The study used a cross-sectional design aimed at determining the prevalence of occupational stress among nurses in selected referral hospitals. The study was carried out in three referral hospitals, namely- Princess Marina hospital, Nyangabgwe referral hospital, and Sabrana psychiatric hospital. Purposive sampling was used to select the nurses as well as management with the required and relevant experiences. A semi-structured questionnaire was used to get responses from nurses and the management in referral hospitals. The data was sourced from different departments/units in the referral hospitals. From a total of 98 study participants, 43.8 percent of nurses reported stressful irritable/angry at work. Less than one-third, 30.6% of respondents, reported that they were sometimes not able to sleep due to the fact they normally have to work in different departments/units in referral hospitals. Results from the study show that respondents are very often not coping with what they had to do and are not able to control important things (like work may be) in their lives, respectively statistically significant ($p = 0.021 < 0.05$) and ($p = 0.038 < 0.05$). A significant percentage of respondents reported occupational stress that is influenced by environmental factors like working in different departments and pressure from work.

Keywords- Endemic, Nurses, Occupational stress, Prevalence, Purposive sampling, Stress.

Introduction

World Health Organization has considered stress as a global epidemic, which has recently been observed to be associated with 90% of visits to physicians [1]. Work-related stress is one of the most important workplace health risks for employees worldwide [2]. Work-related stress results in substantial costs to employees and organizations [3,4], related to employee absenteeism and turnover, decreased productivity, physical illness, poor quality of health care services, and increased the risk of medical errors [3].

Work-related stress has been recognized as the main challenge for the nursing profession throughout the world and has negative

emotional, physical, and psychological effects on nurses [5]. Research evidence demonstrated that nurses suffer from high levels of work-related stress that are threatening their health and patients' lives, compromising the quality of nursing care, and the increasing patient requires attention [6].

The cost of health care [1]. Excessive occupational stress has been found to reduce the quality of nursing care [7]. If a nurse is stressed, it is difficult to give holistic nursing care to patients who may increase the patient mortality rate [6]. Work stress can affect employees regardless of gender, position, or type of employment. If one looks around and scans the research on stress and mainly stress at the

Received: 16.08.2022

Accepted: 14.09.2022

Published on: 30.09.2022

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workplace, one discovers that stress is settled among the workers as an inevitable factor. Stress is linked to one's ability to manage the resources, environmental demands, and some other unknown shortcomings to the process while doing an activity [8].

These unfavourable conditions that nurses are subjected to have resulted in many nurses retaliating as they migrated to other countries to look for a supposedly stress-free working environment. The migration of nurses has immensely contributed to the shortage of manpower (6). The migration or resignation of nurses had been drastic and resulted in deaths due to limited patient care. In addition, nurses complained of working long hours despite of high numbers of very seriously ill.

The current workload due to the coronavirus force nurses to work long hours. This was echoed by the president of the Botswana Nurses Union pleading with the Government to hire temporary nurses as nurses on the ground are overwhelmed [9].

The nature of the nursing profession and the health care system are some of the contributors to work-related stress [10, 11, 1]. Research findings have also indicated that the sources of occupational stress, its levels, and its effects vary depending on local factors such as the nature of work, work setting, and cultural orientation. Thus, occupational stress among nurses may have significant differences in different countries due to different work settings and levels of social support [12]. Therefore, this study is aimed at identifying sources and contributing factors to work-related stress in order to improve the personal and professional quality of life in Botswana's referral hospitals.

Work-related stress is a pattern of reactions to work demands unmatched by nurses' knowledge, skills, or abilities; these challenges exceed their ability to cope, resulting in burnout, turnover, and low-quality patient care [5, 11]. Another study [13] defines work-related stress as 'a harmful response that people have to undue pressures and demands placed on them at work.

Tensions arise when the demands of the job or work environment exceed the person's ability to respond effectively.

A certain amount of stress is essential to sustain life and moderate amounts serve as stimuli to perform but overpowering stress can cause a person to respond in a maladaptive physiological or psychological manner [14]. Researchers worldwide have attributed occupational stress, especially amongst healthcare workers, to many factors such as job dissatisfaction that led to nurse burnout and turnover [4], an extensive physical workload which results in nurse burnout because of their involvement in physically and mentally draining tasks as well as poor physical infrastructure [3] among many other factors. Little research regarding occupational stress exists in Botswana though the problems evidently exist. As a result, this study will investigate factors associated with occupational stress among nurses working in referral hospitals in Botswana.

Methodology

A cross-sectional and descriptive study was carried out from January 2021 to February 2022. A cross-sectional design was used in order to describe the factors associated with occupational stress. The study was conducted in three (3) referral hospitals in Botswana. These referral hospitals were Princess Marina referral hospital, Nyangabgwe referral hospital, and Sbrana Psychiatric Hospital. Creswell [15,16] defined research methods as the procedures used in the collection and analysis of data. The study participants were nurses working in these referral hospitals. Non-probability sampling method was used in selecting the participants for the study. The participant was selected using purposive sampling, which does not give everyone equal chance of being selected. The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 28 to describe the data and identify the level of significance. Ethical clearance was obtained Ministry of Health Ethics Committee and

additional permission was sought from the Institutional Review Board from the referral hospitals.

Results

Table 1 indicates that the study consists of 98 male and female nurses working in different departments/units in referral hospitals; females account for 82.65% of the sample, which is almost 5 times their counterparts, males (17, 35). Table 1 shows that the highest number of these female nurses are young, aged less than 40 years (17+7+19 = 43 of them), with only 6 nurses aged equal or more than 50 years (≥ 50). This might limit mutual confession on stress-related conversations among themselves to mitigate their work stress (not tested).

It is also observed in Table 1 that there is a significantly higher number of married nurses than unmarried and single nurses. In addition, marital status plays a positive significant ($p = 0.003 < 0.05$) role in nurses working in different departments/units in referral hospitals as compared to a nurse's gender, employment status, and education level despite the age in years of the nurse. i.e. an education level of a nurse with a diploma or degree is not significant ($p \text{ value} = 0.604 > 0.05$), whether the nurse is registered with or without midwifery ($p = 0.199 > 0.05$) and the nurse's gender ($p = 0.773 > 0.05$) across all ages of nurses (participants) who are working in different departments/units in referral hospitals do not matter, but their marriages do.

Table 1. Demographic Characteristics

Demographic Characteristics	Age in years						p-value
	<30	30 - 34	35 - 39	40 - 44	45 - 49	≥50	
Gender							
Male	2 (15.4)	2 (15.4)	4 (30.8)	1 (7.7)	2 (15.4)	2 (15.4)	0.773
Female	17 (27.9)	7 (11.5)	19 (29.5)	9 (14.8)	6 (9.8)	4 (6.6)	
Marital status							
Married	3 (8.8)	3 (8.8)	13 (38.2)	5 (14.7)	6 (17.7)	4 (11.8)	0.003
Unmarried	1 (50.0)	0 (0.0)	0 (0.0)	1 (50.0)	0 (0.0)	0 (0.0)	
Single	15 (42.9)	6 (17.1)	8 (22.9)	4 (11.4)	2 (5.7)	0 (0.0)	
Divorced	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	0 (0.0)	2 (66.7)	
Employment status							
Registered nurse	18 (31.0)	7 (12.1)	17 (29.3)	6 (10.3)	6 (10.3)	4 (6.9)	0.199
Registered nurse with midwifery	0 (0.0)	2 (15.4)	5 (38.5)	4 (30.8)	1 (7.8)	1 (7.8)	
Education level							
Nurse with diploma	18 (26.9)	8 (11.9)	19 (28.4)	8 (11.9)	8 (11.9)	6 (9.0)	0.604

Table 2 indicates the highest percentage of nurses who are stressed felt, and irritable/angry at work (43.88%) is observed in Table 3, followed by 18,37 % of nurses who are very

often stressed felt irritable/angry at work while 10.20% of nurses never got stressful irritable/angry at work.

Table 2. Cross-tabulation between Two Variables, Education and Gender on Different Likert scale

Education	Stress felt irritable/angry at work						Total
	0	1	2	3	4	999	
1	8	11	36	9	15	4	83
	9.64	13.25	43.37	10.84	18.07	4.82	100.00

2	2	3	7	0	3	0	15
	13.33	20.00	46.67	0.00	20.00	0.00	100.00
Total	10	14	43	9	18	4	98
	10.20	14.29	43.88	9.18	18.37	4.08	100.00

Note: codes were changed here. 1=Female and 2=Male

Table 2 indicates a crucial situation of 30, 6% of stressed nurses who are sometimes not able to sleep, 22, 5 % fairly unable to sleep, and 17.4% very often unable to sleep. This implies that, on a certain random negative night, 40, 5% of

nurses (participants) who are working in different Departments/units in referral hospitals do not sleep. Table 4: A significant of nurses often experience headaches (19.39% and 20.41%) compared to those who don't (9.19%).

Table 3. Cross Tabulation between Education and Stress being Unable to Sleep

Education	Stress been unable to sleep						
	0	1	2	3	4	999	Total
1	12	9	26	20	13	3	83
	14.46	10.84	31.33	24.10	15.66	3.61	100.00
2	5	0	4	2	4	0	15
	33.33	0.00	26.67	13.33	26.67	0.00	100.00
Total	17	9	30	22	17	3	98
	17.35	9.18	30.61	22.45	17.35	3.06	100.00

Table 4. Cross-tabulation Between Education and Stress Experienced Headache

Education	Stress experienced headaches						
	0	1	2	3	4	999	Total
1	7	7	35	16	15	3	83
	8.43	8.43	42.17	19.28	18.07	3.61	100.00
2	2	1	4	3	5	0	15
	13.33	6.67	26.67	20.00	33.33	0.00	100.00
Total	9	8	39	19	20	3	98
	9.18	8.16	39.80	19.39	20.41	3.06	100.00

Table 5 reveals that a substantial group of nurses are sometimes (39.80%), often (7.14.80%), and par with very often (7.14%) unable to concentrate (at work).

Table 5. Cross-tabulation between Education and Stress Unable to Concentrate

Education	Stress unable to concentrate						
	0	1	2	3	4	999	Total
1	23	13	35	6	5	1	83
	27.71	15.66	42.17	7.23	6.02	1.20	100.00
2	3	5	4	1	2	0	15
	20.00	33.33	26.67	6.67	13.33	0.00	100.00
Total	26	18	39	7	7	1	98
	26.53	18.37	39.80	7.14	7.14	1.20	100.00

Discussion

This study determines the current levels of occupational stress among nurses in referral hospitals in Botswana. It is important to identify the levels of occupational stress among nurses in order to come up with strategies to with the effects. Most of the respondents in the study were within the age bracket 35-39 years and less than 30 years old, and the population was comprised of both males and females. Occupational stress is becoming a big syndrome among nurses. The results from this study revealed that two-fifth of respondents reported stressful irritable/ angry at work. The prevalence found in this study is consistent with findings from [17] reported that assistant nurses who were working at psychiatry hospitals experienced more irritability and somatic symptoms than the nurses working there.

This finding in this study is also consistent with [18] who found that the types of stress experienced by the majority of nurses include headache, fatigue, and high blood pressure a physical type of stress. On the hand, one-third of respondents confirmed that lack of sleep is a stress-related problem that they often experience. Lack of sleep is experienced due to work pressure from work, whereby nurses are assigned many tasks to perform and long working hours [19]. This finding is consistent with that of [20], who reported that 1 in 5 nurses examined was at risk for stress-related health problems. The authors also found that 2 in 5 nurses examined encountered distress as a result of too much work pressure or mental fatigue at work. Further, respondents in this study reported that more than half of nurses are stressed due to a shortage of essential resources in different

departments/ units in referral hospitals. Nurses frequently complain about the horrible working circumstances to which they are subjected to, while yet being expected to provide optimum outcomes. Among the numerous negative working circumstances include staff shortages, poor salary remuneration, lengthy working hours due to numerous challenges, including a high number of patients, and overall job dissatisfaction.

Conclusion

This study revealed that nurses experience occupational stress. Nurses reported that they are unable to sleep due to the overwhelming work that they have to perform. Thus, nurses spend a lot of hours working in different departments. Nurses also reported stressful irritable/ angry at work, this could be the effect of occupational stress. In addition, a shortage of resources and poor working conditions also contribute to occupational stress. Moreover, a substantial group of nurses is sometimes stressed and unable to concentrate on work. Workplace conditions have contributed to occupational stress among nurses. This is a need to come up with strategies that are sustainable to deal with occupational stress that affects nurses. Working conditions should be improved to ensure that nurses work in an environment that is conducive and ensures that their needs are taken care of.

Acknowledgements

The author would like to thank all participants of this study for their great cooperation.

Conflict of Interest

The author declares that there is no conflict to be included in the journal.

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