

Work-Related Stressors, Effects and Coping Mechanisms Among Nurses in Some Hospitals in Bonassama District Health Areas Douala, Cameroon

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Abstract

Introduction: Nurses suffer from high levels of work-related stressors (WRS) which threatens their health, patient's lives and compromise the quality of nursing care.

Objective: The aim of this study was to determine various WRS and coping mechanisms among nurses in some selected health structures at the Bonassama health area Douala, Cameroon.

Methods: a cross-sectional study was carried out in some hospitals in the Bonassama District health area in Douala from May to July 2020. Data on the demographics, stressors, and coping strategies were collected from 121 nurses in a face-to-face interview using a well-structured questionnaire within six weeks.

Results: Our results showed that the majority of the participants (63.6%) identified; few number of staff on duty as the main WRS among nurses. Reduce concentration (52.9%) was the main effect of WRS on the performance of nurses, while headaches (60.3%), chronic low back pain (58.7%) and insomnia (47.1%) were identified as the main effects of WRS on their health. Most participants (53%) declared that they used situational control of the conditions as coping strategies.

Conclusion: The main WRS among nurses at the Bonassama district health area was shortage of nurses per shift. Reduce concentration, headaches, chronic low back pain, and insomnia were the main effects of WRS among nurses. Majority of them applied situational control as a coping mechanism.

Keywords: Work-Related Stressors; Nurses; Coping Mechanisms; Banassama; Bonaberi-Douala; Cameroon

Abbreviations

WRS: Work-Related Stressors; W.H.O: World Health Organization

Introduction

Workplace stress is defined as the response people may have when presented with work demands and pressures that are not

matched to their knowledge and abilities and which challenge their ability to cope [2]. Meanwhile, a healthy job is one where, pressure on employees is in appropriate relation to their abilities and resources, and to the amount of control they have over their work [1]. Therefore, a healthy working environment as an

environment where there is not only absence of harmful conditions but abundance of health promoting activities in which staff have made health and health promotion a priority and part of their working lives [2]. WRS in nursing was first assessed in 1960 when Menzies identified four sources of anxiety among nurses: patient care, decision-making, taking responsibility, and change in shift [3]. Stress in nursing is largely associated to physical labor, suffering and emotional demands of patients and family, work hours, shift work, interpersonal relation [4].

Stressors are agents or conditions capable to initiate a stress response, they are outside forces that place unusual demands on a person's body and mind [5]. Marital responsibilities and child care may also be a source of among nurses [7].

Cameroon and other developing countries of the world are in gross shortage of nurses, which may be a consequence of low levels of employment of nurses [8]. For instance, report shows that, Cameroon nurse's patient ratio is 7.8:10,000 populations which is far below WHO average recommendation of nurse's patient ratio which is 83: 10 000 [8]. This low ratio may contribute to WRS nurses face and the decline in the quality and efficiency of nursing care [8]. To meet the hospital and patient demands, nurses make use of their physical and mental energies, which explain why they are more exposed to WRS. Some stressors reported in literature include: work over load, poor infrastructures, and lack of adequate equipment, poor salaries, and few staff per shift [9].

Coping mechanisms are strategies often used by people to face stress or trauma and to help manage difficult emotions [10]. It can also help people adjust to stressful events while helping them maintain their emotional well-being [7,11]. Situational control, preventive monitoring, seeking help, avoidance are the coping mechanisms reported [11].

Despite the adverse consequences WRS have on nurses and nursing care, little is known about WRS and their coping mechanisms among nurses practicing in Cameroon generally and specifically in the Bonassama district health area.

Thus, this study aimed at determining work-related stressors and coping strategies among nurses in the Bonassama district health area, Douala-Cameroon.

Materials and Methods

Study design, research setting and participants

A hospital-based cross-sectional study was conducted between the months of May and July 2020 among 121 nurses working at St. Albert le Grand Catholic hospital and Bonassama district Hospital, Douala Cameroon. These hospitals are comprised of most of the working units: theater, intensive care, emergency, hospitalizations, and outpatient departments. The study targeted nurses with at least one year working experience. Were excluded in the study nurses who did not sign the consent form, students on internship and visiting nurses.

We opted for a non-probability sampling of convenient type, provided participants were recruited according to their availability.

Data collection

Administrative authorizations were obtained from the Douala regional delegation of public health and from the different hospital administrators. Informed consent from participants were also ascertained before data collection. Consents of the nurses were recommended, and only those who signed the consent form were included in the study.

Data on the demographics and associated factors, effects of WRS on nurses' health status, performances and coping strategies of WRS used by nurses, were collected using a well-designed questionnaire through a face-to-face interview.

Ethical considerations

Authorization to conduct the study was obtained from the Regional Delegation of Public Health, Littoral and also from the different health structures where the study was conducted. Consent was obtained from the participants, and they were made to understand that their participation was voluntary. All information collected was kept confidential through physical and electronic barriers.

Data management and analysis

After collecting the data, they were checked for accuracies then coded and entered into the computer using MS Excel 2016. The data were analyzed using the Statistical Package of Social Sciences version 23. Descriptive statistics was used to explain the frequency and occurrence of WRS, effects and coping mechanisms among nurses. Results were presented in tables and figure.

Results

Socio-demographic features

A total of 121 nurses were enrolled in the study in which the most represented age group was 29-39 years, 42.1% (51). It was observed that majority of participants, 67.8% (82) were females. Of the 121 participants, 47.9% (58) were married, 39.6% (48) were single. Many of the nurses who participated in the study, 35.5% (43) worked in the surgical unit. Most of the participants, 39.7% (48) had work experience between 5-9 years (Table 1).

Table 1: Socio-demographic features of participants.

Factor	Variable	Frequency (N = 121)	Percentage (%)
Age group (years)	18-28	36	29.8
	29-39	51	42.1
	40-50	27	22.3
	>50	7	5.8
Sex	Female	82	67.8
	Male	39	32.2
Marital status	Married	58	47.9
	Single	48	39.6
	Widow	13	10.7
	Widower	2	1.7
Working Unit	Medical	30	24.8
	Surgical	43	35.5
	Maternity	29	24.0
	Pediatric	19	15.7
Working experience	0-4 years	28	23.1
	5-9 years	48	39.7
	10-20 years	33	27.3
	>21 years	15	12.4

Work related Stressors

According to most of the respondents, workers who were affected by WRS during duty was as a result of few number of staff on duty 77(64%) and high number of hours of work per week 37 (31%) were among nurses (Table 2).

Table 2: Associated factors of work-related stressors.

Factor	Variable	Frequency (N = 121)	Percentage (%)
Presence of few shifts	Yes	36	29.8
	No	85	70.2
Presence of few number hours of work per week	Yes	37	30.6
	No	84	59.4
Few number of staff on duty	Yes	77	63.6
	No	44	36.4
Taking Responsibility	Yes	32	26.4
	No	89	73.6
Unusual break time	Yes	20	16.5
	No	101	83.5

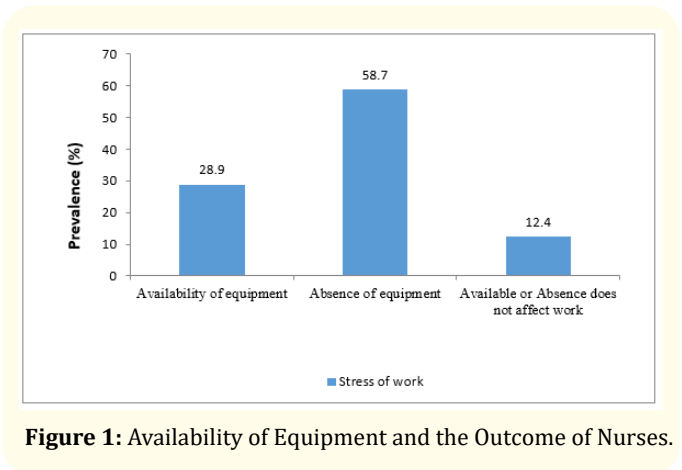


Figure 1: Availability of Equipment and the Outcome of Nurses.

As seen in figure 1, Forty 41(28.9%) respondents said the availability of equipment makes their work less strenuous while majority 71(58.7%) affirmed, absence of equipment makes work more strenuous.

Effects of Work-related Stressors on nurses' health status and performances

Table 3 explores the effects of WRS on nurses' health status and performance in the Bonasama District Health area. It was observed that majority of participants, 73 (60.3%) had headaches as symptoms of stress followed by 71 (58.7%) who had back pain and the least, 26 (21.5%) were participants who were depressed. Also, the most of the participants 57 (47.1%) said they had insomnia

when stressed up and the minority 6 (5.0%) said they can attempt suicide. Furthermore, the most common effects of WRS on nurses' health were reduced concentration in 64 (52.8%) respondents and the least effects was being absent from work in 29 (24.0%) respondents.

Coping and management strategies of work-related stressors used by nurses

It is shown that most of the participants, 64 (52.9%) applied situational control of the conditions to cope with stress while 29(24.0%) applied avoidance of the situations that led to stress. Regular exercise 61 (50.4%) and playing of music, 49 (40.5%) were the most commonly used management strategies for work-related stressors (Table 4).

Table 3: Effect of work-stress on nurses' health status and performances.

Factor	Variable	YES		NO	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Health status	Back Pain	71	58.7	50	41.3
	Headaches	73	60.3	48	39.7
	Aggressiveness	45	37.2	76	62.8
	Low Tolerance	41	33.9	80	66.1
	High Blood Pressure	31	25.6	90	74.4
	Depression	26	21.5	95	78.5
	Fatigue	58	47.9	63	52.1
	Confusion	30	24.8	91	75.2
	Muscle Tension	35	28.9	86	71.1
	Suicide Attempts	6	5.0	115	95.0
	Alcohol Dependency	27	22.3	94	77.7
	Chronic Pain And Disability	53	43.8	68	56.2
	Tachycardia	27	22.3	94	77.7
	Insomnia	57	47.1	64	52.9
	Weariness	38	31.4	83	68.6
Emergence of Opportunistic Diseases	25	20.7	96	79.3%	
Nurses Performance	Decreased Attention	42	34.7%	79	65.3
	Reduce Concentration	64	52.9	57	47.1
	Reduce Ability To Establish Strong Relationship with Patient	39	32.2	82	67.8
	Poor Decision Making	31	25.6	90	74.4
	Loose Motivation	44	36.4	77	63.6%
	Reduce Efficacy	39	32.2	82	67.8
	Absenteeism	29	24.0	92	76.0

Table 4: Coping and management strategies of work-related stressors used by nurses.

Coping Mechanism	Coping strategy	YES		NO	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Work- related stress coping mechanisms use by nurses	Try to take control over the condition	64	52.9	57	47.1
	Seek help from colleague or family members	33	27.3	88	72.7%
	Keep away or avoid the situation	29	24.0	92	76.0
	pray and believe in God	62	51.2	59	48.8
	Develop Self Confidence	47	38.8	74	61.2
work-related stressors management strategies used by nurses	Do regular exercise	61	50.4	59	49.6
	Visit natural features	15	12.4	106	87.6
	Play music	49	40.5	72	59.5
	Take a break somewhere quiet	43	35.5	78	64.5
	Seek professional help	35	28.9	86	71.1

Discussion

This study aimed at assessing work-related stressors, the effect on nurses’ health status and performance including associated factors. Nurses in our hospitals cannot say they have fully achieved satisfaction in their day-to-day activities because their working environment is prone to stress [11]. One hundred and twenty-one (121) nurses participated in this study with 82(67.8%) of them female, 51(32.2%) aged from 29-39 years old, 43 (36%) were working in the surgical unit and 48 (40%) were having a working experience of 5-9 years.

Concerning stressors related to the availability of equipment; 59% of the respondents said absence of equipment makes work more strenuous. Out of 121 participants, 64% said few numbers of staff per shift was the main stressor. These results differ from those in the study carried out in Saudi Arabia where majority of

the participants; 62.94% said the main cause of stress among nurses is dealing with death and dying [4]. This difference may be due to that, Saudi Arabia is a develop country with hospitals build up following standard with hospital equipment available; and that our study was carried out in only few hospitals in the Bonassama health District.

On the effects of WRS, majority (53%) of nurses, out of 121 participants said work stress reduced their concentration, most participants, 47% have insomnia followed by 44% who suffered chronic pain. These results are similar with results obtained from the study carried out by Moustakain 2010 [14] and Glonagle., *et al.* [15] who reported stress at work is highly associated with decrease capacity, lack of concern and decrease efficiency.

Regarding the coping mechanisms used by nurses; our results revealed that most nurses used situational control, self-confidence and avoidance of situations causing stress, were the main coping strategies employed by nurses in the Bonassama health District. All these methods adopted by the participants have being highlighted by the Global Journal of Health Sciences in 2016 [16] which proposed six coping mechanisms that can be used by nurses to cope with work-related stressors (situational control of conditions, seeking help, prevention monitoring of situation self-controlling, avoidance and escape, and spiritual coping). Our result was in conformity to that of Nayomi in 2016 [17] where 63% of nurses preferred to use the situational control mechanism to cope with job stress.

Lastly, with respect to the management strategies of stressed adopted by participants; majority (51%) said they do regular physical exercises and the least (12%) visited natural features. All these strategies are good because they help to reduce the negative effects of WRS on nurses' health and performances. The respondents' ideas were in the same line with the study of MAS Media Staffing, 2017 [18] who had illustrated that the use of these management strategies helps nurses to maintain their wellbeing even in a stressful period.

Limitations of the Study

This study was limited by the following aspects: During the data collection period, there was the Covid-19 pandemic which greatly interfered with the collection of data, which led to a reduced sample size. Also, there was poor collaboration and feedback from the nurses due to language barriers.

Furthermore, the study was limited in scope with just selected hospitals in the area of Bonassama. Another limitation is that other aspects which could be responsible for pain were not investigated.

Conclusion and Recommendations

Conclusion

The main WRS identified in this study was shortage of staff, and the main coping mechanism employed by nurses at the Bonassama health district was situational control of circumstances.

The common effects of WRS on performance were lack of concentration and nurses' absenteeism. Further research

considering larger sample size may be needed to make more adequate conclusions on WRS among nurses.

Recommendations

More information on WRS should be provided to nurses through seminars organization and during which nurses should be encouraged of making good use of the various coping mechanisms and management strategies.

The hospital administrators should not only be concentrated on the growth and productivity of the hospital, but they should also take into consideration the wellbeing of nurses as this would improve on the quality of care.

The hospital administrators should take into seriousness the effects of WRS on nurses' health and output, meetings should be organized so as to give the opportunity for nurses to express their worries and the administrators should try their best to reduce hospital stressors.

The minister of public health should put more precision or more pressure on hospitals to employ more nurses so as to move towards W.H.O nurses' patient ratio which is the first cause of WRS among nurses.

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Ethical Consideration

Authorization to conduct the study was obtained from the Regional Delegation of Public Health, Littoral and also from the different health structures where the study was conducted. Consent was obtained from the participants, and they were made to understand that their participation was voluntary. All information

collected was kept confidential through physical and electronic barriers. The fundamental principles of medical research according to Helsinki's Declaration were strictly respected.

Consent for Publication

All authors consented and accepted for this article to be submitted for publication.

Availability of Data and Materials

Most data generated or analysed during this study are included in this article. Also, all findings that support the result of this study are included.

Conflict of Interest

The authors certify there is no conflict of interest.

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Author's Contributions

M.K.B: Study conception, design, data collection, analysis, results interpretation and writing. Q.N.M: Study conception, design, writing and editing. F.C.B: Results interpretation, writing and editing. A.B.T: results interpretation, writing, and editing. M.S.F: data collection, writing and editing. H.M.F: study design, data analysis and editing. All Authors fully reviewed the manuscript.

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