Job-related Stress among Nurses in Selected Hospitals of Pokhara, Nepal

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ABSTRACT

Introduction: Nursing is considered as one of the most stressful and demanding profession. In the health care organizations, work stress may contribute to absenteeism and turnover, both of which detract from the quality of care. The aim of this study was to assess the job-related stress and to identify and compare the factors associated with job stress among nurses' working in selected hospitals of Pokhara, Nepal.

Methods: The descriptive research design based on simple random sampling method was used. The sample size was 238. The data was collected using self-administered questionnaire consisted of socio-demographic information and Expanded Nursing Stress Scale. Both descriptive and inferential statistics was used for data analysis.

Results: The study findings showed that majority of nurses were in moderate level of stress and 'patients and their families' were the most stressful factors perceived by both government and private hospital nurses. 'Problems with peers' was the least stressful factor perceived by both group of nurses and experiencing 'discrimination' was also the least stressful factors for private hospital nurses. Furthermore, a chi-square test revealed significant association between work setting and job stress in government hospital nurses.

Conclusion: Nurses working in the both government and private hospitals were working under stressful conditions.

Keywords: *Job-related Stress, Nurses, Hospital*

INTRODUCTION

Job stress refers to those harmful physical and emotional responses that occur when job demands do not match the resources, capabilities, and needs of an employee.[1] It can affect all types of workers and all professional occupations.[2]

According to the American Institute of Stress, it is the main factor in up to 80% of all work-related injuries and 40% of turnovers in the workplace, while the European Foundation for the Improvement of Living and Working Conditions reported that 30% of the European working population is affected by work-related stress.[3] The European Foundation estimates that lifestyle and stress-related illness accounts for at least half of all premature deaths.[4]

Occupational stress is a recognized problem in health care workers.[5] Nurses, having an important role in the health care system, are considered to be members of a stressful job.[6] Data from different countries with different cultures and healthcare systems, such as Japan,[7] China[8] and Iran[9] suggests that occupational stress affects nursing personnel worldwide. Work-related stress among nurses affects both individual and organizational functioning as well as the healthcare provided. Literature suggests that it is associated with musculoskeletal disorders,[10] high rates of anxiety and depression,[11] high burnout

levels,[12] reduced job satisfaction,[13] absenteeism and high turnover intention,[14] whereas it is negatively associated with nurses' patient care behaviors.[15] This seriously impairs the provision of quality care and the efficacy of health services delivery and found as a primary reason for nurses for choosing to leave the profession.[16]

Stress is recognized as an inherent feature of the work life of nurses. Internationally, many studies were conducted to spot the light on stressors among nurses; however, relatively few studies were conducted in the Nepalese context. This study will identify the overall job-related stress among nurses working in hospitals and the main factors that contribute it. The objective of this study was to assess the job-related stress and to identify and compare the factors associated with job stress in nurses' working in selected hospitals of Pokhara, Nepal.

METHODS

A descriptive study design was carried out in Pokhara Academy of Health Sciences (PAHS) and Gandaki Medical

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College (GMC), Teaching Hospital, Pokhara, Nepal. The study population consisted of all 130 nurses from PAHS and all 215 nurses currently working in GMC. Sample size was calculated by using Solvin's formula:n = N/1+N(e)^2; where N = population size, e = level of precision, andn = sample size. The value was set as follows:

PAHS: N= 130

e = 0.05

n = $\dfrac{130}{1+130(0.05)^2}$

n = 98

MC: N= 215

e = 0.05

n = $\dfrac{215}{1+215(0.05)^2}$

n= 140

Total: 98 (PAHS) + 140(GMC) = 238

The sample size was 238. Both hospitals PAHS and GMC were purposively selected. The participants for the study were selected based on probability sampling using simple random sampling technique. Data were collected through self-administered questionnaire; which consisted of two sections. The first section consisted of nurses' socio-demographic profile. The second section consisted of Expanded Nurses Stress Scale (ENSS) developed by French et. al.[17] ENSS is a reliable (α=.96) and valid tool designed to measure the frequency and sources of nursing stress experienced by nurses on different hospital units. A written approval to use this questionnaire was taken from the author. ENSS contains 57 items in nine sub scales: death and dying, inadequate emotional preparation, workload, uncertainty concerning treatment, conflict with physicians, problem relating to peers, problems relating to supervisors, patients and their families, and discrimination. The responses were measured on a 5-point Likert scale (1= never stressful, 2= occasionally stressful, 3=frequently stressful, 4=extremely stressful, 0= does not apply). In order to compute the total stress score, all 57 items were added together. Scores for each nine ENSS subscales were also calculated by adding scores for the items comprising the subscale. High score indicated areas in the workplace that provides the most stress for the nurses. The scores for ENSS can range from 0 to 228. Interpretation of score was done as per the following range of scores:

Mild stress: 58-114
Moderate stress: 115-171
Severe stress: 172-228

Internal consistency reliability was assessed using Cronbach's coefficient alpha for the total ENSS (α=0.938). Both descriptive and inferential statistics (chi-square) were used. Statistical significance was considered at p value <0.05.

Ethical clearance and approval to conduct this study was obtained from the research committee of Nepal Health Research Council as well as from both hospital managers. Informed written consent was also taken from the study participants.

RESULTS

Out of 238 nurses, 91 nurses from government hospital and 129 nurses from private hospital participated in the study with the overall response rate 92.4%.

Table 1: Socio-Demographic Characteristics of the Nurses

Characteristics	Government Hospital Nurses (91) N (%)	Private Hospital Nurses (129) N (%)
Age Group		
≤ 25 years	30 (33.0)	90 (69.8)
>25 years	61 (67.0)	39 (30.2)
Marital status		
Married	63 (69.2)	37 (28.7)
Single	28 (30.8)	92 (71.3)
Educational Level		
Proficiency Certificate Level	45 (49.4)	100 (77.5)
Bachelor and above	46 (50.6)	29 (22.5)
Work Experience		
6 months-5years	48 (52.8)	119 (92.2)
>5 years	43 (47.2)	10 (7.8)
Work Setting		
Critical Care Units	26 (28.6)	60 (46.5)
General Units	65 (71.4)	69 (53.5)

Table 1 reveals that the majority of the nurses were from >25 years age group in government hospital and from age group ≤ 25 years in private hospital. Majority of nurses were married in government hospital whereas majority of them were single in private hospital. Almost half of the nurses had completed bachelor and above degree in government hospital where as majority of nurses from private hospital had completed PCL nursing. Majority of nurses in both setting had six months to five years of nursing experience and were working in general units.

Table 2: Level of Job-related Stress among Nurses

Level of Stress	Government Hospital Nurses (91)	Private Hospital Nurses (129)
Mild stress	25 (27.5)	27 (20.9)
Moderate stress	62(68.1)	75 (58.2)
Severe stress	4 (4.4)	27 (20.9)

Table 2 represents that the majority of nurses in both hospital setting had moderate level of stress based on ENSS.

Table 3: Mean Score of ENSS Subscales among Nurses

Stress Subscale	Government Hospital Nurses (91)		Private Hospital Nurses (129)	
	Mean	SD	Mean	SD
1. Death and dying	1.95	.66	2.13	.68
2. Conflict with physicians	1.76	.61	1.90	.67
3. Inadequate preparation	1.49	.63	1.78	.63
4. Problems with peers	1.13	.34	1.41	.50
5. Problems with supervisors	1.82	.72	2.08	.75
6. Workload	1.91	.64	2.10	.71
7. Uncertainty concerning treatment	1.96	.60	2.03	.69
8. Patients and their families	2.06	.72	2.31	.69
9. Discrimination	1.21	.48	1.41	.64

The total job related stress was calculated using mean and standard deviation. Table 3 indicates that 'patients and their families' was the most stressful factor perceived by both government (mean=2.06; SD=.73) and private hospital nurses (mean=2.31; SD=.69) whereas 'problems with peers' (mean=1.13; SD=.34, mean=1.41; SD=.50) was the least stressful factor perceived by both group of nurses.

Table 4: Association between Socio-Demographic Characteristics and Level of Job Stress among Nurses

	Level of Job Stress					
	Government Hospital Nurses (91)			Private Hospital Nurses (129)		
	Mild	Mod to Severe	χ^2 (p value)	Mild	Mod to Severe	χ^2 (p value)
Age						
≤25 years	11 (12.1)	19 (20.9)		18 (14.0)	72 (55.8)	
> 25 years	14 (15.4)	47 (51.6)		9 (7.0)	30 (23.3)	.156 (.693)
Marital status			1.899(.168)			
Married	17 (18.7)	46 (50.5)		7 (5.4)	30 (23.3)	
Single	8 (88)	20 (22.0)		20 (15.5)	72 (55.8)	.127 (.722)
Educational Level			.025 (.876)			
PCL	13 (14.3)	32 (35.2)		21 (16.3)	79 (61.2)	
Bachelor and above	12 (13.2)	34 (37.4)		6 (4.7)	23 (17.8)	.001 (.971)
Work Experience			.090 (.765)			
6 months-5 years	12 (13.2)	36 (39.6)		25 (19.4)	94 (72.9)	
>5 years	13 (14.3)	30 (33.0)		2 (1.6)	8 (6.2)	.000 (1.000)
Work Setting			.312 (.577)			
Critical Care Units	2 (2.2)	24 (26.4)		9 (7.0)	51 (39.5)	
General Units	23 (25.3)	42 (46.2)	7.148 (.008)*	18 (14.0)	51 (39.5)	2.385 (.123)
Total	25 (27.5)	66 (72.5)		27 (20.9)	102 (79.1)	

(*) Statistically significant at p<0.05

Table 4 reveals that work setting has significant association with job stress in government hospital nurses.

DISCUSSION

The present study revealed that the 68.1% in government hospital and 58.2% in private hospital nurses experienced moderate job stress. This finding is consistent with study carried out in Iran[18] which showed that the participants in all of the health centres were at moderate level of stress. Stress is part of everyday life for nurses since their main responsibility focuses upon providing help to patients' who are usually encountering life crises.

In this study 'patients and their families' were identified as the most stressful factor particularly when patients and their families make unreasonable demands and to deal with violent patients. This finding is consistent with the study done in Dubai[19] which states that 81% nurses reported to develop stress due to problematic patients and their family members. Nurses constantly interact with patient and their families. Once the patient is admitted to the hospital, a plenty of visitors will come and ask a lot of questions about the patient's condition that the nurse do not have the authority to answer. Furthermore, they will stay in the patient room with large numbers which affect the nurses' ability to perform their tasks making situation extremely stressful to the nurses.

The subscale 'uncertainty concerning treatment' and 'death and dying' in government hospital nurses whereas 'death and dying' and 'workload' were the 2nd and 3rd most stressful factors for private hospital nurses. This was consistent with a study done in Sudan[20] in which 'death and dying' situations were the most important factor of stress followed by 'workload'. Whereas in a study conducted in Northwest Ethiopia[21] showed that 'workload' subscale was the most sources of stress followed by 'death and dying' and 'uncertainty concerning treatment'. In 'uncertainty concerning treatment subscale, the sample nurses rated 'physician not being present in medical emergency' as the major factor to produce stress followed by 'being exposed to health and safety hazards'. Nurses are the primary staff among all health care professionals who are affected by this situation because they are the ones who have the widest and the longest contact with the patients. Likewise, in the subscale 'death and dying', 'watching a patient suffer' was the most stressful factor among both hospital nurses. The possible explanation might be due to cultural and humanitarian compassionate of the study participants as it is an emotional issue. Similarly, in the subscale 'workload','not enough staff to adequately cover the unit' was the most stressful factor in both settings. This might be due to shortage of nurses in both hospitals as it was reported in the findings.

The factor of 'problems with peers' had the least score in both setting along with 'discrimination' in private hospital nurses. The study conducted on nurses of Saudi Arabia[22] also found discrimination and harassment as the least stressing factor. In contrary, the study done on Icelandic nurses[13] showed that lack of support from colleagues and supervisors significantly contributed to the stress. This might be due to organizational differences.

In relation to association between nurse's socio-demographic characteristics and level of job stress, only work setting had significant relationship in government hospital nurses. The study done in Sudan[20] also found significant relationship between type of ICU and the overall stress perceived by nurses. The possible reason for this may be that the critical care nurses face more of stressors than nurses of other settings.

According to this study, age has no role in job stress. Other study[23] also reported that there was no significant relationship between age and stress levels. The reason behind the insignificant relationship between age and job stress may be homogenous sample. In contrary, the study done among Iranian nurses[24] suggests a close relationship between age and stress levels.

Similarly, this study could not demonstrate a significant relationship between stress level and marital status, education and work experience. This finding is similar to study that have shown that stress had no significant relationship with marital status[24], educational level[19] and length of work experience .[24] However the study conducted on military nurses[22] reported that employees with more experience had less stress than those with less work experience. This reason for this might be that nurses with more experience had adapted with stressors through time and developed tolerance of the stressful situation.

CONCLUSION

The findings of the study concluded that the majority of nurses in both hospital setting were in moderate level of stress. Among nine factors, 'patients and their families' was the major stressful factor and 'problems with peers' and 'experiencing discrimination' were the least stressing factor among nurses in both hospital settings. Among government hospital nurses, work setting and job stress were significantly associated whereas in private hospital nurses, socio-demographic factors (i.e. age, marital status, educational level, work experience and work setting) were not significantly associated with overall job-stress level which indicates that job stress was mainly caused by job related factors rather than by individual attributes.

The results of this research not only provided an empirical basis for acknowledging the existence of significant stress among nurses but also provided important information to nursing administrators and educators about the nurses' job-related stress and factors associated with it. Therefore the study showed that there is a need to develop stress alleviating programs and therapies at the hospitals.

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