

BURNOUT AMONG NURSES IN TABUK MILITARY HOSPITAL

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ABSTRACT

Background: There is a growing interest in the psychosocial work environment of health care staff since they are at high risk for burnout, role conflict and job dissatisfaction. Burnout, as a type of prolonged response to chronic job-related stressors, has a special significance in health care where staff experience both psychological, emotional and physical stress. Burnout and the other negative aspects of the job of health care staff have major behavioural and health implications.

Aims & Objective: The aim of this study was to determine the prevalence of burnout among nursing staff in a military hospital, estimate the level of burnout among those nurses working on inpatient wards and outpatient clinics and to identify the risk factors of burnout that could be linked to personal and working characteristics associated with the syndrome.

Materials and Methods: A cross sectional descriptive study has been carried out including all nurses working in North West Armed Force Hospital (NWAFFH). An anonymous questionnaires were used for data collection including presence of burnout as a dependent variable and age, gender, nationality, marital status, income, allocation, medical Hx, psychiatric Hx as independent variables. Head nurses of each ward and each clinic had been personally informed about the aims of this study and had been asked to distribute a questionnaire among the staff nurses and collect them after completion. A total of 200 questionnaires had been distributed to the medical nurse staff working in the clinics and wards during October 2012. The questionnaire is divided into two parts: socio-demographic with job characteristics of the population and MBI questionnaire to estimate the job burnout level.

Results: The response rates of returned questionnaires from inpatient and outpatient nurses were 79%. 34.8 % of our sample was aged between 35-44 years. 87.9% of all nurses were females. A 55.1 % of our samples were married. A 56.4% of the entire sample was having Philippine nationality. The overall result showed that 75.9% of our sample is having burnout, mainly inpatient staff (P-value 0.03). There are no statistical differences in having high burnout score based on gender, salary or having positive medical or psychiatric illness.

Conclusion: In North West Armed Force Hospital (NWAFFH), the overall prevalence of burnout among nurses was high (75.9%), and working as inpatient nurse increase the risk of developing burnout more than working in outpatient clinic.

Key Words: Burnout; Nurses; Military; Saudi Arabia

Introduction

Burnout syndrome refers to a kind of occupational stress that can have psychosomatic, behavioral, emotional, familial and social repercussions; it can also cause absenteeism and loss of efficacy at work.^[1] Burnout in the life of health care workers is the construct used to describe the psychological state resulting from a prolonged period of high stress levels in their professional lives.^[2] It was originally conceptualized as a syndrome resulting from contact with people who are suffering.^[3] Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job that include three dimensions of exhaustion, cynicism (depersonalization), and inefficacy.^[4] Also, it has been found to be associated with staff intending to leave the stressful work environment.^[3]

Exhaustion as a dimension of burnout represents the most obvious manifestation of this complex syndrome.^[4] Symptoms of burnout include physical, emotional, and mental exhaustion.^[4] Persons experiencing physical exhaustion report a lack of energy and feelings of being tired during the day accompanied by an inability to sleep

at night.^[1] Emotional exhaustion is manifested by a person's feelings of being depressed, helpless, and hopeless.^[5] Mental exhaustion in individuals is generally observed in the form of negative attitudes toward work and life. A mentally exhausted individual is typically impatient towards others and demonstrates a cynical reaction towards emerging problems.^[5]

According to a meta-analysis of job burnout, inefficacy seems to be a function of either exhaustion or cynicism, or a combination of both.^[6] Work-related situations associated with chronic, overwhelming demands contribute to exhaustion or cynicism that likely erodes an individual's sense of effectiveness.^[6] Similarly, in almost a vicious cycle dynamic, exhaustion or cynicism interferes with personal effectiveness.^[6] Numerous surveys and studies confirmed that occupational pressures and fears are far and away the leading source of stress for American adults and that these have steadily increased over the past few decades.^[7]

In the last few years there has been a growing interest in the psychosocial work environment of health care workers, since they are both at high risk of burnout, role

conflict and job dissatisfaction. Burnout, as a type of prolonged response to chronic job-related stress, has a special significance in health care settings, where staff experience both psychological (emotional) and physical stress.^[8]

Nursing faculty, in particular, experience stressors as a result of high job expectations associated with the teaching /service/research paradigm, heavy workloads precluding personal/professional life balance, pressure to maintain clinical competence, and feelings of frustration associated with a perceived inability to satisfy the demands of multiple constituencies.^[9] Stressors on nursing faculty are compounded by lack of empowerment structures within hierarchical organizations of higher learning^[10] and by the steep expectations associated with promotion and tenure.^[11] Interestingly, occupational stress in the nursing faculty role is not a new phenomenon.^[12] Nurse administrators are urged to be alert for signs of burnout among their nursing personnel, to encourage systematic research that will provide objective evidence of the problem, and, especially, to be creative and daring in their efforts to combat the problem.^[13]

Nurses' burnout and turnover are serious issues facing America's healthcare system, annually accounting for one in five of the country's 2 million nurses to change jobs or quit the profession outright.^[14] A lot of reviews of the literatures indicate that levels of stress and burnout may vary among nursing specialties. For example, studies suggested that stress levels may be lower among professionals working in palliative care than in other areas, such as oncology.^[15,16] Other study found high stress among nurses working with geriatric clients in long-term care.^[17] In Japan, prevalence of burnout was significantly higher for community psychiatric nurses (prevalence 59.2%) than for public health nurses engaged in other public health services.^[18] Nurses' burnout is considered more severe in developing countries due to the initial high patient nurse ratio and the increased number of health care workers which leave developing countries for other opportunities.^[19]

A study done in Riyadh city, the capital of Saudi Arabia in almost five hundred nurses working in several public hospitals found six possible sources of job stress.^[20] These include organizational structure and climate, job itself, managerial role, interpersonal relationships, career and achievement and homework interface.^[20] The cost of these outcomes is very high for all parties involved in health organizations. For this reason, managers in health care organizations must pay a great deal of attention to stress in

their work settings and investigate the factors creating stressful situations for nurses. Based on that, they have to develop the most appropriate techniques to cope with stress and to manage it positively for better overall work outcome.

Materials and Methods

This was a cross-sectional study which was conducted in North West Armed Force Hospital (NWAFFH). A total of 158 questionnaires were distributed to all nurse staffs working in these areas during March 2008. The questionnaire was pre-tested in the Air Base primary health care center through a pilot study of fifteen nurse staffs to check for the understandability and language clarity of the questions.

The collected data in the questionnaire was divided to two sections. First one is socio-demographic data in the form of age, gender, marital status, nationality, monthly income, allocation and presence of any positive common chronic medical illnesses (mainly: diabetes mellitus, Hypertension and bronchial asthma) or psychiatric diseases (mainly: depression & anxiety). The second section is questionnaire from Maslach Burnout Inventory (MBI) which is designed to assess the three component of the burnout syndrome: emotional exhaustion, depersonalization, and reduced personal accomplishment. MBI consist of 22 items that measures burnout, and it is divided into three subscales (Table 1).

Table 1: Categorization of MBI score

MBI Subscale	Low	Average	High
Emotional exhaustion	≤18	19-26	≥27
Depersonalization	≤5	6-9	≥10
personal accomplishment	≥40	39-34	≤33

The items are written in the form of statement about personal feeling or attitude. The items are answered in terms of the frequency with which the responded experiences these feeling on a 7-points fully anchored scale (ranging from 0 "never" to 6 "every day"). There are 9 items in the emotional exhaustion subscale assess feeling of being emotionally overextended and exhausted by one's work. The 5 items in the depersonalization subscale measure an unfeeling and impersonal response toward recipients one's service, care, treatment or instruction.

For both the emotional exhaustion and depersonalization subscale, higher mean scores correspond to higher degree of experienced burnout. The 8 items in the personal accomplishment subscale assess feeling of competence and successful achievement in one's work with people. In contrast to the other two subscales, lower mean scores on this subscale correspond to higher degree of experienced

burnout. The score for each subscale are considered separately and are not combined into a single total score. Burnout is defined as high score of emotional exhaustion and depersonalization and low score on personal accomplishment. The MBI has become the gold standard for identifying burnout in the medical research literature which is found to be reliable and valid.

The questionnaires were distributed to all NWAFFH nurses by the researcher. All working nurse staffs were asked to fill the self-administered questionnaire. Nurses in charge of each center, clinic and ward were responsible for the distribution and recollection of the questionnaires directly. The survey was anonymous, and all collected data was kept confidential & the data was manually checked for completeness. SPSS program was used to enter & process the raw data and MS Excel 2003 was used to produce the tables and graphs. Confidence interval limits (95%) and P-Values ($\alpha = 0.05$) were considered to indicate statistical significance.

Results

Two hundreds questionnaires were distributed to all nurses working in NWAFFH, where 158 questionnaires were retained back, and the response rate was 79%. The total sample size was 158 nurses, 77 (48.7%) were inpatient nurses and 81 (51.3%) were outpatient nurses (figure 1). The majority of the nurses were females, where 69 (89.6%) were inpatient nurses and 70 (86.4%) were outpatient nurses. Most of nurses were philippinos, with total number of 89 (56.3%). Whereas Saudi nurses total number was 25 (15.8%) and the remaining 44 (27.8%) nurses were from other nationalities (Indians, Pakistanians, Malaysian and South African).

Married nurses were more than singles. Where 39 (50.6%) were inpatient nurses and 48 (59.2%) were outpatient nurses. Low salary was found in the majority of the total sample, 98 (62%) nurses with income less than 5000 Saudi Riyals per month. Age group were mainly between ages of 35-44 years, a 27 (17 %) inpatient nurses and 28 (17.7%) outpatient nurses were in this age group, see (figure 2). Table 2 shows all the socio-demographic data distribution.

Frequency of Burnout among Nurses

A. Degree of Emotional Exhaustion: Figure 3 displays the percentages of different grades of emotional exhaustion among nurses derived from MBI scores, it was evident that two thirds of the nurses had high degree of emotional exhaustion in addition to 30.4% who had average degree compared to only 10.8% who had low degree of emotional exhaustion.

Table 2: Socio-demographic data of the study population

Characteristics	In-Patients N (%)	Out-Patients N (%)
Age (Years)	< 25	9 (40.9)
	25-34	24 (53.3)
	35-44	27 (49.1)
	45-54	16 (51.6)
	> 55	1 (20.0)
Gender	Male	8 (42.1)
	Female	69 (49.6)
Nationality	Saudi	7 (28.0)
	Philippine	43 (48.3)
	Others	27 (61.4)
Marital Status	Single	38 (53.5)
	Married	39 (44.8)
Monthly Income (SR)	< 5000	45 (45.9)
	5000-8999	14 (46.7)
	9000-12999	11 (55.0)
	13000-16999	7 (70.0)
Medical History	Yes	63 (49.2)
	No	14 (46.7)
If, Yes Medical, Specify	DM	3 (60.0)
	HTN	7 (53.8)
	Asthma	3 (33.3)
	Osteoporosis	1 (33.3)
	Nephritis	0 (0.0)
	Psychiatric History	Yes
If, Yes Psychiatric, Specify	No	7 (63.6)
	Anxiety	2 (50.0)
Psychiatric History	Depression	5 (83.3)
	Thyroid Dz	0 (0.0)
		1 (100.0)

Table 3: Occurrence burnout among nursing staff according to their socio-demographics characteristic

Characteristics	Presence of Burnout			P-Value
	No (%)	Yes (%)	Total (%)	
Age (Years)	< 25	6 (27.3)	16 (72.7)	22 (100.0)
	25-34	11 (24.4)	34 (75.6)	45 (100.0)
	35-44	12 (21.8)	43 (78.2)	55 (100.0)
	45-54	8 (25.8)	23 (74.2)	31 (100.0)
	> 55	1 (20.0)	4 (80.0)	5 (100.0)
Gender	Male	3 (15.8)	16 (84.2)	19 (100.0)
	Female	34 (25.2)	104 (74.8)	139 (100.0)
Nationality	Saudi	10 (40.0)	15 (60.0)	25 (100.0)
	Philippine	17 (19.1)	72 (80.9)	89 (100.0)
	Others	11 (25.0)	33 (75.0)	44 (100.0)
Marital Status	Single	16 (22.5)	55 (77.5)	71 (100.0)
	Married	22 (25.3)	65 (74.7)	65 (100.0)
Monthly Income (SR)	< 5000	20 (20.4)	78 (79.6)	98 (100.0)
	5000-8999	12 (40.0)	18 (60.0)	30 (100.0)
	9000-12999	3 (15.0)	17 (85.0)	20 (100.0)
	13000-16999	3 (30.0)	7 (70.0)	10 (100.0)
Your Allocation	In-Patients	13 (16.9)	64 (83.1)	77 (100.0)
	Out-Patients	25 (30.9)	56 (69.1)	81 (100.0)
Medical History	Yes	34 (26.6)	94 (73.4)	128 (100.0)
	No	4 (13.3)	26 (86.7)	30 (100.0)
Psychiatric History	Yes	37 (25.2)	110 (74.8)	147 (100.0)
	No	1 (9.1)	10 (90.9)	11 (100.0)

B. Degree of Depersonalization: Figure 4 shows the percentages of different grades of depersonalization among nurses derived from MBI score. It was noted that more than half of the nurses (68%) had high degree of depersonalization in addition to 30% who had average degree compared to 2% of the nurses who had low degree of depersonalization.

C. Degree of Personal Accomplished: Figure 5 demonstrate the percentages of different grades of

personal accomplishment among nurses derived from MBI score. It was noticed that 93.3% of nurses had low personal accomplishment in addition to 5.1% who had average degree compared to 1.9 of nurses who high low degree of personal accomplishment.

D. Frequency of Burnout: By definition, burnout is defined by the combination of high emotional exhaustion, high depersonalization and low personal accomplishment. Accordingly, the presence of burnout among nurses in the current study was calculated on that base. Figure 6 illustrates the occurrence of burnout as assessed by the MBI among nurses in NWAFFH in Tabuk. It showed that 75.9% of them fulfilled the criteria of being identified to have burnout.

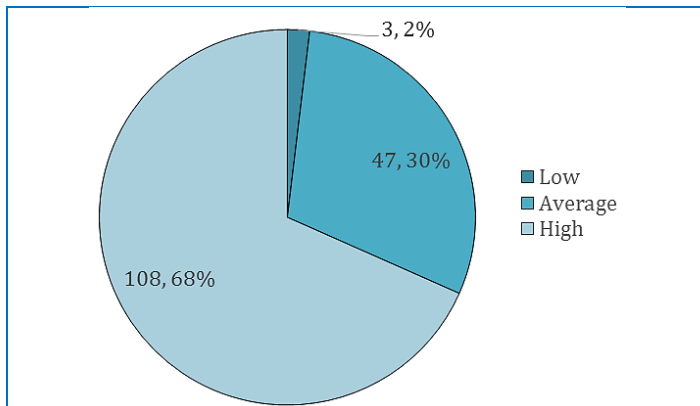


Figure-4: Grades of depersonalization among nurses

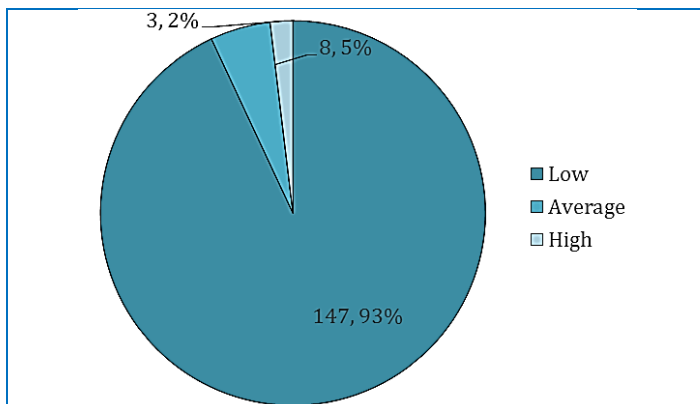


Figure-5: Grades of personal accomplishment among nurses

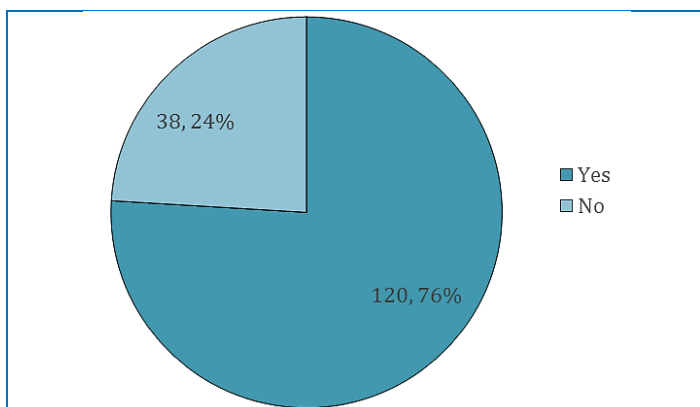


Figure-6: Grades of personal accomplishment among nurses

Further analysis was conducted to examine the significance of nurse's demographic data against overall burnout score, which showed that nurses working in inpatient wards had strong correlation to higher burnout scores which was statistically significant (table 3). The researcher failed to shows any statistical significance regarding other demographic characteristics.

Discussion

The study showed that the majority (75.9%) of NWAFFH nurse staff were having burnout. This high level of burnout could be explained by the fact that the study sample was working in a stressful environment, where job related

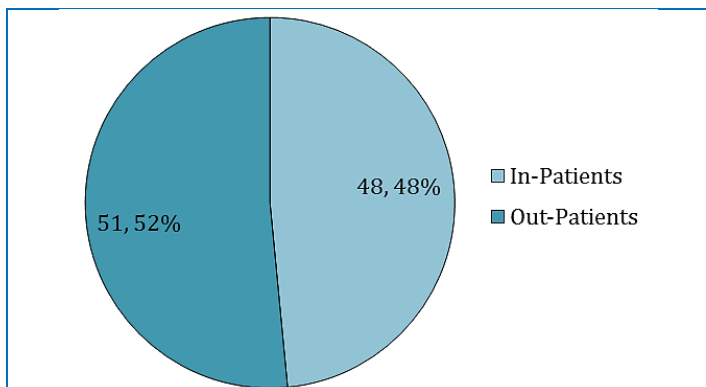


Figure-1: Stress and burnout in In-Patients' & Out-Patients' Nurses

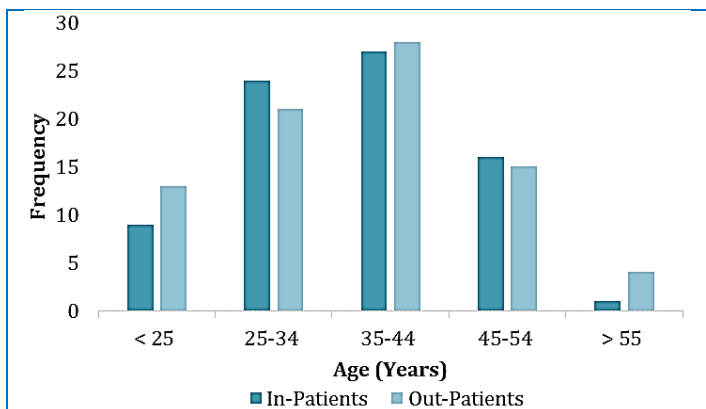


Figure-2: Distribution of nurses according to age

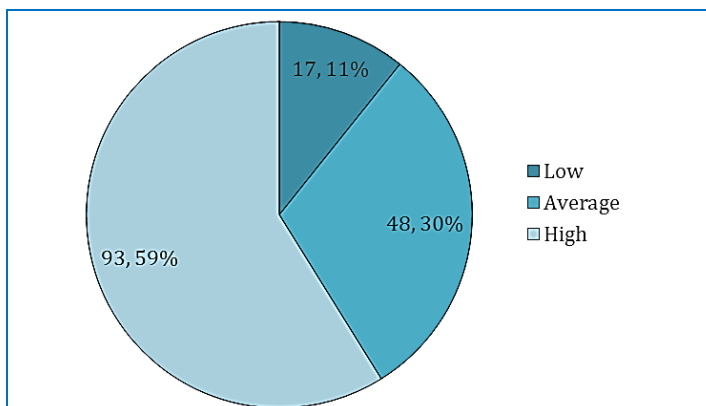


Figure-3: Grades of emotional exhaustion among nurses

stress and burnout are associated with high level of demand and expectation. Another explanation for high burnout prevalence is that the low turnover rate of the staff, the nurses had difficulty to move from one department to another easily and sometimes to better jobs in other hospitals or outside the country. Also, the majority of the staff is foreigner and they may feel that they are working in a worse situation than their work circumstance at their original countries.

This study found that the occurrence of burnout is higher among nurses working in inpatient wards, the researcher failed to find a similar study comparing burnout level between inpatient nurses and an outpatient nurses at the clinics. But there are a lot of reviews of the literatures which indicate that levels of stress and burnout may vary among nursing specialties. There was a study in Japan that found the prevalence of burnout to be significantly higher for community psychiatric nurses (prevalence 59.2%) than for public health nurses engaged in other public health services.^[18] Another study was done in the United States comparing burnout among three nursing specialties: nurse practitioners, nurse managers, and emergency nurses working in thirty different states hospitals.^[21] Findings indicated that emergency nurses had the highest burnout, whereas nurse practitioners had the least burnout.^[21] Also in the US, burnout levels were examined among nurses working on acquired immunodeficiency syndrome (AIDS) special care units (SCUs), oncology SCUs, medical intensive care units (ICUs) and general medical units. ^[22] Nurses working in the general medical units showed minor degrees of burnout compared to other units and it was statistically significant.^[22] In France, a study was done to measure burnout level in intensive care unit (ICU) nurses in several university hospitals.^[23] It showed that one third of the sample were having burnout syndrome.^[23] Other studies suggested that stress levels may be lower among nurses working in palliative care than in other areas, such as oncology.^[15,16]

In Iran, a comparison of level of burnout in nurses working in medical, surgical and psychiatric wards found that burnout level was significantly higher in nurses working in psychiatric wards.^[24] Marshall mentioned that sources of nurses' stress and burnout vary with specialization, level in the organization, experience, type of hospital, and type of unit.^[25]

The response rates of both arms of the study were 81.5% and 82.3% which were acceptable. Nurses aged between 25-34 years showed significant higher burnout level which is consistent with what mentioned by Alluisi and Fleishman that nurses perceived stress differently based

on their age.^[26] This can be attributed to the fact that younger staffs are less experienced to cope with job stress and burnout and so, they tend to have less realistic expectations of their jobs. This was found in Australian nurses where younger nurses with less work experience had higher burnout level.^[27]

The number of females was much more than males in this study, so that's why the burnout level was higher in female group. But it is well known that gender play a major role in nurses' perception of job stress and burnout and it was found that women were influenced by interpersonal conflicts a source of stress more than men.^[26] Philippino nurses were a majority (56.3%) in our study while Saudi staffs were a minority (15.8%). This could be attributed to the fact that there were still limitations in Saudi nursing staff which was compensated by having more Philippino nurses. Most of our nurses staffs were married (55.1%) and they had more burnout than single staff. This was statistically insignificant. A similar result was seen in Hungarian nurses, showing that 65% of nurses with burnout are married. ^[28] So, interpersonal relationships and type of job play role in developing stress and burnout in nurses.^[20]

This study was limited by the fact that it's a cross-sectional study reflecting only the burnout level of nurses working at that point of time, not including staff on leave or missions, and it does not reflect the level of burnout of the entire hospital nurse staff, nor can it be applied to other military hospitals or other health institutions. Our study also lacked statistical significance in some variables (gender, monthly income, positive medical or psychiatric illness) may be due to the relatively small sample size.

The need for good support to nurse staffs against the risk of developing job related burnout is highlighted by the fact that it directly affects job turnover, quality of care & patient safety and satisfaction. Based on our results in order to prevent building up job stress that can end to burnout, we would recommend; educational lectures about job related stress among nurses and how to cope with stress to prevent developing burnout syndrome. The involvement of psychotherapy treatment is needed if burnout is detected.

Better recognition & motivation of good work by higher administration is another recommendation, because it's difficult to work hard and never be recognized for one's accomplishments as some theories (Maslow, McGregor) state that praise, respect, recognition, empowerment and a sense of belonging are far more powerful motivators than money, where accolades are scarce, burnout is a risk.^[29]

Further larger, multi-centric regional study is required, in order to extrapolate or generalize conclusion which could be used in quality improvement.

Conclusion

In North West Armed Force Hospital (NWAFFH), the overall prevalence of burnout among nurses was high (75.9%), and working as inpatient nurse increase the risk of developing burnout more than working in outpatient clinic.

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