

PREVALENCE AND ASSOCIATED FACTORS OF BURNOUT AMONG MILITARY DOCTORS IN PAKISTAN

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ABSTRACT

Objective: To determine the frequency of factors contributing to burnout among military Physicians in Lahore, Pakistan.

Study Design: Cross-sectional analytical study.

Place and Duration of Study: Combined Military Hospital (CMH) Lahore and CMH Lahore Medical and Dental College from March 2014 to September 2014.

Methodology: Sample consisted of 133 physicians (n=66) males and n=67 females). Convenient sampling procedure was used. Mashlach Burnout Inventory (MBI) which included 22 questions was used to measure emotional exhaustion, depersonalization and personal accomplishment. The questionnaire also elicited information about socio-demographic and work characteristics. Data was entered and analyzed by using Statistical Package for Social Sciences (SPSS version 20.0). Chi-square test of significance was used to see the significance of association between age, gender, duration of service in years and working hours per week. p value <0.05 was considered statistically significant.

Results: On the MBI, 29 (21.8%) physicians showed high emotional exhaustion, 22 (16.6%) showed high depersonalization and 34 (25.6%) showed low personal accomplishment. Thirty-seven physicians (27.8%) were identified as experiencing a high degree of burnout (high emotional exhaustion and depersonalization and low personal accomplishment). The frequency of high degree of burnout was higher among males (36.4%) as compared to females (17.9%) and this difference was statistically borderline significant ($p = 0.057$). However, there was statistically significant difference ($p = 0.03$) of burnout between those working ≥ 41 hours per week as compared to working ≤ 40 hours per week.

Conclusion: The prevalence of high degree of burnout in Pakistani military physicians was higher than those reported internationally. Work redesign plans as well as early assessment and intervention may be helpful in the reduction of job burnout in physicians working in military hospitals.

Keywords: Burnout, Depersonalization, Emotion, Military.

INTRODUCTION

The health care providers are assumed to be at a high risk to suffer from burnout syndrome, due to their intense interaction with patients and emotionally stressful situations that include pains, disabilities, and terminal diseases, suicidal thoughts, violent behavior and lack of compliance to treatment or litigation. Burnout has received extensive attention from researchers over the last 35 years. Furthermore; burnout has been

considered a public health problem¹. The prevalence of burnout among health care givers globally has been reported to be on the increase². The components of burnout are common among practicing physicians, with 46% to 80% reporting moderate to high levels of emotional exhaustion, 22% to 93% reporting moderate to high levels of depersonalization and 16% to 79% reporting low to moderate levels of personal accomplishment³.

Burnout is a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who do social support work of some kind. Emotional exhaustion refers to feelings of tiredness, lack of energy and loss of vigor. Depersonalization refers to unfeeling and callous response toward these people, who are

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usually recipients of one's service or care. Reduced personal accomplishment refers to a decline in one's feelings of competence and successful achievement in one's work with people⁵.

Many factors are associated with burnout, these include time pressure, role conflict and role ambiguity, lack of support from superiors and co-workers, the severity of client's problems, frequency of contact with chronically or terminally ill patients and confrontation with death and dying work-related factors, such as long working hours, frequency of on-call duties and work-home, interference have been identified by previous studies as determinants of job strain⁶ and burnout⁴ among medical doctors. In addition, stress in the work place (measured by the General Health Questionnaire)⁷ and job satisfaction is also factors associated with burnout⁸.

Burnout is a chronic job stress which is significantly related to negative outcomes for organization, including turnover intention, lack of job satisfaction and organizational commitment⁹. Burnout causes people to lose interest in their work, reduce their efficiency and performance¹⁰.

There is a lack of studies on burnout and its associated factors in Pakistan. The aim of this study was to determine the prevalence and associated factors of burnout among Pakistani Military Doctors.

SUBJECTS AND METHODS

This cross-sectional study was conducted at CMH Lahore and CMH Lahore Medical & Dental College from March 2014 to December 2014.

Sample consisted of 133 doctors (n=66 males and n=67 females), n=133) from Combined Military Hospital Lahore (CMH Lahore) and CMH Lahore Medical & Dental College with mean age 35.10 ± 11.16 . Convenient sampling procedure was used. An official permission to carry out the study was obtained from Ethical Review Committee of CMH Lahore Medical College. Informed consent was obtained from each study subjects included in the study. Request was made to the

doctors to complete the questionnaire given to them. A brief instruction regarding aim of study was given prior to administration of questionnaires. They were taken into confidence that all the information provided by them will be reserved as confidential and will be utilized just for research purpose.

Questionnaire consisted of two parts. Part one was intended to get information about subject characteristics such as age, gender, marital status, total service, working hours per week, any stress, availability of social administrative support. Part two was burnout inventory by Maslach which is most commonly used tool for assessing burnout. It consists of 22 items which are divided into three subscales: emotional exhaustion, 9 items (the feelings of being emotionally over run and exhausted by one's work), depersonalization 5 items (the tendency to view others as objects rather than feeling persons and personal accomplishment (the degree to which a person perceives doing well on worthwhile tasks). The items were answered in terms of frequency with which the respondent experienced these feelings, on a 7 point scale ranging from 0 (never) to 6 (every day). These subscales were calculated for each respondent. A higher score indicates greater burnout except for the personal accomplishment scale which is rated inversely. Scores of burnout subscale used were as under (table-1).

High score of EE, DP and a lower score of PA indicates a higher level of burnout. Reliability of the Maslach Burnout Inventory in the present sample was tested using Cronbach's Coefficient Alpha test. Data analysis was performed using statistical package for Social Sciences (SPSS) version 20. Raw scores of these subscales were summed and then were transformed into low, moderate or high. We then defined "high degree of burnout", as high emotional exhaustion and depersonalization and low personal accomplishment. For qualitative variables frequencies and percentages were used and for quantitative variables mean \pm SD were calculated. Differences in the frequency of burnout were

tested with the chi-square test. A p value < 0.05 was used as the level of significance.

RESULTS

Of the 133 respondents, 66 (49.6%) were males, 67 (50.4%) were females. The mean age of doctors was 35.10 ± 11.16 years. Eighty five (63.6%) physicians had spent ≤ 10 years at their

among Pakistani Military physicians because any score 0.6 or higher is valid.

On the MBI, out of 133 physicians, 75 physicians (56.4%) showed low emotional exhaustion, 29 (21.8%) showed moderate emotional exhaustion and 29 (21.8%) showed high emotional exhaustion. Twenty two doctors

Table-1: Scores of burnout scale.

Score	Emotional (EE) exhaustion	Depersonalization (DP)	Personal accomplishment (PA)
Low	0-16	0-6	≥ 39
Moderate	17-26	7-12	32-38
High	≥ 27	≥ 13	0-31

Total burnout score:

1. High ≥ 68 2. Moderate 61-67 3. Low ≤ 60

Table-2: Socio-demographic characteristics of respondents (n=133):

Variables	Total Burnout			Total	p- value
	Low burnout	Moderate burnout	High burnout		
Gender					
Male	36 (54.5%)	6 (9.1%)	24 (36.4%)	66 (49.6%)	0.057
Female	47 (70.2%)	8 (11.9%)	12 (17.9%)	67 (50.4%)	
Age Group (years)					
≤ 29	29 (53.7%)	8 (14.8%)	17 (31.5%)	54 (40.2%)	0.168
30-39	27 (58.7%)	4 (8.7%)	15 (32.6%)	46 (34.8%)	
≥ 40	26 (78.8%)	2 (6.1%)	5 (15.1%)	33 (25%)	
Duration of work (years)					
≤ 10	47 (55.3%)	12 (14.1%)	26 (30.6%)	85 (63.6%)	0.079
≥ 11	35 (72.9%)	2 (4.1%)	11 (23%)	48 (36.4%)	

Table-3: Relationship of total burnout with working hours (N = 132).

Working hours per week	Total Burnout			Total	p - value
	Low	Moderate	High		
≤ 40	55 (71.4%)	6 (7.8%)	16 (20.8%)	77 (58 %)	0.03
≥ 41	27 (48.2%)	8 (14.3%)	21 (37.5%)	56 (42%)	

work and 48 (36.4%) had spent ≥ 11 years at their work (table-2) . Seventy-seven (58%) physicians had ≤ 40 working hours per week and 56 (42%) used to spend ≥ 40 hours per week (table-3). Ninety nine (74.4%) doctors were married and 34 (25.6%) were unmarried.

Cronbach's alpha coefficient for the three MBI subscales in this study and burnout were emotional exhaustion ($\alpha=0.9$), depersonalization ($\alpha=0.7$), personal accomplishment ($\alpha=0.6$) and burnout ($\alpha=0.71$).

This indicates that the MBI is a valid and reliable instrument for measuring burnout

(16.6%) showed high depersonalization, 37 (27.8%) showed moderate depersonalization and 74 (55.6%) showed low depersonalization. Thirty four (25.6%) showed low personal accomplishment, 49 (36.8%) showed moderate personal accomplishment and 50 (37.6%) doctors showed high personal accomplishment. Out of 133 physicians, 37 (27.8%) showed high level of total burnout, 14 (10.5%) showed moderate level of total burnout and 82 (61.7%) showed low levels of total burnout.

Frequency of high degree of burnout was significantly higher among males as compared to females ($p = 0.057$) However, there was no

significant association between burnout and age ($p=0.168$) (table-2).

Regarding work characteristics, the frequency of high degree of burnout was significantly higher among those working ≥ 41 h/week ($p=0.03$). However, frequency of high degree of burnout was marginally significant among those with a duration of work ≤ 10 year than among those with ≥ 11 yr work duration ($p = 0.079$) (table-2).

DISCUSSION

Burnout is psychological process of cognitive that occurs under conditions of severe stress and declares itself as an emotional exhaustion, depersonalization, and decreased motivation and performance improvements. Burnout disturbs the individual's balance first and then the organizational balance. The worst impact of burnout at the organizational level is destroying and diminishing organizational commitment among personnel and experts of the job¹¹⁻¹². High burnout was defined in this study as total burnout score ≥ 68 . This study showed that 27.8% of physicians met the criteria of high degree of burnout. This indicated that these physicians were experiencing depletion of emotional resources, cynicism and indifference about their patients and feelings of reduced competence and access with their patients. The burnout among military physicians in this study was much higher than those reported internationally. This might be due to long working hours in military hospitals and more stress due to high degree of accountability in military set up. The frequency of high burnout in this study was higher than that found by RampalKG et al¹³ where the frequency was 11.7%. In another study, only five (4.2%) of the 119 respondents demonstrated high degree of burnout¹⁴.

The results indicate that socio demographic variables are associated with the burnout dimensions. It was found that age, gender, working hours and professional experience are associated with burnout.

In our study, frequency of high degree of burnout was significantly higher among males as compared to females ($p = 0.057$). This finding

is dissimilar to Aftab et al¹⁵ who found that female physicians experience more burnout than male physicians. This difference might be due to good and congenial working environment in military hospitals as compared to civil hospitals.

In our study, there was no significant association between age and burnout ($p= 0.168$). This finding is also dissimilar to previous studies that found a significant inverse correlation between burnout and age^{13,14,16,17}. This might be due to reason that junior physicians in military get light duties & more cooperation from their seniors.

Work characteristics are important factors in developing burnout as this study found significant association between burnout and hours of work and duration of work. Long working hours (≥ 40 h/week) were significantly associated with burnout and this finding was similar to those reported in previous studies that found a significant association between burnout and hours worked per week¹⁸.

This study has some limitations. The most important one is the cross sectional nature of this study which does not allow us to observe a causal relationship between the variables. Second is that sample size was not very large. Third is physicians working in the civil hospitals were not included in the study. Further research with large sample size is needed in area of burnout.

CONCLUSION

The frequency of high degree of burnout in Pakistan Military physicians was higher than those reported internationally. It is recommended that Work redesign as well as early assessment and intervention may be helpful in the reduction of job burnout in physicians working in military hospitals.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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AUTHORS CONTRIBUTION

Muhammad Ashraf Chaudhry, statistical analysis and writing, Muhammad Masood Khokhar, conceptual design, Muhammad Waseem, data collection, Zara Zafar Alvi, data collection and entry, Ahmed Inam ul Haq, data collection.