

Prevalence and associated factors of burnout syndrome among healthcare workers in public and private hospitals in Mekelle City, Ethiopia

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Introduction: Burnout syndrome, an occupational negative psychosomatic condition, has three components: emotional exhaustion, depersonalization and low personal achievement. This study aimed to assess the prevalence of burnout syndrome and associated factors among public and private healthcare workers in Mekelle City, Tigray, Ethiopia.

Methods: A cross-sectional study was conducted among 229 healthcare workers in Mekelle, Kay Kalkidan and Ben Meskerem General Hospitals. An anonymous questionnaire was used for data collection. Pearson Chi-square test and Binary logistic regression analysis were employed. Both tests were conducted at 95% CI with p-value ≤ 0.05 as acceptance area.

Result: Overall 109 (47.6%) of respondents had burnout syndrome. Workers in the private hospitals (65.8%) were more at risk compared to those in the public hospital (44.0%). The lower staff/patient ratio in the private hospitals compared with the public hospital might have contributed to the higher prevalence of burnout syndrome. Independent predictor factors were: being female, few years of work experience, working night shifts and long working hours each week.

Conclusion: Prevalence of burnout syndrome was high among all respondents but particularly those working in private hospitals. Some socio demographic and occupational factors were also implicated.

Keywords: Burnout, hospital healthcare workers, Ethiopia.

INTRODUCTION

Burnout syndrome is an occupational negative psychosomatic stress condition.^[1] It follows increased emotional exhaustion, depersonalization and decreased personal achievement.^[2]

The emotional exhaustion component is characterized by loss of emotional resources and energy, lack of enthusiasm, frustration, tension, and fatigue. The depersonalization component represents the interpersonal relationships that lead to a negative interaction. The sense of low personal accomplishment refers to the feelings of incompetence.^[3]

Burnout is a major concern worldwide in the area of occupational health. All professions, such as teachers and police, may experience it but particularly healthcare providers because they face high demands in quality services and are, for much of the time, subjected to various

stressful conditions.^[4] It represents a high cost to workers and their institutions and appears to be more common in developing than in the developed countries.^[5]

Throughout Africa, including Ethiopia, the human resource crisis has severely affected healthcare quality. The healthcare workforce often carries excessive and sometimes complex workloads that lead to burnout syndrome.^[6] Burnout syndrome results in workers having reduced job satisfaction and performance, and an increase in stress-related health problems.^[7, 8] This study was undertaken because data from Ethiopia is sparse with only one study from Jimma University Teaching Hospital.^[9]

METHOD

The study was conducted among health staff from one public hospital (Mekelle General Hospital) and two private hospitals (Kay Kalkidan and Ben Meskerem

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Table 1. Socio-demographic and occupational related characteristics

Characteristics	n / Mean ±SE	(%)
Sex		
Male	67	29.3
Female	162	70.7
Age years	32.48±0.426	
Sleeping hours		
≥8	129	56.3
<8	100	43.7
Years of experience	7.77± 0.405	
Department		
Nursing	123	53.7
Laboratory	21	9.2
Midwifery	20	8.7
Physician	18	7.9
Pharmacy	24	10.5
Others	23	10.0
Working hours/week		
≤40	78	34.1
>40	151	65.9
Night shift		
Yes	143	62.4
No	86	37.6
Total	229	

Note: values are presented means and standard Error (M±SE) for continuous variables, n (%) = frequency and percentages, N= Sample

General Hospitals) in Mekelle city, Tigray Regional State, Ethiopia. According to the inclusion criteria (health care workers who were actively working during the data collection period and had work experience of least one year) 279 individuals were selected. However, as 50 staff did not volunteer to participate, the actual number studied was 229, making the respondent rate 82.8. At the public hospital 191 staff participated and 43 declined giving a respondent rate of 84.4%, at the private hospitals 38 staff participated and 7 declined giving a respondent rate of 81.6%.

We used the Maslach Burnout Inventory (MBI) for health workers, which is an accepted tool for burnout syndrome investigation ^[10, 11] and SPSS version 20 for data analysis. Results are presented as descriptive statistics, means± standard errors, frequencies and percentages. We used Pearson Chi-square test to compare the level of burnout

syndrome and its components among respondents in the public and private hospitals and Binary logistic regression analysis to establish the association of socio-demographic and occupational related characteristics and the status of burnout syndrome. Both tests were conducted at 95% CI with P-value 0.05 as as indicating significance.

RESULTS

Socio-demographic and occupational related characteristics

Table 1 shows the sex, age and other occupational characteristics of the 229 respondents.

Comparison of burnout syndrome and its components among public and private hospital workers

The criterion for burnout syndrome was scoring a high scale in at least two of its components. Overall 109 (47.6%) of respondents had burnout syndrome. Workers in the private hospitals (65.8%) were more liable to burnout syndrome than those in the public hospital (44.0%) (Table 2).

Association between socio-demographic and occupational related variables and burnout syndrome

Binary logistic regression OR [95% CI] model was used to establish association. A significantly higher prevalence of burnout syndrome was found among female compared to male health workers and those with shorter compared to those with longer work experiences. Both working long hours and night shifts had a significant association with high prevalence of burnout syndrome (Table 3). No association was found with marital status, education, income and job satisfaction and relations with managers and colleagues.

DISCUSSION

Prevalence of burnout syndrome was significantly higher among the private hospital workers (65.8%) compared to public hospital workers (44.0%). The lower staff/ patient ratio in the private hospitals compared with the public hospital might have contributed to the higher prevalence of burnout syndrome.

During the data collection period, in the two private hospitals 130 patients were seen by 45 staff (7 were non-respondents) giving a staff/patient ratio of 0.3:1 while in the public hospital 200 patients were seen by 234 staff (43 were non-respondents) giving a staff/patient ratio of 1.2:1.

The overall prevalence of burnout syndrome among the workers was slightly higher (47.6%) compared to a previous study conducted in Ethiopia (36.7%) ^[9], which may be due to the small number of participants in the private hospitals in our study. It was lower compared to a study in China (76.9%). ^[12]

In our study burnout syndrome was significantly higher in females than males (Table 3) consistent with a study from Beirut ^[5]. This could be explained by the higher work burden females have in the home and by cultural standards.

We also found that the prevalence of burnout syndrome

was highest among workers having the fewest years of work experience (Table 3) which is consistent with a similar study of midwives in Australia. ^[13] Workers with a long work experience are more likely to have adapted to their work situations.

Working more than 40 hours/week (Table 3) was a

Table 2. Comparison of burnout syndrome among public and private hospital workers.

Variable	Public hospital n(%)	Private hospital n(%)	Total n(%)	X ²	p- value
Emotional exhaustion					
Low	37(19.4)	9(23.7)	46(20.1)	8.838	0.012*
Moderate	53(27.7)	2(5.3)	55(24.0)		
High	101(52.9)	27(71.1)	128(55.9)		
Depersonalization					
Low	47(24.6)	6(15.8)	53(23.1)	10.09	0.006**
Moderate	76(39.8)	8(21.1)	85(37.1)		
High	68(35.6)	24(63.2)	91(39.7)		
Personal accomplishment					
Low	49(25.7)	5(13.2)	50(21.8)	3.43	0.180
Moderate	54(28.3)	15(39.5)	70(30.6)		
High	88(46.1)	18(47.4)	109(47.6)		
Burnout syndrome					
Yes	84(44.0)	25(65.8)	109(47.6)	6.04	0.020*
No	107(56.0)	13(34.2)	120(52.4)		
Total	191	38	229		

Note: n = frequency, BOS= Burnout Syndrome, OR= Odds Ratio, P= P- value from the binary logistic regression model CI 95%, *p statistically significant P <0.05, **P statistically significant P<0.01.

Table 3. Association of socio-demographic and occupational characteristics with burnout syndrome.

Characteristics	Variable	N	Burnout syndrome OR[95% CI]	p-value
Sex	Male	67	Reference	
	Female	162	3.02[1.44-6.32]	0.003**
Years of experience	≤ 5	107	14.12[4.25-46.84]	0.000**
	6-10	68	3.56[1.19-10.68]	0.023*
	11-15	25	2.71[0.73-9.95]	0.133
	≥16	29	Reference	
Working time hours	≤40	78	Reference	
	>40	151	0.24[0.10-0.54]	0.001**
Night shift	No	86	Reference	
	Yes	143	0.44[0.20-0.95]	0.037*

Note: n = frequency, BOS= Burnout Syndrome, OR= Odds Ratio, P= P- value from the binary logistic regression model CI 95%, *p statistically significant P <0.05, **P statistically significant P<0.01.

contributing factor to burnout syndrome which is in line with results from Turkey and England.^[4, 14] The reason could be that those working long hours have longer exposure to stress. Working at night was significantly associated with burnout syndrome as it was in other similar studies.^[4, 13] This may be due to disrupted sleep patterns and the fatigue related with it.

This is the first study to compare the prevalence of burnout syndrome between two hospital groups in Ethiopia. Its limitations were that it was confined to one city and that there were fewer participants in the private hospitals than in the public hospital.

CONCLUSION

The high prevalence of burnout syndrome, particularly among workers in private hospitals, was associated with being female, having fewer years of work experience, long working hours and working at night.

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