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Assessment of level of Burnout among Health Professionals in Lahore, Pakistan

Shehnaz Khan, Noor Shahid, Mehrunnisa Hassan

ABSTRACT

Objectives: The prime objective of this study is to access the level of burnout among healthcare professionals using BAT tool. Also, the association of job satisfaction and workload factors is tested with burnout.

Study Design and setting: A cross-sectional multi-centered study in Lahore during the month of August 2022 to Jan 2023. The data was collected from healthcare professionals in three tertiary care hospitals in Lahore.

Methodology: The data was collected from clinicians and staff nurses. The required sample size was calculated as 172. Data was collected using Burnout Assessment Tool (BAT) proposed by Schaufeli (2020). BAT was initially proposed with 33 items. BAT-S was the proposed 33-item version with four core dimensions and two secondary dimensions. The average score for each dimension was calculated and interpreted as given by Schaufeli in user manual for BAT-S.

Results: Exhaustion was high among 55.8% of the participants. Mental distance was high among 34.3% of the participants whereas it was normal among 46.5%. Nearly 90% of the participants were satisfied from their jobs, committed to their jobs and accept responsibilities. Job satisfaction was significantly associated with burnout level. Lack of organizational influence and poor internal communication were statistically significantly related with level of burnout.

Conclusion: The study was conducted to highlight the level of burnout among healthcare professionals. We found that very high level of burnout was observed in cognitive impairment followed by emotional impairment. The average level of burnout was more common among participants with job satisfaction and good internal communication.

Keywords: Burnout, healthcare, stress, risk factor

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INTRODUCTION:

Healthcare industry is no different than other professions in posing multiple pressures on health care professionals. These include a myriad of problems from meeting time restraints to lack of control over work processes, trying relationships and incompatibility with seniors, challenging demands, not to mention the strains of clinical work.[1]

Burnout can occur in any career but is predominantly seen in health-care workers especially in perioperative clinicians.[2]

Freudenberger first defined burnout as an occupational phenomenon in 1974 in his research on volunteers in a free medical clinic due to indeterminable continuous job stress.

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It is manifested as frustration, annoyance, anger, distrust, suspicion about colleagues' influence on one's own professional desires, excessive inflexibility in practice and symptoms of depression.[3]

In emotional exhaustion, one experiences fatigue in interacting with other people and feels drained emotionally. In depersonalization, the subject becomes unsympathetic and uncaring towards patients whom he is supposed to look after in terms of service or care, while there is a feeling of lack of accomplishment and incapability towards a relationship with people in reduced personal accomplishment.[4]

Another reason cited as leading to burnout is the electronic health record, which works as a double- edged sword. Rather than facilitating one in managing records it hinders clinical documentation of records, imposes time constraints and decreases usability leading to frustration and burnout.[5]

National research conducted on US physicians over a period of six months, showed that 38.8% of participants experienced high emotional exhaustion,27.4% depersonalization, and 44.0% had one symptom of burnout in their career.[6]

Stressful medical conditions aggravate burnout even more as can be seen in a study conducted in China during the Covid -19 outbreak where the prevalence of depression in public health workers was recorded as 21.3%, anxiety as

19%, and poor self-rated health as 9.8% respectively. It was rated as 27.1%, 20.6% and 15% for depression, anxiety and poor self-rated health in CDC (center for disease control) workers respectively. The results for PHI workers (protected health information) were 17.5% for depression, 17.9% for anxiety and 6.8% for self- rated health.[7]

A study conducted in India to systematically review prevalence of burnout among health care professionals showed a collective prevalence of emotional exhaustion of burnout as 24%, depersonalization as 27% and poor personal accomplishment as 23%. Females, young age, being single, and tough working conditions were associated with a bigger risk of burnout. 8 More than half of the post-graduate residents working at The Children's Hospital in Lahore suffered from moderate to severe burnout and 9% had elevated personal and patient related burnout.[9]

Physician burnout is a documented workplace hazard and carries a risk to the societal and professional lives of the health care workers. Therefore, it should be dealt with proactively by running helpful interventions at individual and institutional levels. Improvement in burnout could be achieved by adopting a healthy lifestyle, with enough sleep, balanced diet and some form of exercise. Provision of a conducive work environment would benefit victims of burnout additionally.[10]

The rationale of the study is to observe the factors that are responsible for burnout among healthcare professionals so that the probability of occurrence of these factors can be either fully controlled or minimized. This will facilitate healthcare professionals to work in a stress-free environment. The prime objective of this study is to access the level of burnout among healthcare professionals i.e. doctors and nurses and to observe those factors that promote burnout at workplace.

METHODOLOGY:

A cross-sectional multi-centered study was conducted in three tertiary care hospitals in Lahore during the month of August 2022 to Jan 2023. The data was collected from clinicians and staff nurses. The required sample size was calculated as 172 using WHO sample size calculator with 95% confidence coefficient and 12.8% prevalence of severe burnout among healthcare professionals. [11] Doctors and nurses who were working at any hospitals among the three irrespective of age and working experience were included in the study. Paramedic staff other than nurses irrespective of gender were excluded from the study. The data was collected using non-probability convenient sampling technique. BAT-S was filled by interview method from each participant. Nurses or doctors who fulfil the inclusion criteria were asked the items contained in BAT-S and responses were recorded.

Data was collected using Burnout Assessment Tool (BAT) proposed by Schaufeli (2020). [12] BAT was initially proposed with 33 items. BAT-S was the proposed 33-item version with four core dimensions and two secondary dimensions. BAT-C was 23-item version with only four core dimensions named as exhaustion, mental distance, emotional impairment and cognitive impairment. The secondary dimensions were psychological complaints and psychometric complaints. The responses were measured on five-point likert scale. We included few socio-economic and demographic factors and some other factors found responsible for burnout in the literature. These factors include job satisfaction, decision making power, hierarchy problems, superiority issues and administrative constraint. The average score for each dimension was calculated and interpreted as given by Schaufeli in user manual for BAT-S. The interpretation of average scores of these dimensions is given in Table 1.

The study was approved from Institutional Review Board (IRB) Central Park Medical College with reference number CPMC/IRB-No/1363. The informed consent was obtained prior to the data collection. The objectives of the study were first explained to the participant and their participation will be voluntary with no harmful effects to their jobs. Responses are given in the form of frequency and percentages. Test of association was applied to observe the association of level of burnout with other factors. Data analysis was carried out using SPSS 26.0.

RESULTS:

The data was collected from 172 participants working at three tertiary care hospitals. The mean age of the participants was 29.20 + 6.60 SD (years). Around 116 (67.4%) of the participants were female. Remaining 56 (32.6%) were male. The educational level of 108 (62.8%) of the participants was graduation or less. Remaining 64 (37.2%) of the participants were post-graduated or above. Around 147 (85.5%) of the participants were from public sector. About 106 (61.6%) of the participants were doctor and remaining 66 (38.4%) were nurses. Nearly 111 (64.5%) of the participants had work experience of 1-5 years followed by 44 (25.6%) of the participants with 5-10 years as working experience. Among the remaining participants, 11 (6.4%) had 10-20 years and 06 (3.5%) had more than 20 years of working experience. Socio-economic class of the participants was assessed by considering number of family members. About 76 (44.2%) of the participants fall in low-socio-economic class where the average household income was not enough for the number of family members. Out of the remaining participants, 51 (29.7%) belong to above average socio-economic class.

The level of burnout can be assessed by observing the average total score, score of exhaustion, mental distance, emotional impairment, cognitive impairment and secondary symptoms. About more than half of the participants had normal total score. Exhaustion was high among 55.8% of the participants. Mental distance was high among 34.3% of

Table 1: BAT -33 scoring for Flemish employees

	Total core	Exhaustion	Mental distance	Emotional Impairment	Cognitive Impairment	Secondary symptoms
Low	1.00 – 1.60	1.00 – 1.75	1.00 – 1.20	1.00 – 1.20	1.00 – 1.80	1.00 – 1.70
Average	1.61 – 2.40	1.76 – 2.70	1.21 – 2.40	1.21 – 2.19	1.81 – 2.59	1.71 – 2.75
High	2.41 – 3.29	2.71 – 3.74	2.41 – 3.59	2.20 – 3.19	2.60 – 3.39	2.76 – 3.50
Very High	3.30 – 5.00	3.75 – 5.00	3.60 – 5.00	3.20 – 5.00	3.40 – 5.00	3.51 – 5.00

Table 2: Frequency (Percentage) of level of burnout of BAT

BAT	Level of Burnout			
	Low	Average	High	Very high
Total score	17	91	51	13
Exhaustion	22	38	96	16
Mental distance	18	80	59	15
Emotional impairment	29	79	44	20
Cognitive impairment	79	33	37	23
Secondary symptoms	-	136	27	09

Table 3: Crosstab of level of burnout and other risk factors

Factor	Categories	Total score				Total	p-value
		Low	Average	High	Very High		
Job Satisfaction	Yes	17	86	42	09	154	<0.001*
	No	0	05	09	05	18	
Commitment to the job	Yes	16	84	46	09	155	0.07
	No	01	07	05	04	17	
Accepting responsibilities	Yes	17	87	42	10	156	0.01*
	No	0	04	09	03	16	
Lack of freedom to make decisions	Yes	03	31	24	05	63	0.15
	No	14	60	27	08	109	
Lack of organizational influence	Yes	02	34	24	07	67	0.05*
	No	15	57	27	06	105	
Few opportunities to participate	Yes	04	41	29	06	80	0.12
	No	13	50	22	07	92	
Hierarchy problems	Yes	03	26	23	04	56	0.11
	No	14	65	28	09	116	
Poor internal communication	Yes	02	12	20	04	38	<0.00*
	No	15	79	31	09	134	
Administrative constraint	Yes	08	29	21	07	65	0.56
	No	09	62	30	06	107	
Pressure from superiors	Yes	03	30	20	07	60	0.18
	No	14	61	31	06	112	

**p-value <= 0.05 i.e. Statistically significant*

the participants whereas it was normal among 46.5%. Secondary symptoms were more normal as compared to other scales (Table 2). Nearly 90% of the participants were satisfied from their jobs, committed to their jobs and accept responsibilities. About 22.1% of the participants felt poor internal communication at their workplace. Around one-third of the participants said that they lack the freedom to make decisions, lack of organizational influence, felt hierarchy problems, administrative constraints were there and pressure from superiors.

Job satisfaction was significantly associated with burnout level. The level of burnout was higher among participants who accept responsibilities. Lack of organizational influence and poor internal communication were statistically significantly related with level of burnout (Table 3). In our sample, average level of burnout was relatively more common among participants without poor internal communication.

DISCUSSION:

We used the BAT inventory 33-items to assess the level of burnout among healthcare professionals. The BAT-S inventory based on 33 items was five-dimension scale names as exhaustion, mental distance, cognitive impairment, emotional impairment and secondary symptoms which was a combination of psychological complaints and psychometric complaints. In the past literature burnout has been assessed by using Maslach Burnout Inventory (MBI) with 22-items and three sub-dimensions.[14] MBI has been used to assess burnout among healthcare professionals.[15] The three dimensions of MBI was emotional exhaustion, depersonalization and personal accomplishment.[14] The cut-off for various level of burnout was given in the literature.[16] However, BAT was proposed to observe the level of burnout among working or non-working participant. Its core dimensions were different from MBI. In Pakistan, no study has been conducted to assess the burnout using BAT inventory.

In our study, we observed that average burnout was common for mental distance, emotional impairment and secondary symptoms whereas the high level of burnout can be seen for exhaustion among healthcare professionals. Exhaustion was considered an important condition of burnout. However, it was not sufficient to declare burnout. Practitioners considered cognitive and emotional impairment as the core dimension of burnout.[12]

In our study, we find that few opportunities to participate followed by hierarchy problems were the challenges and mostly responsible for burnout. We explored the association of level of burnout with organizational factors. We found that job satisfaction, internal communication, organizational influence and accepting responsibilities were the associated factors.

In the past literature, various factors were seen as responsible for the development of burnout. Organizations stressors were responsible for the existence of burnout.[17] Imbalance between demand and resources obtained from work were responsible for burnout. 18 Demand at job was based on requirement of sustained mental and physical efforts. These were found to be associated with specific psychological cost such as lack of focus or concentration, task requirements and subjective fatigue. 19-20 Growth and development of burnout has been linked with emotional contagions both in or outside the workplace.[21-22] Workload, whether it is qualitative or quantitative, requires sustained efforts and can create costly physiological and psychological impact that results in the experience of burnout.[23]

In the current study, we observed that lack of freedom to make decisions was insignificantly associated with the level of burnout. Higher level of burnout was seen among participants who do not have the power to make decisions. Lack of decision-making power and instability to influence decisions were positively associated with higher level of burnout. 23 Similarly, it was seen workers with more empowerment at work were more likely to have low level of burnout. [24-25]

Pressure from superiors were insignificantly associated with level of burnout. Inappropriate supervision increases the odds of developing burnout.[21] We observed that internal communication was linked with level of burnout. In a past study, social support was considered as a brake for the growth or development of burnout.[26] Various organization factors were found in the current investigation responsible for burnout. However, still there is a need to explore more about in association with demographic factors.

CONCLUSION:

The study was conducted to highlight the level of burnout among healthcare professionals. For this, BAT-S inventory was used with 33-items to assess the level of burnout among healthcare professionals that access burnout for five-dimension names as exhaustion, mental distance, cognitive impairment, emotional impairment and secondary symptoms which was a combination of psychological complaints and psychometric complaints. We found that high level of burnout was observed among participants due to exhaustion. Average level of burnout was found due to mental distance, emotional impairment and secondary symptoms. The average level of burnout was more common among participants with job satisfaction and good internal communication. Job satisfaction was significantly associated with burnout level. So that it was observed that the participants who were satisfied with their jobs were more likely to have average level of burnout. Internal communication was also significantly associated with level of burnout.

Authors Contributions:
Shehnaz Khan: Study Design, data collection and Supervision of study
Noor Shahid: Write-up, Data Entry and Analysis, Interpretation
Mehrunnisa Hassan: Drafting, Data collection and Proof Reading

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