



Prevalence of Burnout Syndrome in Medical Assistants Working in Hospitals Affiliated with Urmia University of Medical Sciences

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Abstract

Background: Stress and strain are an inevitable part of a professional life and originate from work-related experiences. Since the residents are highly exposed to burnout aroused by physical, psychological, and emotional stress, this study aimed to investigate the frequency of burnout syndrome in medical assistants working in hospitals affiliated with the Urmia University of Medical Sciences.

Methods: This descriptive cross-sectional study examined all residents working in the hospital affiliated with the Urmia University of Medical Sciences using the census method. Two demographic and burnout questionnaires were distributed to collect the required information. Data were collected and imported to SPSS software version 20 and then analyzed using descriptive statistics.

Results: In this study, the results showed that out of 147 assistants in the study, 78 (53.1%) were male and 69 (46.9%) were female, and 104 (70.7%) were married. The mean score of the questions was 34.66 ± 13 . The mean score of burnout was 51.53 ± 11.15 among the male residents and 53.61 ± 11.74 among the female residents. The burnout score was 51.82 ± 11.29 among the married assistants and 54.19 ± 11.77 among the single assistants. Moreover, There was no relationship between gender and burnout score ($P = 0.275$) and between marriage and burnout score ($P = 0.26$).

Conclusions: In this study, the results indicate that most residents suffer from burnout symptoms; hence, appropriate measures and planning are required to detect and eliminate the causes of burnout.

Keywords: Burnout, Residents, Hospital, University of Medical Sciences

1. Background

Each person spends a major part of his/her life on employment as work activity is vital for each person's mental health. There have always been several factors as the sources of stress in the workplace, which include environmental and physical factors (e.g., noise, congestion, inappropriate light, and sound), human factors (e.g., conflict with others), and organizational factors (e.g., workload, incorrect policy, and lack of justice), and others (1). If a person fails to cope with such psychological pressures, he/she will suffer from different physical, psychological, and behavioral complications, and the persistence of such pressures may reduce job satisfaction and eventually lead to burnout, thereby arousing boredom, indifference, decreased effectiveness, fatigue, feelings of failure, and even discouragement (2).

Burnout is one of the unavoidable consequences of job

stress and is synonymous with describing the devastating effects of job stress syndrome. Burnout is a main issue in modern work life (3-5), and now is a problem in all health care systems. According to the statistics, one out of seven employees at the end of the day suffers from weakness and decreased physical and mental strength at the end of a day. The term 'burnout' was first coined by Freudenberg in the late 1960s when he noticed symptoms of fatigue among his staff. He called this phenomenon 'the syndrome of physical and mental weaknesses. Individuals broken down by burnout are called worn-out (1, 6). According to Matlock (1982), the most comprehensive and common interpretation of burnout, burnout indicates a psychological syndrome consisting of three dimensions: (1) emotional exhaustion (emotional exhaustion): Feelings of pressure and the loss of one's inner resources; (2) depersonalization (depersonalization): No callous, and

indifferent to individuals receiving care services; and (3) decreased sense of self-sufficiency (reduced personal accomplishment): Decreased sense of competence, feelings of not playing a successful role, feelings of not fulfilling one's duty, and a negative self-assessment of one's abilities in work (7).

Nowadays, burnout has attracted the attention of many researchers. Burnout is a widespread phenomenon in the helping professions and is considered the most dangerous factor threatening medical professionals' health (7, 8). The medical profession is considered one of the most stressful occupations caused by stressful physician-patient relationships and can cause burnout, followed by various physical and mental illnesses and negative attitudes towards professional activities, and a lack of acceptable communication with the recipient. The medical assistant course is an essential course that a group of physicians pass during their professional life; however, it requires high physical and mental energy expenditure worldwide. Assistants have to adjust themselves to increased responsibility, overwork, sleep deprivation, physical fatigue, and low payment. In general, long working hours per week and the large amounts of professional information on family life and work interventions, exhausting emergencies, and limited work control put medical assistants at high risk for burnout. A review of the literature reveals different levels of burnout in residents, ranging from 17.6 to 76% (9, 10). In Iran, moderate burnout rates of 96.6, 71.1, and 23.8% are reported in different studies (11-13).

Burnout can become contagious and permanent through informal interactions in the workplace. Fortunately, many studies suggest that burnout is treatable and that burnout victims recover with appropriate measures (14, 15). Accordingly, recognizing and preventing burnout can improve individuals' mental health effectively and promote their quality and satisfaction in providing diagnostic and therapeutic services (16).

2. Objectives

Due to the importance of physicians' health status and its impact on work and medicine and given the inevitability of some stressors in the medical profession and insufficient information on burnout status of Iranian medical assistants, this study aimed to determine the frequency of burnout syndrome in the residents working in hospitals affiliated with the Urmia University of Medical Sciences (Imam Khomeini, Motahari, and Seyed Al-Shohada hospitals). By announcing the results to

policy makers, researchers, and executives, the health of medical assistants and service recipients can be promoted while preventing the loss of talent and ability of medical assistants. Also, by clarifying the dimensions of this issue, strategies can be developed to treat and prevent the spread of burnout among this segment of the executive community.

3. Methods

The population of this descriptive cross-sectional study encompassed all residents ($n = 168$) working in the hospitals affiliated with the Urmia University of Medical Sciences, of whom 147 persons wanted to participate in the study using the census method. A demographic questionnaire addressing age, gender, marriage, specialty, and hospital, and the Maslach Burnout Inventory (17) were used to collect the required data. The validity and reliability of this inventory were estimated to be 0.78 using the Cronbach's alpha coefficient. The Maslach Burnout Inventory is the most common tool in measuring burnout for a group of individuals working in public health care services. It consists of 22 statements on feelings and attitudes addressing different aspects of burnout. In this regard, nine questions estimate emotional fatigue, five questions measure depersonalization, and eight questions deal with feelings of self-sufficiency. The items in this questionnaire are scored based on a five-point Likert scale with 1 for strongly agree, 2 for agree, 3 for no idea, 4 for disagree, and 5 for strongly disagree. In this questionnaire, items (1, 2, 3, 6, 8, 13, 14, 16 and 20) address occupational exhaustion, items (5, 10, 11, 15, 22) deal with depersonalization, and items (4, 7, 9, 12, 17, 18, 19 and 21) deal with personal accomplishment. In this study, the total scores were separately calculated for each dimension of burnout. After collecting the data, they were imported to SPSS software version 20 and then analyzed using descriptive statistics (i.e., mean, mean, percentage, standard deviation, and others.). All participants were also ensured that the findings would be published anonymously.

4. Results

Out of 147 assistants participating in this study, 78 were male (53.1%), 69 were female (46.9%), and 104 (70.7%) were married. Moreover, there were 21 assistants in internal medicine (14.3%), 15 assistants in general surgery (10.2%), 22 assistants in gynecological surgery (15%), 13 assistants in pediatrics (8.8%), 13 assistants in heart diseases

(8.8%), five assistants in neurosurgery (3.4%), 13 assistants in orthopedic surgery (8.8%), 18 assistants in pathology (12.2%), 11 assistants in urology (7.5%) and 16 anesthesia assistants (10.9%). The mean score of the questions was 34.66 ± 13 , and in the range, the average score was opposite; the mean score of burnout was 51.53 ± 11.15 among male assistants and 53.61 ± 11.74 among female assistants. The burnout score was 51.82 ± 11.29 among married residents and 54.19 ± 11.77 among single residents. There was no relationship between gender and burnout score ($P = 0.275$) and between marriage and burnout score ($P = 0.26$).

The residents' score in the 'emotional exhaustion' subgroup was 30.3 ± 3.4 , and in the average range, the score was opposite. This score was 27.84 ± 3.7 in men and 33.09 ± 3.8 in women, and there was a relationship between gender and emotional exhaustion ($P = 0.203$). Moreover, the score was 34.49 ± 4.8 among single residents and 28.5 ± 4.4 among married residents, and there was no relationship between marriage and burnout score ($P = 0.191$) (Table 1).

The assistants' score in the personality subgroup was 22.39 ± 2.2 , which was the mean of the opposite score. This score was 22.82 ± 2.1 in males and 21.91 ± 2.3 in females, and there was no relationship between gender and emotional exhaustion ($P = 0.791$). Moreover, this score was 25.47 ± 2.4 among single residents and 21.15 ± 2.7 among married residents, and there was no relationship between marriage and burnout score ($P = 0.252$) (Table 2). Furthermore, the residents' score in the 'personal accomplishment' subgroup was 47.4 ± 2.27 , and no theoretical score was detected in the average range. This score was 46.71 ± 2.84 in males and 48.18 ± 2.64 in females, and there was no relationship between gender and personality ($P = 0.652$). The score was 46.36 ± 2.44 for single residents and 47.83 ± 2.74 for married residents, and there was no relationship between marriage and burnout scores ($P = 0.682$) (Table 3).

5. Discussion

The present study indicated that the specialized assistants of the Urmia University of Medical Sciences suffered from low degrees of burnout if the average burnout score was in the opposite range. In examining different dimensions of burnout in the specialized assistants in the present study, the obtained scores were approximately equal in the two dimensions of emotional exhaustion and depersonalization. However, the distribution of emotional exhaustion among specialized assistants was higher than depersonalization in different fields. In the present study, the low degrees of burnout were noticed among the specialized assistants in pathology and anesthesia. What is certain is the effect

of burnout and its consequences on one's mental health; therefore, although it seems that the importance of this mental disorder is less in the fields that are slightly related to the patient, the prevalence of this disorder in these types of fields is also low (1, 7).

Job stress and burnout are higher in disciplines that are more relevant to the patient (18, 19). Thus, the probability of stress and burnout increases with more interaction with the patient (20, 21). The present findings showed that specialized fields such as gynecological surgery, neurosurgery, orthopedics, and pediatrics, in which there are more interactions with patients, the imposed job stress is high, and depersonalization and emotional burnout are more likely to occur. Moreover, according to the findings of this study, the lack of personal accomplishment is more evident in these fields. Accordingly, occupational exhaustion is enhanced in fields dealing more with patients, as the relationship between patients and help-seeking companions is damaged (22).

It is clear that the physician must have high emotional reserves, be able to establish a proper relationship with the patient and people around, and build strong personal relationships with them. The reason is that they may be unable to take responsibility when dealing with patients suffering from health problems or incurable diseases and those facing death, and due to burnout, suffer from physical and mental disorders and even take time off work and change jobs. In case of burnout, the quality of services physicians provide to patients decreases and leads to dissatisfaction with health and medical services. The dissatisfaction endangers the health of the individual and, ultimately, public health. Consequently, the damage done to public health causes many problems to the society and adds to the number of sick people (23, 24).

Regarding the prevalence of the above-mentioned psychiatric problems in this field of work, several studies have been conducted in different countries, including Iran; however, addressing burnout in our country has been limited to health care workers, especially nurses working in Iranian hospitals. In particular, no statistics is available on the prevalence of this disorder among specialized assistants (24-26). In a descriptive study in 2014, the prevalence of burnout and job satisfaction of internal specialized assistants active at the Mashhad University of Medical Sciences was studied. Burnout was observed to a very high extent among internal specialized assistants. However, in the present study, the score obtained by internal assistants was not high, and by comparison, other assistants suffered more problems than internal assistants (27). This difference can be due to the different dimensions and the conditions of each university, leading to burnout.

Table 1. Burnout Scores in 'Emotional Exhaustion' Subgroup

Emotional Burnout Questions	Assistant Type									
	Internal	General Surgery	Gynecological Surgery	Pediatric Disease	Heart Disease	Neurosurgery	Orthopedics	Pathology	Urology	Anesthesia
I feel that my work has taken away my strength and energy psychologically	53.4	61.4	81.8	70.8	44.6	60	53.8	33.4	47.2	46.2
At the end of a working day, I feel abused	46.6	46.6	72.8	52.4	40	84	57	27.8	49	43.8
The morning I have to go to work, I feel tired of going to work	50.4	49.4	78.2	66.2	41.6	48	58.4	24.4	49	51.2
Working with my co-workers for the whole day is challenging and tiring for me	42	50.6	56.4	41.6	29.2	28	52.4	21.2	38.2	42.6
I feel that my job has exhausted me spiritually	55.2	58.6	79	61.6	41.6	60	58.4	26.6	40	45
My job has made me feel empty and useless	29.6	37.4	43.6	29.2	37	68	30.8	20	31	22.6
I feel like I'm doing my job hard	38	41.4	64.6	60	37	24	44.6	24.4	34.6	33.8
It is difficult to deal directly with clients, and it puts me under psychological pressure	42	41.4	64.6	60	37	24	44.6	24.4	34.6	33.8
I feel like I've reached the end of the line	26.6	28	44.6	32.4	24.6	44	35.4	20	34.6	25
Total score of emotional exhaustion	40.6	46.08	63.33	50.97	36.08	41.11	35.25	5.24	26.26	23.09

Table 2. Burnout Scores in 'Depersonalization' Subgroup

Depersonalization Questions	Assistant Type									
	Internal	General Surgery	Gynecological Surgery	Pediatric Disease	Heart Disease	Neurosurgery	Orthopedics	Pathology	Urology	Anesthesia
I feel like I'm dealing with some of my co-workers as objects without a human personality.	28	46.2	20	34.6	33.8	26.6	40	39	40	29.2
I have been indifferent to others since I chose this job.	72	50.8	24.4	41.8	31.2	39	48	59	43	35.4
I'm worried that this job will make me feel cruel to others.	64	50.8	20	47.2	27.6	33.4	34.6	57.2	37.6	29.2
I really do not care what happens to me.	20	50.8	31.2	49	32.6	35.2	34.6	39	29.2	40
I feel that my colleagues blame me for some of their problems.	44	49.2	20	38.2	38.8	29.6	37.4	52.4	40	33.8
Total score of depersonalization	40	36.92	30.88	37.72	15.93	15.95	27.3	36.9	20	32.93

Table 3. Burnout Scores in 'Individual Success' Subgroup

Personal Accomplishment	Assistant Type									
	Internal	General Surgery	Gynecological Surgery	Pediatric Disease	Heart Disease	Neurosurgery	Orthopedics	Pathology	Urology	Anesthesia
I can easily understand my colleagues' feelings.	69.6	61.4	76.4	67.6	58.4	56	75.4	83.4	52.8	72.4
I feel I can easily cope with my work problems.	54.2	49.4	55.4	63	44.6	64	69.2	66.6	56.4	53.8
I feel that I have a positive impact on others' lives in my job.	62	57.6	41	55.4	29.2	60	60	56.6	49	47.6
I feel full of energy	47.6	49.4	41	46.2	41.6	48	58.4	77.8	43.6	51.2
I can easily provide a comfortable environment in my workplace.	59	46.6	46.6	61.6	33.8	36	58.4	66.6	45.4	48.4
I feel happy and cheerful after work.	62	42.6	37.2	70.8	50.8	32	55.4	57.8	51	52.6
This job has brought me important and valuable achievements.	82.8	65.4	57.2	69.2	55.4	72	66.2	80	54.6	71.2
In my field of work, I deal with emotional and psychological problems.	68.6	49.4	59	63	57	48	63	76.6	71	57.4
Total score of personal accomplishment	54.01	41.40	39.63	52.64	0.93	40	54.08	63.36	41.19	84.38

Because different environmental factors are involved in arousing such a feeling, this problem is expected to be different in different conditions (28).

One of the weaknesses of this study was the inability to examine the prevalence of burnout among junior-

and senior-year residents and compare them. The researcher assumes that junior-year assistants suffer due to high workload and senior-year assistants suffer due to high responsibility and pressure of the encyclopedia test. There will definitely be a significant difference

between junior- and senior-year assistants in the cause of burnout. However, the researcher could address this issue in the present study. Since the sample size is limited and the results of the questionnaires were analyzed descriptively, the possibility of such an analogy is eliminated, and a proper analysis requires a large sample size. Unfortunately, this was impossible in the present study due to the limited number of assistants. It should be noted that this issue can be thoroughly examined and analyzed by developing qualitative studies. The strengths of this study can be attributed to the lack of such a study in the concerned province.

5.1. Conclusions

The rate of burnout is low among residents; however, due to the importance of the medical profession and its role in the health of the community, further attention should be paid to the health of medical assistants during periodic examinations regarding burnout and even other psychological problems such as anxiety and depression. Moreover, it is also necessary to adopt appropriate psychological interventions to reduce burnout. Establishing specialized counseling and psychological centers for assistants and physicians is another solution. Also, proper culture building needs to be done so that assistants can easily contact counseling centers if they feel the need without fear of being stigmatized.

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Footnotes

Authors' Contribution: Study concept and design, P. A., and O. G.; Analysis and interpretation of data, S. P., and S. M.; Drafting of the manuscript, S. H.; Critical revision of the manuscript for important intellectual content, HR. M., S. H., and P. A.; Statistical analysis, O. G.

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Data Reproducibility: The data presented in this study are openly available in one of the repositories or will be available on request from the corresponding author by

this journal representative at any time during submission or after publication. Otherwise, all consequences of possible withdrawal or future retraction will be with the corresponding author.

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