

Investigating occupational burnout among the operation room personnel of Shahid Mohammadi hospital in Bandar Abbas in 2015

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Abstract

Introduction and aims: Occupational burnout is a syndrome including emotional exhaustion, depersonalization, self-efficacy and involvement. Medical staff are susceptible to occupational burnout due to physical, mental and emotional stress. The present research aims to investigate the operation room staff's burnout in Shahid Mohammadi hospital of Bandar Abbas.

Methods: In this descriptive/analytical research, the sample size was 150 subjects working in the operation room of Shahid Mohammadi hospital in Bandar Abbas. They were selected through a convenience. They then received the data gathering instrument which was a questionnaire of demographic information and Maslach burnout inventory. In Maslach inventory, the rating of each dimension of burnout is measured including: emotional exhaustion (score range 0-54), depersonalization (0-30), self-efficacy (0-48) and obsession (0-18). The inventory is rated in a likert-scale. The data were finally analyzed using SPSS-17.

Results: The mean scores found were as the following: 14.49 for emotional exhaustion (low), 5.75 for depersonalization (low), 32.61 for self-efficacy (moderate) and 4.35 for obsession (low). There was a statistically significant correlation in terms of emotional exhaustion between age($P=0.032$) and sex($P=0.017$) variables and between obsession and marital status($P=0.003$). Emotional exhaustion was found to be higher among men than women, and was found to be higher in the 20-30 age group than others. Moreover, the married were found to be more obsessed than the single.

Conclusions: A low level of occupational burnout was found in the present research as compared to others. Therefore, authorities should make attempts to prevent occupational burnout.

Keywords: Occupational burnout, Maslach inventory, Operation room personnel, Shahid Mohammadi hospital

Introduction

A large part of every individual's daily life is devoted to working. Working activities are of a great significance in terms of mental health and contribute to individual's independence and self-esteem (1). The type of occupation is also one of the key sources of stressproduction (2). A key consequence of occupational stress which requires large attention is occupational stress (3). Burnout is a form of emotional and mental fatigue which is the result of a chronic stress syndrome and is the result of the high pressure of one's role, time limitation and lack of required sources to fulfill a task (4). Occupational burnout is the result of long-term stress at work while doing one's duties (5). The concept of occupational burnout is comprised of three components: emotional exhaustion, depersonalization and personal accomplishment (6). Emotional exhaustion is in fact a pressure linked with tension, anxiety, physical fatigue and insomnia. Depersonalization is a negative and cruel response to those who are the receivers of services. It refers

to a negative response to clients. Low self-efficacy is the lowering of one's feeling of qualification in doing personal activities and is a negative evaluation of oneself in relation with one's job. The U.S. Information Office reported that among occupations, medical and health-related occupations have the highest degree of occupational damages including burnout (7). In Embriaco's research (2007), 50% of emergency doctors and one-third of emergency nursing staff experienced burnout. In Taylor's study (2005), 27-41% of Oncologic surgeons experienced moderate to high levels of occupational burnout (8). In 2007, Wu conducted an investigation on Chinese nurses and indicated that lower education level was accompanied by lower self-efficacy. Younger nurses showed to have a higher burnout (9). In 2012, Barrett's research focused on nurses of the cancer section in a hospital and concluded that 70% of the sample suffered from moderate to high levels of occupational burnout. In the same year, Bektasova showed that nurses suffered from occupational burnout more than physicians (10).

The body of research conducted in Iran showed different levels of occupational burnout. In his research on nurses working in the public sections of the instructional hospitals of Tehran in 1999, Filian found that 29% of nurses suffered from high burnout. Moreover, the results gained by Payami in 2007 indicated moderate levels of emotional exhaustion and depersonalization as well as high levels of lack of personal achievement among 155 nurse participants working in the ICU of the instructional hospitals of Tehran (11). Working environment seems to play a key role in the emergence of burnout among nurses. As an instance, in special care units, high levels of tension as a risk factor leads to an increased emergence of occupational burnout syndrome (12). Due to such stress sources as patients' mortality, interpersonal problems, low social support, high work load, encountering too many patients a day, decision making in emergency cases based on limited information, work mixed with mental pressure of avoiding mistakes, facing violence and threats and night shifts, medical staff (nurses and physicians) are more prone to burnout (8). Personnel burnout causes economic damages such as frequent absence at work. It can cause mistakes in taking care of clients and causing them serious consequences. On the other hand, occupational burnout can be contagious among the staff and make inter- or intra-personal disorders. These can in turn lead to fundamental functional, psychological and social disorders (13). A body of previous research show that 30% of diseases and absence at work among the medical staff of healthcare centers are due to occupational stress. Life expectancy of nurses at the age of 45 is found to be 26.1% (14). Due to the prevalence of burnout among nurses, finding a proper solution is considered a nursing priority (11). Moreover, prevention of burnout and taking it seriously is important in mental health and improving the quality of services (10). Since the operation room staff are faced with many stressful situations and occupational burnout is prevalent among them, recurrent mistakes can be followed by financial and life-threatening consequences. Therefore, we aim to investigate the degree of burnout in the operation room staff of Shahid Mohammadi hospital in Bandar Abbas.

Methods

In this study, the research population included all the staff working in the operation rooms of Shahid

Mohammadi hospital in Bandar Abbas. They were 150 in number. The inclusion criteria were: personnel working in Shhaid Mohammadi hospital who consented to enter the study and continued working till the end of the research. They had not filled out the target questionnaires. They had no history of taking mental drugs. They did not suffer from any serious financial problem, disability or handicap. Their close relatives did not have a history of chronic diseases, mental or physical disability, high levels of stress and mental disease within the past 6 months (prior to the study). They had suffered from no such misfortune as divorce, severe accidents, addiction within the family, etc. To gather the data, a demographic information questionnaire was used which inquired people's age, sex, occupation, marital status, education, work shift, employment and work experience. A second questionnaire was also used known as MBI (Maslach Burnout Inventory) which consisted of 22 items. The emotional exhaustion consisted of 9 items. Depersonalization was comprised of 5 items. Personal accomplishment had 8 items. And eventually, obsession had 3 items. The scoring system of these items was a 7-level likert scale. 'Never' received 0; 'very little' received 1; 'a little' received 2; 'moderate' received 3; 'above moderate' received 4; 'high' received 5 and 'very high' received 6. Two scales could be used in this questionnaire:

- a) Frequency: never (0), a few times a year (1), once a month (2), a few times a month (3), once a week (4), a few times a week (5), and every day (6)
- b) Intensity: never (0), very little (1), a little (2), moderate (3), above moderate (4), high (5) and very high (6).

To validate the scale, Maslach and Jackson reported the following estimates of internal consistency for each sub-scale: emotional exhaustion (.9), depersonalization (.79), self-efficacy(.71). For the first time the reliability and validity of this questionnaire was established in 1992 by Filian. The overall consistency of the test was estimated by Cronbach alpha and was reported to be .78. The same value was reported in Behnia's research (2000) to be .55-.87. In Badri Gargouri's investigation (1995) the reliability of this test was estimated to be .75-.84. Since the questionnaire is a standardized one, it is adequately valid to measure occupational burnout. The data entered SPSS-17and were

analyzed through descriptive statistics and such statistical analyses as one-way ANOVA, Tokey post hoc, Pearson product correlation coefficient and independent t-test.

Results

Once the proposal was written, the questionnaires were distributed and the data were gathered, they were coded and analyzed by SPSS. From among 150 samples, 84 subjects (56%) were male and 66 (44%) were female. As for the type of work, the majority of subjects (48%) worked as operation room technologists. The other relevant information is presented in table 1. According to the findings, the mean emotional exhaustion score was 14.49 among the personnel (range of scores=0-54, SD=14) which is considered low based on Maslach cutoff point). As for depersonalization, the mean score was 5.75 (range of score=0-30, SD=6.67) which is taken as low. The same score for self-efficacy was estimated to be 32.61 (range of score=0-48, SD=12.68) which is interpreted as moderate. The mean score of obsession was found to be 5.05 (range of score=0-18, SD=4.35) interpreted as low (table 2).

Table 1: Operation room personnel's demographic information in Shahid Mohammadi hospital

Background variables	Sub-group	f	percentage
gender	female	66	44.0
	male	84	56.0
age	20-30	64	42.7
	30-40	47	31.3
	40-50	34	22.7
	50-60	5	3.3
	>60	0	0.0
Marital status	single	34	22.7
	married	11	7.3
occupation	6		
	surgeon	24	16.0
	anesthetist	14	9.3
	Operation room	72	48.0
	anesthesia services	32	21.3
education	8	5.3	
	<diploma	5	3.3
	diploma	2	1.3

As regards emotional exhaustion, the mean score was higher among women than men which was a statistically significant difference ($p=.017$). However, as concerns self-efficacy, depersonalization and obsession, men obtained a higher score. However, the difference between men and women was not statistically significant (table 3). As the

nonparametric Kruskal-Wallis test revealed, there was a significant difference between age groups in terms of emotional exhaustion ($p=.032$). The 20-30 age group managed to obtain a higher score. However, no statistically significant difference was not observed between the groups in terms of the other aspects of occupational burnout (table 4). As the parametric independent-sample t test showed, there existed a significant difference between the single and married in terms of their frequency score and intensity of obsession ($p=.003$). The married managed to obtain a higher score. As concerns the other aspects, no statistically significant difference was found between occupations in terms of the different aspects of occupational burnout. However, according to the mean scores obtained, anesthetists received a higher score of emotional exhaustion and obsession. Surgeons obtained a higher score of depersonalization and self-efficacy (table 5). Considering the relevant tests, a significant difference was found between the multiple aspects of burnout in terms of education. However, due to the existing mean scores, anesthetists found higher emotional exhaustion and obsession scores, while surgeons found a higher score of depersonalization and self-efficacy (table 6). As the related tests showed, there is no statistically significant difference between the multiple aspects of burnout in terms of education. However, considering the existing mean scores, the holders of a Ph.D. degree obtained a higher score of emotional exhaustion and depersonalization. Those holding an associate degree obtained a higher score of obsession. Specialists were found to have a higher self-efficacy (table 7).

Table 2: Burnout rate among operation room staff of Shahid Mohammadi hospital

Burnout aspect	Sub-scale	Mean	SD	min	max
Emotional exhaustion	frequency	14.49	14.00	.00	54.00
	intensity	15.50	15.22	.00	63.00
Personal accomplishment	frequency	32.61	12.68	.00	48.00
	intensity	34.08	13.57	.00	56.00
depersonalization	frequency	5.75	6.67	.00	30.00
	intensity	6.31	7.14	.00	35.00
obsession	frequency	5.05	4.35	.00	18.00
	intensity	5.39	4.71	.00	21.00

No significant correlation was found between employment and the multiple aspects of occupational burnout. However, emotional

exhaustion and depersonalization were observed to be higher among those conducting projects (table 8). Moreover, there is no significant correlation between work shift and multiple aspects of burnout. However, mean scores showed that those holding night shifts felt more self-efficacious than others. The obsession rate was higher among those working during the day (table 9). The related tests revealed no statistically significant correlation between work background and burnout. However, depersonalization was higher among those having a 0-4 year experience. Self-efficacy was higher among those having 12-1 years of experience (table 10).

Discussion

The analyzed data revealed that the frequency and intensity of burnout were both low in terms of emotional exhaustion, depersonalization and obsession. They were at a moderate level in terms of self-efficacy. Occupational burnout has been investigated in a body of national and international research. For instance, in Khaghanizadeh's study (2006), the burnout rate in terms of self-efficacy was estimated to be high in the majority of cases. However, emotional fatigue and depersonalization were reported to be low (15). The latter finding was consistent with the findings of the present research. Emotional exhaustion and depersonalization were reported to be moderate while self-efficacy was found to be low in Talae's research (2006). This is in contrast with the findings of the present research. However, a similar finding reported was that women's emotional exhaustion was higher than men (8). Pyami Bousari (2002) reported emotional exhaustion as low ($f=55.1$, intensity= 71.4), depersonalization as moderate ($f=50\%$, intensity= 47.9%) and self-efficacy as high ($f=40.8\%$, intensity= 42.8%) (11). Only the emotional exhaustion result was consistent with the present research. Gutierrez et al. (2005) examined burnout among nurses and reported emotional exhaustion, depersonalization and self-efficacy to be 40%, 32% and 63%, respectively (15). Spooner investigated burnout among the nursing staff working at Australian hospitals and reported a moderate level of burnout at three sub-scales: emotional exhaustion, depersonalization and self-efficacy. Only the self-efficacy result was consistent with the present research (3). With regard to emotional exhaustion, researchers believe that a moderate to

high level of exhaustion is due to role conflict or ambiguity, work overload, internal and external conflicts, lack of autonomy and rewards. Moreover, continuous emotional exhaustion lowers one's spirits which is accompanied by a kind of excessive indifference to clients in one's job. Therefore, depersonalization can be viewed as a strategy of conforming to emotional exhaustion. Among the consequences of emotional exhaustion are low self-confidence, low job-satisfaction, rejecting organizational posts, increased transfer rate and quitting of one's job (15). A significant correlation was found between gender and the frequency and intensity of occupational burnout in terms of emotional exhaustion ($f: p=.017$, intensity: $p=.045$). The frequency and intensity of burnout was higher in women than men. Contradicting findings have been reported with this regard in national and international body of research. As an instance, no significant correlation was found between gender and burnout by Moghimian et al. However, Filian and Esfandiary found a higher rate of burnout in men than women. Brake Hit (2004) and Kilfred (2001) estimated a higher rate of burnout in terms of depersonalization among men than women (15). On the other hand, in Talae's research, the mean score of the multiple aspects of burnout was higher in women than men. The difference between the two groups was significant ($.00$, $.041$ and $.032$ for emotional exhaustion, depersonalization and self-efficacy, respectively). This can be due to less attention paid to women's rights (8). Besides occupational matters, women are faced with domestic chore as well as well taking care of children. At work, besides having to care about their clients, women have other obsessions and, therefore, experience more psycho/social pressures. Another finding of the present research was a significant correlation between age and the frequency/intensity of emotional exhaustion (frequency: $p=.032$, intensity: $p=.048$). Those belonging to the 20-30 age group suffered from more emotional exhaustion. The relevant findings of other researchers are either pro or con. For example, in Talae's research on the medical staff in Mashhad, self-efficacy was found to be not correlated with age. Older age was accompanied by less emotional exhaustion. No correlation was found between age and emotional exhaustion in the Turkish medical context as reported by Uzurt. Similarly, no correlation was reported between these two variables by Goldberg among emergency staff. Sharma's investigation on surgeons found no

correlation between the aforementioned variables either (8). Due to their younger age, unfamiliarity with their work environment and work stress and lack of self-autonomy, 20-30 year-old subjects might suffer more from emotional exhaustion. The present research showed a significant correlation between marital status and the frequency/intensity of burnout in terms of obsession (frequency: $p < .001$, intensity: $p = .003$). The married showed to suffer from more burnout and obsession. In Talaei's research, married subjects managed to get a higher score of self-efficacy. Uzurt, however, found no significant correlation between these two variables (8). The past decade has been faced with work stress and burnout and their organizational effects. Besides that, operation room is one of the most complicated work places in the healthcare system. This complexity lies in patient-related issues as well as the highly-advanced technology of the operation room (16). Operation room environment is very divergent from other medical sections. Those working in the operation room including physicians, nurses, assistants and even non-technical workers feel highly stressed (7). Therefore, burnout is more intensive for the operation room staff. These findings can be of a great significance. Since there is a myriad of stressful factors in this profession, certain plans should be made to prevent burnout and its psychological effects on the personnel. Occupational burnout imposes high costs on both the personnel and the organization. Such costs can involve job transfer, change of workplace, absence of leave, disqualification and negative effects on the personnel's mental health (15). Due to the

prevalence of burnout among nurses, finding a good solution is a priority in nursing (11). Moreover, preventing burnout and taking it seriously plays a key role in mental health and improving the quality of service provision (10). The prevalence of burnout requires particular attention and intervention which needs great care on the part of authorities. Stressful sources need to be identified and removed; supportive systems should be created in and out of the workplace; more efficient forces can be employed; work hours and work load should be reduced; their payment should be raised; personnel's welfare should be provided for; they need to be taught at work how to manage stress. Furthermore, identifying those seriously suffering from occupational burnout and providing them with the required specialized individual is essential. Finally, since the rate of occupational burnout was found to be low in the present research, managers and authorities are suggested to find ways to prevent occupational burnout and lower the depression level.

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Conflicts of interest

Authors declare no conflict of interests.

Table 3: Operation room staff's multiple aspects of burnout in terms of gender

test	p-value	df	Test value	male		female		Variables	
				SD	Mean	SD	Mean		
Mann Whitney	0.017*	--	-2.388	13.92	12.86	13.94	16.56	frequency	EE.
Mann Whitney	0.045*	--	-2.001	14.60	13.88	15.84	17.56	intensity	
t-test	0.684	148	-0.407	13.16	32.99	12.12	32.14	frequency	PA.
t-test	0.724	148	-0.354	13.69	34.43	13.52	33.64	intensity	
Mann Whitney	0.742	--	-0.329	6.41	5.55	7.02	6.02	frequency	Dep.
Mann Whitney	0.409	--	-0.825	6.38	5.75	8.00	7.03	intensity	
Mann Whitney	0.604	--	-0.519	4.44	5.21	4.24	4.83	frequency	Obs.
Mann Whitney	0.533	--	-0.624	4.44	5.46	5.06	5.30	intensity	

Table 4: Operation room staff's multiple aspects of burnout in terms of age

test	p-value	df	Test value	50-60 yrs.		40-50 yrs.		30-40 yrs.		20-30 yrs.		Variables	
				SD	Mean	SD	Mean	SD	Mean	SD	Mean		
Kruskal Wallis	0.032*	3	8.821	3.03	3.20	9.86	11.29	16.69	15.34	13.74	16.44	Frequency	EE.
Kruskal Wallis	0.048*	3	7.928	3.00	3.00	11.32	13.29	17.27	15.96	15.62	17.31	intensity	
ANOVA	0.163	-	1.731	18.46	33.80	11.78	34.82	12.93	34.57	12.29	29.91	Frequency	PA.
ANOVA	0.068	-	2.431	12.15	43.80	13.60	35.09	14.49	36.34	12.47	31.13	intensity	
Kruskal Wallis	0.184	3	4.837	2.24	2.00	4.96	4.03	6.69	5.79	7.42	6.94	Frequency	Dep.
ANOVA	0.097	-	2.146	2.17	2.20	5.67	4.29	7.40	6.55	7.64	7.53	intensity	
Kruskal Wallis	0.231	3	4.296	1.87	7.00	3.58	5.03	4.82	5.53	4.48	4.55	Frequency	Obs.
Kruskal Wallis	0.049*	3	7.864	3.21	9.40	4.43	5.62	4.92	5.87	4.66	4.61	intensity	

Table 5: Operation room staff's multiple aspects of burnout in terms of marital status

test	p-value	df	Test value	married		single		Variables	
				SD	Mean	SD	Mean		
U test	0.989	--	-0.013	14.82	14.96	10.80	12.88	Frequency	EE.
U test	0.870	--	-0.164	16.35	16.17	10.35	13.21	intensity	
T test	0.832	148	-0.212	13.03	32.73	11.60	32.21	Frequency	PA.
T test	0.253	148	-1.147	13.52	34.77	13.69	31.74	intensity	
U test	0.761	--	-0.304	7.09	6.06	4.90	4.71	Frequency	Dep.
U test	0.966	--	-0.043	7.59	6.54	5.38	5.53	intensity	
T test	<0.001*	95.295	-4.266	4.57	5.65	2.64	3.00	Frequency	Obs.
U test	0.003*	--	-3.014	4.78	5.96	3.91	3.47	intensity	

Table 6: Operation room staff's multiple aspects of burnout in terms of occupation

test	p-value	df	Test value	services		anesthesia		Operation room		Anesthesia specialist		surgeon		Variables	
				SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean		
Kruskal Wallis	0.072	4	8.600	16.44	7.75	15.81	17.06	12.15	13.39	14.25	19.00	15.46	13.96	Frequency	EE.
Kruskal Wallis	0.083	4	8.238	18.19	8.63	16.65	17.66	14.04	14.74	16.08	20.50	15.17	14.29	intensity	
ANOVA	0.441	--	0.943	16.09	27.13	12.29	34.41	11.68	31.38	11.93	34.29	15.22	34.79	Frequency	PA.
ANOVA	0.624	--	0.655	17.39	29.25	13.64	33.69	11.72	33.42	11.92	36.14	18.05	37.00	intensity	
Kruskal Wallis	0.994	4	0.222	3.94	5.13	8.07	6.31	6.10	5.46	4.95	5.00	8.07	6.54	Frequency	Dep.
Kruskal Wallis	0.961	4	0.615	4.39	5.88	9.05	6.66	6.25	6.11	4.96	5.21	8.82	7.25	intensity	
ANOVA	0.717	--	0.525	3.48	3.13	4.97	4.72	4.16	5.21	4.26	5.43	4.47	5.42	Frequency	Obs.
ANOVA	0.455	--	0.918	2.90	2.88	5.45	4.88	4.35	5.54	5.20	6.43	4.88	5.88	intensity	

Table 7: Operation room staff's multiple aspects of burnout in terms of education

p-value	Test value	Specialization		Ph.D.		M.S.		B.S.		Associate degree		diploma		<diploma		Variables
		SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	
0.171	1.536	14.90	14.41	8.74	32.33	4.89	9.33	13.14	15.67	14.69	12.47	.71	.50	20.55	11.60	Frequency EE.
0.250	1.324	15.08	15.18	15.72	34.00	2.64	9.83	14.34	16.47	17.03	14.33	.71	.50	22.77	12.80	intensity
0.085	1.898	12.76	36.53	11.79	13.00	13.46	32.33	11.75	32.07	13.36	31.83	26.16	27.50	7.96	32.40	Frequency PA.
0.022*	2.548	14.43	39.12	11.53	11.00	12.33	33.00	13.36	33.17	11.06	33.17	23.33	27.50	11.14	35.80	intensity
0.634	0.720	7.06	5.53	7.02	11.33	1.90	2.00	6.78	5.86	7.02	5.93	1.41	8.00	4.00	5.00	Frequency Dep.
0.595	0.769	7.47	6.00	9.50	12.67	2.50	2.67	7.49	6.69	6.84	5.80	.00	9.00	4.49	5.80	intensity
0.204	1.437	4.29	5.74	5.20	3.00	1.97	3.33	3.97	4.47	5.33	6.50	2.12	1.50	3.78	4.40	Frequency Obs.
0.189	1.479	4.93	6.56	3.46	2.00	3.93	5.33	4.39	4.69	5.35	6.57	2.83	2.00	3.03	3.80	intensity

Table 8: Operation room staff's multiple aspects of burnout in terms of employment

p-value	ANOVA value	others		Project-based		Company-based		Contract-based		employed		Variables
		SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	
0.842	0.353	13.04	13.79	15.43	16.80	7.65	15.17	15.14	15.27	13.08	12.46	Frequency EE.
0.665	0.597	11.51	13.32	16.09	17.33	12.61	15.83	17.54	17.20	13.25	13.20	intensity
0.622	0.659	15.17	30.61	14.47	33.93	9.35	28.17	12.11	32.41	11.40	34.80	Frequency PA.
0.815	0.391	15.69	33.64	15.34	32.33	11.83	28.50	12.09	34.65	14.36	35.06	intensity
0.276	1.292	6.91	6.75	7.58	7.40	2.50	2.67	7.03	6.11	5.59	4.11	Frequency Dep.
0.216	1.466	7.05	7.57	8.94	8.40	3.16	4.00	7.34	6.61	6.17	4.26	intensity
0.111	1.914	3.62	4.04	4.57	4.80	2.95	2.50	4.85	6.03	3.66	4.54	Frequency Obs.
0.230	1.421	4.19	4.93	5.48	5.00	1.63	1.67	4.83	6.09	4.70	5.26	intensity

Table 9: Operation room staff's multiple aspects of burnout in terms of work shift

test	p value	df	Test value	periodic		night		evening		day		Variables
				SD	Mean	SD	Mean	SD	Mean	SD	Mean	
Kruskal Wallis	0.074	3	6.937	14.46	15.54	4.62	2.67	6.24	9.71	10.23	8.36	Frequency EE.
Kruskal Wallis	0.038*	3	8.397	15.73	16.73	4.62	2.67	6.50	9.29	10.40	8.55	intensity
ANOVA	0.287	--	1.268	12.96	32.16	2.00	46.00	7.84	35.14	12.15	32.64	Frequency PA.
ANOVA	0.253	--	1.375	13.91	33.48	6.35	48.67	11.23	35.14	10.49	36.45	intensity
Kruskal Wallis	0.651	3	1.636	6.93	6.02	5.20	3.00	2.89	3.00	5.30	5.09	Frequency Dep.
Kruskal Wallis	0.431	3	2.754	7.35	6.55	1.73	1.00	3.82	4.71	6.91	6.00	intensity
Kruskal Wallis	0.138	3	5.509	4.49	5.16	.58	.33	3.05	4.57	3.20	5.27	Frequency Obs.
Kruskal Wallis	0.120	3	5.826	4.73	5.47	.58	.33	2.50	4.29	5.45	6.64	intensity

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Table 10: Operation room staff's multiple aspects of burnout in terms of work background

p-value	ANOVA value	≥16 yrs.		12-16 yrs.		8-12 yrs.		4-8 yrs.		0-4 yrs.		Variables	
		SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean		
0.112	1.909	10.95	10.11	13.54	10.57	15.42	16.05	16.80	18.24	12.74	15.53	Frequency	EE.
0.123	1.845	11.38	11.14	16.21	12.21	17.11	17.55	19.13	20.26	12.67	15.40	intensity	
0.394	1.030	12.81	33.91	10.84	36.57	11.70	34.90	12.78	30.32	13.35	31.15	Frequency	PA.
0.231	1.417	14.08	35.46	13.57	38.36	12.30	36.65	12.25	34.24	14.35	30.57	intensity	
0.292	1.252	4.90	3.80	7.39	5.57	5.44	5.25	7.99	6.62	6.92	6.85	Frequency	Dep.
0.247	1.371	5.44	4.09	8.48	6.14	6.17	6.15	7.87	6.82	7.54	7.72	intensity	
0.232	1.414	3.46	4.77	5.34	5.93	4.54	6.05	4.94	5.82	3.99	4.00	Frequency	Obs.
0.306	1.218	4.57	5.57	4.50	5.93	5.02	6.30	5.09	6.12	4.40	4.19	intensity	

References

- Momeni H, Salehi A, Seraji A. The comparison of burnout in nurses working in clinical and educational sections of Arak University of Medical Sciences in 2008. *Arak University of Medical Sciences Journal*. 2010;12(4):113-23.
- Asgari H, Khalkhali H, Mohebbi i. ANALYTICAL SURVEY ON RELATION BETWEEN WORKLOAD WITH OCCUPATIONAL BURNOUT DIMENSIONS IN ICU NURSES. *Journal of Nursing and Midwifery Urmia University of Medical Sciences*. 2016;14(1):30-8.
- Nikbakht Nasrabadi A, Salari A, Hosseinpour M, Yekaninejad M. Study the rate of burnout and intention to leave and their relationship among emergency department nurses. *Iranian Journal of Nursing Research*. 2014;9(3):19-29.
- Sharifard F, Nourozi K, Hosseini M, Asayesh H, Nourozi M. Related factors with academic burnout in nursing and paramedics students of Qom University of Medical Sciences in 2014. *Journal of Nursing Education*. 2014;3(3):59-68.
- Herbert J, Freudenberger. Staff burnout. *J Soc Iss*. 1974;30(1):159-165.
- Sh. Zeighami Mohammadi MS, S. Asgharzadeh Haghighi BS. Relation between Job Stress and Burnout among Nursing Staff. 2011;19(2):42-52.
- Aghajani MJ. The Professional Burnout of Nurses in Different Wards. *Journal Of Research Development in Nursing & Midwifery*. 2013;9(2):97-104.
- Talaei A, Mokhber N, Mohammad – Nejad M, Samari AA. Burnout and its related factors in staffs of university hospitals in Mashhad in 2006. *koomesh*. 2008;9(3):237-46.
- Wu S, Zhu W, Wang Z, Wang M, Lan Y. Relationship between burnout and occupational stress among nurses in China. *Journal of advanced nursing*. 2007;59(3):233-9.
- Niasar NK, Khrame ZT, Koohbor M, Aghaziarati M. Professional burnout and the affecting factors in operating room nurses in Qom teaching hospitals. *Jentashapir*. 2013;4(4):305-14.
- Payami Boosari M. BURNOUT SYNDROME IN NURSES, WORKING AT EDUCATIONAL HOSPITALS. *Iran Journal of Nursing*. 2002;15(32):20-6.
- Sadeghzadeh Nasser M, Ashktorab T, AtashzadehShoredeh F, Alavi Majd H. The study of burnout in nurses and of its related factors of Medical Sciences and Health Services, University Hospitals of Fasa and Jahrom in 1392. *Journal of Shahid Beheshti School of Nursing & Midwifery*. 2014;85(24).
- heidari m, Hassani P, ghodusi m. Correlation of burnout and mental health in medical staffs of the Valyars hospital in Borujen. *Hospital*. 2015;14(1):137-44.
- Rafii F, Shamsikhani S, Zarei M, Haghani M, Shamsikhani S. Burnout and its Relationship with the Nurses' Characteristics. *Iran Journal of Nursing*. 2012;25(78):23-33.
- Khaghanizade M, Abdi F.M, Abdi F, Kaviani H. Determination of the amount Burnout in Nursing staff. *Journal of Behavioral Sciences*. 2008;2(1):51-59.
- Christian CK, Gustafson ML, Roth EM, Sheridan TB, Gandhi TK, Dwyer K, et al. A prospective study of patient safety in the operating room. *Surgery*. 2006;139(2):159-73.