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BURNOUT AMONG EMERGENCY MEDICINE RESIDENTS IN EGYPT

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Abstract

Objectives: This study aimed to estimate the prevalence and determinants of burnout among Emergency Medicine Residents in Egypt. **Methods:** This cross-sectional study was carried out on 129 emergency residents work in the ED on a full-time basis for at least six months preceding the onset of the study and must were enrolled in an emergency medicine training program or residency irrespective of their age. The prevalence and determinants of burnout was assessed through an interview questionnaire that included two main parts (questions regarding demographic and professional characteristics of residents and Maslach burnout inventory). **Results:** Regarding total burn out scale participants with low burn out were 6.82%, participants with moderate burn out were 67.42%, and participants with high burn out were 23.48%. Maslach burnout inventory (total depersonalization) showed negative significant correlation with (age and duration in residency). This mean that the increase in total depersonalization was correlated significantly with the decrease in (age and duration in residency). **Conclusions:** The results indicate that a large proportion of the emergency residents are at moderate to high risk of burnout. Emotional exhaustion, depersonalization, and low personal accomplishment negatively correlated with age and duration of residency and positively correlated with workload and average number of visits.

Keywords: Burnout, Emergency Medicine, Residents

Clinician's Capsule

What is known about the topic?

Burnout is now coded and clearly defined by the World Health Organization's International Disease Classification (ICD-11) as a syndrome result from chronic workplace stress which has not been successfully managed. So, it is resulted from the stressors in the work environment rather than individuals

What did this study ask?

What was the prevalence and determinants of burnout among Emergency Medicine Residents in Egypt?

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What did this study find?

Maslach burnout inventory showed negative significant correlation with (age and duration in residency).

Why does this study matter to clinicians?

Large proportion of the emergency residents are at moderate to high risk of burnout.

INTRODUCTION:

Burnout is now coded and clearly defined by the World Health Organization's International Disease Classification (ICD-11) as a syndrome result from chronic workplace stress which has not been successfully managed. So, it is resulted from the stressors in the work environment rather than individuals [1].

Burnout consists of 3 components, decreased sense of personal accomplishment, emotional exhaustion and de-personalization in individuals who work together. Emotional exhaustion may be presented with energy loss, fatigue and weariness, while de-personalization can present with irritability and negative attitudes toward patients and may lead doctors to perceive patients as deserving of their problems. A decreased level of personal accomplishment may involve dissatisfaction with the accomplishments at work leading to reduced productivity, difficulty in dealing with work and low morale [2].

Six key domains were identified as risk factors for burnout: workload, control, reward, values, community and fairness. Work overload leads to burnout by decreasing the capacity of individuals to meet their job's demands. A lack of control occurs when there is lack of employees' capacity to affect decisions of their work, to exercise professional autonomy, and to gain access to the resources necessary to do an effective job, Insufficient reward and lack of fairness increase vulnerability of people to burnout, Unhealthy community characterized by a lack of trust & support, and by unresolved conflict leads to much risk of burnout[3, 4].

Both job-related (weekly and daily hours of work, years of practice, non-clinical duties, professional development activities and relationship with other colleagues and staff) and non-job-related factors (lifestyle and demographics factors) are documented to be related to burnout among health workers [5].

Burnout syndrome has a detrimental effect on employee satisfaction, work productivity, professional efficacy, mental and physical health, rates of absenteeism, reduced quality of care provided, intention to leave the job and staff turnover and also can affect family roles and functions [6, 7]. Burnout is a serious problem among medical staff and its prevalence has been increased in health-care settings [8].

Emergency medicine workers (physicians and nurses) have been found to have a greater risk of burnout compared to other medical professionals [9].

Emergency Medicine is still considered a developing specialty in Egypt [10]. Working in this field is commonly regarded highly stressful. Emergency Medicine residents are

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considered the front-line providers in the Egyptian health care system. Burnout is a pervasive threat to them and is still grossly underestimated. Although the problem seems to be more obvious in Egypt with increased work hours, high patient loads and limited resources, but there is a still a gap of knowledge about the burden, prevalence, determinants and impact of Burnout.

The aim of this work was to estimate the prevalence and determinants of burnout among Emergency Medicine Residents in Egypt

METHODS:

This Cross-sectional stud was conducted on 129 emergency residents work in the Emergency Departments (ED) (Tanta, Suez Canal, Alexandria, Almansora and Almenofia Universities) and also emergency physicians enrolled in the Egyptian Fellowship Training Program or residency irrespective of their age.

The study was done after approval from the Ethical Committee University. An informed written consent was obtained from all potential participants.

Exclusion criteria were general practitioners or other specialties' residents work in ED.

The prevalence and determinants of burnout among Emergency Medicine Residents in Egypt was assessed through an interview questionnaire that included two main parts.

The first part of the questionnaire included questions regarding demographic and professional characteristics of residents: Socio-demographic factors (Age, Sex, smoking history, etc) and work-related factors.

Daily patient flow rate, Duration of work in the current facility and Average duration of work" Hours/day, days/week & average number of night shifts/month.

Level of job satisfaction (Workload and work environment)

Level of job satisfaction was determined by 6 items each item had score range from 0 to 6 so total job satisfaction score range from 0 to 36 and divided into low job satisfaction range from 0 to 12, moderate range from 13 to 24 and high range from 25 to 36.

The second part included Maslach burnout inventory (MBI):

The MBI is self-reported, validated and designed to assess the three components of the burnout syndrome. It consists of 22 items that measure burnout, and it is divided into three subscales **[1]**:

- Emotional Exhaustion (EE) = (7 items)
- Depersonalization (DP) (cynicism) = (7 items)
- Personal Accomplishment (PA) = (8 items).

EE: Is the depletion of a clinician‟s „emotional resources‟ and can hamper a clinician‟s ability to give psychological support to their patients.

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DP: Describes a clinician‟s dehumanising or callous views towards their patient.

PA: Describes the clinician‟s view of their own efficacy within their workplace and their degree of satisfaction with their work-related achievements. Each domain is scored and should be reported separately.

The questionnaire was performed as following:

The items were written in the form of statements about personal feelings or attitudes.

The answers of the participants represented the frequency with which the respondent experiences these feelings. Responses were scored on a 7-point scale (ranging from 0, “never”, to 6, “every day”) and the scores for each subscale are considered separately. The burnout outcomes were tabulated into three tiers (low, moderate or high) based on the reference ranges provided with the MBI.

High emotional exhaustion was considered at score of 30 or more, high depersonalization was considered at score of 12 or more, and low personal accomplishment was considered at score of 33 or less.

Burnout was defined by the updated Maslach-recommended criteria of “high EE and high DP” or “high EE and low PA” [1].

For both the emotional exhaustion and depersonalization subscale, higher mean scores correspond to higher degree of experienced burnout. In contrast to these two subscales, lower mean scores on personal accomplishment subscale correspond to higher degree of experienced burnout.

MBI consists of 22 items each item had score range from 0(never) and 6(everyday) so total burnout score range from 0 to 132 which then divided into low burnout range from 0 to 44, moderate range from 45 to 88 and high range from 89 to 132.

Total burnout score is the sum of total emotional exhaustion, total depersonalization, and total personal accomplishment but PA is reversed in its score compared to EE and DP.

Statistical analysis

Statistical analysis was done by SPSS v26 (IBM Inc., Chicago, IL, USA). Quantitative variables were presented as mean and standard deviation (SD). Qualitative variables were presented as frequency and percentage (%) and were analysed utilizing the Chi-square. Pearson correlation was done to estimate the degree of correlation between two quantitative variables. A two tailed P value < 0.05 was considered statistically significant.

Results:

Table 1 shows characteristics, duration in residency and current facility and work data of the study subjects.

Table 2 shows job satisfaction and Maslach Burnout Inventory of the study subjects.

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Total emotional was insignificantly correlated with (duration in current facility, working hours/day, night shifts, motivations & promotions, and community & personal relationships). Maslach burnout inventory (emotional exhaustion) showed a negative significant correlation with (age, duration in residency, ability to affect work decisions and rewards& salary). This mean that the increase in emotional exhaustion was correlated significantly with the decrease in (age, duration in residency, ability to affect work decisions and rewards& salary) and vise verse.

Total emotional showed a positive significant correlation with (the average number of patients examined and workload). This mean that the increase in emotional exhaustion was correlated significantly with the increase in (the average number of patients examined and workload).

Maslach burnout inventory (total depersonalization) was insignificantly correlated with (duration in current facility, working hours, night shifts, ability to affect work decisions, fairness in work environment, motivations & promotions, rewards& salary, and community & personal relationships).

Maslach burnout inventory (total depersonalization) showed negative significant correlation with (age and duration in residency). This mean that the increase in total depersonalization was correlated significantly with the decrease in (age and duration in residency). And vise verse.

Total depersonalization showed positive significant correlation with (average number of patients examined, working days week and workload). This mean that the increase in total depersonalization was correlated significantly with the increase in (average number of patients examined, working days week and workload and vise verse. Table 3

Maslach burnout inventory (total personal accomplishment) was insignificantly correlated with (duration in current facility, average number of patients examined/day, working hours / day, night shifts/month, ability to affect work decisions, fairness in work environment, motivations & promotions, rewards& salary, and community & personal relationships).

Total personal accomplishment showed negative significant correlation with age and duration in residency. This mean that the increase in total personal accomplishment (low burn out) was correlated significantly with the decrease in age and duration in residency and vise verse.

Total personal accomplishment showed positive significant correlation with working days week and workload. This mean that the increase in total personal accomplishment (low burn out) was correlated significantly with the increase in working days week and workload and vise verse.

There was an insignificant association between Maslach Burnout Inventory (emotional exhaustion) and marital status, and smoking**.** There was a significant association between Maslach Burnout Inventory (emotional exhaustion) and sex (P value= 0.003) as females

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with high burn out were significantly higher than males with high burn out (85.7% versus 58.8% respectively, P = 0.003).

Regarding highest qualification, participants with bachelor and EFTP 2nd qualifications were associated with high burn out (P = 0.002, 0.031 respectively).

Regarding place of the current work, there were significant association between higher emotional exhaustion and those working in Menofiua hospital, Alexandria hospital, Mansoura hospital, and EFTP (P=0.001, 0.008, and 0.009).

Exposure to work related violence showed insignificant association with a high emotional exhaustion (P=0.173). Table 4

There was an insignificant association between Maslach Burnout Inventory (personal accomplishment) and marital status, smoking, exposure to work violence and place of the current work**.**

There was a significant association between Maslach Burnout Inventory (personal accomplishment) and sex (P value <0.001) as females with high burn out were significantly higher than males with high burn out (81.6% versus 42.5% respectively, P <0.001), females with moderate burn out were significantly lower than males with moderate burn out (14.3% versus 37.5% respectively, P=0.003).

Regarding highest qualification, participants with bachelor and EFTP 3rd qualifications were associated with low burn out (P <0.001, =0.017 respectively), Master + EFTP qualification was associated with moderate burn out (P = 0.026) while 1st master, EFTP 1st, EFTP 2nd and EFTP 4th qualifications were insignificant difference between low, moderate, and high burn out. Table 5

DISCUSSION

The concept of burnout in health care emerged in the late 1960s as a way to colloquially describe the emotional and psychological stress experienced by clinic staff caring for vulnerable patients in free clinics. Since then, the term burnout has been used to characterize job-related stress in any health practice environment, from hospitals in urban communities to global health settings [11].

In the present study, working hours/day ranged from 4-24 hours with a mean value (±SD) of 14.67± 5.86. Working days/week ranged from 17days with a mean value (±SD) of 3.71± 1.09. Night shifts/month ranged from 0-25 days with a mean value (±SD) of 9.92± 3.77.

Our results are in line with El Dabbah et al. [12] investigated the prevalence and associated factors of burnout syndrome among healthcare professionals (HCPs) working at COVID-19 isolation facilities in Egypt and Sudan.. A total of 362 HCPs participated in the study and were equally recruited from Egypt and Sudan. The mean working hours per week were 41 ± 19.22 hours/week for the whole sample.

In this study, regarding exposure to work-related violence, only (1%) one case had no work-related violence, (36%) were exposure to work-related violence for 1 time/day,

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(28%) were exposure to work-related violence for 2 times/day, (22%) were exposure to work-related violence for 3 times/day and (13%) were exposure to work-related violence for more than 3 times/day.

Our results are consistent with Abdo et al. [14] reported that they had been exposed to verbal violence at work (91.6%), 10.5% were exposed to physical violence and only 0.4% were exposed to sexual violence. They showed that 31% of physicians dealt with critically ill patients a few times a year, 20.1% once a month and 21.3% once a week.

In the present study, according to scale of job satisfaction, 79.07% had low job satisfaction, 12.40 % had moderate job satisfaction, and 8.5% had high job satisfaction. Variations in culture, the nature of the health system (including structural and service delivery problems in different countries), patients" attitudes and the role of physicians as health-care providers lead to variation in job satisfaction.

In the same line with our findings, Osman and Abdulrahim [14] assessed the levels of burnout and job satisfaction as well as their correlates among healthcare providers in Aswan University Hospital. Interviewing questionnaire was filled from 134 physicians and 149 nurses (total 283). The questionnaire included personal and job characteristics, assessment of burnout using MBI, evaluation of Job satisfaction by applying short form of Minnesota satisfaction questionnaire and measurement of satisfaction with life (SWL) and flourishing status using Diner scales. The mean job satisfaction score among the studied population was 63.81±15.37 out of 100.

In the current study, regarding emotional exhaustion, participants with high burn out were 74.78%, moderate burn out were 15.07%, and low burn out were 10.82%. Regarding total depersonalization, participants with high burn out were 88.37%, moderate burn out were 11.62%, and there were no participants with low burn out. Regarding reduced personal accomplishment, participants with high burn out were 57.36%, moderate burn out were 28.68% and low burn out were 13.95%.

Our results are supported by Alaslani et al. [13] who observed that the overall prevalence of burnout among the participants was 41.6%; it was 48.7% among ER physicians and 10% among physicians from other specialties. It is evident that all rate of dimensions of burnout (high emotional exhaustion, high depersonalization and low personal accomplishment were higher among ER physicians than others.

Our results are not consistent with Abdo et al. [14] who documented that 39.7% of physicians scored high on emotional exhaustion, while 22.6% had high levels of depersonalization and a majority (97.7%) had high levels of reduced personal accomplishment. The deviation from our results may be due to different work environment regarding number of residents and flow rate of patients. As this study was carried out in 2015 with about 7 years" time interval that may affect number of residents distributions and rate of cases at ED.

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In the current study, regarding total burn out scale participants with low burn out were 6.82%, participants with moderate burn out were 67.42%, and participants with high burn out were 23.48%.

In the same line with our findings, Abbas et al. [15] who reported that regarding the total burnout scale, 68.2% of the study participants reported having a moderate level of burnout.

In the present study, Maslach burnout inventory (emotional exhaustion, total depersonalization and total personal accomplishment) showed a negative significant correlation with (age and duration in residency). Total emotional exhaustion, total depersonalization and total personal accomplishment showed a positive significant correlation with (the average number of patients examined and workload).

Our results are supported by Abdo et al. [14] who documented that multivariate analysis by linear regression revealed that age, frequency of work-related exposure to violence, years of experience, work burden, supervision and work activities were the significant predictors for burnout.

In the present study, there was a significant association between emotional exhaustion and sex (P value= 0.003) as females with high burn out were significantly higher than males with high burn out (85.7% versus 58.8% respectively, P = 0.003). There was a significant association between personal accomplishment and sex (P value <0.001) as females with high burn out were significantly higher than males with high burn out (81.6% versus 42.5% respectively, P <0.001), females with moderate burn out were significantly lower than males with moderate burn out (14.3% versus 37.5% respectively, P=0.003).

In the same line with our findings, Alaslani et al. [13] reported that younger (≤25 years), female, those working more hours and oncall physicians were more likely to express high emotional exhaustion compared to others.

In contrast to our findings, Alqahtani et al. [16] assessed the magnitude and determinants of burnout among emergency physicians and nurses working at emergency departments of hospitals in Abha and Khamis Mushait cities. all physicians (n=95) and nurses (n=187) currently working at these sites were invited to participate in the study by filling a validated self-administered questionnaire including two main sections: personal and professional characteristics of physicians and nurses as well as Maslach burnout inventory (MBI) to assess the three components of the burnout syndrome: emotional exhaustion, depersonalization, and reduced personal accomplishment multivariate logistic regression analysis revealed that male healthcare professionals were at almost higher three-folded risk for developing burnout compared to females (aOR=2.76; 95% confidence interval (CI): 1.21- 6.28, p=0.017)). The difference from our finding may be explained as the authors evaluated physicians in Saudi Arabia.

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CONCLUSIONS:

The results indicate that a large proportion of the emergency residents are at moderate to high risk of burnout. Emotional exhaustion, depersonalization, and low personal accomplishment negatively correlated with age and duration of residency and positively correlated with workload and average number of visits.

DECLARATIONS:

Ethics approval and consent to participate: the study was approved from the institutional ethical committee, Tanta University. All participants included had signed a consent form.

Consent for publication: All authors give their consent for publication; they all have agreed to publish this work.

Availability for data and materials: The data is available upon reasonable request from the authors.

Competing interests: The authors declare that they have no competing interests

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Authors' Contributors: All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Mohamed A. El-Heniedy, Doha R. Zidan and Esraa H. Nassar. The first draft of the manuscript was written by Nehal S. Shehab, Doha R. Zidan. And all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Table 1: Characteristics, duration in residency and current facility of the study subjects

		N= 129
Age (years)		30.56± 3.42
Sex	**Male**	80 (62.02%)
	Female	49 (37.98%)
Marital status	**Single and divorced**	48 (37.20%)
	Married	81 (62.79%)
Residence	**Zagazig**	6 (4.65%)
	Ismailia	7 (5.38%)
	Giza	8 (6.20%)
	El Behera	8 (6.20%)
	October	8 (6.20%)
	Menoufia	9 (6.98%)
	Dakahlia	10 (7.75%)
	Mansoura	12 (9.30%)
	Gharbia	12 (9.30%)
	Alexandria	22 (17.05%)
	Cairo	23 (17.83%)
Highest qualifications	**1st master**	2 (1.55%)
	Bachelor	52 (40.31%)
	EFTP 1at	10 (7.75%)
	EFTP 2nd	30 (23.26%)
	EFTP 3rd	26 (20.16%)
	EFTP 4th	6 (4.65%)
	Master + EFTP	3 (2.33%)
Place of the current work	**Menoufia hospital**	9 (6.98%)
	Suez Canal hospital	10 (7.75%)
	Mansoura hospital	11 (8.53%)
	Alexandria hospital	12 (9.30%)
	Tanta hospital	15 (11.63%)
	EFTP	72 (55.81%)
Duration in residency (years)		2.95 ± 1.56
Duration in current facility (year)		1.52 ± 0.980
Average number of patients examined/day		90.23 ± 53.58
Working hours / day		14.67± 5.86
Working days/ week		3.71± 1.091
Night shifts/month		9.92± 3.77
Exposure to work-related violence	**No**	1 (1%)
	Yes, 1 time	46 (36%)
	Yes, 2 times	36 (28%)
	Yes, 3times	29 (22%)
	Yes, more than 3 times	17 (13%)

Data are presented as mean ± SD or frequency (%), EFTP: Emergency fellowship training program

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Table 2: Job satisfaction and Maslach Burnout Inventory of the study subjects

			N= 129
Workload			5.23± 0.96
Ability to affect work decisions			4.23± 1.26
Fairness in work environment			3.36 ± 2.77
Motivations & promotions			1.97 ± 1.43
Rewards& salary			2.01 ± 1.36
Community & personal relationships			4.61 ± 1.42
Maslach Burnout Inventory	**Low**	**Moderate**	**High**
Emotional exhaustion	14)10.82%)	26 (15.07%)	89 (74.78%)
Total depersonalization	--	15 (11.62%)	114(88.37%)
Personal accomplishment	18 (13.95%)	37 (28.68%)	74 (57.36%)

Data are presented as mean ± SD or frequency (%),

Table 3: Correlation between maslach burnout inventory (emotional exhaustion) with both of work-related characteristics and job satisfaction and Correlation between total depersonalization and with both of work-related characteristics and job satisfaction

Total emotional exhaustion		
	r	**p**
Age	-0.174	0.049*
Work related characteristics		
Duration in Residency (years)	-0.227	0.010*
Duration in current facility (year)	-0.020	0.823
Average number of patients examined/day	0.209	0.017*
Working hours/day(hour)	0.071	0.426
Working days/ week (day)	0.223	0.011*
Night shifts/month, (night)	0.074	0.406
Job satisfaction		
Workload	0.246	0.005*
Ability to affect work decisions	-0.193	0.028*
Fairness in work environment	-0.063	0.480
Motivations & promotions	-0.028	0.749
Rewards& salary	-0.174	0.049*
Community & personal relationships	0.055	0.534
Total depersonalization		
Age	-0.289	<0.001*
Work related characteristics		
Duration in Residency (years)	-0.304	<0.001*
Duration in current facility (year)	0.128	0.148
Average number of patients examined/day	0.206	0.019*
Working hours/day (hour)	0.015	0.864
Working days/ week (day)	0.305	<0.001*
Night shifts/month	0.062	0.487
Job satisfaction		
Workload	0.300	<0.001*
Ability to affect work decisions	-0.115	0.196
Fairness in work environment	0.154	0.082
Motivations & promotions	-0.015	0.568
Rewards& salary	-0.097	0.272
Community & personal relationships	0.102	0.251

*: significant P value

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Table 4: Relationship between emotional exhaustion and different parameters and Relationship between total depersonalization and different parameters

Emotional exhaustion		**N= 129**			
		Low (n=14)	**Moderate (n=26)**	**High (n=89)**	**P value**
Sex	Male	10 (12.5%)	23 (28.7%)	47 (58.8%)	0.003*
	Female	4 (8.2%)	3 (6.1%)	42 (85.7%)	
Marital status	Single + divorced	3 (6.4%)	8 (16.66%)	37 (78.7%)	0.130
	Married	11 (13.6%)	18 (22.2%)	52 (64.2%)	
Smoking	Yes	1 (5.6%)	4 (22.2%)	13 (72.2%)	0.735
	No	13 (11.7%)	22 (19.8%)	76 (68.5%)	
Highest qualification	1st master	0 (0.0%)	0 (0.0%)	2 (100%)	0.634
	Bachelor	3 (5.8%)	4 (7.7%)	45 (86.5%)	0.002*
	EFTP 1st	0 (0.0%)	3 (30%)	7 (70%)	0.428
	EFTP 2nd	6 (20%)	9 (30%)	15 (50%)	0.031*
	EFTP 3rd	4 (15.4%)	9 (34.6%)	13(50%)	0.058
	EFTP 4th	1 (16.7%)	1 (16.7%)	4 (66.7%)	0.887
	Master + EFTP	0 (0.0%)	0 (0.0%)	3 (100%)	0.502
Exposure to work violence	No	1 (100%)	0 (0.0%)	0 (0.0%)	0.173
	Yes, 1 time	6 (13.6%)	11 (23.9 %)	29 (63%)	
	Yes, 2 times	5 (13.9%)	8 (22.2%)	23 (63.9%)	
	Yes, 3times	1 (3.6%)	6 (21.4%)	22 (75.9 %)	
	Yes, more than 3 times	1 (5.9%)	1 (5.9%)	15 (88.2%)	
Place of the current work	Tanta hospital	2 (13.3%)	4 (26.7%)	9 (60.0%)	0.721
	Menofia hospital	2 (22.2%)	2 (22.2%)	5 (55.6%)	<0.001*
	Alexandria hospital	4 (33.3%)	3 (25.0%)	5 (41.7%)	0.008*
	Mansoura hospital	0 (0.00%)	6 (54.5%)	5 (45.5%)	0.009*
	Suez Canal hospital	2 (20.0%)	2 (20.0%)	6 (60.0%)	0.617
	EFTP	0 (0.0%)	9 (12.5%)	63 (87.5%)	0.001*

Total depersonalization		**Moderate (n=15)**	**High (n=114)**	**P value**
Sex	Male	11 (13.8%)	69 (86.3%)	0.337
	Female	4 (8.2%)	45 (91.8%)	
Marital status	Single + Divorced	2 (4.3%)	46 (95.83%)	0.125
	Married	13 (16%)	68 (84%)	
Smoking	Yes	3 (16.7%)	15 (83.3%)	0.472
	No	12 (10.8%)	99 (89.2%)	
Highest qualification	1st master	0 (0.0%)	2 (100%)	1.00
	Bachelor	3 (5.8%)	49 (94.2%)	0.101
	EFTP 1st	0 (0.0%)	10 (100%)	0.604
	EFTP 2nd	7 (23.3%)	23 (76.7%)	0.05*
	EFTP 3rd	2 (7.7%)	24 (92.3%)	0.734
	EFTP 4th	3 (50%)	3 (50%)	0.02*

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	Master + EFTP	0 (0.0%)	3 (100%)	1.00
Exposure to work violence	No	0 (0.0%)	1 (100%)	0.154
	Yes, 1 time	9 (20.5%)	37 (80.4%)	
	Yes, 2 times	6 (16.7%)	30 (83.3%)	
	Yes, 3times	0 (0.0%)	29 (100%)	
	Yes, more than 3 times	0 (0.0%)	17 (100%)	
Place of current work	Tanta hospital	3 (20.0%)	12 (80.0%)	0.109
	Menofia hospital	3 (33.3%)	6 (66.7%)	
	Alexandria hospital	2 (16.7%)	10 (83.3%)	
	Mansoura hospital	2 (18.2%)	9 (81.8%)	
	Suez Canal hospital	2 (20.0%)	8 (80.0%)	
	EFTP	4 (5.6%)	68 (94.4%)	

Data are presented as frequency (%), *: significant P value, EFTP: Emergency fellowship training program

Table 5: Relationship between personal accomplishment and different parameters

		N= 129			
		Low (n=18)	**Moderate (n=37)**	**High (n=74)**	**P value**
Sex	Male	16 (20%)	30 (37.5%)	34 (42.5%)	<0.001*
	Female	2 (4.1%)	7 (14.3%)	40 (81.6%)	
Marital status	Single + Divorced	4 (8.5%)	10 (21.3%)	34 (70.83%)	0.188
	Married	14 (17.3%)	27 (33.3%)	40 (49.4%)	
Smoking	Yes	3 (16.7%)	9 (50%)	6 (33.3%)	0.063
	No	15 (13.5%)	28 (25.2%)	68 (61.3%)	
Highest qualification	1st master	0 (0.0%)	0 (0.0%)	2 (100%)	0.470
	Bachelor	3 (5.8%)	9 (17.3%)	40 (76.9%)	<0.001*
	EFTP 1st	2 (20%)	4 (40%)	4 (40%)	0.512
	EFTP 2nd	6 (20%)	9 (30%)	15 (50%)	0.492
	EFTP 3rd	4 (15.4%)	13 (50%)	9 (34.6%)	0.017*
	EFTP 4th	1 (16.7%)	2 (33.3%)	3 (50%)	0.932
	Master + EFTP	2 (66.7%)	0 (0%)	1 (33.3%)	0.026*
Exposure to work violence	No	0 (0%)	0 (0%)	1 (100%)	0.431
	Yes, 1 time	9 (20.5%)	16 (34.8 %)	21 (47.7%)	
	Yes, 2 times	4 (11.1%)	10 (27.8%)	22 (61.1%)	
	Yes, 3times	2 (7.1%)	9 (31%)	18 (64.3%)	
	Yes, more than 3 times	3 (17.6%)	2 (11.8%)	12 (70.6%)	
Place of the current work	Tanta hospital	6 (40.0%)	4 (26.7%)	5 (33.3%)	0.109
	Menofia hospital	0 (0.0%)	2 (22.2%)	7 (77.8%)	
	Alexandria hospital	2(16.7%)	5 (41.7%)	5 (41.7%)	
	Mansoura hospital	0(0.0%)	5 (45.5%)	6 (54.5%)	
	Suez Canal hospital	1 (10.0%)	3 (30.0%)	6 (60.0%)	
	EFTP	9 (12.5%)	18 (25.0%)	45 (62.5%)	

Data are presented as frequency (%), *: significant P value, EFTP: Emergency fellowship training program