



Burnout, Job characteristics and work place problems among staff nurses at El-Azazy psychiatric Hospital

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Abstract

Background: Burnout is a feeling of exhaustion that develops when an individual experiences too much pressure and too few sources of satisfaction, Psychiatric nurses experience a spacious range of stressful events Which affects physical and mental health. **The aim** of this study is to assess burnout, job characteristics and work place problems among staff nurses. **Design:** A descriptive correlational design was carried out. **Setting:** The study was conducted at El-Azazy Hospital for mental health in Abo Hammad city. **Sample:** A convenient sample of 100 nurses. **Tools** two tools were used to collect the study data: **I**) a structured interview questionnaire, and **II**) Maslach's Burnout Inventory, Human Services Survey (MBI-HSS). **Result** the current study revealed that the mean age 29.0 ± 5.1 years, (93%) were females, (57%) had less than 10 years of experience, While (95%) worked night shifts. Further, (78.0%) had problems with their families. While (30.0%) had problems with supervisors. Regarding burnout domains the highest level was to personal achievement (75.0%) followed by emotional exhaustion (59.0%), and (23.0%) of participants had depersonalization, while (19.0%) of them had high level of total burnout. There was a statistically significant relation between nurses' total burnout and their problems with supervisors ($p= 0.003$) and difficult transportation ($P= 0.049$). Multivariate analysis revealed that Small number of nurses per shift, problems with supervisors and difficult transportation were independent positive predictors of nurses total burnout ($r=0.27$) . **Conclusion** less than one-quarter of nurses had high level of total burnout. Also, problems with supervisors, peers and families due to over time were independent positive predictors of burnout. **Recommendations** regularly assessment for factors which increase levels of burnout among psychiatric nurses, Implementing interventions to deal effectively with burnout.

Key words: Burnout, Job characteristics, Work place problems, Psychiatric nurses

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INTRODUCTION

Psychiatric nurses carry out multiple tasks, with different degrees of requirements and responsibilities, these professionals can be exposed to psychosocial risks. In psychiatric hospital units, the environment and the type of demand can expose the nurses to risks, which result in negative consequences for the worker's health and the quality of care provided to patients (Gul et al., 2017).

The hospital environment has biological, ergonomic, chemical, physical, and psychosocial hazards. Psychosocial risks, focus of this investigation, are related to the design, organization and management of the occupation and to their social and environmental contexts, which have the potential to cause physical, psychological or social damage to the worker (Alhassan & Poku, 2018).

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Nursing is a stressful and challenging profession for several reasons. Permanent confrontation with patients, having responsibility for human health, performing clinical procedures, exposure to dying patients, dealing with emergency and unpredictable situations, exposure to too much noise at workplace and shifts turnover are among stress factors affecting the nursing profession (**Koutsimani et al., 2019**).

Burnout described as the end result of stress in the professional life and combines emotional exhaustion, depersonalization, and low personal accomplishment. This problem is common in health care workers in every specialty and may affect not only personal satisfaction, but also the quality of care delivered to patients (**Han, 2018**).

Although nurses who experience burnout may show less ability or willingness to deliver high quality care, it is also possible that working in environments where quality of care is low may lead to emotional distress and disengagement. Burnout and nurses' perceptions of poor quality of care might also be correlated with each other because both variables reflect nurses' negative assessments of or dissatisfaction with their work situations (**Salyers et al., 2017**).

Care quality likely deteriorates because providers experiencing burnout have more pressing emotional issues. Emotional exhaustion, lethargy, and lack of attention often leave providers looking exclusively at the most pertinent tasks. They also often "cynically detached" from their work, leaving them liable to have more agitated or aggressive attitudes toward their patients, their work, or their colleagues. Such attitudes can harm patient satisfaction and care team communication, both of which are essential to quality healthcare (**Dewa et al., 2017**).

The high-stress and high-responsibility nature of health professions commonly leads to

mismanaged mental health which not only directly affects patient outcomes but may also affect the personal health and quality of life of nurses (**Serrão et al., 2021**).

The role of psychiatric nurse in preventing burnout overcoming and managing burnout symptoms among psychiatric nurses: **(A)** personal directed interventions: Increase self-efficacy: as observing a friend or work colleague accomplish something meaningful is contagious and increases the ability to meet challenges head on (**Iserson, 2018**). Moreover, Increase diet of positive emotions: Studies show that increasing diet of positive emotion builds resilience, creativity, and ability to be solution-focused. It is a point to start noticing when people did things well, and try to stop being so hard on one's self (**Squiers et al., 2017**).

(B) Organizational directed interventions: Stress reduction classes: Live classes and computer based sessions should be offered about self-care stress reduction techniques. (**Lahana et al., 2017**). Recognition and reward: Although often considered a short-term boost, simple recognition and reward activities lift nurses' spirits and go a long way to making a bad day into a good one. Furthermore, in a professional environment, nurse burnout can be avoided by seeking social support. Maintaining lines of communication with colleagues is essential (**Hailay et al., 2020**)

Significance of the study

Psychiatric nurses are considered the main working group of hospitals, they are responsible for preserving and promoting the quality of care for patients against predetermined standards and they are the milestone of any health care system. The nursing shortage is the main problem facing all hospitals, whether private or governmental, so the nurses are susceptible to have burnout and other psychological problems as depression as a result of heavy workload, long shift hours and the nature of the psychiatric working environment. Sothat, this study will be conducted to determine level of burnout among

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staff nurses working in El - Azazy psychiatric hospital that help to produce scheme to deal with workplace related stress and decrease burnout among psychiatric nurse.

AIM OF THE STUDY

The aim of the study was to :

Assess burnout, job characteristics and work place problems among staff nurses working in El - Azazy psychiatric hospital.

Research questions :

- What is the level of burnout among staff nurses?
- Is there a relation between burnout, job characteristics and work place problems?

Research design :

A descriptive correlational design was used to conduct this study.

Study setting :

The study was conducted at El-Azazy Hospital for mental health in Abo Hammad city, in Sharkia Governorate, Eygpt.

Study subjects:

The study subjects consisted of A convenient sample of 100 nurses working in El-Azazy Hospital.

Tools of data collection:

Two tools were used to collect the study data .

Tool I :- A structured interview questionnaire : This section developed by the researcher and composed of two parts .

Part 1: Demographic data sheet and job characteristics : It was used to asses a sociodemographic characteristics of psychiatric nureses as gender , age , marital status number of children, educational degree, years of experience, income satisfaction, the type of shifts and number of shifts per month.

Part 2 : Nurses'opinion about work place problems : It included questions about work place problems as small number of nurses per shift , low salary , risk of infection and injury , problems with supervisors, difficult transportation and overtime which lead to problems with family .

Tool II: Maslach's Burnout Inventory, Human Services Survey (MBI-HSS):

It was developed by **Maslach et al (1986)** to measure the level of burnout among nurses , Consists of 22 items grouped under three domains as follows: The emotional exhaustion subscale (nine items), the depersonalization subscale (five items), and the personal accomplishment subscale (seven items).The items are graded on a seven-level rating scale ranging from 0 (never) to 6 (daily)

Scoring system :

Items had a 7-point Likert scale response: "Every day ,Few times a week, Once A week, Few times a month, One a month or less, Few times a week, Never." These were scored from 6 to 0 respectively. The scoring was reversed for negative statements. For each area and for the total scale, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the area. These scores were converted into percentage scores. The nurse burnout was considered "high" if the percentage score was 60% or more and low if less than 60%.

Content validity:

The validity of the tools was done by group of panel who were three experts from nursing and educational staff who reviewed the tools and ascertained clarity, relevance, comprehensiveness, and understandability.

Reliability:

Scales	N of Items	Cronbach's Alpha
Burnout:		
Emotional exhaustion	9	0.82
Depersonalization	5	0.82
Personal achievement	8	0.84

Pilot study

A pilot study was conducted on 10 nurses in El-Azazy psychiatric Hospitals, constituting about 10% of total study sample. It was carried

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out to assess content validity of the used tool, ascertain the clarity, applicability, feasibility, practicability of the tools, and estimated time needed to fill out the tools. Data obtained from the pilot were analyzed and no modification was done. The time needed to fill out the tools was about 25-30 minutes, The pilot sample was not included in the main study.

Field work:

Once permission was granted to proceed with the study, the researcher met with nursing staff of El-Azazy psychiatric hospital who fulfilled the inclusion criteria. The purposes and benefits of the study were explained to participants. They were ensured of confidentiality, participation was completely voluntary. The researcher started the interview with nurses individually using the data collection tools. The questionnaire was read and explained. Instructions were given to nurses to fill questionnaire. From the pilot study results, it was found that the average time to fill in all tools was from 20-25 minutes. Data was collected two times per week (Monday and Thursday) Data collection period continued in about 2 months from the mid of October till the mid of December, 2018.

Ethical considerations:

The ethical issues were taken into consideration. The study was approved by the pertinent authority of research ethics committee of faculty of nursing at zagazig university. The agreement for participation of the informants was taken after fully explained of the aim of the study. Participants were afforded the chance to decline the participation, and they were advised that they could back out at any stage of the data collection interviews; as well they were reassured that the data would be confidential and utilized for the research purpose only.

Administrative design

An official permission was obtained from the director of El-Azazy hospital for mental illness after explaining the nature and the aim of the study to get the permission of data collection and facilitate the researcher role.

Statistical design:

Data entry and statistical analysis were done using SPSS 20.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations and medians for quantitative variables. Cronbach alpha coefficient was calculated to assess the reliability of the developed tools through their internal consistency. Qualitative categorical variables were compared using chi-square test. Whenever the expected values in one or more of the cells in a 2x2 tables was less than 5, Fisher exact test was used instead. In larger than 2x2 cross-tables, no test could be applied whenever the expected value in 10% or more of the cells was less than 5. McNemar chi-square test was used for the comparison of dependent samples. Spearman rank correlation was used for assessment of the inter-relationships among quantitative variables and ranked ones. In order to identify the independent predictors of burnout and depression, multiple linear regression analysis was used and analysis of variance for the full regression models was done. Statistical significance was considered at p-value <0.05.

Result

Table (1) represents Demographic characteristics of nurses in the study sample . It was clarified that more than half of the studied nurses (55%) their age less than thirty with mean the mean age 29.0 ± 5.1 , the majority of them were female (93%) and married (84%) number of their children ranged from 0-5 children and more than half of nurses had technical institute diploma (56%) .

Table (2) demonstrates that more than half of the sample 57% had less than 10 years of experience with median 8 years. Approximately two third of participants had insufficient income 63% , as regard , no of shifts more than half of studied nurses (56.0 %)had less than 15 shifts per month . while 95% had work night shifts .

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Figure (1) shows that the great majority of them selected the risk for infection and injuries 93.0%, followed by problems with their families due to over time 78.0% and low salary 75.0%. On the other hand the least selected problems with supervisors 30.0%.

Figure (2) shows that the highest level regarding burnout domains was to personal achievement 75.0% followed by emotional exhaustion 59.0%. On the other hand, 23.0% of participants had high depersonalization, while 19.0% of them had high level of total burnout.

Table (3) shows that there were statistically significant relations between emotional exhaustion, small number of nurses per shifts and presence of problems with supervisors ($p < 0.001$). It is indicated that emotional exhaustion among nurses increases with small number of nurses per shift and with presence of problems with supervisors.

Table (4) demonstrates that there was a significant relation between nurses depersonalization and problems with supervisors ($p = 0.008$), difficult transportation ($p = 0.049$) and small numbers of nurses per shift ($p = 0.03$). It is evident that the percentage of depersonalization increases with small number of nurses, presence of problems with supervisors and with difficult transportation.

Table (5) demonstrates a statistically significant relation between nurses' total burnout and their problems with supervisors ($p = 0.003$) and small number of nurses per shift ($P = 0.06$), and also with difficult transportation ($p = 0.049$).

In the multivariate analysis **table (6)** shows that the statistically significant independent positive predictors of nurses total burnout score were their small number of nurses per shift, problems with supervisors and difficult transportation. The model explains 0.27% of the variation in this score.

Discussion

The high-stress and high-responsibility nature of health professions commonly leads to

mismanaged mental health which not only directly affects patient outcomes but may also affect the personal health and quality of life of nurses (Serrão et al., 2021). The present study findings showed that the majority of them were females and married, more than half had Technical institute. The possible explanation for that, nursing has traditionally been a female-dominated industry, but the percentage of male nurses has increased. These results supported with the study by Cheng et al., (2015) who study the correlation between burnout and professional value in Chinese oncology nurses and founded that the most of studied nurses were female and more than half were married. Similar to a study conducted by Huo et al., (2021) where the majority of participants were females. On the other hand, A study by Lagerlund et al., (2017) about Intention to leave the workplace among nurses working with cancer patients in acute care hospitals in Sweden and stated that the most of them were female.

Regarding to Job characteristics of nurses, the current study demonstrated that more than half of participant nurses had less than 10 years of experience. Approximately two thirds had insufficient income, less than half of them had taken more than 15 shifts per month with mean 13.7 ± 2.8 and the great majority working night shifts. These results attributed to the nature of work in most Egyptian hospitals oblige nurses to take night shifts and determine the number of certain shifts. These result agreement with the study conducted by sharma et al., (2018) who conducted study about assessment burnout among staff nurses working in a tertiary care health centre in North India and founded that about two thirds of the studied nurse had up to five years in the profession and majority of them worked night shift.

On the other hand the current study revealed that the majority of the nurses had high risk for infection and injuries, more than three quarters had problems with their families due to over time, while less than one third had problems

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with supervisors and peers . And also more than half of nurses had difficult transportation. These results explain that multi responsibilities and lack of protective supplies that cause high risk to infection and injury.

Moreover, this result might be due to a fact that some of the nurses are not convinced that they want to pursue this profession. These results consistent with the study by **Molina-Praena et al., (2018)** who study Levels of burnout and risk factors in medical area nurses, and reported that more than half suffered from high risk of infection and injury and also suffered from shortage of nurses related patients ratio.

Concerning psychiatric nurses' total burnout level, In total less than one quarter of nurses had high level of total burnout, this result might be due to lack of organizational support, the challenge of the tasks that need to be done and available time to perform them subjected workers to extreme tension, aggressive behavior either verbally or physically from psychiatric patients, difficulties of dealing with patient at risk for suicide, lack of patient recovery may be predisposing factors for burnout. This study is agree with a study conducted by **Huo et al., (2021)** presented that about one quarter of participants suffered from burnout. Beside a study of **Delfrate et al .,(2018)** in Italy about moral distress and burnout in mental health nurses showed that great majority of studied nurses did not suffer from burnout. And also is agree with study results of **Vidotti et al .,(2019)** in Brazil which revealed that burnout syndrome was about twenty percent among studied nurses . These result irrelevant with the study performed by **Harizanova & Stoyanova,(2020)** titled in Burnout among nurses and correctional officers, who presented that about half of studied nurses had high burnout.

Regarding to burnout domains the present study showed that the highest level was to personal achievement followed by emotional exhaustion and depersonalization. The current study revealed that more than half of studied

nurses had emotional exhaustion These results agreement with the study done by **Choi et al., (2018)** who study Factors associated with emotional exhaustion in South Korean nurses and stated that half of studied nurses had high emotional exhaustion. And also relevant with study conducted by **Elsayes & Elsherif (2017)** about psychiatric nurses empathy ,burnout ,and its relation with professional quality of life which revealed that more than half of studied sample had high level of emotional exhaustion.

Concerning to the second dimation of burnout ; personal accomplishment ,the current study results showed that majority of studied nurses had High level of personal accomplishment this result might be due it's true that more years of experience can lead to greater personal achievement as a result of developing deeper understanding of their field, gaining more skills and knowledge. this result relevant with study conducted by **Abedi-Gilavandi et al .,(2019)**in Tehran revealed that the majority of studied nurses had high level of personal accomplishment . Beside **López-López et al .,(2019)** in Belgrade founded that about two third of studied participants had high level of personal accomplishment. Moreover, a study conducted by **Berry & Roberston ,(2019)** which showed that more than one quarter of studied nurses had low level of accomplishment

Concerning to the third dimation of burnout depersonalization, the current study reported that less than one quarter of participants had high level of depersonalization .This result was relevant with study conducted by **Sharma et al., (2018)** who founded that about one quarter of the studied nurses had high Depersonalization., and also agree with study result conducted by **Adam & Khalaf (2018)** in Eygypt about Relationship between organizational commitment , burnout and psychological wellbeing among staff nurses reported that less than one quarter of studied nurses had high level of depersonalization.

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As regards to the relations between nurses' burnout domains, their personal characteristics and their opinions about work place problems, the present study mentioned that there was statistically significant relation between emotional exhaustion domain with nursing qualification, Small number of nurses per shift, problems with supervisors and peers. This explained that emotional exhaustion increases between bachelor nurses and with small number of nurses per shifts this may be due to nurses with bachelor degree well trained, had high skills, which make them over qualified than tasks assigned to them these reasons would lead to job dissatisfaction and loss of appreciation.

These results consistent with the study performed by **Qi et al., (2020)** about Effect of workplace ostracism on emotional exhaustion and unethical behavior among Chinese nurses and revealed that shortage of nurses had negative effect on emotional exhaustion. And also consistent with study performed by **Abedi-Gilavandi et al.(2019)** about burnout among nursing staff in Ziaeian Hospital, who revealed that as the level of education increase, the burnout score in all three scales exacerbates.

As regards for burnout domains, there was a statistically significant positive correlation between depersonalization and emotional exhaustion. Conversely, negative correlation with personal achievement. These result relevant with the study performed by **Alidosti et al., (2016)** titled in Relationship between self-efficacy and burnout among nurses in Behbahan City, Iran and showed that emotional exhausting had negative correlation with personal achievement. Furthermore, the study performed by **Yeh et al., (2020)** titled in Causes of nursing staff burnout: Exploring the effects of emotional exhaustion, work and family conflict, and supervisor support, who revealed that emotional

exhaustion had negative correlation with depersonalization among studied nurses.

According to the Best fitting multiple linear regression model for the total burnout score, the current study showed that Small number of nurses per shift, Problems with supervisors and peers and Difficult transportation had positive predictors on total burnout score. These results cohort with the study performed by **Al-Omari et al., (2020)** Predicting burnout factors among healthcare providers at private hospitals in Saudi Arabia and United Arab Emirates: A cross-sectional study and revealed that shortage of nurses and work load had high effect on nurses burnout. Moreover a study conducted by **Hendy et al., (2021)**, who showed that shortage of nurses had negative effect on emotional stress among nurses

Conclusion

The study findings revealed less than one-quarter of nurses had high level of total burnout, regarding burnout domains the highest level was to personal achievement followed by emotional exhaustion and depersonalization. Furthermore, small number of nurses, difficult transportation and problems with supervisors were an independent positive predictors of burnout among nurses.

Recommendation

- 1) Regularly, Assess factors which increase levels of burnout among psychiatric nurses.
- 2) Implement an interventions programs to those who having burnout.
- 3) Provide regular workshops for nurses on stress management technique to deal effectively with burnout.
- 4) Improving communicating skills, team working, providing space for relaxation, entertainment, and exercises which help in enhancing mental health and reduction of burnout and among psychiatric nurses.

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Table 1: Demographic characteristics of nurses in the study sample (n=100)

	Frequency	Percent
Age:		
<30	55	55.0
30+	45	45.0
Range	21.0-42.0	
Mean±SD	29.0±5.1	
Median	28.0	
Gender:		
Male	7	7.0
Female	93	93.0
Marital status:		
Married	79	79.0
Single	16	16.0
Divorced	5	5.0
Marital status:		
Never married	16	16.0
Married	84	84.0
No. of children:		
Range	0-5	
Mean±SD	2.3±1.1	
Median	2.0	
Nursing qualification:		
Nursing school diploma	31	31.0
Technical institute diploma	56	56.0
Bachelor	9	9.0
Master	4	4.0
Nursing qualification:		
Nursing school diploma	31	31.0
Technical institute diploma	56	56.0
Bachelor/master	13	13.0

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Table 2: Job characteristics of nurses in the study sample (n=100)

	Frequency	Percent
Experience years:		
<10	57	57.0
10+	43	43.0
Range	1.0-24.0	
Mean±SD	9.0±5.7	
Median	8.00	
Income:		
Insufficient	63	63.0
Sufficient	37	37.0
No. of shifts/month		
<15	56	56.0
15+	44	44.0
Range	5.0-20.0	
Mean±SD	13.7±2.8	
Median	14.00	
Work night shifts:		
No	5	5.0
Yes	95	95.0

Figure (1): Opinions about work place problems

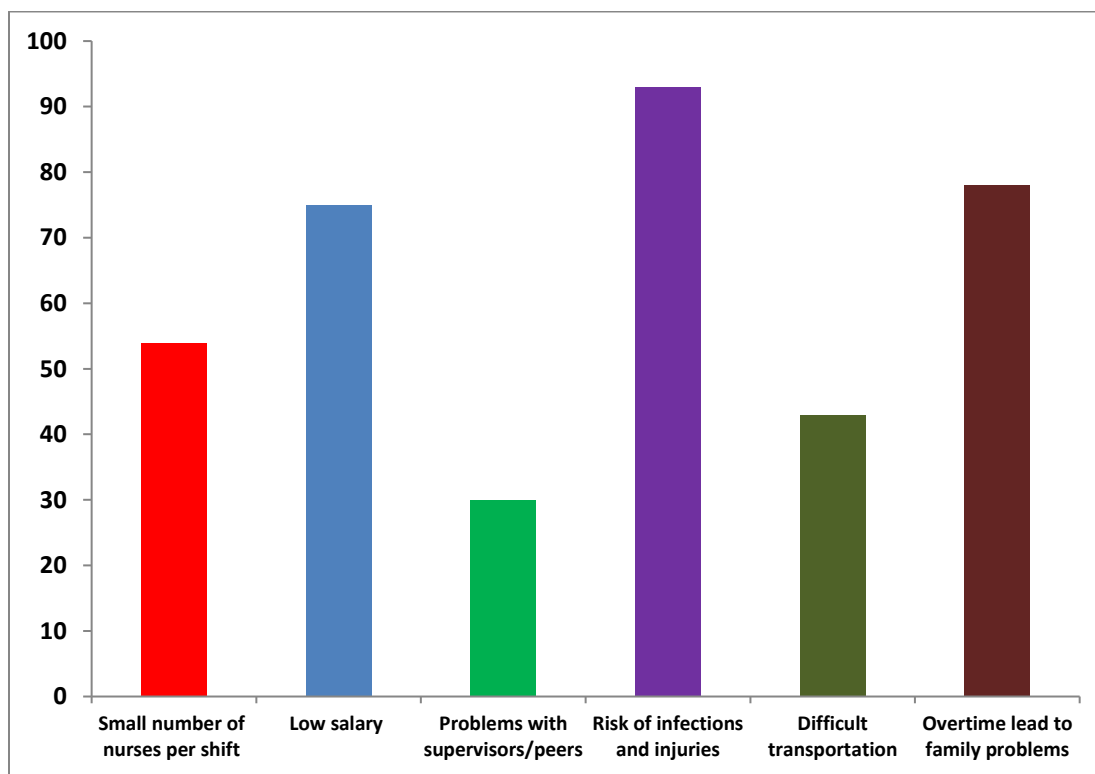


Figure (2): Burnout among nurses

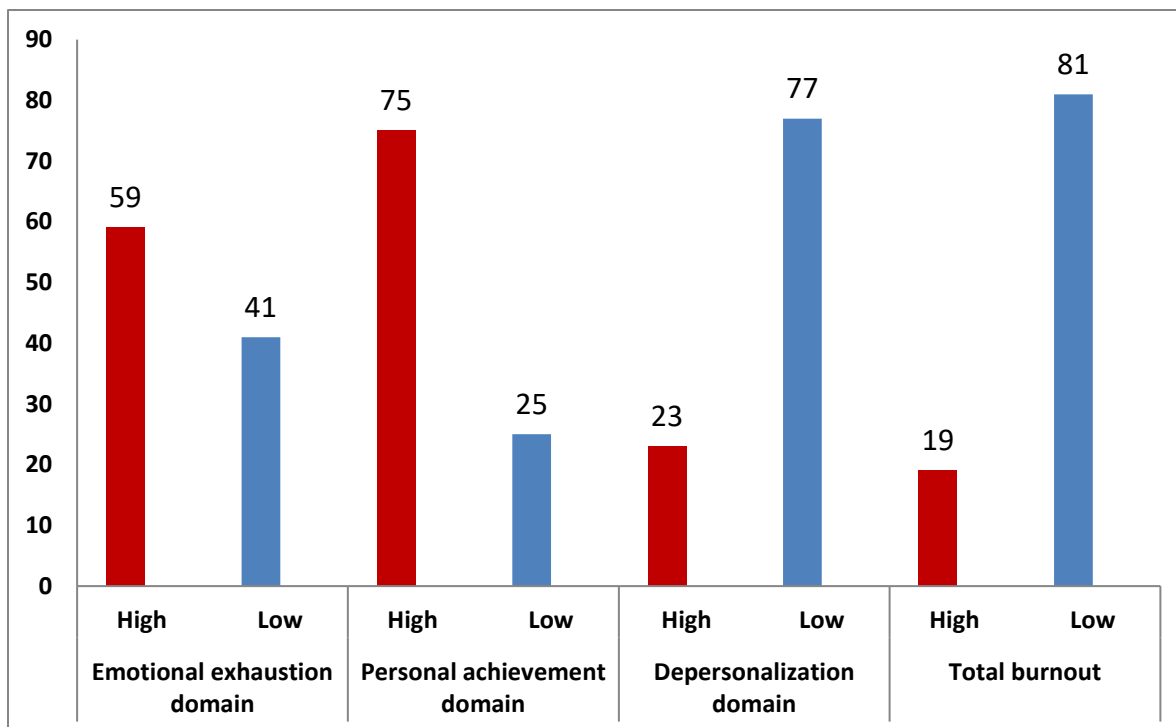


Table (3): Relations between nurses' emotional exhaustion and their opinions about workplace problems

	Emotional exhaustion				X2 test	p-value
	High		Low			
	No.	%	No.	%		
Small number of nurses per shift:						
No	18	39.1	28	60.9		
Yes	41	75.9	13	24.1	13.90	<0.001*
Low salary:						
No	13	52.0	12	48.0		
Yes	46	61.3	29	38.7	0.68	0.41
Problems with supervisors/peers:						
No	33	47.1	37	52.9		
Yes	26	86.7	4	13.3	13.56	<0.001*
Risk of infections:						
No	5	71.4	2	28.6		
Yes	54	58.1	39	41.9	Fisher	0.70
Difficult transportation:						
No	31	54.4	26	45.6		
Yes	28	65.1	15	34.9	1.17	0.28
Overtime lead to family problems:						
No	13	59.1	9	40.9		
Yes	46	59.0	32	41.0	0.00	0.99

(*) Statistically significant at $p < 0.05$

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Table (4): Relations between nurses' depersonalization and their opinions about workplace problems

	Depersonalization				X ² test	p-value
	High		Low			
	No.	%	No.	%		
Work night shifts:						
No	0	0.0	5	100.0		
Yes	23	24.2	72	75.8	Fisher	0.59
Small number of nurses per shift:						
No	6	13.0	40	87.0		
Yes	17	31.5	37	68.5	4.77	0.03*
Low salary:						
No	4	16.0	21	84.0		
Yes	19	25.3	56	74.7	0.92	0.34
Problems with supervisors/peers:						
No	11	15.7	59	84.3		
Yes	12	40.0	18	60.0	6.99	0.008*
Risk of infections:						
No	0	0.0	7	100.0		
Yes	23	24.7	70	75.3	Fisher	0.35
Difficult transportation:						
No	9	15.8	48	84.2		
Yes	14	32.6	29	67.4	3.89	0.049*
Overtime lead to family problems:						
No	6	27.3	16	72.7		
Yes	17	21.8	61	78.2	0.29	0.59

(*) Statistically significant at $p < 0.05$

Table (5): Relations between nurses' total burnout and their opinions about workplace problems

	Total burnout				X ² test	p-value
	High		Low			
	No.	%	No.	%		
Small number of nurses per shift:						
No	5	10.9	41	89.1		
Yes	14	25.9	40	74.1	3.66	0.06
Low salary:						
No	3	12.0	22	88.0		
Yes	16	21.3	59	78.7	Fisher	0.39
Problems with supervisors/peers:						
No	8	11.4	62	88.6		
Yes	11	36.7	19	63.3	8.69	0.003*
Risk of infections:						
No	0	0.0	7	100.0		
Yes	19	20.4	74	79.6	Fisher	0.34
Difficult transportation:						
No	7	12.3	50	87.7		
Yes	12	27.9	31	72.1	3.89	0.049*
Overtime lead to family problems:						
No	6	27.3	16	72.7		
Yes	13	16.7	65	83.3	Fisher	0.35

(*) Statistically significant at $p < 0.05$

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Table 6: Best fitting multiple linear regression model for the total burnout score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	2.11	0.13		16.676	<0.001	1.86	2.36
Small number of nurses per shift	0.41	0.16	0.24	2.640	0.010	0.10	0.72
Problems with supervisors/peers	0.71	0.17	0.37	4.228	<0.001	0.38	1.05
Difficult transportation	0.34	0.15	0.19	2.225	0.028	0.04	0.64

r-square=0.27 Model ANOVA: F=13.37, p<0.001

Variables entered and excluded: age, gender, qualification, experience, marital status, income, shift work, low salary, risk of infections, overtime and family problems

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