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BURNOUT AMONG NURSES WORKING IN HOSPITALS IN RURAL AREAS OF NAJRAN REGION, SAUDI ARABIA

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Abstract:

The mental and psychological consequences of Burnout affect the health-related quality of care. This study aimed to assess Burnout level among the nurses in Najran region in the Kingdom of Saudi Arabia. A descriptive cross-sectional design was used. The sample of the study was a census consisted of 161nurses. The researcher used a self-administered questionnaire, adopted the international Maslach Burnout Inventory-Human Service Survey third edition to study the Burnout for data collection. For data analysis, the researcher used the SPSS program (version 22). Statistical analysis included frequency, mean, and percentage, as well as independent sample t-test and one-way ANOVA. Results: Most participants were females (66.5%) and aged 30 - 40 years (47.2%). about (44.7%) had high EE, (32.3%) had high DP and (40.4%) had low PA. In general, the overall mean score of all the subscales was (2.928), with a mean percent of (48.80%), which reflected a low level of Burnout among study participants. Burnout was associated with age, and working overtime. Conclusion: Level of burnout among nurses was low and was associated mainly with stressors in the workplace. Improving ergonomics and managing stress in the workplace should be a priority to reduce burnout among nurses.

Keywords: Governmental hospitals, burnout, nursing, Saudi Arabia

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INTRODUCTION:

The nursing profession closely related to burnout, as burnout is a major syndrome that occurs when a person is overworked constant exposure to work-related anxiety, characterized by depersonalization, emotional exhaustion, and decreased personal achievement [1]. According to the eleventh revision of the International Classification of Diseases (ICD-11) issued by the World Health Organization (WHO), Burnout has been defined as a "professional phenomenon, a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed " [2]. There are three dimensions to burnout, weariness on the emotional level (EE), low personal achievement (PA), and depersonalization (DP) [3]. Which leads them to apathy, to leave work, and to frustrate the motivation [4], and thus the frequent absence from the work site [5]. Which negatively affects the quality of health services provided to patients, so the hospital leadership and management should take good care of it.

Burnout distinguished by feelings of power exhaustion and low motivation, raised mental space from profession's work, shortage of occupational performance, and sensations of negativity or bullying related to the nature of the profession [6]. According to recent studies, the prevalence of burnout among nursing workers (11.23%), although this percentage is not significant; however, there are wide differences in the prevalence of fatigue between urban and rural areas [7].

Nursing is a profession dominated by emotional that deals with the individual features of both illness and wellness. The nurse stands harshly on a daily basis suffering from death, grief [8]. Among nurses, the incidence of occupational burnout is high and factors such as the nurse's age, years of service, nurse hierarchy, demanding patients, , lack of appropriate staff , male gender, younger age, and inadequate clinical supervision have been reported [9] . Others are excessive workload, emotional stress, unappreciated work and low wages, death and dying, poor driving, acceptance of responsibility, conflicts with employees, lack of social support, stress related to private life, conflict with other nurses, conflict with doctors, feeling that the job is at risk [10].
Burnout pushes health care providers to leave work, especially in low-income countries, and middle-income countries, which is evident in studies conducted in many countries such as Egypt, China and Brazil, as well as the migration of nurses and medical staff from low- and middle-income countries

to high-income countries. Which led to a shortage of nurses and medical staff, and thus increased burnout for nurses who still provide services in these areas to a larger number of patients [11]. The growing recognition of work pressures that has led to dissatisfaction among nurses registered in hospitals in rural areas of Najran region in Saudi Arabia has contributed to the current problems with recruitment and retention of nurses in the kingdom in general. If nursing officials identify factors that affect job satisfaction for nurses in hospitals. Moreover, burnout among nurses has a negative impact on the quality of patient care [12].

Through this study, the researcher aims to assess burnout among the nurses in Najran region in the Kingdom of Saudi Arabia. In order to find out the causes of burnout, and to determine the most important measures that the administration and leadership must take to prevent this syndrome.

1.   MATERIALS AND METHODS:

1.1.   *Study design*

This was a cross-sectional observational web-based survey to assess Burnout among nurses in governmental hospitals in Najran city, Saudi Arabia. The design of the study was based on Burnout Self-Test Maslach Burnout Inventory (MBI). It is based on data collection at a specific point in time and is practical, easy to implement, and quantitatively expressed. Data collected in November and December 2022, and the study completed in December 2022.

Ethical approval obtained from the Ethics Committee of the Directorate of Health in Najran. The study's goals and benefits described to the participants, and the importance of participant confidentiality and privacy explained.

1.2.   *Study participants*

The researcher used a census sample consisting of all nurses who work at governmental hospitals in Najran city, for one year or more, which is anticipated to give a correct population indicator and a more incredible consultant pattern without sampling errors. The study excluded nurse assistants, nurses who had not worked up to a year in the hospital, nurses on leave (sick, maternity, annual and casual) and nurses employed on a part-time basis. The sample size was (161) participants, and the researcher dispensed questionnaires to all samples to have different unique examination results.

1.3.   *Study instruments*

The current study relies on the questionnaire as a

main tool for collecting data related to the study sample. The latter based on the Maslach Burnout Inventory Scale, Human Services Survey (MBI-HSS) to study burnout among nurses in remote hospitals in Saudi Arabia: a cross-sectional design. Several studies were conducted recently in Saudi Arabia using Maslach Burnout Inventory, so it is a good and reliable tool for assessing burnout among nurses in rural areas within Saudi Arabia.

Maslach Burnout Inventory (MBI) consist of 22-item self-report inventory designed to measure the characteristics of burnout, concerning emotional exhaustion, depersonalization scales, and personal accomplishment. The 9-item Emotional Exhaustion (EE) scale measures feelings of being under stress, and having persistent anxiety at one's work. the 5-item Depersonalization (DP) scale measures the degree of separation, and impersonal answer toward nurses of one's service; and the 8-item Personal Accomplishment (PA) scale study feeling of being competence and successful performance in one's work with people. The researcher adopted the International MBI questionnaire third edition [3], consist of three domains (estimated Cronbach alpha was 0.90 for EE subscale, 0.79 for the DP subscale and,0.71 for PA subscale, and the researcher adopted an International MBI Arabic Burnout questionnaire

translated by [13]. The researcher verified the stability of the questionnaire by the alpha-Cronbach coefficient and the split-half method.

1.4. Statistical methods

Analysis was performed using Statistical Package for the Social Sciences (SPSS®) (version 22.0, IBM, Armonk, NY). The 22 items of MBI were summed to obtain the total score of each subscale. All variables were evaluated using descriptive statistics and values were expressed as the mean ± SD for continuous variables, inferential statistics as parametric tests, to obtain the significant factors associated with each subscale of burnout, multiple linear regression analysis was employed by using "Backward" technique. Multi-collinearity was checked between the independent variables by using the VIF. The accepted level of significance was below 0.05 ($p < 0.05$).

RESULTS:

Socio-demographics of the participants

Most participants were females (66.5%), aged 30-40 years (47.2%), married (60.9%) and (36.6%) had 5-10 Years of experience. Most of them had Bachelor (70.2%) and work extra hours (73.9%).

Table 1.Sociodemographic traits of participants (n=161)

Variable		n	%
Your gender	male	54	33.5
	Female	107	66.5
Your age	20-30 year	61	37.9
	30-40year	76	47.2
	40-50 year	22	13.7
	more than 50 year	2	1.2
Marital status	Single	58	36.0
	married	98	60.9
	Divorced	5	3.1
Highest qualification achieved	Diploma	26	16.1
	Bachelor	113	70.2
	Master Degree	21	13.0
	PHD	1	0.6
Years of experience	less than 5 year	44	27.3
	5-10 year	59	36.6
	10-15 year	38	23.6
	15-20 year	14	8.7
	more than 20 year	6	3.7
Do you work extra hours?	Yes	119	73.9
	No	42	26.1

1.5.   Burnout among study participants

Table 2.Response of observing contributors approximately emotional exhaustion (n= 161)

No.	Item	Mean	SD	%	Rank
1	I am feel emotionally drained by my work.	2.849	1.886	47.48	5
2	I feel used up at the end of the workday	3.415	2.016	56.91	3
3	I feel fatigued when I get up in the morning and have to face another day on the job.	2.504	1.987	41.73	7
4	Working with patients all day is a strain for me	3.628	2.134	60.46	2
5	I feel burned out from my work as a nurse	3.814	1.934	63.56	1
6	I feel frustrated by my job in nursing	2.495	2.044	41.58	8
7	I feel I'm working too hard on my job as a nurse	2.805	2.043	46.75	6
8	Working with patients directly puts too much stress on me	2.442	1.931	40.7	9
9	I feel like I'm at the end of my rope	2.902	1.841	48.36	4
	Average	**2.984**	**1.485**	**49.73**	

Table (2) presented the response of study participants to emotional exhaustion (EE). Outcomes showed that the highest score was in the feeling burn out from my work as a nurse, with a mean score of (3.814) and mean percent (63.56%), followed by the sense of Working with patients all day is a strain for me, with a mean score of (3.628) and mean percent (60.46%). The lowest score was in working with patients directly puts too much stress on me, with a mean score of (2.442) and mean percent of (40.70%), directed by at feeling frustrated by my job in nursing, with a mean score of (2.495) and mean percent (41.58%). The average mean score for EE was (2.984), with a mean percent of (49.73%).

Table 3.Response of study participants about Depersonalization (n= 161)

No.	Item	Mean	SD	%	Rank
1	I feel I treat some patients as if they were impersonal 'objects.'	1.663	1.650	27.71	4
2	I've become more callous toward patients since I worked as a nurse	2.354	1.999	39.23	1
3	I worry that working in nursing is hardening me emotionally.	1.955	1.961	32.58	2
4	I don't care what happens to some patients	1.876	1.852	31.26	3
5	I feel patients blame me for some of their problems.	1.194	1.534	19.9	5
	Average	**1.808**	**1.321**	**30.13**	

Table (3) presented the response of study participants about Depersonalization (DP). Outcomes showed that the highest score was becoming more callous toward patients since I worked as a nurse, with a mean score of (2.354) and mean percent (39.23%), followed by working in nursing is hardening me emotionally, with a mean score of (1.955) and mean percent (32.58%). The lowest score was in the feeling of blame me for some of their problems, with a mean score of (1.194) and mean percent (19.90%), followed by feeling of treating some patients as objects, with a mean score of (1.663) and mean percent of (27.71%). The average mean score of DP was (1.808), with a mean percent of (30.13%).

Table 4.Response of study participants about personal accomplishment (n= 161)

No.	Item	Mean	SD	%	Rank
1	I can easily understand how my patients feel about many things.	3.955	1.676	64.15	6
2	I deal very effectively with the problems of my patients.	4.141	1.797	69.01	3
3	I feel I'm positively influencing other people's lives through my work	4.097	1.931	68.28	4
4	I feel very energetic during my work.	4.247	1.544	70.78	1
5	I can easily create a relaxed atmosphere with my patients	4.177	1.733	69.61	2
6	I feel exhilarated after working closely with my patients	3.964	2.141	66.06	5
7	I have accomplished many worthwhile things in this job	3.504	1.778	58.40	8
8	In my work, I deal with emotional problems very calmly.	3.849	1.686	64.15	7
	Average	**3.990**	**1.253**	**66.53**	

Table (4) presented the response of study participants about personal accomplishment (PA). Outcomes showed that the highest score was feelings very energetic during my work, with a mean score of (4.247) and mean percent (70.78%), followed by the inability to create a comfortable environment with sufferers, with a mean score of (4.177) and mean percent (69.61%). The lowest score was accomplished many worthwhile things in this job, with a mean score of (3.504) and mean percent (58.40%), followed by in dealing with emotional problems very calmly at work, with a mean score of (3.849) and mean percent of (64.15%). The average mean score of DP was (3.990), with a mean percent of (66.53%).

Table 5.Prevalence of burnout among participants

	Low n (%)	Moderate n (%)	High n (%)
Emotional Exhaustion (EE)	48 (29.8)	41 (25.5)	72 (44.7)
Depersonalization (DP)	69 (42.9)	40 (24.8)	52 (32.3)
Personal Accomplishment (PA)	65 (40.4)	45 (28)	51 (31.7)

Table (5) presented the Prevalence of burnout among participants, about (44.7%) had high EE, (32.3%) had high DP and (40.4%) had low PA. In general, the overall mean score of all the subscales was (2.928), with a mean percent of (48.80%), which reflected a low level of Burnout among study participants. The reliability analysis of the three subscales yielded Cronbach alpha of (0.85) for EE, (0.74) for DP and (0.85) for PA.

1.6.   Inferential results

Table 6.Differences in burnout associated socio-demographic characteristics.

		EE		DP		PA	
	Variable	Mean (SD)	P value	Mean (SD)	P value	Mean (SD)	P value
Your gender	male	24.6 (11.8)	0.226	10.5 (5.5)	0.014	3.98 (1.36)	0.968
	Female	22.0 (12.9)		8.4 (5.7)		3.99 (1.2)	
Your age	20-30 year	22.2 (13.1)	0.186	8.9 (5.2)	0.126	20.0 (5.4)	0.776
	30-40year	23.2 (12.5)		9.3 (5.7)		18.3 (5.1)	
	40-50 year	22.6		9.3 (7.2)		17.7	

		(13.8)				(6.2)	
	More than 50 year	22.8 (12.8)		9.2 (5.8)		20.8 (5.4)	
Marital status	Single	23.4 (13.4)	0.129	8.9 (5.2)	0.443	17.9 (6.2)	0.798
	married	22.9 (12.2)		9.3 (5.1)		19.0 (5.0)	
	Divorced	21.4 (11.5)		8.9 (5.0)		21.2 (5.8)	
Highest qualification achieved	Diploma	28.4 (10.3)	0. 507	9.4 (5.5)	0.204	14.2 (7.2)	0.032
	Bachelor	21.9 (11.3)		9.4 (5.3)		19.4 (6.4)	
	Master Degree	21.2 (12.8)		9.2 (5.8)		20.8 (5.4)	
	PHD	23.2 (12.9)		9.4 (5.8)		17.7 (7.4)	
Years of experience	less than 5 year	21.4 (11.5)	0.727	8.9 (5.1)	0.464	21.3 (5.7)	0.021
	5-10 year	23.4 (11.9)		10.2 (6.3)		20.1 (7.2)	
	10-15 year	22.9 (12.2)		9.3 (5.1)		19.0 (5.1)	
	15-20 year	21.4 (12.7)		8.7 (6.1)		18.9 (6.5)	
	more than 20 year	24.6 (11.8)		10.5 (5.5)		3.98 (1.36)	
Do you work extra hours?	Yes	24.4 (13.4)	0.807	9.2 (5.1)	0.855	17.4 (5.8)	0.502
	No	21.9 (12.2)		8.9 (6.3)		19.7 (5.3)	

Table (6) presented the variations in burnout among various socio-demographic characteristics.

- **The differences in burnout related to the gender of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.226), DP (P= 0.014), PA (P= 0. 968), which indicated that there had been no widespread variations in burnout subscales and common burnout associated with gender. An observation carried out by [14, 15] shows a similar result to the study, and there is an insignificant relation between Burnout and gender.

- **The differences in burnout related to the age of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.186), DP (P= 0.126), PA (P= 0. 776), which indicated that there had been no widespread variations in burnout subscales and common burnout associated with age, which reflected that there were no significant differences in Burnout subscales and overall Burnout between different ages of study participants. An observation carried out by [16] shows a similar result to the result, and there is an insignificant relation between Burnout and age. However, [17] offers results incompatible with the findings.

- **The differences in burnout related to the Marital status of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.129), DP (P= 0.443), PA (P= 0.798), which indicated that there were statistically insignificant differences in Burnout subscales and overall Burnout between

single nurses and married nurses. A study [15, 18] dissimilar to the study, shows a significant relationship between Burnout associated to marital status.

- **The differences in burnout related to the Highest qualification achieved of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.507), DP (P= 0.204), PA (P= 0.032), which indicated that there were statistically insignificant differences in Burnout subscales and overall Burnout associated to highest qualification achieved, which pointed those participants with postgraduate studies (Bachelor and Master's degree) significantly higher personal accomplishments than participants with a bachelor's degree. However, a study conducted by [17] shows that a significant relationship between qualifications and Burnout.

- **The differences in burnout related to the Years of experience of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.727), DP (P= 0.464), PA (P= 0.021), which indicated that there were statistically insignificant differences in Burnout subscales and overall Burnout associated to the Years of experience. A study conducted by [17, 19] show incongruent outcomes, a significant relationship between years of experience and Burnout.

- **The differences in burnout related to the work extra hours of participants:**

The outcomes confirmed that there had been statistically insignificant variations in EE (P=0.807), DP (P= 0.855), PA (P= 0.502), which indicated that there were statistically insignificant differences in Burnout subscales and overall Burnout associated to the work extra hours. However, a study conducted by [20] shows a significant relationship between Burnout and working hours.

DISCUSSION:

The primary aim of this study was to assess burnout

among the nurses in Najran region in the Kingdom of Saudi Arabia. In order to find out the causes of burnout, and to determine the most important measures that the administration and leadership must take to prevent this syndrome. This study found that 78% of the participants scored high at least on one burnout subscale. Low personal accomplishment was found among 89% of nurses. Moderate level of burnout was found among 27% (EE), 38% (DP) and 6.5% (PA). The overall prevalence of burnout in this study was 78%. Previous studies among nurses in Saudi Arabia found that (32 % to 71.6%) of nurses had high levels of burnout. Zaki et al. found that 71.6 % of nurses had high level of burnout [21]. moreover study conducted by [22] on nurses indicates a high level of burnout as 39.1% of the respondents in the area of emotional exhaustion (EE), 29.2% in the area of depersonalization and 40.0% in the area of reduced personal accomplishment.

The results of previous studies indicate that demographic variables such as gender, age, educational level and experience levels are closely related to emotional exhaustion [23]. Ortega, E.et al., indicates a significant correlation among depersonalization (DP) and gender (P= 0.078), youngsters (P= 0.053), and marital status (P= 0.047) . It also showed a significant association between youth and emotional level (EE) (r = 0.048) [15]. In addition, those who are unmarried or divorced have an excessive level of Burnout. Regarding factors associated with burnout, this study found that high emotional exhaustion was associated with age group, level of education, and with sources of stress in the work place such as work overload, lack of resources, uncooperative colleagues, and poor working environment. Low PA was associated with age group, level of education.

CONCLUSIONS:

Burnout is performed a pivotal function in lowering

the goodness and quality of care provided to the patients, especially in governmental hospitals. This investigation aimed to assess Burnout level's among intensive care nurses at governmental hospitals in Najran city. The total population was 172. The study sample was a census conducted of 161 nurses in Najran governmental hospitals who met the inclusion criteria in governmental hospitals in Saudi Arabia, and who filled out valid and reliable international MBI questionnaires. The main outcomes were a low score on Emotional Exhaustion, a very low level of Depersonalization, and a moderate score of Personal Achievement. The overall mean level of all subscales reflects a low level of burnout among nurses in governmental hospitals in Najran region, Saudi Arabia.

The researcher used a self-administered questionnaire, adopted the international Maslach Burnout Inventory-Human Service Survey third edition to study the Burnout. For data analysis, the researcher used the SPSS program (version 22). Statistical analysis included frequency, mean, and percentage and independent sample t-test and one-way ANOVA. The following factors were significantly associated with higher Burnout levels: age, working overtime.

We conclude that there is a low level of Burnout phenomenon in hospitals in Najran region, Saudi Arabia

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Conflict of Interest

All authors declare no conflicts of interest in this paper.

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