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# Occupational stress in healthcare workers at a university hospital, Jeddah, Saudi Arabia

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## Abstract:

**BACKGROUND:** Occupational stress can be caused by a heavy workload, insecurity, or poor relationships with coworkers or supervisors. Previous research has showed a significant prevalence of stress in healthcare personnel. This study's aim was to identify health-care professionals at risk of occupational stress and determine the factors that may cause it.

**MATERIALS AND METHODS:** A cross-sectional study was conducted among healthcare workers at a university hospital, in Jeddah, Saudi Arabia. A questionnaire solicited information on participants' demographic data including the Workplace Stress Scale, questions on their relationships with colleagues, lack of equipment, job insecurity at the workplace, changing shift patterns, job satisfaction, availability of time to rest and relax, social and family problems, responsibilities, social support, rational/cognitive coping, doctor-patient relationship, and role overload. SPSS was used for data analysis; initial analysis included descriptive statistics, and *t*-test chi-square test. Multiple linear regression analysis used to identify factors associated with workplace stress.

**RESULTS:** About 78% of the participants were 25–35 years old, 54% were males, and 60% were physicians. Working a shift reduced the job stress index by a statistically significant amount. However, longer working hours, higher education, and having many children contributed to higher job stress; in terms of severity, a good educational level and having many children marginally increased the risk whereas having shifts decreased the job stress. In terms of the absence of organizational support, it was discovered that having many children, a high educational level, and long working hours per day boosted it, although working a shift had a negative correlation.

**CONCLUSION:** There is a need for continued administrative assistance and appropriate training programs to deal with potentially stressful situations at health facilities.

## Keywords:

Evaluation, healthcare workers, Jeddah, occupational, physician burnout, Saudi, stress

## Introduction

Stress is the degree to which unmanageable pressures make individuals feel overwhelmed. Work-related stress is considered one of health-care workers (HCW) most common problems. The level of occupational stress differs from one HCW to another based on gender, marital status, specialty, and position.

Occupational stress which may be caused by workload, insecurity, and poor relationships with colleagues or bosses can affect job satisfaction and mental health. It affects health workers themselves, their patients, and organizational outcomes.<sup>[1]</sup> Health-care professionals are highly exposed to many stress related complications such as anxiety, depression, burnout, addiction, and posttraumatic stress disorder, which have long-term psychological implications<sup>[2]</sup> that lead to lower work engagement.<sup>[3]</sup>

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Many studies have been conducted on occupational stress, such as the one about the different levels of stress related to factors such as age, gender, specialty, working hours, and the lack of support.<sup>[4-6]</sup> In the United Kingdom, a study of 350 consultants working in accident and emergency medicine found that the threshold for psychological distress was higher in them than in other subspecialty doctors.<sup>[7]</sup> Another study of South African medical practitioners, including 402 doctors, found the overall job stress index high and the common causes of high stress were the nonperformance of fellow workers in their job, inadequate salary, having to take over another employee's work, and working overtime.<sup>[8]</sup>

The result of a study in China of 992 medical workers to assess occupational stress of medical staff in Shenzhen showed a high degree of stress.<sup>[6]</sup> Another study in Jordan that evaluated factors associated with occupational stress in 1587 male and female doctors working in national hospitals concluded that the factors that affected males were quite different from those affecting females. Role boundary was a crucial factor in males while role insufficiency was the common cause in females. According to the study, other factors associated with occupational stress are responsibility, social support, rational/cognitive coping, doctor-patient relationship, and role overload.<sup>[9]</sup>

A study in Saudi Arabia of 938 residents from different specialties found that stress was slightly higher in Saudi residents than in other residents worldwide.<sup>[10]</sup> Another study in the country found occupational stress high among maxillofacial surgeons and residents.<sup>[11]</sup> The study concluded that work-related stress was also moderately high in nurses and was associated directly with working hours per week—the more the working hours, the greater the stress level.<sup>[12]</sup> Long experience in the health field enables practitioners to handle and cope with stress.<sup>[13]</sup> Psychological management in the form of cognitive and behavioral therapy has considerable efficacy in reducing stress and burnout.<sup>[1]</sup>

This study's aim was to identify HCWs at risk of occupational stress and determine the factors that could increase its likelihood.

## Materials and Methods

An observational cross-sectional study was done on HCWs at the University Hospital in Jeddah, Saudi Arabia, between the end of March to May 2022. The estimated required sample size for the study to be representative was 300, on the assumption that the number of health staff in King Abdulaziz Hospital was 2,500 (a number obtained through human resources);

the confidence level in our study was 95% and the margin of error of 5%. The calculation was done using the Raosoft website.<sup>[14]</sup> Ethical approval was obtained from the Institutional Review Board vide Letter No. 173-21 dated 17/03/2022 and informed written consent was taken from all participants. Confidentiality of the subjects was maintained.

The sampling technique was simple random sampling of all available HCWs in the hospital. The inclusion criteria were that participants should be healthcare workers at the University Hospital. They should be physicians, dentists, nurses, pharmacists, medical technicians, medical interns, residents, and lab technicians but not medical students or administrators. The latter two categories were excluded from the study.

A self-administered questionnaire of three parts was used to interview the participants. The first one comprised items related to demographics (age, gender, marital status, number of children, position, specialty, experience, and working hours).

The second part had the Workplace Stress Scale (WSS) used to assess workplace-related stress. The WSS developed by the Marlin Company, North Haven, CT, USA, and the American Institute of Stress, Yonkers, NY, USA (2001) consists of eight items that describe the feelings of a respondent and how often he/she has these feelings toward his or her job. Examples of items in the scale include, "Conditions at work are unpleasant or sometimes even unsafe" and "I feel that my job is negatively affecting my physical or emotional well-being." In terms of scoring, item numbers 6, 7, and 8 are reverse scored. The scale is in the five-point Likert response format, ranging from never (scored 1) to very often (scored 5). High scores are indicative of higher levels of job stress. Respondents' total scores are interpreted as follows: scores of 15 and below: relatively calm, 16–20: low, 21–25: moderate levels of work stress, 26–30: severe levels of work stress, and 31–40: potentially dangerous level of work stress. We assessed the validity of the scale by seeking the opinions of family medicine physicians as experts. Their suggestions were discussed by the authors and considered in the modification of test items where necessary. In the study, Cronbach's alpha and Pearson's correlation coefficient were used to determine the reliability and construct validity of the job stress survey.

The third part comprised questions formulated to find out predictors such as poor relationships with colleagues, lack of equipment, job insecurity in the workplace, changing shift duties, satisfaction, having time to rest and relax, social and family problems, responsibilities, social support, rational/cognitive

coping, doctor–patient relationship, and role overload. In this part, the participants described their feelings, with the options such as “strongly agree;” “agree;” “being neutral;” “disagree;” and “strongly disagree.” The research team distributed the questionnaire and collected the data as an electronic copy at clinics or the workplace of the healthcare workers. Only completely filled questionnaires were included in the study.

The data were analyzed using Statistical Package for the Social Sciences software, version 26 (SPSS, IBM Corporation, NY, USA). Descriptive statistics of the study population were presented as frequencies and percentages. Responses to the items in the survey were described as mean  $\pm$  standard deviations (SDs). Bivariate analyses were computed through a set of independent sample *t*-tests and one-way analysis of variance where appropriate. Multiple linear regression models were used to further examine association and identify predictors using subscales in the Job Stress Survey as dependent variables. The levels of significance were set at  $<0.05$ .

## Results

Table 1 presents the participants’ sociodemographic characteristics. The data show that 78% of the participants were aged 25–35 years, while only 2.5% were  $\geq 50$  years. Most participants were males (54.0%) and 69.5% of them were Saudis. The study sample consisted mostly of physicians, and nurses (60% and 31.5%, respectively). Regarding shiftwork, 51.5% reported that they worked in shifts. More than half of the participants (51.5%) were married, and only 2% were either separated or divorced. Most of the sampled population had no children, and 80% had a bachelor’s degree. Of the total sample, 69% worked 8 h a day, and 23.5% worked more than 8 h. Regarding the distance between home and work, 3.5% had to travel 45 min to the workplace; 15.5% of the participants worked at home

Analysis by gender and occupation showed all items had an alpha level ranging between 0.54 and 0.99 (results not shown). Pearson’s correlation tests were also performed on all items and their corresponding subscales in the job stress survey, and the ranges were between 0.73 and 0.88 in the index of job stress; between 0.81 and 0.89 in job pressure; between 0.79 and 0.89 in the lack of organizational support. Also, Pearson’s coefficients were between 0.74 and 0.91 for job stress severity, between 0.82 and 0.89 for the job pressure severity, and between 0.78 and 0.90 for the severity of the lack of organizational support. Similarly, the correlation coefficients for the items in the index of job stress were between 0.72 and 0.89, between 0.84 and 0.90 in the index of job pressure,

**Table 1: Characteristics of healthcare workers at a university hospital, Jeddah (n=200)**

Characteristics	N (%)
Age (year old)	
<25	8 (4.0)
25-35	156 (78.0)
36-40	22 (11.0)
41-50	9 (4.5)
>50	5 (2.5)
Gender	
Female	92 (46.0)
Male	108 (54.0)
Nationality	
Saudi	139 (69.5)
Non-Saudi	61 (30.5)
Physician	121 (60.5)
Occupation	
Nurse	63 (31.5)
Pharmacist	10 (5.0)
Technician	6 (3.0)
Shift work	
No	103 (51.5)
Yes	97 (48.5)
Marital status	
Single	93 (46.5)
Married	103 (51.5)
Separated/divorced	4 (2.0)
Number of children	
No children	114 (57.0)
1-2 child	68 (34.0)
3-4 child	18 (9.0)
Educational level	
Diploma or less	17 (8.5)
Bachelor	161 (80.5)
Masters and doctorate	22 (11.0)
Working hours	
>8 h per day	15 (7.5)
8 h per day	138 (69.0)
<8 h per day	47 (23.5)
Distance from home to work (min)	
>15	17 (8.5)
15-30	115 (57.5)
31-45	61 (30.5)
46 and above	7 (3.5)
Work demands	
To finish work during working hours	169 (84.5)
To finish work at home	31 (15.5)

and between 0.76 and 0.91 in the lack of organizational support (results not shown). Item index scores are computed for each JSS stressor event by multiplying the item severity rating by its corresponding frequency rating.

The mean and SDs rank for each statement in the Job stress scale index, severity, and frequency are presented in Table 2. It was found that the overall mean score

**Table 2: Mean, standard deviation, and rank for the job stress item index, job stress severity rating, and job stress frequency rating for healthcare workers at a university hospital, Jeddah, Saudi Arabia**

Statements	Item index score		Severity rating		Frequency rating	
	Rank	Mean±SD	Rank	Mean±SD	Rank	Mean±SD
1A. Stress from the assignment of disagreeable duties	7	21.31±22.74	6	4.05±2.41	7	4.09±2.55
2A. Stress from working overtime	3	22.77±22.55	1	4.21±2.42	1	4.34±2.70
3A. Lack of opportunity for advancement	6	21.63±21.84	8	4.04±2.16	4	4.19±2.60
4A. Assignment of new or unfamiliar duties	22	19.40±21.09	12	3.89±2.47	22	3.78±2.46
5A. Fellow workers not doing their job	10	20.82±21.15	3	4.06±2.26	10	3.98±2.59
6A. Stress from inadequate support of supervisors	23	19.32±20.97	24	3.74±2.37	23	3.76±2.54
7A. Dealing with crisis situations	24	19.27±19.81	9	3.97±2.47	20	3.80±2.32
8A. Lack of recognition for good work	17	20.03±21.42	20	3.83±2.33	11	3.98±2.48
9A. Performing tasks not in job description	14	20.47±22.29	10	3.92±2.36	16	3.89±2.63
10A. Inadequate or poor quality equipment	9	20.83±23.06	21	3.82±2.40	8	4.06±2.62
11A. Assignment of increased responsibility	20	19.59±20.20	18	3.84±2.26	13	3.93±2.54
12A. Periods of inactivity	29	16.49±18.16	30	3.37±2.18	26	3.69±2.30
13A. Difficulty getting along with supervisors	28	17.44±19.44	27	3.60±2.21	29	3.57±2.48
14A. Experiencing negative attitudes toward the organization	16	20.09±22.56	15	3.86±2.51	21	3.80±2.62
15A. Insufficient personnel to handle an Assignment	26	17.71±19.14	26	3.63±2.39	27	3.68±2.39
16A. Making critical on-the-spot decisions	25	18.46±19.05	17	3.86±2.26	25	3.70±2.37
17A. Personal insult from customers/consumers/colleagues	30	16.46±18.51	28	3.60±2.27	30	3.50±2.41
18A. Lack of participation in policy-making decisions	27	17.55±20.76	29	3.50±2.20	28	3.59±2.61
19A. Inadequate salary	5	22.58±24.42	2	4.19±2.44	9	4.05±2.92
20A. Competition for advancement	18	19.98±21.68	16	3.86±2.32	15	3.90±2.63
21A. Poor or inadequate supervision	13	20.53±22.71	14	3.87±2.61	17	3.83±2.66
22A. Noisy work area	4	22.61±26.29	13	3.88±2.66	6	4.10±2.89
23A. Frequent interruptions	1	23.82±26.30	5	4.05±2.62	2	4.29±2.79
24A. Frequent changes from boring to demanding activities	21	19.56±21.35	22	3.77±2.39	19	3.81±2.62
25A. Excessive paperwork	2	23.68±25.90	7	4.04±2.68	3	4.26±2.87
26A. Meeting deadlines	19	19.60±21.91	23	3.76±2.39	18	3.83±2.53
27A. Insufficient personal time (e.g., coffee breaks, lunch	8	21.02±22.95	19	3.83±2.36	5	4.11±2.79
28A. Covering work for another Employee	11	20.65±22.93	4	4.06±2.60	24	3.74±2.56
29A. Poorly-motivated coworkers	15	20.21±21.72	11	3.89±2.32	14	3.90±2.55
30A. Conflicts with other departments	12	20.55±23.19	25	3.69±2.38	12	3.96±2.77
Overall JS		20.15±21.87		3.85±2.39		3.90±2.59

JS=Job stress, SD=Standard deviation

**Table 3: Mean, standard deviation, and rank for the job pressure item index, job pressure severity rating, and job pressure frequency rating for healthcare workers at a university hospital, Jeddah**

Statements	Item index score		Severity rating		Frequency rating	
	Rank	Mean±SD	Rank	Mean±SD	Rank	Mean±SD
4A. Assignment of new or unfamiliar duties	5	19.40±21.09	5	3.89±2.47	9	3.78±2.46
7A. Dealing with crisis situations	6	19.27±19.81	3	3.97±2.47	8	3.80±2.32
9A. Performing tasks not in the job description	2	20.47±22.29	4	3.92±2.36	5	3.89±2.63
11A. Assignment of increased Responsibility	3	19.59±20.20	7	3.84±2.26	4	3.93±2.54
16A. Making critical on-the-spot decisions	7	18.46±19.05	6	3.86±2.26	10	3.70±2.37
23A. Frequent interruptions	8	23.82±26.30	1	4.05±2.62	1	4.29±2.79
24A. Frequent changes from boring to demanding activities	4	19.56±21.35	9	3.77±2.39	7	3.81±2.62
25A. Excessive paperwork	9	23.68±25.90	2	4.04±2.68	2	4.26±2.87
26A. Meeting deadlines	10	19.60±21.91	10	3.76±2.39	6	3.83±2.53
27A. Insufficient personal time (e.g., coffee breaks, lunch	1	21.02±22.95	8	3.83±2.36	3	4.11±2.79
Overall JP		20.49±22.09		3.89±2.43		3.94±2.59

JP=Job pressure, SD=Standard deviation

for job stress on the scale was 20.15 ± 21.87 SD; for severity, 3.89 ± 2.39 SDs; for frequency 3.90 ± 2.59 SDs. In the job pressure index, the overall mean score was 20.49 ± 22.09 SDs; for severity, 3.89 ± 2.43 SDs; for

frequency, 3.94 ± 2.59 SDs [Table 3]. In the index of the lack of organizational support, the overall mean score was 19.85 ± 21.56 SDs; for severity, 3.82 ± 2.34 SDs; for frequency, 3.87 ± 2.58 SDs [Table 4].

Detailed bivariate analyses of all independent variables were performed with the subscales as dependent variables (results not shown). These were followed by multivariate linear models to confirm associations and

adjusting for confounders. Table 5 shows the results of all factors related to job stress index, severity, and frequency. In the job stress index, it was statistically significant that working a shift decreased job stress ( $P < 0.05$ ). However,

**Table 4: Mean, standard deviation, and rank for the lack of organizational support item index, lack of organizational support severity rating, and lack of organizational support frequency rating for healthcare workers at a university hospital, Jeddah**

Statements	Item index score		Severity rating		Frequency rating	
	Rank	Mean±SD	Rank	Mean±SD	Rank	Mean±SD
3A. Lack of opportunity for advancement	1	21.63±21.84	2	4.04±2.16	1	4.19±2.60
5A. Fellow workers not doing their job	3	20.82±21.15	1	4.06±2.26	3	3.98±2.59
6A. Stress from inadequate support of supervisors	8	19.32±20.97	8	3.74±2.37	8	3.76±2.54
8A. Lack of recognition for good work	7	20.03±21.42	6	3.83±2.33	4	3.98±2.48
10A. Inadequate or poor quality equipment	2	20.83±23.06	7	3.82±2.40	2	4.06±2.62
13A. Difficulty getting along with supervisors	10	17.44±19.44	9	3.60±2.21	10	3.57±2.48
14A. Experiencing negative attitudes toward the organization	6	20.09±22.56	5	3.86±2.51	7	3.80±2.62
18A. Lack of participation in policy-making decisions	9	17.55±20.76	10	3.50±2.20	9	3.59±2.61
21A. Poor or inadequate supervision	4	20.53±22.71	4	3.87±2.61	6	3.83±2.66
29A. Poorly-motivated coworkers	5	20.21±21.72	3	3.89±2.32	5	3.90±2.55
Overall LS		19.85±21.56		3.82±2.34		3.87±2.58

LS=Lack of organizational support, SD=Standard deviation

**Table 5: Linear regression model: Factors affecting job stress index, job stress severity, and job stress frequency**

Factors	JS-I		JS-S		JS-F	
	$\beta$	P-value	$\beta$	Significant	$\beta$	Significant
Age in years	-2.77	0.207	-0.44	0.070	-0.45	0.080
Gender	0.81	0.739	-0.02	0.931	-0.09	0.759
Nationality	1.01	0.550	0.14	0.446	0.32	0.105
Marital Status	-5.24	0.119	-0.59	0.108	-0.71	0.071
Number of children	8.32	0.005	0.85	0.009	0.98	0.005
Educational level	6.21	0.045	0.61	0.075	0.80	0.027
Working hours per day	7.14	0.003	0.69	0.010	0.71	0.012
Distance from home to work	2.25	0.230	0.35	0.090	0.57	0.009
Time demand at place of work	5.94	0.097	0.61	0.121	0.88	0.035
If the participant working in shift or fixed shift	-9.86	0.001	-1.06	0.001	-1.07	0.002
Occupation of the participant	-0.20	0.914	0.19	0.361	0.10	0.648
Experience in years	-0.55	0.810	0.12	0.630	0.02	0.945

JS=Job stress, JS=Job stress, JS-I=JS-index, JS-S=JS severity, JS-F=JS frequency

**Table 6: Linear regression model: Factors affecting job pressure index, job pressure severity, and job pressure frequency**

Factors	JP-I		JP-S		JP-F	
	$\beta$	P-value	$\beta$	Significant	$\beta$	Significant
Age in years	-1.66	0.475	-0.36	0.159	-0.31	0.251
Gender	1.28	0.619	0.06	0.833	0.01	0.990
Nationality	1.01	0.569	0.13	0.528	0.33	0.107
Marital status	-5.27	0.137	-0.55	0.160	-0.27	0.081
Number of children	7.46	0.017	0.72	0.038	0.87	0.016
Educational level	4.12	0.208	0.45	0.211	0.62	0.103
Working hours per day	7.54	0.003	0.73	0.010	0.79	0.008
Distance from home to work	1.86	0.348	0.34	0.126	0.53	0.022
Time demand at place of work	7.04	0.063	0.72	0.087	1.03	0.019
If the participant working in shift or fixed shift	-9.27	0.003	-1.05	0.002	-0.99	0.005
Occupation of the participant	-0.75	0.710	0.12	0.599	0.04	0.876
Experience in years	-0.19	0.936	0.18	0.512	0.06	0.840

JP=Job pressure, JP-I=JP index, JP-S=JP severity, JP-F=JP frequency

more working hours, higher education levels, and having more children increased stress ( $P < 0.05$ ).

On the severity of risk, both high educational level and multiple children slightly increased the risk, while working a shift decreased it ( $P < 0.05$ ). As for frequency, many children, high educational level, more working hours per day, long distance between home and work, and longer time spent at the workplace slightly increased it, whereas working a shift decreased it ( $P < 0.05$ ).

Table 6 shows the results of all factors related to job pressure index, severity, and frequency. It is statistically significant that in these three subscales, many children, long working hours per day, and working a shift were associated with an increase, whereas at differing levels ( $P < 0.05$ ), working a shift shows a decrease. More specifically, job stress frequency, a high educational level, long distance from home to the workplace, and demand for long working hours also showed an increase.

Table 7 shows the results of all factors related to the index of the lack of organizational support, severity, and frequency. It was found that for the index, many children, high educational level, and long working hours per day showed an increase, while a negative association was observed for working a shift ( $P < 0.05$ ). A similar association was observed for having many children, long working hours per day, and shift work with severity. For frequency, in addition to the previous factors, a high educational level, long distance from home, and the demand for a long hours of work were also associated.

## Discussion

This study aimed to analyze occupational stress in health-care employees and identify factors that

could increase the risk of stress. Many children, high educational level, and long working hours per day were found to be associated with a lack of organizational support, whereas working a shift had a negative correlation. A prior study in Jordan found a negative association between nurses' job stress and organizational support with the same conclusion. Nurses in this study reported extremely high levels of stress and a lack of organizational support.<sup>[9]</sup> Another study indicated that good workplace connections and organizational support had a positive impact on the stress levels of health-care workers.<sup>[15]</sup> According to Sørgaard *et al.*,<sup>[16]</sup> nurses reported high stress levels because of the lack of organizational support. A prior study in Saudi Arabia indicated that organizational support could reduce the detrimental effects of occupational stress on nurses' performance.<sup>[17]</sup>

In terms of the perceived workplace stress, the current study discovered that working a shift was statistically associated with lower job stress. Simultaneously, longer work hours, higher levels of education, and having more children all contributed to higher workplace stress. The previously mentioned Jordanian study found a link between job stress and a high educational degree, with highly educated nurses reporting relatively high levels of perceived stress.<sup>[9]</sup> This was explained by the fact that well-educated nurses were more likely to remain dissatisfied owing to the lack of acknowledgment for their superior work, which falls short of their expectations.<sup>[9]</sup>

This study discovered that occupational stress was linked to longer working hours, which is in accord with the finding of a previous investigation.<sup>[18]</sup> In 2020, a study was conducted in Saudi Arabia on oral and maxillofacial surgeons and residents from all parts of the country. Since residents' work schedules were not flexible, the

**Table 7: Linear regression model: Factors affecting lack of organizational support index, lack of organizational support severity, and lack of organizational support frequency**

Factors	LS-I		LS-S		LS-F	
	$\beta$	<i>P</i> -value	$\beta$	Significant	$\beta$	Significant
Age in years	-3.27	0.144	-0.43	0.075	-0.536	0.042
Gender	1.47	0.554	-0.03	0.921	-0.051	0.860
Nationality	0.96	0.576	0.12	0.512	0.325	0.108
Marital status	-5.66	0.098	-0.68	0.068	-0.690	0.086
Number of children	8.78	0.004	0.94	0.004	1.003	0.005
Educational level	7.85	0.013	0.78	0.023	0.997	0.007
Working hours per day	6.44	0.009	0.59	0.027	0.661	0.022
Distance from home to work	2.13	0.264	0.33	0.114	0.594	0.008
Time demand at place of work	5.81	0.111	0.53	0.179	0.848	0.048
If the participant working in shift or fixed shift	-10.64	0.000	-1.12	0.001	-1.128	0.001
Occupation of the participant	-0.09	0.964	0.22	0.306	0.118	0.603
Experience in years	-1.63	0.484	0.01	0.971	-0.110	0.688

LS=Lack of organizational support, LS-I=LS index, LS-S=LS severity, LS-F=LS frequency

study discovered that increased working days were significantly connected with greater stress levels, and lengthier on-call durations were significantly and positively correlated with increased stress levels. Further, owing to long working hours and persistent work pressure, participants with more working days felt more burned out.<sup>[11]</sup>

A study conducted in Saudi Arabia in 2021 discovered an unfavorable relationship between social support and stress levels in healthcare professionals.<sup>[19]</sup> Two other studies in the country on health-care professionals found that individuals who did not receive enough emotional support from the society and the workplace had higher stress levels than those who did.<sup>[20,21]</sup> This research highlights the importance of providing social support to healthcare personnel to improve their mental health. Because of ongoing challenges in attracting and keeping nursing staff, Saudi Arabia's healthcare system remains understaffed.<sup>[22,23]</sup>

The current study also discovered a link between job stress and many children. A similar conclusion was arrived at in a previous Saudi study, which established a statistically significant link between work-related stress and having three or more children.<sup>[24]</sup> In this study, no link between work experience and workplace stress was discovered, contrary to the findings of a prior Saudi study. The finding of this study agrees with those of Abd ElFatah<sup>[25]</sup> and AlHawajreh,<sup>[26]</sup> who found no significant link between nursing experience and job stress.<sup>[25,26]</sup> However, this finding contradicts previous research that found a link between years of experience and job stress.<sup>[12]</sup>

A limitation of the present study is its cross-sectional design, which leads to conclusion about associations between variables without revealing casual relationships.

## Conclusion

According to this study, working a shift reduced job stress by a statistically significant amount. However, working long hours, a good education, and having many children all contributed to higher job stress in terms of severity; having a good educational level and having many children increased the risk marginally, whereas working a shift decreased it. In terms of the absence of organizational support, it was discovered that having many children, a high educational level, and working long hours per day boosted it, although working a shift had a negative correlation. Continued administrative assistance and suitable training programs to deal with potentially stressful situations

in the health facility are required. Further, stress management programs are critical for the reduction of workplace stress to ensure a healthy working environment for practitioners.

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## Conflicts of interest

There are no conflicts of interest.

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