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JOB BURNOUT: FREQUENCY, LEVEL, AND ASSOCIATION WITH COPING STRATEGIES AMONG HEALTH CARE WORKERS SAUDI ARABIA.

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Abstract

Background: Burnout syndrome, characterized by emotional exhaustion and reduced professional efficacy, is increasingly recognized as a significant concern among healthcare workers. With the demanding nature of their roles, medical professionals in Saudi Arabia frequently report high levels of emotional distress, suggesting a pressing need for targeted interventions. This study aimed to assess the frequency and intensity of burnout among healthcare workers in Saudi Arabia and to explore its association with various coping strategies.

Methods: A descriptive cross-sectional study was conducted between July and November 2024, involving 498 healthcare professionals across multiple facilities in Saudi Arabia. Participants completed the Maslach Burnout Inventory (MBI) to evaluate emotional exhaustion, depersonalization, and personal accomplishment. Demographic data and work-related factors were also collected and analyzed.

Results: The findings indicated that 35.4% of respondents reported experiencing emotional exhaustion frequently, while 29.3% displayed high levels of burnout. Emotional distress was prevalent, with 28.9% of participants acknowledging daily stress from patient interactions. Depersonalization was noted among those implying feelings of emotional detachment; nearly half of respondents reported rarely experiencing such detachment. Statistical analyses revealed significant associations between burnout levels and demographic factors such as age, marital status, and income satisfaction.

Conclusion: The study highlights a critical prevalence of burnout among healthcare workers in Saudi Arabia, revealing significant emotional exhaustion and stress linked to their professional roles. Given the potential detrimental effects on personal well-being and patient care, urgent implementation of organizational strategies to address burnout is essential. Efforts should focus on enhancing supportive work environments, promoting coping strategies, and addressing systemic issues contributing to workplace stress.

Keywords: HCW, Job burnout, Workplace stress, Work environments, Saudi Arabia.

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Introduction:

Burnout syndrome may result from prolonged interpersonal stress [1]. Medical workers, especially doctors and nurses, endure difficult emotional conditions and are exposed to their patients' psychological problems. Thus, individuals experience an elevated susceptibility to developing burnout syndrome [2].

Burnout and emotional stress are commonly observed occurrences in medical facilities [3]. Evidence suggests that medical staff in Saudi Arabia commonly encounter considerable rates of emotional exhaustion, varying from moderately to severe [4]. A previous study conducted in Saudi Arabia included 95 physicians and 187 nurses. The study found that 88 per cent of healthcare professionals (HCPs) reported experiencing emotional exhaustion. Moreover, a survey was conducted on sixty-six respiratory therapists employed at a tertiary hospital located in Saudi Arabia. Demonstrated a notable frequency of exhaustion across all three dimensions. Specifically, seventy-seven per cent of the participants reported experiencing emotional exhaustion, ninety-eight per cent reported experiencing depersonalization, and seventy-three per cent reported low personal accomplishment [5].

Numerous research investigations have confirmed the relationship between mental health variables and exhaustion [6]. Recent findings indicate that medical professionals in the Arab World encounter burnout at different levels, ranging from moderate to high. Burnout is defined by a range of typical symptoms encompassing anxiety, agitation, mood fluctuations, depressive conditions, insomnia, and a sense of self-doubt [7]. The incidence of burnout in the Middle East was documented to vary from forty per cent to sixty per cent [8].

In Saudi Arabia, healthcare workers face significant challenges that can lead to job burnout. This burnout can impact their quality of working life. Understanding and addressing this relationship is crucial for improving the work environment and effectiveness of healthcare services. The goal of this study is to estimate the frequency and level of burnout among healthcare workers in Saudi Arabia, depending on a sufficient sample size of healthcare workers in Saudi Arabia.

Materials and Methods:

Study design:

This is a descriptive cross-sectional study conducted in Saudi Arabia between July to December 2024. The study's population consisted of all health providers who work in hospitals in Saudi Arabia. A typical recruitment strategy was depended on various social media platforms, including Twitter, Snapchat, WhatsApp, and others.

Inclusion and Exclusion Criteria:

The inclusion criteria were any healthcare professional who worked in Saudi Arabia and gave their permission to participate in the study. Exclusion criteria were all students of health specialties, also those who did not give their permission to participate in the study and worker who worked outside of Saudi Arabia.

Sample size:

Data collection began in July 2024. Data collection involved a target sample of 384 participants (confidence level: 95%; margin of error: 5%). The sample size was estimated using the formula:

$n = P(1-P) * Z\alpha\ 2 / d\ 2$ with a 95% confidence level.

n: Calculated sample size.

Z: The z-value for the selected level of confidence (1- a) = 1.96.

P: An estimated prevalence of knowledge.

Q: (1 – 0.50) = 50%, i.e., 0.50.

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D: The maximum acceptable error = 0.05.
Therefore, the calculated minimum sample size was n = (1.96)2 X 0.50 X 0.50/(0.05) 2 = 384.

Method for data collection and instrument (Data collection Technique and Tools):
A structured questionnaire was utilized as a research tool. This tool was used in a relevant study conducted in Saudi Arabia [9]. The questionnaire was divided into two parts: Part one, demographics (12 questions), for example, Age, gender, nationality, marital status, education, experience in the present hospital, total experience, job, work area, illness, income satisfaction, and duty hours satisfaction with some options modified. Part two, Maslach burnout inventory (MBI) (22 questions), assesses the three components of burnout syndrome: emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA). MBI includes 22 items that measure burnout and is divided into three subscales.

Scoring system:
The items are expressed as statements regarding personal emotions or attitudes. The Maslach Burnout Inventory (MBI) comprises three categories: emotional exhaustion (EE), which has nine items; depersonalization (DP), which has five items; and personal achievement, which has 8 items.. When individuals experience high levels of emotional exhaustion and depersonalization, along with a low sense of personal accomplishment, it leads to a high level of burnout. For each item, the scoring scale ranges from 0 (never) to 6 (every day), as indicated by the scale.. Unlike the other two subscales, lower average scores on this subscale indicate a greater level of experience.
The scores for each subscale are treated as separate entities and are not aggregated into a single overall score. Burnout is characterized by a significant level of emotional exhaustion and depersonalization, accompanied by a low level of personal accomplishment. The MBI has emerged as the benchmark for detecting burnout in the medical research literature due to its proven reliability and validity.
The surveys were disseminated to healthcare professionals. Every member of the healthcare staff was requested to complete the self-administered questionnaire. The survey was conducted anonymously, ensuring the confidentiality of all collected data. Additionally, the data was meticulously reviewed manually to ensure its completeness.

Pilot test:
The survey was handed out to a sample of 15 individuals who were requested to complete it. This was conducted to assess the ease of use of the questionnaire and the practicality of the study. The data from the pilot study was removed from the final dataset of the study.

Analyzes and entry method:
The computer was used to enter data using the "Microsoft Office Excel Software" (2021) Windows program. After that, data was moved to be statistically analyzed using the Statistical Package of Social Science Software.

Results:

Table (1) displays various demographic parameters of the participants with a total number of (498). Participants overall are relatively young with a mean age of 32.5 years, with the largest age distribution falling into 31–35 years. The gender distribution is also marked by a great female majority (75.5%) of the sample. On average, participants are Saudi nationals (65.1%) and are mainly single (50.6%), implying a young demographic and one that may be less restricted by future plans. Educational attainment is high, with 63.1 percent having a bachelor's degree, and a large share of the workforce is made up of registered nurses (53.4 percent). Work experience ranges, however, roughly one third

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worked less than five years, indicating a relatively young workforce. Inspired, duty hour satisfaction is appreciated slightly more with a majority being content, while income satisfaction perceptions are divided, with 41.4 percent describing dissatisfaction for financial reasons.

Table (1): Sociodemographic characteristics of participants (n=498)

Parameter		***No.***	***Percent (%)***
Age (Mean: 32.5, STD: 7.6)	25 or less	100	20.1
	26 to 30	112	22.5
	31 to 35	144	28.9
	36 to 40	72	14.5
	more than 40	70	14.1
Gender	Female	376	75.5
	Male	122	24.5
Nationality	Non-Saudi	174	34.9
	Saudi	324	65.1
Marital status	Single	252	50.6
	Married	228	45.8
	Divorced	18	3.6
Education	Bachelor	314	63.1
	Clinical Board	18	3.6
	Diploma	78	15.7
	Fellowship	8	1.6
	Postgraduate	8	1.6
	Master	58	11.6
	PhD	10	2.0
	Higher	4	.8
Total experience	<5	164	32.9
	5 to 10 years	120	24.1
	10 to 15 Years	144	28.9
	More than 15 Years	70	14.1
Job	Dentist	24	4.8
	Managerial	6	1.2
	Pharmacist	36	7.2
	Physician	56	11.2
	Physiotherapist	20	4.0
	Psychologist	2	.4
	Registered Nurse	266	53.4
	Respiratory Therapist	2	.4
	Surgeon	6	1.2
	Other	80	16.1
Work Area	Administration	36	7.2
	Inpatient	256	51.4
	Outpatient	116	23.3

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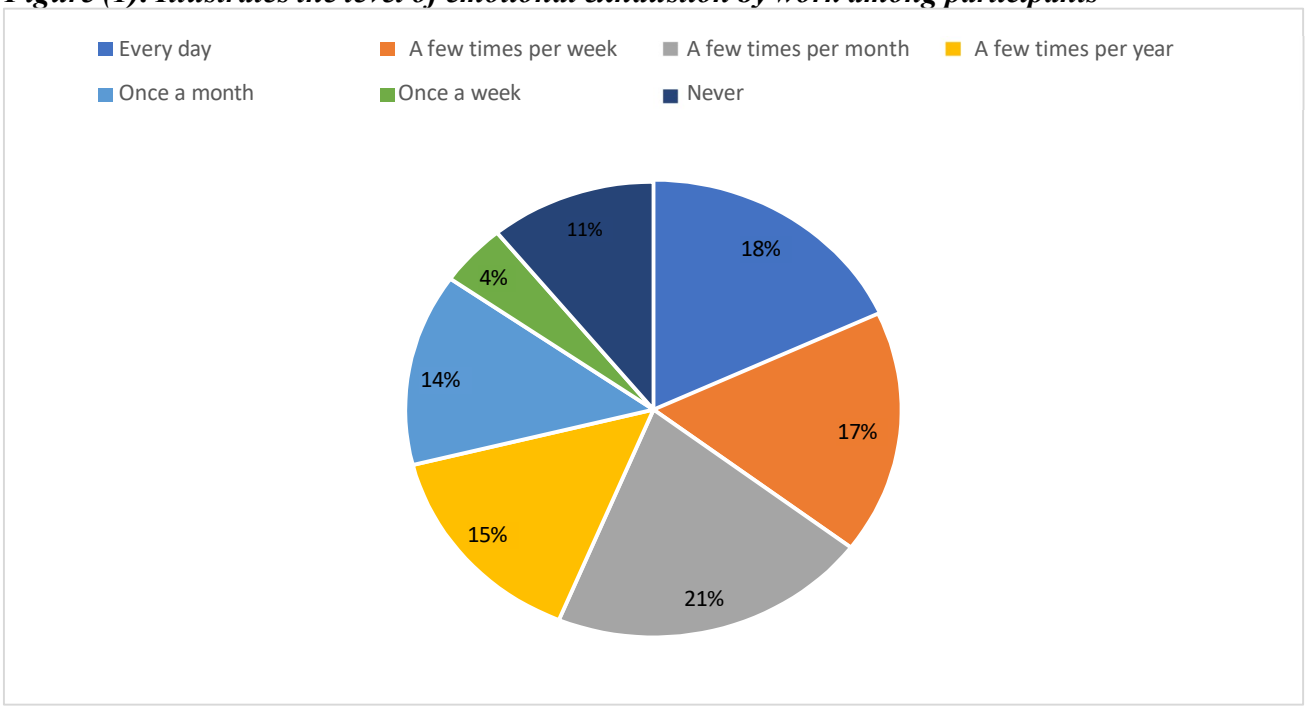
	Others	90	18.1
Illness	Nil	324	65.1
	Not related to occupation	66	13.3
	Related to occupation	108	21.7
Income satisfaction	Not satisfied due to financial reason	206	41.4
	Not satisfied due to nonfinancial reason	76	15.3
	Satisfied	216	43.4
Duty hours satisfaction	No	234	47.0
	Yes	264	53.0

As shown in figure 1, Results of data presented show a lot of emotional exhaustion experienced by employees and that was in the sampled 498 people. Interestingly, roughly 90 respondents, roughly 18% of the sample, reported feeling emotionally exhausted each day, meaning that fatigue was extremely present. Additionally, 86 people, or roughly 17 percent, said similar things a few times a week, indicating that this problem isn't just widespread, but it's rampant. Some 104 respondents, or around 21%, said they felt emotional exhaustion a few times a month, on a less frequent basis. On the contrary, “once a week” was the least reported frequency of exhaustion (22 people, around 4%) reported.

Figure (1): Illustrates the level of emotional exhaustion by work among participants



In Table 2, data are presented which provide a complete picture of emotional and psychological states of 498 people based on the Maslach Burnout Inventory (MBI). The findings show that work causes a lot of emotional exhaustion and distress; 35.4 percent of respondents are emotionally exhausted every day or several times a week. In addition, 28.9% also mention that they also do experience the overall stress stemming from interacting people daily. The evidence that over one fifth of respondents feel 'broken down' by their work makes the case for tackling workplace mental health, an indication. Aggravation to feelings of frustration and too much effort, also inflames the common stressors in

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employees as 36.8% says they felt frustrated or over exerts too much.

Table (2): Parameters related to Maslach burnout inventory (MBI); Section A: Burnout (n=498).

Parameter		***No.***	***Percent (%)***
I feel emotionally exhausted by my work.	Every day	90	18.1
	A few times per week	86	17.3
	A few times per month	104	20.9
	A few times per year	74	14.9
	Once a month	68	13.7
	Once a week	22	4.4
	Never	54	10.8
Working with people all day long demands a significant deal of effort.	Every day	144	28.9
	A few times per week	76	15.3
	A few times per month	76	15.3
	A few times per year	64	12.9
	Once a month	58	11.6
	Once a week	34	6.8
	Never	46	9.2
I feel like my work is breaking me down.	Every day	98	19.7
	A few times per week	56	11.2
	A few times per month	80	16.1
	A few times per year	92	18.5
	Once a month	58	11.6
	Once a week	28	5.6
	Never	86	17.3
My work is frustrating me.	Every day	72	14.5
	A few times per week	56	11.2
	A few times per month	60	12.0
	A few times per year	90	18.1
	Once a month	64	12.9
	Once a week	36	7.2
	Never	120	24.1
I feel I work too hard at my job.	Every day	112	22.5
	A few times per week	64	12.9
	A few times per month	52	10.4
	A few times per year	86	17.3
	Once a month	82	16.5
	Once a week	26	5.2
	Never	76	15.3
It stresses me too much to work in direct contact with people.	Every day	84	16.9
	A few times per week	52	10.4
	A few times per month	50	10.0
	A few times per year	94	18.9
	Once a month	76	15.3

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	Once a week	24	4.8
	Never	118	23.7
I feel like I'm at the end of my rope	Every day	64	12.9
	A few times per week	58	11.6
	A few times per month	46	9.2
	A few times per year	90	18.1
	Once a month	64	12.9
	Once a week	22	4.4
	Never	154	30.9

As shown in figure (2), The data shown here are the perceptions of 498 individuals on how impersonal they perceive patient/client interactions to be. Interestingly, 42 respondents answered 'yes' that they give impersonal appearance to certain clients or patients every day, which is about 8.4 percent of the total sample. While 44 people—about 8.8 percent—reported this feeling a few times a week. In addition, 28 respondents, representing 5.6% of the sample, said that they felt this way a few times a month. Of the 74 individuals who responded that they experienced this impulse a few times a year (14.9%), 46 respondents (9.2%) said they felt this way once a month, and 16 people (3.2%) felt this way once a week. While important, however, 248 out of 500 respondents (49.8%) say they never feel this way, demonstrating that many of the sample have a personal connection to their professional work.

Figure (2): Illustrates objectifying patients or clients among participants.

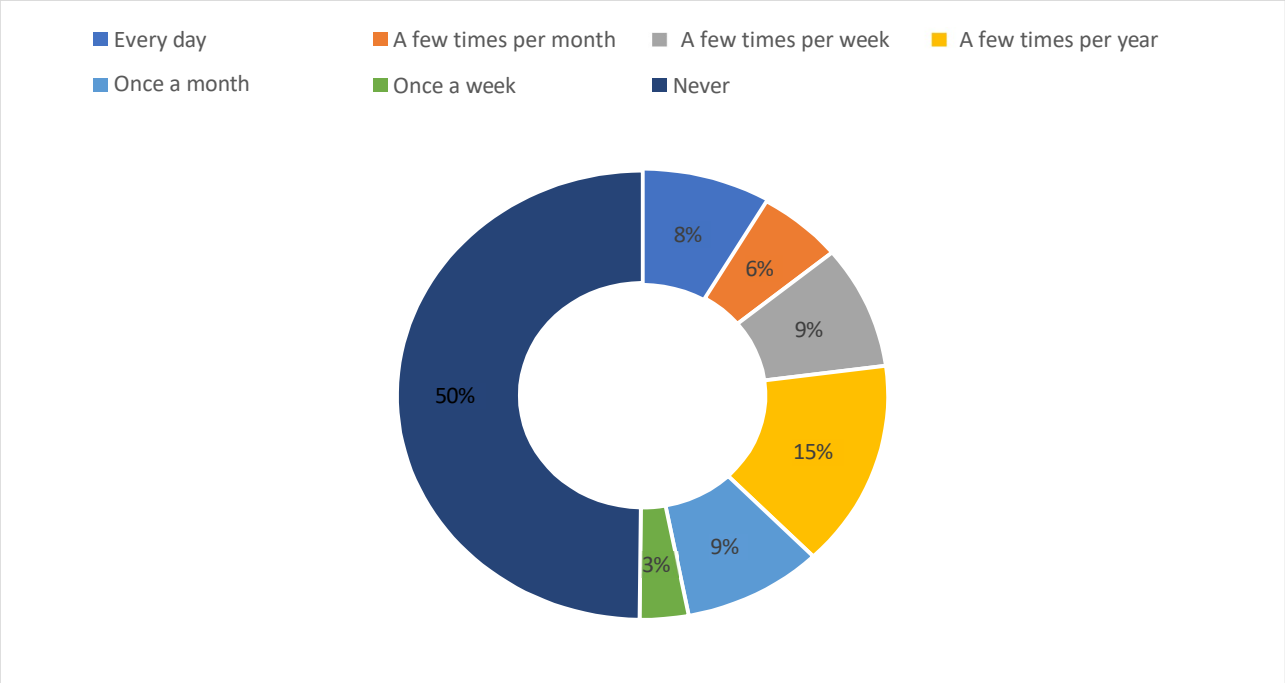

Table 3 presents a comprehensive profile of the depersonalization aspect of Maslach Burnout Inventory among a sample of 498 healthcare professionals. I also find it critical to note that nearly half of

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respondents (49.8%) report never feeling what many would consider an impersonal way of looking after the patients, however a large group does report feeling some degree of depersonalization, some more than others, as evidenced by those who report feeling emotionally distant often. At a broader level, emotional fatigue, which correlates with depersonalization, was revealed in the fact that 21.7% of the respondents said they wake up to work for the day and feel tired. Additionally, worrying about patients' feelings of responsibility leads to 24.1% of respondents feeling a lot of stress and possibly burnout.

Table (3): Parameters related to Maslach burnout inventory (MBI); Section B: Depersonalization (n=498).

Parameter		***No.***	***Percent (%)***
I feel I look after certain patients/clients impersonally as if they are objects.	Every day	42	8.4
	A few times per month	28	5.6
	A few times per week	44	8.8
	A few times per year	74	14.9
	Once a month	46	9.2
	Once a week	16	3.2
	Never	248	49.8
I feel tired when I get up in the morning and have to face another day at work.	Every day	108	21.7
	A few times per month	56	11.2
	A few times per week	70	14.1
	A few times per year	88	17.7
	Once a month	80	16.1
	Once a week	32	6.4
	Never	64	12.9
I have the impression that my patients/clients make me responsible for some of their problems.	Every day	64	12.9
	A few times per month	54	10.8
	A few times per week	54	10.8
	A few times per year	112	22.5
	Once a month	56	11.2
	Once a week	38	7.6
	Never	120	24.1
I am at the end of my patience at the end of my workday.	Every day	70	14.1
	A few times per month	42	8.4
	A few times per week	64	12.9
	A few times per year	120	24.1
	Once a month	66	13.3
	Once a week	30	6.0
	Never	106	21.3
I really don't care about what happens to some of my patients/clients.	Every day	30	6.0
	A few times per month	16	3.2
	A few times per week	18	3.6
	A few times per year	66	13.3
	Once a month	46	9.2

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	Once a week	18	3.6
	Never	304	61.0
I have become more insensitive to people since I've been working.	Every day	52	10.4
	A few times per month	32	6.4
	A few times per week	34	6.8
	A few times per year	116	23.3
	Once a month	66	13.3
	Once a week	28	5.6
	Never	170	34.1
I'm afraid that this job is making me uncaring.	Every day	66	13.3
	A few times per month	40	8.0
	A few times per week	30	6.0
	A few times per year	64	12.9
	Once a month	48	9.6
	Once a week	18	3.6
	Never	232	46.6

Table (4) shows that 498 respondents are highlighted through the data gained from the Maslach Burnout Inventory (MBI) relating to Personal Achievement, an aspect of perceived job fulfilment and emotional engagement of professionals. Finally, worth noting is that a huge percentage of participants (26.9%) indicate they achieve valuable tasks each day, indicating that role meaningfulness is viewed as high. But the persistent appearance of survey responses that suggest infrequent feelings of achievement (16.9% who claim to 'never' feel accomplished) raises concern about disengagement and its negative influence on employee personal wellbeing and organizational effectiveness. In addition, the 36.1 percent asked how they can experience empathy with their clients on a daily basis is sharply contrasted to the 36.1 per cent who find it difficult.

Table (4): Parameters related to Maslach burnout inventory (MBI); Section C: Personal Achievement (n=498).

Parameter		***No.***	***Percent (%)***
I accomplish many worthwhile things in this job.	Every day	134	26.9
	A few times per month	60	12.0
	A few times per week	32	6.4
	A few times per year	80	16.1
	Once a month	70	14.1
	Once a week	38	7.6
	Never	84	16.9
I feel full of energy.	Every day	66	13.3
	A few times per month	64	12.9
	A few times per week	100	20.1
	A few times per year	96	19.3
	Once a month	60	12.0
	Once a week	38	7.6
	Never	74	14.9

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I am easily able to understand what my patients/clients feel.	Every day	180	36.1
	A few times per month	52	10.4
	A few times per week	86	17.3
	A few times per year	50	10.0
	Once a month	48	9.6
	Once a week	26	5.2
	Never	56	11.2
I look after my patients'/clients' problems very effectively.	Every day	186	37.3
	A few times per month	52	10.4
	A few times per week	94	18.9
	A few times per year	58	11.6
	Once a month	52	10.4
	Once a week	18	3.6
	Never	38	7.6
In my work, I handle emotional problems very calmly.	Every day	126	25.3
	A few times per month	66	13.3
	A few times per week	124	24.9
	A few times per year	58	11.6
	Once a month	40	8.0
	Once a week	32	6.4
	Never	52	10.4
Through my work, I feel that I have a positive influence on people.	Every day	134	26.9
	A few times per month	56	11.2
	A few times per week	102	20.5
	A few times per year	70	14.1
	Once a month	40	8.0
	Once a week	48	9.6
	Never	48	9.6
I am easily able to create a relaxed atmosphere with my patients/clients.	Every day	120	24.1
	A few times per month	58	11.6
	A few times per week	116	23.3
	A few times per year	66	13.3
	Once a month	50	10.0
	Once a week	42	8.4
	Never	46	9.2
I feel refreshed when I am close to my patients/clients at work.	Every day	86	17.3
	A few times per month	64	12.9
	A few times per week	84	16.9
	A few times per year	84	16.9
	Once a month	60	12.0
	Once a week	48	9.6
	Never	72	14.5

Table 5 of Maslach Burnout Inventory (MBI) shows a lot of implications about how far, the general

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population surveyed are at a stage of such syndrome. Our findings also point to the fact that a considerable 29.3% of the respondents are experiencing high levels of burnout which implies that it's only natural to look for ways to curb such a troubling. In addition, a total of 19.7 per cent of people experience moderate burnout, down from high burnout but still a substantial number of the workforce at risk of escalating to greater levels of burnout if not for appropriate measures put in. On the contrary, the data show that 51.0 percent of the participants are in low burnout conditions, thus offering a little note of good news in the face of the difficulties.

Table (5): Shows Maslach burnout inventory (MBI); Section A: Burnout score results.

	Frequency	Percent
High level of burnout	146	29.3
Moderate burnout	98	19.7
Low level of burnout	254	51.0
Total	498	100.0

Table 6 shows the data regarding Maslach Burnout Inventory (MBI) and specifically with respect to the Depersonalization score reveals useful insight into the prevalence of burnout amongst the surveyed population. This is noteworthy as just about half of these respondents, that is, 49.0 percent, claim to be suffering from a high level of burnout what requires immediate policy regarding the management of the effects of burnout in the workplace. In addition, 20.9% reported moderate burnout, 30.1% had low levels of burnout, and present a variety of burnout intensity experiences.

Table (6): Shows Maslach burnout inventory (MBI); Section B: Depersonalization score results.

	Frequency	Percent
High level of burnout	244	49.0
Moderate burnout	104	20.9
Low level of burnout	150	30.1
Total	498	100.0

The data presented in Table 7, which outlines the results of the Maslach Burnout Inventory (MBI) specifically for Section C: A concerning trend regarding the burnout levels amongst the surveyed population is Personal Achievement scores. Notably, a large number, or 56.6% of the respondents said they are having such a high level of burnout that it required an intervention for workplace mental health and staff morale. Furthermore, 14.9 percent of participants had moderate burnout, amplifying how wide reaching this situation is. However, just 28.5% said they had a low level of burnout.

Table (7): Shows Maslach burnout inventory (MBI); Section C: Personal Achievement score results.

	Frequency	Percent
High level of burnout	282	56.6
Moderate burnout	74	14.9
Low level of burnout	142	28.5
Total	498	100.0

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Table (8) shows that the burnout section of Maslach burnout inventory has statistically significant relation to age (P value=0.001), marital status (P value=0.021), work area (P value=0.037), illness (P value=0.008), income satisfaction (P value=0.003), and duty hours satisfaction (P value=0.0001). It also shows statistically insignificant relation to gender, nationality, education, and total experience in years.

Table (8): Relation between Maslach burnout inventory (MBI); Section A: Burnout and sociodemographic characteristics.

Parameters		***Maslach burnout inventory (MBI); Section A: Burnout***		***Total (N=498)***	***P value****
		High or moderate level	**Low level of burnout**		
Gender	Female	184	192	376	0.963
		75.4%	75.6%	75.5%	
	Male	60	62	122	
		24.6%	24.4%	24.5%	
Age	25 or less	36	64	100	0.001
		14.8%	25.2%	20.1%	
	26 to 30	52	60	112	
		21.3%	23.6%	22.5%	
	31 to 35	82	62	144	
		33.6%	24.4%	28.9%	
	36 to 40	46	26	72	
		18.9%	10.2%	14.5%	
	more than 40	28	42	70	
		11.5%	16.5%	14.1%	
Nationality	Non-Saudi	84	90	174	0.814
		34.4%	35.4%	34.9%	
	Saudi	160	164	324	
		65.6%	64.6%	65.1%	
Marital status	Single	108	144	252	0.021
		44.3%	56.7%	50.6%	
	Married	126	102	228	
		51.6%	40.2%	45.8%	
	Divorced	10	8	18	
		4.1%	3.1%	3.6%	
Education	Bachelor	154	160	314	0.125
		63.1%	63.0%	63.1%	
	Clinical Board	12	6	18	
		4.9%	2.4%	3.6%	
	Diploma	34	44	78	
		13.9%	17.3%	15.7%	
	Fellowship	4	4	8	

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		1.6%	1.6%	1.6%	
	Higher	0	4	4	
		0.0%	1.6%	0.8%	
	Master	34	24	58	
		13.9%	9.4%	11.6%	
	PhD	4	6	10	
		1.6%	2.4%	2.0%	
	Postgraduate	2	6	8	
		0.8%	2.4%	1.6%	
Total experience (years)	<5 years	76	88	164	0.160
		31.1%	34.6%	32.9%	
	5 to 10 years	54	66	120	
		22.1%	26.0%	24.1%	
	10-15 Years	82	62	144	
		33.6%	24.4%	28.9%	
	More than 15 Years	32	38	70	
		13.1%	15.0%	14.1%	
Work Area	Administration	18	18	36	0.037
		7.4%	7.1%	7.2%	
	Inpatient	118	138	256	
		48.4%	54.3%	51.4%	
	Outpatient	70	46	116	
		28.7%	18.1%	23.3%	
	Others	38	52	90	
		15.6%	20.5%	18.1%	
Illness	Nil	160	164	324	0.008
		65.6%	64.6%	65.1%	
	Not related to occupation	22	44	66	
		9.0%	17.3%	13.3%	
	Related to occupation	62	46	108	
		25.4%	18.1%	21.7%	
Income satisfaction	Not satisfied due to financial reason	110	96	206	0.003
		45.1%	37.8%	41.4%	
	Not satisfied due to nonfinancial reason	46	30	76	
		18.9%	11.8%	15.3%	
	Satisfied	88	128	216	
		36.1%	50.4%	43.4%	
Duty hours satisfaction	No	158	76	234	0.0001
		64.8%	29.9%	47.0%	
	Yes	86	178	264	
		35.2%	70.1%	53.0%	

P value was considered significant if ≤ 0.05.

Table (9) shows that depersonalization section of Maslach burnout inventory has statistically significant

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relation to age (P value=0.0001), marital status (0.002), total experience (P value=0.029), work area (P value=0.002), income satisfaction (P value=0.001), duty hours satisfaction (P value=0.0001). It also shows statistically insignificant relation to gender, nationality, education and illness.

Table (9): Relation between Maslach burnout inventory (MBI); Section B: Depersonalization and sociodemographic characteristics.

Parameters		***Maslach burnout inventory (MBI); Section B: Depersonalization***		***Total (N=498)***	***P value****
		High level of burnout	**Moderate or low**		
Gender	Female	186	190	376	0.711
		76.2%	74.8%	75.5%	
	Male	58	64	122	
		23.8%	25.2%	24.5%	
Age	25 or less	30	70	100	0.0001
		12.3%	27.6%	20.1%	
	26 to 30	66	46	112	
		27.0%	18.1%	22.5%	
	31 to 35	80	64	144	
		32.8%	25.2%	28.9%	
	36 to 40	44	28	72	
		18.0%	11.0%	14.5%	
	more than 40	24	46	70	
		9.8%	18.1%	14.1%	
Nationality	Non-Saudi	80	94	174	0.323
		32.8%	37.0%	34.9%	
	Saudi	164	160	324	
		67.2%	63.0%	65.1%	
Marital status	Single	114	138	252	0.002
		46.7%	54.3%	50.6%	
	Married	114	114	228	
		46.7%	44.9%	45.8%	
	Divorced	16	2	18	
		6.6%	0.8%	3.6%	
Education	Bachelor	152	162	314	0.401
		62.3%	63.8%	63.1%	
	Clinical Board	10	8	18	
		4.1%	3.1%	3.6%	
	Diploma	42	36	78	
		17.2%	14.2%	15.7%	
	Fellowship	4	4	8	
		1.6%	1.6%	1.6%	
	Higher	0	4	4	

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		0.0%	1.6%	0.8%	
	Master	30	28	58	
		12.3%	11.0%	11.6%	
	PhD	4	6	10	
		1.6%	2.4%	2.0%	
	Postgraduate	2	6	8	
		0.8%	2.4%	1.6%	
Total experience (years)	<5 years	72	92	164	0.029
		29.5%	36.2%	32.9%	
	5 to 10 years	84	60	144	
		34.4%	23.6%	28.9%	
	10-15 Years	60	60	120	
		24.6%	23.6%	24.1%	
	More than 15 Years	28	42	70	
		11.5%	16.5%	14.1%	
Work Area	Administration	18	18	36	0.002
		7.4%	7.1%	7.2%	
	Inpatient	116	140	256	
		47.5%	55.1%	51.4%	
	Outpatient	74	42	116	
		30.3%	16.5%	23.3%	
	Others	36	54	90	
		14.8%	21.3%	18.1%	
Illness	Nil	158	166	324	0.349
		64.8%	65.4%	65.1%	
	Not related to occupation	28	38	66	
		11.5%	15.0%	13.3%	
	Related to occupation	58	50	108	
		23.8%	19.7%	21.7%	
Income satisfaction	Not satisfied due to financial reason	104	102	206	0.001
		42.6%	40.2%	41.4%	
	Not satisfied due to nonfinancial reason	50	26	76	
		20.5%	10.2%	15.3%	
	Satisfied	90	126	216	
		36.9%	49.6%	43.4%	
Duty hours satisfaction	No	168	66	234	0.0001
		68.9%	26.0%	47.0%	
	Yes	76	188	264	
		31.1%	74.0%	53.0%	

P value was considered significant if ≤ 0.05.

Table (10) shows that personal achievement section of Maslach burnout inventory has statistically significant relation to age (P value=0.002), nationality (0.017), education (P value=0.005), work area (P value=0.0001), illness (P value=0.002), income satisfaction (P value=0.020), duty hours satisfaction (P value=0.005). It also shows statistically insignificant relation to gender, marital status, education and

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illness.

Table (10): Relation between Maslach burnout inventory (MBI); Section C: Personal Achievement and sociodemographic characteristics.

Parameters		***Maslach burnout inventory (MBI); Section C: Personal Achievement***		***Total (N=498)***	***P value****
		High level of burnout	**Moderate or low**		
Gender	Female	210	166	376	0.540
		74.5%	76.9%	75.5%	
	Male	72	50	122	
		25.5%	23.1%	24.5%	
Age	25 or less	74	26	100	0.002
		26.2%	12.0%	20.1%	
	26 to 30	58	54	112	
		20.6%	25.0%	22.5%	
	31 to 35	74	70	144	
		26.2%	32.4%	28.9%	
	36 to 40	42	30	72	
		14.9%	13.9%	14.5%	
	more than 40	34	36	70	
		12.1%	16.7%	14.1%	
Nationality	Non-Saudi	86	88	174	0.017
		30.5%	40.7%	34.9%	
	Saudi	196	128	324	
		69.5%	59.3%	65.1%	
Marital status	Single	154	98	252	0.053
		54.6%	45.4%	50.6%	
	Married	116	112	228	
		41.1%	51.9%	45.8%	
	Divorced	12	6	18	
		4.3%	2.8%	3.6%	
Education	Bachelor	192	122	314	0.005
		68.1%	56.5%	63.1%	
	Clinical Board	4	14	18	
		1.4%	6.5%	3.6%	
	Diploma	44	34	78	
		15.6%	15.7%	15.7%	
	Fellowship	4	4	8	
		1.4%	1.9%	1.6%	
	Higher	0	4	4	
		0.0%	1.9%	0.8%	
	Master	30	28	58	

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		10.6%	13.0%	11.6%	
	PhD	6	4	10	
		2.1%	1.9%	2.0%	
	Postgraduate	2	6	8	
		0.7%	2.8%	1.6%	
Total experience (years)	<5 years	100	64	164	0.307
		35.5%	29.6%	32.9%	
	5 to 10 years	70	50	120	
		24.8%	23.1%	24.1%	
	10-15 Years	78	66	144	
		27.7%	30.6%	28.9%	
	More than 15 Years	34	36	70	
		12.1%	16.7%	14.1%	
Work Area	Administration	18	18	36	0.0001
		6.4%	8.3%	7.2%	
	Inpatient	136	120	256	
		48.2%	55.6%	51.4%	
	Outpatient	58	58	116	
		20.6%	26.9%	23.3%	
	Others	70	20	90	
		24.8%	9.3%	18.1%	
Illness	Nil	166	158	324	0.002
		58.9%	73.1%	65.1%	
	Not related to occupation	48	18	66	
		17.0%	8.3%	13.3%	
	Related to occupation	68	40	108	
		24.1%	18.5%	21.7%	
Income satisfaction	Not satisfied due to financial reason	124	82	206	0.020
		44.0%	38.0%	41.4%	
	Not satisfied due to nonfinancial reason	32	44	76	
		11.3%	20.4%	15.3%	
	Satisfied	126	90	216	
		44.7%	41.7%	43.4%	
Duty hours satisfaction	No	148	86	234	0.005
		52.5%	39.8%	47.0%	
	Yes	134	130	264	
		47.5%	60.2%	53.0%	

****P value was considered significant if ≤ 0.05.***

Discussion:

Burnout is a syndrome of work-related stress that arises from prolonged exposure to job stressors. This concept was first introduced in the early 1970s by psychoanalyst Freudenberger and has since been characterized by Maslach et al. as comprising three principal dimensions: emotional exhaustion,

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cynicism and depersonalization, and decreased professional efficacy along with diminished personal achievement [10]. Burnout can manifest across various professions, with healthcare workers, particularly those in perioperative roles, being particularly vulnerable. The implications of burnout can be grave, leading to personal issues such as substance abuse, disrupted relationships, and even suicide, in addition to critical professional challenges including reduced patient satisfaction, compromised quality of care, and potentially a rise in medical errors, which may lead to malpractice lawsuits with significant financial repercussions for both caregivers and healthcare institutions [11]. Addressing burnout syndrome should consider the seriousness of the symptoms [12]. For mild symptoms, interventions such as lifestyle modifications and enhancing work–life balance are advisable. These interventions focus on three key components: alleviation of stressors, recovery through relaxation and physical activity, and a "return to reality" by letting go of perfectionist aspirations [13]. Therefore, timely recognition of burnout and the formulation of effective coping strategies at both personal and organizational levels are crucial to tackle this pressing issue in modern healthcare [14]. Thus we aimed in this study to assess the frequency and level of burnout among Saudi Arabian healthcare workers.

In our investigation into job burnout among 498 healthcare workers, we noted that 35.4% frequently experience emotional exhaustion, which aligns with findings by Noha Ahmed EL Dabbah et al. [15], who reported an alarmingly high emotional exhaustion rate of 98.6% among healthcare workers. Our results indicate that 28.9% of respondents face stress from daily interactions, while Dabbah et al. found that 75% of healthcare workers experienced burnout syndrome, highlighting a critical concern in workplace well-being. This consistency in emotional distress emphasizes the urgency for effective mental health interventions in healthcare settings. Similarly, Amir Kabunga et al. [16] documented that 39.8% of respondents reported significant burnout levels, which is somewhat lower than our finding of 29.3% experiencing high burnout levels. Contrasting this, studies conducted in the United States reported burnout rates of 54% among physicians [17], 35% among hospital nurses [18], and 35.2% among medical students [19], suggesting that while burnout is prevalent, its severity may vary depending on the specific healthcare worker population. Furthermore, a systematic review involving 9,302 physicians in China revealed a burnout prevalence range of 66.5–87.8% [20], indicating that burnout is a pervasive issue across geographies and healthcare roles. In line with this, our study showed significant relationships between burnout levels and demographic factors such as age and marital status, confirming the findings of Duarte et al. [21] and Khasne et al. [22], which highlight these factors as significant contributors to burnout. Among healthcare providers in Arab countries (N = 4,108 across 19 studies), a high prevalence of burnout was observed, with emotional exhaustion rates spanning from 20.0% to 81.0% and personal accomplishment levels between 13.3% and 85.8% [23]. These findings resonate with our results demonstrating that only 26.9% of participants perceive their work as meaningful, while 16.9% never feel accomplished, indicating troubling levels of disengagement and dissatisfaction. Discrepancies in results may be attributed to variations in the measurement tools used to assess burnout, highlighting the importance of standardized methodologies in cross-cultural studies. Matsuo et al. [24] further elucidated that burnout prevalence is typically higher among nurses than physicians, echoing our own findings regarding the significant emotional strain reported by healthcare workers. Additionally, the observation in another Saudi Arabian study [25] that healthcare workers in their initial two-year training period face greater burnout risk mirrors our own findings, suggesting that early career stages may be particularly prone to high burnout levels. Moreover, numerous studies align with these findings, highlighting the widespread issue of burnout among healthcare professionals globally [26,27]. While burnout is recognized as a universal concern in the healthcare sector, variations in rates across regions and settings suggest the influence of factors such as organizational culture and leadership support. Factors such as organizational culture, leadership support, and the availability of

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mental health resources can influence burnout levels [28,29].

Conclusion:

This study underscores the alarming prevalence of job burnout among healthcare workers in Saudi Arabia, with 29.3% experiencing high levels of burnout and a significant portion reporting emotional exhaustion and low personal accomplishment. The findings suggest that healthcare professionals are struggling with the emotional weight of their roles, exacerbated by factors such as daily interpersonal stress, job demands, and insufficient coping strategies. Notably, the significant correlation between burnout levels and demographic factors such as age and marital status highlights the need for tailored interventions. As burnout can lead to detrimental effects on both personal well-being and patient care, implementing proactive measures such as enhanced mental health resources, improved organizational support, and strategies for work-life balance is crucial. Future research should focus on developing effective coping mechanisms and organizational strategies to mitigate burnout, promoting a healthier work environment and fostering the overall well-being of healthcare workers. Immediate and concerted efforts are necessary to address this critical issue in Saudi Arabian healthcare settings.

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Ethical approval:

An informed consent was obtained from each participant after explaining the study in full and clarifying that participation is voluntary. Data collected were securely saved and used for research purposes only.

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Conflict of interests:

The authors declare no conflict of interest.

Informed consent:

Written informed consent was acquired from each individual study participant.

Data and materials availability:

All data associated with this study are present in the paper.

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References:

1. Alshurtan KS, Aldhaifi SY, Alshammari KA, Alodayli OM, Alqahtani KF, Aldhaifi SY. Burnout Syndrome Among Critical Care Health Providers in Saudi Arabia. J Multidiscip Healthc. 2024;17:843–54.
2. Battar SS, Al-Mutairi KMA, Al-Qahtani FS, Alshaikh AA. Prevalence of Burnout Syndrome and the Associated Factors Among Healthcare Professionals in Saudi Arabia: A National Cross-Sectional Study. Ann Heal Res. 2024;10(1):33–45.
3. Siraj RA, Alhaykan AE, Alrajeh AM, Aldhahir AM, Alqahtani JS, Bakhadlq S, et al. Burnout, Resilience, Supervisory Support, and Quitting Intention among Healthcare Professionals in Saudi Arabia: A National Cross-Sectional Survey. Int J Environ Res Public Health. 2023;20(3):1–13.
4. Alharbi AS, Alenzi AM, Almuhaini NA, Alkharif RM, Alarafah NH, Almodaimegh H. Prevalence of burnout among hospital pharmacists at National Guard Hospital in Riyadh, Saudi Arabia. Int Res J Public Environ Heal. 2020;7(1):14–20.
5. Algarni SS, Algihab AA, Bin Dahmash HA, Alomaireni AS, Alzahrani RA, Alruwaili AH, et al. Burnout Among Respiratory Therapists in a Tertiary Hospital in Saudi Arabia. Respir Care. 2023;68(2):228–33.
6. Alotni MA, Elgazzar SE. Investigation of Burnout, its Associated Factors and its Effect on the Quality of Life of Critical Care Nurses Working in Buraydah Central Hospital at Qassim Region, Saudi Arabia. Open Nurs J. 2020;14(1):190–202.
7. Al-omari A, Mutair A Al, Shamsan A, Mutairi A Al. Predicting burnout factors among healthcare providers at private hospitals in Saudi Arabia and United Arab Emirates: A cross-sectional study. Appl Sci. 2020;10(1):1–9.
8. Alwhaibi M, Alhawassi TM, Balkhi B, Al Aloola N, Almomen AA, Alhossan A, et al. Burnout and Depressive Symptoms in Healthcare Professionals: A Cross-Sectional Study in Saudi Arabia. Healthc. 2022;10(12):1–12.
9. Awajeh AM, Issa MR, Rasheed AM, Faisal Amirah M. Burnout among Critical Care Nurses in King Saud Medical City (KSMC). J Nurs Care. 2018;07(02).
10. Misbah S, Ahmad A, Butt MH, et al. A systematic analysis of studies on corona virus disease 19 (COVID-19) from viral emergence to treatment. J Coll Physicians Surg Pak. 2020;30(1):9-18. [DOI] [PubMed] [Google Scholar]
11. Alanezi F, Aljahdali A, Alyousef SM, et al. A comparative study on the strategies adopted by the United Kingdom, India, China, Italy, and Saudi Arabia to contain the spread of the COVID-19 pandemic. J Healthc Leadersh. 2020;12:117-131. [DOI] [PMC free article] [PubMed] [Google Scholar]
12. Lenzo V, Quattropani MC, Musetti A, et al. Resilience contributes to low emotional impact of the COVID19 outbreak among the general population in Italy. Front Psychol. 2020;11:576485.doi: 10.3389/fpsyg.2020.576485 [DOI] [PMC free article] [PubMed] [Google Scholar]
13. Reith TP. Burnout in United States healthcare professionals: a narrative review. Cureus. 2018;10(12):e3681. doi: 10.7759/cureus.3681 [DOI] [PMC free article] [PubMed] [Google Scholar]
14. Xiao J, Fang M, Chen Q, He B. SARS, MERS and COVID-19 among healthcare workers: a narrative review. J Infect Public Health. 2020;13(6):843-848. doi: 10.1016/j.jiph.2020.05.019 [DOI] [PMC free article] [PubMed] [Google Scholar]

15. El Dabbah NA, Elhadi YAM. High levels of burnout among health professionals treating COVID-19 patients in two Nile basin countries with limited resources. Sci Rep. 2023 Apr 20;13(1):6455. doi: 10.1038/s41598-023-33399-2. PMID: 37081113; PMCID: PMC10116483.
16. Kabunga A, Kigongo E, Okalo P, Udho S, Grace AA, Tumwesigye R, Akello AR, Musinguzi M, Acup W, Nabaziwa J, Shikanga EM, Namata H. Burnout and coping mechanisms among healthcare professionals in central Uganda. Front Psychiatry. 2024 Apr 15;15:1373743. doi: 10.3389/fpsyt.2024.1373743. PMID: 38686129; PMCID: PMC11056560.
17. Shanafelt TD, Hasan O, Dyrbye LN, Sinsky C, Satele D, Sloan J, et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. Mayo Clin Proc. 2015;90(12):1600–1613. doi: 10.1016/j.mayocp.2015.08.023. [DOI] [PubMed] [Google Scholar]
18. McHugh MD, Kutney-Lee A, Cimiotti JP, Sloane DM, Aiken LH. Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. Health Aff (Millwood) 2011;30(2):202–210. doi: 10.1377/hlthaff.2010.0100. [DOI] [PMC free article] [PubMed] [Google Scholar]
19. Dyrbye LN, West CP, Satele D, Boone S, Tan L, Sloan J, et al. Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. Acad Med. 2014;89(3):443–451. doi: 10.1097/ACM.0000000000000134. [DOI] [PubMed] [Google Scholar]
20. .Lo D, Wu F, Chan M, Chu R, Li D. A systematic review of burnout among doctors in China: a cultural perspective. Asia Pac Fam Med. 2018;17:3. doi: 10.1186/s12930-018-0040-3. [DOI] [PMC free article] [PubMed] [Google Scholar]
21. Duarte I, Teixeira A, Castro L, Marina S, Ribeiro C, Jácome C, et al. Burnout among Portuguese healthcare workers during the COVID-19 pandemic. BMC Public Health. 2020;20(1):1885. doi: 10.1186/s12889-020-09980-z. [DOI] [PMC free article] [PubMed] [Google Scholar]
22. Khasne RW, Dhakulkar BS, Mahajan HC, Kulkarni AP. Burnout among healthcare workers during COVID-19 pan-demic in India: results of a questionnaire-based survey. Indian J Crit Care Med. 2020;24(8):664. doi: 10.5005/jp-journals-10071-23518. [DOI] [PMC free article] [PubMed] [Google Scholar]
23. Elbarazi I, Loney T, Yousef S, Elias A. Prevalence of and factors associated with burnout among health care professionals in Arab countries: a systematic review. BMC Health Serv Res. 2017;17(1):491. doi: 10.1186/s12913-017-2319-8. [DOI] [PMC free article] [PubMed] [Google Scholar]
24. Matsuo T, Kobayashi D, Taki F, Sakamoto F, Uehara Y, Mori N et al (2020) Prevalence of healthcare worker burnout during the coronavirus disease 2019 (COVID-19) pandemic in Japan. JAMA Netw Open 3(8). 10.1001/jamanetworkopen.2020.17271 [DOI] [PMC free article] [PubMed]
25. Alkhamees AA, Assiri H, Alharbi HY, Nasser A, Alkhamees MA Burnout and depression among psychiatry residents during COVID-19 pandemic. Human Resour Health (under review). 10.21203/rs.3.rs-41970/v2 [DOI] [PMC free article] [PubMed]
26. Dubale BW, Friedman LE, Chemali Z, Denninger JW, Mehta DH, Alem A, et al. Systematic review of burnout among healthcare providers in sub-Saharan Africa. BMC Public Health.

(2019) 19:1–20. doi: 10.1186/s12889-019-7566-7 [DOI] [PMC free article] [PubMed] [Google Scholar]

27. Denning M, Goh ET, Tan B, Kanneganti A, Almonte M, Scott A, et al. Determinants of burnout and other aspects of psychological well-being in healthcare workers during the Covid-19 pandemic: A multinational cross-sectional study. PloS One. (2021) 16:e0238666. doi: 10.1371/journal.pone.0238666 [DOI] [PMC free article] [PubMed] [Google Scholar]
28. Udho S, Kabunga A. Burnout and associated factors among hospital-based nurses in Northern Uganda: A cross-sectional survey. BioMed Res Int. (2022) 2022. doi: 10.1155/2022/8231564 [DOI] [PMC free article] [PubMed] [Google Scholar]
29. Chen J, Ghardallou W, Comite U, Ahmad N, Ryu HB, Ariza-Montes A, et al. Managing hospital employees' burnout through transformational leadership: the role of resilience, role clarity, and intrinsic motivation. Int J Environ Res Public Health. (2022) 19:10941. doi: 10.3390/ijerph191710941 [DOI] [PMC free article] [PubMed] [Google Scholar]