

Occupational Burnout, Employee Performance, And Job Satisfaction Among Healthcare Workers At The Ministry Of Health, Jeddah

Ola Akram Abdulrashid^{1*}, Wijdan Abdulkareem Baeshen¹, Amnah Marwan Haikal², Sarah Mohammed Aljeaid¹, Tarfa Yasser Bakhshwain³, Wadha Yasser Bakhshwain¹, Rania Ali Baokbah¹, Reema Ali Baokbah¹, Fawaz Falah Alhejaili¹, Hisham Hamdoon Alqari¹, Hussein Abdullah Almalki¹, Enas Awad Alasmari¹, Amal Abdullah Turkistani², Mahmoud Madani Alali¹, Mohammad Alcattan¹

¹Ministry of Health-Branch Jeddah, Jeddah, Saudi Arabia

²Second Health Cluster-Jeddah, Jeddah, Saudi Arabia

³First Health Cluster-Jeddah, Jeddah, Saudi Arabia

*Corresponding Author: Ola Akram Abdulrashid

Abstract

Objective: This study investigates the effects of occupational burnout on job performance and satisfaction among healthcare workers in the Ministry of Health, Jeddah.

Methods: We conducted a cross-sectional study among 702 healthcare workers currently serving at the Ministry of Health (MOH), Jeddah. Participants were recruited through a non-probability consecutive sampling technique and assessed on demographics, job characteristics, working conditions, and absenteeism. Burnout was measured using a validated Maslach Burnout Inventory (MBI) tool, evaluating emotional exhaustion, depersonalization, and personal accomplishment. Job satisfaction was assessed using 21 Likert scale items (strongly agree to strongly disagree) across workload, pressure, value conflicts, and reinforcement.

Results: Among 702 healthcare workers, the majority were male (76.5%), Saudi nationals (99.6%), married (81.6%), and aged 40-49 years (46.5%). Mean burnout scores indicated moderate emotional exhaustion (5.70 ± 5.18) and personal accomplishment (14.64 ± 5.89), with low depersonalization (1.39 ± 2.95). The overall mean burnout score was 18.44 ± 9.07 . The total job satisfaction score was 66.61 ± 14.87 , indicating moderate overall satisfaction. Job satisfaction positively correlated with work power ($r=0.741$; $p<0.001$), and positive enforcement ($r=0.833$; $p<0.001$), while it is negatively correlated with work pressure ($r=-0.751$; $p<0.001$), conflict of values ($r=-0.675$; $p<0.001$), and burnout ($r=0.295$; $p=0.001$).

Conclusion: There is bi-directional interaction between burnout, job satisfaction and factors reflecting performance of healthcare workers. Targeted interventions to reduce burnout, such as improving workflow organization and enhancing workplace support, are essential to sustain employee well-being and satisfaction.

Keywords: Maslach Burnout Inventory (MBI), Burnout, Emotional Exhaustion, Depersonalization, Personal Accomplishment and Job Satisfaction.

Introduction

The ultimate goal of health services worldwide is to achieve and maintain high-quality healthcare; the performance of healthcare professionals has a significant impact on the ability to achieve this goal (1). An increasing amount of evidence shows that this performance is not a simple issue but rather is closely linked to the delicate relationship between the well-being of the workforce, more especially, their levels of professional burnout and job satisfaction, and their ensuing productivity (2,3). Burnout is a state of physical and emotional exhaustion resulting from a prolonged, challenging job, which is characterized by fatigue, tiredness, prostration, and lassitude (4). It is common among health workers, particularly

physicians and nurses, due to the nature of their job(5). Previous research indicated that burnout not only affects the mental and physical health of the workers but also has a detrimental impact on the productivity of the organization (6).

There is a mutual and reciprocal relationship between burnout and job satisfaction in healthcare professionals. Healthcare professionals experiencing burnout tend to feel emotionally drained and show signs of depersonalization, characterized by a cynical detachment from their patients and their duties (7). Meta-analysis research showed a strong "negative and significant link" between burnout and job satisfaction. The authors concluded that in order to improve satisfaction and, consequently, lower burnout, human resources methods tailored to each nation's healthcare system are required (8). The Job Demands-Resources (JD-R) model is accepted as a theoretical background to understand well-being and productivity of employees via two domains. First, in the job demands, including heavy workloads, interpersonal conflicts, poor work conditions, and emotional pressure, that collectively can lead to stress and burnout. In contrast is the job resources domain, such as social support, autonomy, and opportunities for professional development, assists in reducing demands and fostering personal growth. The model suggests that job demands lead to health deterioration, whereas resources promote engagement and dedication (9,10).

The Health Sector Transformation Program (HSTP), a key component of Saudi Arabia's Vision 2030, is strategically designed to enhance the accessibility, affordability, and quality of healthcare services, with a paramount focus on patient-centered care. This program outlines comprehensive initiatives aimed at achieving high-quality service delivery through the provision of sufficient resources and by ensuring healthcare provider satisfaction, both of which are considered foundational to the sustainable provision of high-quality healthcare (11). Although existing research demonstrated the important connections between occupational burnout, job satisfaction, and employee performance, and theoretical models like the Job Demands-Resources (JD-R) framework offer a solid approach to comprehending these relationships, a considerable lack of empirical evidence exists regarding these interactions. Especially, within the context of health reforms in Saudi Arabia under Vision 2030, there is a lack of localized, comprehensive research exploring the specific relationship between burnout, job satisfaction, and performance metrics among healthcare workers in the Ministry of Health (MOH). Therefore, the current study aims to assess the interaction between burnout, job satisfaction, and performance of employees at the Jeddah branch of the Ministry of Health.

Methodology

Study Design: A cross-sectional study design was used to gather data from employees at the Jeddah Moh branch. 702 employees were recruited by a consecutive sampling, surveyed using a structured questionnaire designed to measure burnout levels, job performance, and satisfaction. The survey included Maslach Burnout Inventory (MBI) validated scales to assess emotional exhaustion, depersonalization, and personal accomplishment, along with custom questions to evaluate performance and satisfaction. Data was collected over a period of 6 months, ensuring a representative sample of the workforce. Ethical approval was gained before data collection by Jeddah Moh IRB, and informed consent was obtained from all participants. Confidentiality and anonymity were maintained throughout the study.

Results

Table 1 shows that the majority of the surveyed HCWs were males (76.5%), who were almost all Saudis (99.6%). Most of the participants (61.8%) were aged 40 years or older, which is reflected in the high percentage of participants with 10 or more years of experience (53.9%). Nearly on-half of the sample (47.1%) had a Bachelor's qualification, and the overwhelming majority of them (81.6%) are married (81.6%). Table 2 describes the response of the participants on the items potentially linked with their performance. It a remarkable mismatch between employee values and organizational actions, as 55.2% of respondents strongly agree and a further 25.2% agree that they are asked to perform tasks that contradict their personal values. Similarly, a combined 62.2% either agree or strongly agree that there is discrimination in how employees are treated. The positive Reinforcement is widespread, a combined majority of respondents either disagree or strongly disagree with statements about moral incentives

(35.6%), motivation to innovate (41.2%), salary fairness (36.5%), and performance-related bonuses (40.8%). Regarding work pressure, while opinions are divided on being tired and handling multiple tasks, over 52% of respondents agree or strongly agree that they have a difficult time getting time off to rest. The data shows that employees generally feel they have some degree of power, a combined percentage of 53.3% feel their volume of work is proportional to their ability, and a large portion feel they have sufficient authority to do their job and participate in decisions. However, a significant proportion (46%) disagree or strongly disagree that they can make their own business decisions without consulting higher authorities.

Table 3 provides summary statistics for burnout, job satisfaction, and factors likely to be linked with employee performance. Burnout Inventory scores indicate moderate emotional exhaustion (5.70 ± 5.18), low depersonalization (1.39 ± 2.95), and moderate personal accomplishment (14.64 ± 5.89). The total burnout score averaged 18.44 ± 9.07 , with a median of 18 (25th–75th percentile: 14–23), suggesting variability in burnout severity. Work power (mean = 15.62 ± 4.66) and work pressure (15.75 ± 4.41) showed similar scores, though work pressure had a slightly higher median (16 vs. 19). Work clarity (15.59 ± 4.49) and general values (15.37 ± 4.49) were comparable, with medians near 15. Lack of positive reinforcement scored highest (20.19 ± 6.72), reflecting perceived deficiencies in recognition. The total job satisfaction score was 66.61 ± 14.87 , with a median of 67 (range: 56–76), indicating moderate overall satisfaction. Figure 1 illustrates the relationship between Burnout Inventory Total Score (x-axis) and Job Satisfaction Total Score (y-axis), revealing a significant weak negative correlation ($R^2 = 0.087$), $p < 0.05$. The linear regression line ($y = 75.51 - 0.48x$) slopes downward, indicating that higher burnout scores are associated with lower job satisfaction. However, the low R^2 value suggests that burnout explains only 8.7% of the variation in job satisfaction.

Table 4 highlights several significant relationships between job satisfaction and factors potentially influencing performance. Positive Enforcement is the most powerful positive predictor of Job Satisfaction (0.833, $p < 0.001$), followed by Work power (0.741, $p < 0.001$). On the other hand, Work pressure is the most significant negative factor, with a correlation coefficient (-0.751, $p < 0.001$), followed by Work Pressure ($r = -0.342$, $p < 0.001$). Meanwhile, the table shows that there is a strong positive correlation between work power and positive reinforcement (0.537, $p < 0.001$), while there were negative correlations between work power and both work pressure (-0.342, $p < 0.001$) and conflict of values (-0.337, $p < 0.001$).

Table 1: Demographic Characteristics of the Study Participants.

Demographic Characteristics	n (%)
Gender	
Male	539 (76.5)
Female	166 (23.5)
Age categories	
≤ 39 years	20 (2.8)
30 – 39 years	249 (35.3)
40 – 49 years	328 (46.5)
≥ 50 years	108 (15.3)
Nationality	
Saudi	702 (99.6)
Non-Saudi	3 (0.4)
Education	
Secondary	53 (7.5)
Pre-bachelors diploma	156 (22.1)
Bachelors	332 (47.1)
Postgraduate diploma	20 (20.8)
Postgraduate degree	106 (15)
Marital Status	
Married	575 (81.6)

Single	87 (12.3)
Divorced	37 (5.2)
Widow	6 (0.9)
Years of Experience	
< 5 years	30 (4.3)
5 - 9 years	74 (10.5)
10 - 14 years	221 (31.3)
≥ 15 years	380 (53.9)

Table 2: Response of the participants on the items potentially related to performance, as n (%).

1-Work powers	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q1. The volume of work I do is proportional to my ability and ambitions.	108 (15.3)	268 (38)	189 (26.8)	75 (10.6)	65 (9.2)
Q2. There is sufficient scope of authority and power available to me to perform my job.	80 (11.3)	249 (35.3)	209 (29.6)	95 (13.5)	72 (10.2)
Q3. I sometimes have opportunities to participate in making some work-related decisions.	85 (12.1)	266 (37.7)	190 (27)	83 (11.8)	81 (11.5)
Q4. I can make my own business decisions without consulting my superiors.	43 (6.1)	158 (22.4)	179 (25.4)	139 (19.7)	186 (26.4)
Q5. My boss delegates to me to make work decisions.	81 (11.5)	217 (30.8)	196 (27.8)	104 (14.8)	107 (15.2)
2- Work pressure					
Q1. I feel tired and exhausted at the end of the official working day.	70 (9.9)	119 (16.9)	158 (22.4)	242 (34.3)	116 (16.5)
Q2. I'm having a hard time getting time off to rest	174 (24.7)	194 (27.5)	153 (21.7)	110 (15.6)	74 (10.5)
Q3. I am responsible for several unrelated duties or projects at the same time	130 (18.4)	139 (19.7)	189 (26.8)	167 (23.7)	80 (11.3)
Q4. Sometimes the tasks assigned to me are complex or difficult	140 (9.9)	189 (26.8)	186 (26.4)	135 (19.1)	55 (7.8)
Q5. Your work environment provides the tools and equipment needed to get the job done	114 (16.2)	228 (32.3)	165 (23.4)	101 (14.3)	97 (13.8)
3- Conflict of values					
Q1. I am asked to perform actions that contradict the values and principles I hold.	389 (55.2)	178 (25.2)	93 (13.2)	33 (4.7)	12 (1.7)
Q2. My job involves performing tasks that may please some employees and not others.	209 (29.6)	162 (23)	173 (24.5)	126 (17.9)	35 (5)
Q3. There is discrimination in deal with employees not based on objective grounds.	219 (31.1)	162 (31.1)	179 (25.4)	90 (12.8)	55 (7.8)
Q4. The culture and values prevailing in my work do not make me feel comfortable and belonging to my work	230 (32.6)	186 (26.4)	160 (22.7)	82 (11.6)	47 (6.7)

4- Positive reinforcement					
Q1. There are opportunities for moral incentives (certificate of thanks, appreciation, etc.) in my work.	85 (12.1)	190 (27)	179 (25.4)	96 (13.6)	155 (22)
Q2. It provides incentives at work that motivate us to innovate and create.	69 (9.8)	129 (18.3)	217 (30.8)	116 (16.5)	174 (24.7)
Q3. My salary is commensurate with my performance in my work and it motivates me.	59 (8.4)	169 (8.4)	220 (31.2)	109 (15.5)	148 (21)
Q4. The bonuses I get at my job are motivating and performance-related.	61 (8.7)	149 (21.1)	207 (29.4)	123 (17.4)	165 (23.4)
Q5. The work gives me a satisfactory social status.	70 (9.9)	227 (32.2)	241 (34.2)	83 (11.8)	84 (11.9)
Q6. Opportunities for promotion and career advancement in my job are available.	53 (7.5)	151(21.4)	212 (30.1)	106 (15)	183 (26)
Q7. The management always seeks to provide us with new skills through training and development programs	98 (13.9)	202 (13.9)	196 (27.8)	91 (12.9)	118 (16.7)

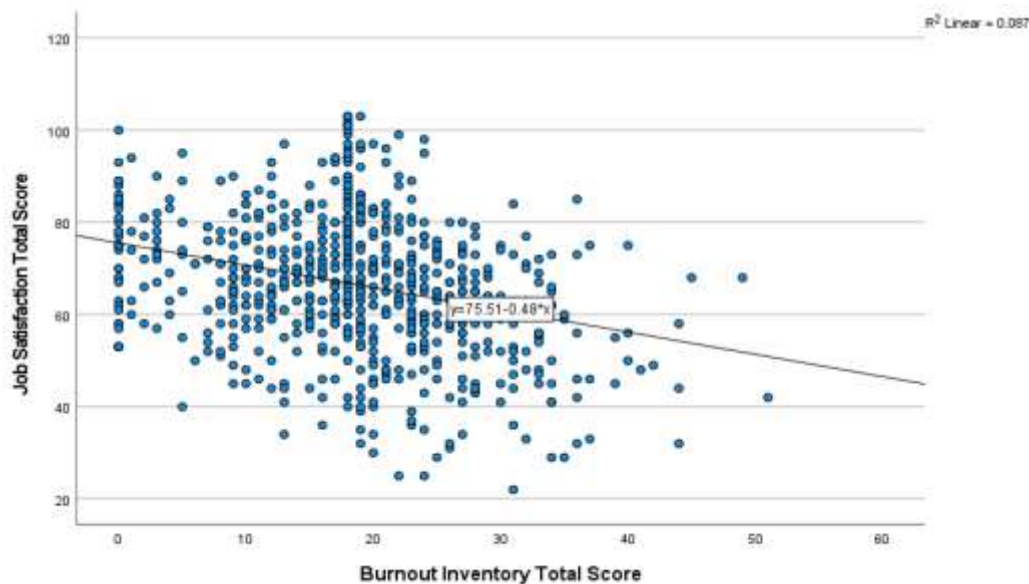
Table 3: Summary Statistics of Burnout Inventory and Job Satisfaction.

Variables	Mean \pm SD	Median (25 th percentile – 75 th percentile)
Emotional	5.70 \pm 5.18	4 (9 – 1)
Depersonalization	1.39 \pm 2.95	0 (1 – 0)
Personal Accomplishment	11.35 \pm 5.89	12 (17 – 7)
Burnout Inventory Total Score	18.44 \pm 9.07	18 (24 – 13)
Work Power	15.62 \pm 4.66	16 (19 – 13)
Work Pressure	15.75 \pm 4.41	16 (19 – 12)
Conflict of Values	15.05 \pm 3.72	15 (18 -12)
Lack of Positive Reinforcement	20.19 \pm 6.72	21 (25 -15)
Job Satisfaction Total Score	66.61 \pm 14.87	67 (76 – 58)

Table 4: Correlation of Job Satisfaction Score with Work Power, Work Pressure, Conflict of Values and Personal Lack of Positive Enforcement Total Score.

	Work Power	Work Pressure	Conflict of Values	Positive Enforcement
Work Power				
Work Pressure	-0.342** <0.001			
Conflict of Values	-0.337** <0.001	0.584** <0.001		
Positive Enforcement	0.537** <0.001	-0.445** <0.001	-0.326** <0.001	
Job satisfaction	0.741** <0.001	-0.751** <0.001	-0.675** <0.001	0.833** <0.001

Figure 1: Scatter plot for the correlation between burnout and job satisfaction.



Discussion:

The findings revealed a moderate degree of burnout among healthcare workers (HCWs) in Jeddah, consistent with a recent multicenter research by Jaber et al. (2025), who identified multiple contributing factors for burnout, such as workplace stressors, organizational challenges, and personal difficulties (12). The key drivers of burnout include heavy workloads, long shift hours, and with substantial shortage of staff levels, particularly in nursing staff, who frequently have to work 12-hour shifts, resulting in significant physical and emotional drain, which is worsened by other issues like administrative neglect and inadequate work-life balance. Additionally, workplace bullying and violence in the workplace would add more psychological burden (12,13). On the same line, cultural pressures, faced by expatriates due to language barriers and job insecurity, are additional factors for this cohort (12).

The significant negative correlation between burnout and job satisfaction of health care professionals has been documented in several studies (2,7,8). Given the job demand theory, which explained the interaction between burnout and job satisfaction, as an imbalance between high job demands and low resources, leading to burnout, which decreases job satisfaction by reducing work engagement (9). This explanation applies to Saudi healthcare, where there are challenges, especially with a shortage of staffing, dependence on expatriates, and an increase in workload (12).

The results showed a strong positive link between job satisfaction and work power, aligning with previous research which affirmed that the manageable patient load (14), in addition to autonomy, such as sufficient authority with more control over clinical decisions, and delegation offered by the supervisors of healthcare professionals, with support from the leadership, are collectively significant predictors of higher satisfaction (15). On the other hand, as expected, the study showed a strong negative association between the level of satisfaction and work pressure. These findings had been documented in previous studies in Saudi Arabia, as well as in the Gulf States (GCCs) (16,17). The healthcare work environment is characterized by exhaustive roles for long duration, for example, on-call shifts, particularly in insufficient resources are substantial predictors of low satisfaction and increased likelihood of burnout in the long run. Moreover, these consequences are exacerbated with multiple task assignments and being required to perform diverse roles simultaneously (9,18).

The results showed a strong negative correlation between job satisfaction and conflict of values. This conflict occurs when HCWs face circumstances where there are contradictions between individual beliefs and professional expectations, especially in healthcare settings, leading to moral distress and diminishing job satisfaction and employee well-being (19). Also, among the other conflicts of values is the perceived discrimination between employees based on subjective rather than objective grounds creates feelings of unfairness, which, in turn, diminishes trust in leadership, decreases professional

commitment, and negatively impacts job satisfaction (20). Moreover, the lack of comfort and belonging due to misaligned culture and values eventually disrupts psychological safety and creates feelings of isolation (21).

The results showed a strong positive correlation between job satisfaction and the "positive reinforcement" they get from their work environment. A recent study in Saudi Arabia concluded that intrinsic and extrinsic positive reinforcement, including recognition and praise, even a simple certificate or public thanks, can create a culture of appreciation and directly enhance morale (22). While money alone isn't the sole determinant of job satisfaction, it is a significant factor. Provided that the received salary is fair, and "commensurate with performance"(23).

Moreover, promotion and career advancement a strong indicator of an organization's investment in its employees. A 2014 study on job satisfaction in Pakistan found a positive and significant relationship between job satisfaction and factors like pay, promotion, and training. Employees who see a clear path for advancement are more motivated and engaged (24). The overall correlation matrix between job satisfaction, burnout, and performance elaborates the complex interplay between these variables. Previous studies affirmed that workers with greater job satisfaction exhibit reduced compassion fatigue and burnout, indicating that satisfaction increases resilience against stress factors at work that contribute to burnout. They concluded that promoting job satisfaction is essential for preventing burnout and maintaining consistent high performance (23–26).

Strengths and limitations of the study

The main study strengths lie in its ability to explore the interaction between three main variables potentially affecting the productivity of healthcare facilities, through the inclusion of a relatively large sample size, which allows for more precise results and reduces the impact of random variations. Also, the use of validated tools, statistical rigor, and relevance to Saudi Arabia's healthcare goals. providing valuable insights into the interaction between burnout, job satisfaction, and performance, with practical recommendations for improving HCW performance. However, limitations such as the cross-sectional design, non-probability sampling, and reliance on self-reported data, with possible bias such as social desirability, recall bias, or subjective interpretation.

Conclusion and recommendations

This study demonstrated a reciprocal relationship between burnout, job satisfaction, and the performance of healthcare professionals. A significant, strong positive correlation between job satisfaction, work power, and positive enforcement. There is a negative correlation between job satisfaction and burnout. Also, there is a negative link between job satisfaction and burnout. Meanwhile, there is a strong positive correlation between work power and positive reinforcement, while there is a negative correlation between work power and both work pressure and conflict of values.

To reach the ambitious target of Vision 2030 in Saudi Arabia, to adopt high-quality health services, through adequate performance of HCWs, it is essential to tackle the findings of this study. It is essential to mitigate the level of burnout by following planned strategies such as workload management, adequate staffing to prevent work pressure, offering access to counseling, holding stress management workshops, and providing peer support. Meanwhile, enhancing job satisfaction can be achieved by offering recognition and rewards, supporting positive reinforcement, and encouraging career development opportunities with clear career progression paths. This approach strengthens the positive link between job satisfaction and work power.

Significance of the study

The importance of this study stems from its thorough investigation of the interconnections between burnout, job satisfaction, and performance among healthcare workers. Its relevance is further enhanced by its alignment with a pivotal stage of health reform as an essential part of the ambitious Saudi Arabia's Vision 2030, and its practical suggestions for increasing healthcare workforce productivity and well-being. Also, it offers a solid ground for policymakers to put forward workplace interventions, aiming to improve healthcare worker performance and enhance patient care.

Funding: This research received no external funding.

Ethics approval and consent to participate: This study was conducted in accordance with relevant ethical guidelines and regulations. The research protocol was reviewed and approved by the Institutional Review Board (IRB). All participants provided informed consent prior to participation, and their confidentiality and anonymity were ensured throughout the study. As this study involved the collection of survey data and did not include experiments on humans or the use of human tissue samples, it fully complies with ethical standards.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Acknowledgment

For the literature needed to put the study together, the authors thank the Cochrane Database, editors, publishers, and open access resources, especially the Cochrane Library, CINAHL, PubMed, Medline, Embase, Google Scholar, and BMJ Clinical Evidence.

Author contributions

The manuscript's original text was written by the initial author. Before the work is forwarded to a journal for publication, each author must provide their final consent. Each co-author contributed to the literature review, the manuscript's editing, and the construction of the table and figures. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

The authors declare no conflict of interest, financial or otherwise.

References

1. Busse R, Panteli D, Quentin W. An introduction to healthcare quality: defining and explaining its role in health systems. *Improving healthcare quality in Europe*. 2019;1.
2. Bernales-Turpo D, Quispe-Velasquez R, Flores-Ticona D, Saintila J, Ruiz Mamani PG, Huancahuire-Vega S, et al. Burnout, Professional Self-Efficacy, and Life Satisfaction as Predictors of Job Performance in Health Care Workers: The Mediating Role of Work Engagement. *Journal of Primary Care & Community Health*. 2022;13:21501319221101845–21501319221101845.
3. Corbeanu A, Iliescu D, Ion A, Spînu R. The link between burnout and job performance: a meta-analysis. *European Journal of Work and Organizational Psychology*. 2023 July 4;32(4):599–616.
4. Gong Z, Chen Y, Wang Y. The influence of emotional intelligence on job burnout and job performance: Mediating effect of psychological capital. *Frontiers in Psychology* [Internet]. 2019 [cited 2025 Aug 4]; Available from: <https://psycnet.apa.org/record/2019-80947-001>
5. De Hert S. Burnout in Healthcare Workers: Prevalence, Impact and Preventative Strategies. *Local Reg Anesth*. 2020 Oct 28;13:171–83.
6. Leitão J, Pereira D, Gonçalves Â. Quality of Work Life and Contribution to Productivity: Assessing the Moderator Effects of Burnout Syndrome. *International Journal of Environmental Research and Public Health*. 2021 Jan;18(5):2425.
7. Osman DM, Abdlrheem SS. Burnout and Job Satisfaction among Healthcare Providers in Aswan University Hospital, Upper Egypt. *Journal of High Institute of Public Health* [Internet]. 2019 [cited 2025 Aug 5];49(1). Available from: <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=23570601&AN=136629829&h=oh3wHz6jv8gqYLbRw3cXNCjRcB%2BUNo0b8izoW%2BWSxYiqMasuDjWzvuq4SJF5TfI%2BvZ6v0xJbL8INVapP3GGXqA%3D%3D&crl=c>
8. Mutlu H, Aydin OA. The Relationship between Job Satisfaction and Burnout in Healthcare Professionals: Meta-Analysis. *Turkish Journal of Family Medicine and Primary Care*. 18(2):162–70.
9. Bakker AB, De Vries JD. Job Demands–Resources theory and self-regulation: new explanations and remedies for job burnout. *Anxiety, Stress, & Coping*. 2021 Jan 2;34(1):1–21.
10. Lesener T, Gussy B, Wolter C. The job demands-resources model: A meta-analytic review of longitudinal studies. *Work & Stress*. 2019 Jan 2;33(1):76–103.

11. Althumairi AA, Bukhari FM, Awary LB, Aljabri D. The effect of transformation policies on healthcare providers' satisfaction in primary healthcare centers: the case of Eastern Saudi Arabia. *BMC Health Services Research*. 2023 Nov 30;23(1):1328.
12. Jaber MJ, Bindahmsh AA, Baker OG, Alaqlan A, Almotairi SM, Elmohandis ZE, et al. Burnout combating strategies, triggers, implications, and self-coping mechanisms among nurses working in Saudi Arabia: a multicenter, mixed methods study. *BMC Nursing*. 2025 May 26;24(1):590.
13. Dyrbye LN, Major-Elechi B, Hays JT, Fraser CH, Buskirk SJ, West CP. Relationship Between Organizational Leadership and Health Care Employee Burnout and Satisfaction. In: *Mayo Clinic Proceedings* [Internet]. Elsevier; 2020 [cited 2025 Aug 18]. p. 698–708. Available from: [https://www.mayoclinicproceedings.org/article/S0025-6196\(19\)30993-0/abstract](https://www.mayoclinicproceedings.org/article/S0025-6196(19)30993-0/abstract)
14. Salsabilla A, Setiawan M, Juwita H. The effect of workload and job stress on job satisfaction mediated by work motivation. *International Journal of Research in Business and Social Science* (2147- 4478). 2022 Dec 25;11:97–106.
15. Riisgaard H, Nexøe J, Le JV, Søndergaard J, Ledderer L. Relations between task delegation and job satisfaction in general practice: a systematic literature review. *BMC Family Practice*. 2016;17(1):168.
16. Alotaibi AHM, Alotaibi AHM, Alotaibi AMH, Alwahbi EB, Alkhathlan MS, Alnaddah SM, et al. Job Satisfaction among Primary Healthcare Workers in Saudi Arabia and Associated Factors: A Systematic Review. *Family Medicine and Primary Care: Open Access* [Internet]. 2022 May 25 [cited 2025 Aug 20]; Available from: <https://www.gavinpublishers.com/article/view/job-satisfaction-among-primary-healthcare-workers-in-saudi-arabia-and-associated-factors-a-systematic-review>
17. Jaber MJ, Bindahmsh AA, Baker OG, Alaqlan A, Almotairi SM, Elmohandis ZE, et al. Burnout combating strategies, triggers, implications, and self-coping mechanisms among nurses working in Saudi Arabia: a multicenter, mixed methods study. *BMC Nurs*. 2025 May 26;24:590.
18. Kelly LA, Gee PM, Butler RJ. Impact of nurse burnout on organizational and position turnover. *Nurs Outlook*. 2021;69(1):96–102.
19. Buchbinder M, Browne A, Berlinger N, Jenkins T, Buchbinder L. Moral Stress and Moral Distress: Confronting Challenges in Healthcare Systems Under Pressure. *Am J Bioeth*. 2024 Dec;24(12):8–22.
20. Taiwo TL, Constanța E, Eluwole KK. Workplace Favoritism and Workforce Sustainability: An Analysis of Employees' Well-Being. *Sustainability*. 2022;14(22):14991.
21. Zajac SA, Williams KN, Patel SM, Lazzara EH, Keebler JR, Clemens MW, et al. Understanding Psychological Safety in Healthcare: A Qualitative Investigation and Practical Guidance. *The Joint Commission Journal on Quality and Patient Safety* [Internet]. 2025 [cited 2025 Aug 24]; Available from: <https://www.sciencedirect.com/science/article/pii/S1553725025001400>
22. Ahmari RA, Qannass SA, Govallen P, Moorkan N, Homoud Z. The Impact of Nurses Recognition, and Empowerment Related to Nurses Job Satisfaction at KFSH-D. *Open Journal of Nursing*. 2023 Feb 23;13(2):81–94.
23. Rana W, Mukhtar S, Mukhtar S. Job satisfaction, performance appraisal, reinforcement and job tasks in medical healthcare professionals during the COVID-19 pandemic outbreak. *The International journal of health planning and management*. 2022;37(4):2345–53.
24. Samsudin A, Ikaningtiyas M, Mulia F, Rintalla M. Exploring the relationship between career advancement, work-life balance, and corporate financial performance: a systematic review. *Atestasi: Jurnal Ilmiah Akuntansi*. 2024;7(2):1091–110.
25. Alzoubi MM, Al-Mugheed K, Oweidat I, Alrahbeni T, Alnaeem MM, Alabdullah AAS, et al. Moderating role of relationships between workloads, job burnout, turnover intention, and healthcare quality among nurses. *BMC Psychol*. 2024 Sept 19;12:495.
26. Moscu CA, Marina V, Anghel AD, Anghel M, Dragomir L, Ciubară A. The Impact of Work-Related Problems on Burnout Syndrome and Job Satisfaction Levels among Emergency Department Staff. *Behav Sci (Basel)*. 2023 July 11;13(7):575.