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ORIGINAL ARTICLE

Work satisfaction and professional well-being among emergency department staff: a cross-sectional study from Madinah, Saudi Arabia

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ABSTRACT

Objective: This study aimed to evaluate job satisfaction and professional well-being among emergency staff in Madinah, Saudi Arabia.

Methods: A descriptive, cross-sectional study was conducted among 295 emergency department staff (EDS) (147 nurses and 148 physicians) at King Fahad Hospital and Alula Hospital. Participants were surveyed using a demographics data form and a validated 40-item Job Satisfaction Questionnaire measuring satisfaction across six dimensions.

Results: EDS reported high satisfaction with patient care and peer interactions, with 78% satisfied with patient quality and 85% with collegial support. However, dissatisfaction was significant for the workload (62%), staffing (54%), supervisory support (60%), and training (68%). Job satisfaction positively correlated with age; 72% of staff aged 40 years and above reported satisfaction as compared to 55% of younger staff (p-value < 0.01). Staff with over 10 years of experience had a satisfaction rate of 75%, while those with less than 5 years reported 50% (p-value < 0.05). Non-Saudi nationals exhibited higher satisfaction (70%) compared to Saudi staff (55%), with no significant differences based on gender, marital status, or job type (p-value > 0.05).

Conclusion: Improving job satisfaction among EDS requires a multifaceted approach, focusing on workload management, professional development, and enhancing the work environment. These efforts are essential for reducing stress levels and improving patient care quality.

Keywords: Job satisfaction, emergency department, healthcare professionals, workload, patient care.

Introduction

The emergency department (ED) is the core of healthcare organizations. It plays a critical role in the medical system due to its essential requirement for high-quality, timely, and effective care as well as the complex interventions employed in it. EDs are pivotal for managing various healthcare needs and operate as one of the hospital sectors providing a 24-hour service for urgent care, emergency response, primary care, and community health services during non-business hours when other facilities might be unavailable. Emergency care settings involve high-acuity patient care in unpredictable environments, where rapid assessments and interventions are frequently required [1].

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Emergency department staff (EDS) are frontline healthcare professionals who often manage undifferentiated patient issues with varying levels of urgency. EDS regularly manages multiple tasks concurrently and works in environments typically characterized by heavy workloads and overcrowded conditions [2]. EDS face numerous stressors, which are broadly categorized into occupational and personal stressors. Occupational stressors include high patient volume, extended working hours, limited rest periods, insufficient resources, and a lack of cohesive teamwork.

Moreover, critical decision-making responsibilities contribute significantly to their occupational stress. Personal stressors, such as sudden patient deaths, trauma cases, and participation in high-stakes resuscitations, further impact their emotional and physical well-being [3]. The combination of long working hours, unpredictable situations, and irregular sleep patterns have been associated with increased risks of depression, anxiety, and burnout among ED personnel. These challenges can adversely affect both their health and job satisfaction, often contributing to higher turnover rates in EDs [4].

Job satisfaction is defined as a pleasurable or positive emotional state resulting from the appraisal of one's job experience. It is recognized as a critical factor influencing employee performance and organizational effectiveness, closely tied to the quality of services provided by the organization [1,5].

Job satisfaction reflects the extent to which employees have a positive emotional orientation towards their employment within an organization. It can be assessed in two ways. "Globally" which is the overall satisfaction with work, or "Dimensionally" which is related to the satisfaction with specific aspects of work, such as promotion, remuneration, and interpersonal relationships with colleagues [2,6]. Factors that negatively influence job satisfaction include job insecurity, inflexible schedules, low salaries, insufficient staffing, excessive workloads, severely restricted working environments, and inadequate support from supervisors [7]. The shortage of staff not only impacts the quality of care provided by ED professionals but also affects their overall job satisfaction [8].

Extensive research has examined various aspects of job satisfaction among EDS, including working conditions, compensation packages, opportunities for professional development, collaboration with colleagues, and supervisory styles [7]. Enhancing support for ED personnel might enable them to perform their duties more effectively, thereby improving employee satisfaction and retention. Furthermore, involvement in decision-making processes, organizational backing for professional and educational growth, and the provision of self-scheduling options are potential strategies to strengthen overall job satisfaction among EDS [9]. The job satisfaction of ED positively impacts the quality of care delivered to patients, patient safety, and overall productivity [10]. Conversely, dissatisfaction with the workplace can lead to employee turnover, absenteeism, tardiness, accidents, grievances, and other disruptive behaviors, adversely affecting organizational commitment and the quality of healthcare services provided [11]. Keeping the scenario under consideration, the current study aimed to investigate the factors influencing job satisfaction among EDS and their subsequent impact on the quality of patient care. Furthermore, it endeavors to identify potential strategies for enhancing employee satisfaction and retention in the emergency care setting.

Subjects and Methods

A descriptive, cross-sectional research design was conducted over three months at King Fahad Hospital in Madinah and Alula Hospital in the Al-Jamiah region, Saudi Arabia. These two hospitals were selected to provide insights into job satisfaction within ED settings in the region.

The target population for the study was approximately 1,000 ED staff members across the two hospitals. Using a 95% confidence level and a ±5% margin of error, a minimum sample size of 278 participants was determined to be statistically sufficient, based on calculations from a sample size calculator (Sample Size Calculator). The study exceeded this requirement, successfully collecting data from 295 participants by simple random sampling, comprising 147 nurses and 148 physicians.

Data collection was performed using two forms. Demographics data form and a job satisfaction questionnaire. The demographics data form gathered demographic and occupational information, such as job type, work area, age, and years of experience in the ED. The job satisfaction questionnaire comprised a 40-item questionnaire that measures job satisfaction across six dimensions. Personal satisfaction (10 items), satisfaction with workload (7 items), satisfaction with professional support (9 items), satisfaction with pay and prospects (8 items), satisfaction with training (4 items), and other factors (2 items). Each item was rated on a five-point Likert scale, ranging from 1 = "very dissatisfied" to 5 = "very satisfied."

Data collection was conducted via an online survey distributed to ED staff, which included a demographic data section. Participants completed the form electronically, and its content validity was ensured by a panel of experts in emergency healthcare. The job satisfaction questionnaire was adapted from a validated tool commonly used in healthcare studies [12,13], with modifications made for contextual relevance to ED staff in Saudi Arabia. Newly developed questions underwent expert review for content validity and cultural appropriateness. Internal consistency of the questionnaire was confirmed using Cronbach's alpha ($\alpha = 0.95$), indicating high reliability.

All collected data were coded and analyzed to measure job satisfaction levels among ED staff. The Statistical Package for Social Sciences software version 20 was used for data analysis. Demographic variables such as gender, age, years of experience, and job type were expressed as frequencies and percentages. Descriptive statistics (mean and standard deviation) were calculated for each quantitative variable. ANOVA was used as the test of significance, with a p-value of <0.05 considered statistically significant.

Results

A total of 295 participants were surveyed. The sample included a nearly equal distribution of physicians (50.2%) and nurses (49.8%), ensuring a balanced representation of both key occupational groups in the study population. A majority of participants (60.0%) worked within Madinah. Age-wise, most participants (55.3%) were between 30 and 44 years old. In terms of ED experience, 51.9% had less than 5 years of experience. The sample included 56.3% males, and a substantial proportion (66.4%) were married. Non-Saudi nationals comprised 52.9% of the staff (Table 1).

In terms of personal factors, participants rated "the contribution to patient care" (3.705 ± 1.064) and "the quality of work with patients" (3.549 ± 1.123) as the most satisfying aspects, reflecting a positive perception of their impact on patient care. Conversely, workload factors scored lower, particularly in "overall staffing levels" (2.064 ± 1.121) and "workload" (2.220 ± 1.215), suggesting significant dissatisfaction in these areas. Professional support also showed mixed results; while "contact with colleagues" was rated relatively high (3.789 ± 1.041), there was dissatisfaction with "support and guidance from supervisors" (2.718 ± 1.239). Satisfaction with pay and promotion prospects were moderate, with "clinical grading" at 3.223 ± 1.183, while "Opportunities to advance career" scored lower at 2.603 ± 1.144). Training opportunities were notably unsatisfactory, particularly in being funded for courses (1.989 ± 1.153), highlighting a gap in development support. Finally, the lowest satisfaction was seen in the "availability of suitable rest and prayer facilities" (1.932 ± 1.213), indicating a need for improved amenities (Table 2).

Job satisfaction analysis revealed the highest satisfaction levels for aspects such as colleague interaction, contribution to patient care, appreciation from colleagues, quality of patient care, and personal accomplishments. These factors had mean scores ranging from 3.508 to 3.789. Conversely, the lowest satisfaction was reported for rest/prayer space availability, funding for training, time off for courses, and department security, with mean scores between 1.932 and 2.213. The mean scores of job satisfaction dimensions by job type indicated that "personal satisfaction" had the highest mean scores among both physicians (3.378 ± 0.806) and nurses (3.349 ± 0.909). In contrast, satisfaction with "security, safety, and rest/prayer room availability" scored the lowest for both groups (Table 3).

Age showed a highly significant association with job satisfaction, with those aged over 45 years reporting the highest satisfaction (p-value < 0.0001). Similarly, years of experience in any ED were positively correlated, as individuals with over 10 years of experience reported higher satisfaction (p-value = 0.0004). Working longer within the same ED also impacts satisfaction, with those serving 6-10 years or more showing increased satisfaction (p-value = 0.0392). In addition, nationality was a significant factor, with non-Saudi staff exhibiting greater satisfaction than their Saudi counterparts (p-value < 0.0001) (Table 4).

Table 1. *Frequency distribution of the studied sample socio-demographic characteristics.*

Variable	Frequency (Percentage) *n* (%)
Job type	
Physician	148 (50.2)
Nurse	147 (49.8)
Working area	
Inside Madinah city	177 (60.0)
Outside Madinah city	118 (40.0)
Age	
29 years or less	103 (34.9)
30–44 years	163 (55.3)
>45 years	29 (9.8)
Years of work in any ED	
<5 years	153 (51.9)
5–10 years	97 (32.9)
>10 years	45 (15.2)
Years of working in the ED in this hospital	
<2 years	91 (30.9)
2–5 years	116 (39.3)
6–10 years	67 (22.7)
>10 years	21 (7.1)
Gender	
Male	166 (56.3)
Female	129 (43.7)
Marital status	
Married	196 (66.4)
Not married	99 (33.6)
Nationality	
Saudi	139 (47.1)
Non-Saudi	156 (52.9)

Discussion

Job satisfaction is a crucial factor influencing the performance and quality of care provided by ED staff (physicians and nurses). High job satisfaction not only enhances employee productivity and creativity but also contributes to organizational efficiency. Moreover, elevated satisfaction levels are linked to lower turnover rates, promoting stability within emergency medical teams. This study aimed to assess the overall level of job satisfaction and identify the key factors contributing to staff satisfaction in the Madinah region.

The findings revealed that personal factors, such as the perceived contribution to patient care and quality of work with patients, were high contributors to job satisfaction. These results align with other studies showing that perceived impact on patient outcome was a significant factor in boosting satisfaction among healthcare professionals. For example, research found that a sense of meaningful contribution to patient care can improve job satisfaction and reduce burnout among ED staff [14]. In other settings, similar findings emphasize the intrinsic motivation derived from patient-centered care, indicating a universal trend across diverse healthcare systems [15].

Table 2. *Distribution of the mean scores of the studied sample according to job satisfaction.*

Items	Mean	S D
Personal factors		
The feeling of worthwhile accomplishment I get from my work	3.508	1.168
The extent to which I can use my skills.	3.362	1.088
The contribution I make to patient care	3.705	1.064
The amount of challenge in my job	3.264	1.205
The extent to which my job is varied and interested	3.396	1.215
What I have accomplished when I go home at the end of the day	3.315	1.200
The standard of care given to patients	3.166	1.221
The amount of personal growth and development I get from my work	3.162	1.226
The quality of my work with patients	3.549	1.123
The amount of independent thought and action I can exercise in my work	3.210	1.159
Workload		
The Time available to get through my work	2.857	1.103
The amount of time available to finish everything I have to do	2.877	1.188
The time available for patient care	2.911	1.174
My workload	2.220	1.215
Overall staffing levels	2.064	1.121
The way that I can care for patients	3.115	1.0818
The amount of time spent on administration	2.498	1.171
Professional support		
The amount of support and guidance I receive from my supervisor	2.718	1.239
The opportunities I have to discuss my concern	2.522	1.203
The support available to me in my job	2.433	1.1641
The overall quality of the supervision I receive in my work	2.623	1.165
The degree of respect and fair treatment I receive from my boss	3.186	1.2867
The degree to which I am part of a team	3.383	1.2005
The people I talk to and work with	3.501	1.0969
The contact I have with colleagues	3.789	1.041
The value placed on my work by my colleagues	3.589	1.117
Satisfaction with pay and prospects		
The amount of pay I receive	2.779	1.286
My clinical grading	3.223	1.1826
The degree to which I am fairly paid for what I contribute to this organization	2.810	1.194
My prospects for promotion	2.891	1.1642
The opportunities I have to advance my career	2.603	1.1437
The match between my job description and what I do	2.989	1.276
How secure things look for in the future of this organization	2.837	1.160
The amount of job security I have	2.742	1.232
Training		
The opportunity to attend courses	2.311	1.199
Time off to attend courses	2.064	1.177
Being founded for courses	1.989	1.153
The extent to which I have adequate training for what I do	2.305	1.152
Other factors		
The security and safety afforded to me at the department.	2.213	1.271
The availability to provide a suitable room to rest and to pray during my break time.	1.9322	1.213

However, this study also uncovered significant dissatisfaction related to workload, professional support, and training opportunities; factors commonly cited as sources of stress in ED environments worldwide. Research also showed that high workload and insufficient staffing contributed heavily to burnout and job dissatisfaction in emergency care, reflecting similar challenges to those observed in this study [16]. In contrast, studies in settings where staffing resources and workload distribution were effectively managed, reported higher job satisfaction,

Table 3. *Distribution of the mean scores of job satisfaction dimensions according to job type.*

	Label	*N*	Mean	SD	Minimum	Maximum
Physician	Factor I: Personal satisfaction	148	3.378	0.806	1.00	5.00
	Factor II: Satisfaction with workload	148	2.792	0.761	1.00	5.00
	Factor III: Satisfaction with Professional Support	148	3.216	0.823	1.00	5.00
	Factor IV: Satisfaction with Pay and Prospects	148	2.870	0.900	1.00	5.00
	Factor V: satisfaction with Training	148	2.273	1.037	1.00	5.00
	Other factors (security, safety, and availability of room for rest and prayer)	148	1.952	1.150	1.00	5.00
	Overall Job Satisfaction	148	2.964	0.698	1.00	5.00
Nurse	Factor I: Personal satisfaction	147	3.349	0.909	1.00	5.00
	Factor II: Satisfaction with workload	147	2.505	0.931	1.00	5.00
	Factor III: Satisfaction with Professional Support	147	2.948	0.894	1.00	5.00
	Factor IV: Satisfaction with Pay and Prospects	147	2.848	0.940	1.00	5.00
	Factor V: satisfaction with Training	147	2.061	1.041	1.00	5.00
	Other factors (security, safety, and availability of room for rest and prayer)	147	1.911	1.276	1.00	5.00
	Overall Job Satisfaction	147	2.816	0.775	1.00	5.00

Table 4. *Relation between the total studied sample job satisfaction and their socio-demographic characteristics.*

Variable	Mean ± SD score	*p*-Value
Job type Physician Nurse	3.0 ± 0.7 2.8 ± 0.8	0.0846
Working area Inside Madinah city Outside Madinah city	2.9 ± 0.7 2.9 ± 0.8	0.7499
Age 29 years Less 30–44 years >45 years	2.7 ± 0.7 2.9 ± 0.7 3.5 ± 0.6	<0.0001**
Years of work in any ED <5 years 5–10 years >10 years	2.8 ± 0.7 2.9 ± 0.7 3.3 ± 0.6	0.0004**
Years of working in the ED in this hospital <2 years 2–5 years 6–10 years >10 years	2.8 ± 0.6 2.8 ± 0.8 3.1 ± 0.8 3.1 ± 0.6	0.0392*
Gender Male Female	2.9 ± 0.8 2.9 ± 0.6	0.9568
Marital status Married Not married	2.9 ± 0.8 2.8 ± 0.7	0.0584
Nationality Saudi Non-Saudi	2.7 ± 0.8 3.1 ± 0.7	<0.0001**

*Significant at $p < 0.05$.

**Highly significant at $p < 0.01$

suggesting that improvements in staffing ratios might help foster a more supportive and sustainable work environment [17].

Professional support showed a duality in satisfaction levels. While interactions with colleagues were highly valued, lower satisfaction with the supervisory backing indicated a need for enhanced mentorship and leadership. Similar findings from another study suggested that while positive peer interactions can buffer against stress, inadequate supervisor support can diminish job satisfaction, underscoring the need for structured mentoring and supervisory feedback [18]. By contrast, studies also emphasized that supportive supervisory relationships are crucial to staff retention and satisfaction, suggesting that cultural and organizational context might influence the role of supervisory support [19,20]. Increased support from supervisors might be achieved through structured mentoring programs or regular supervisory feedback, both of which were linked to higher job satisfaction and retention in healthcare settings [21,22]. Implementing team-building initiatives might further strengthen the collaborative culture and improve overall satisfaction. Remuneration and promotion also yielded moderate satisfaction levels, with limited advancement opportunities impacting long-term job motivation.

Supporting continuous professional development, particularly in high-stress fields like emergency medicine, is critical to maintaining staff motivation and expertise. This issue resonates with findings from other parts of the world especially the developing countries, where limited career development pathways were linked to lower satisfaction and increased turnover in healthcare [23]. Studies from developed countries, where transparent career progression systems are often implemented, reported higher satisfaction with professional growth, suggesting that structured advancement opportunities could positively impact ED staff satisfaction [24].

The marked dissatisfaction with training opportunities, especially regarding course funding and time off, reflected a broader need for continuous professional development in emergency medicine. Similar challenges have been observed in countries, where limited institutional support for training reduces job satisfaction and stymies professional growth [25]. By contrast, healthcare systems, that prioritized structured funding for courses and training leave, reported higher satisfaction,

underscoring the benefits of institutional investment in skill development [26].

The low satisfaction with amenities, particularly rest and prayer facilities, signals an urgent need for improvements in basic workplace provisions that support staff well-being. Research from other Middle Eastern healthcare environments highlighted the importance of culturally appropriate amenities, such as designated prayer rooms, which were linked to improved job satisfaction and reduced stress [27]. Studies in Japan had similarly found that providing adequate rest areas was associated with lower levels of fatigue and higher job satisfaction among ED staff, supporting the importance of these fundamental needs [28].

The analysis of socio-demographic factors revealed further satisfaction trends. Older staff members and those with more extensive ED experience reported higher satisfaction levels, possibly due to greater familiarity with the demands of the job and resilience developed over time. This aligns with other studies, where seasoned ED professionals reported greater job satisfaction due to acclimatization to the field's high-stress environment [29].

In addition, the higher satisfaction reported by non-Saudi nationals compared to Saudi staff might reflect differing expectations or adaptive coping strategies. Another plausible explanation could be that Saudi staff, having worked in other healthcare facilities in the region, might compare their experiences and find areas where this particular ED setting falls short of meeting their expectations. This comparative lens could partially account for the observed difference in satisfaction levels between the two groups. Studies in multinational healthcare settings, such as the UAE, also showed similar patterns, with expatriate staff often reporting higher satisfaction than local staff, potentially due to unique motivations and cultural adaptability [30]. These trends might be used to design targeted interventions that consider demographic diversity and experience level.

The results of this study have important implications for improving job satisfaction and professional well-being among ED staff. Addressing areas of dissatisfaction, such as high workload, limited supervisory support, and insufficient training opportunities could enhance staff morale and reduce turnover rates, ultimately benefiting patient care quality. The positive impact of factors like contribution to patient care and strong peer relationships suggested that fostering a supportive team culture and emphasizing the meaningful aspects of patient interaction might further boost job satisfaction. In addition, there was a significant association between job satisfaction and demographic factors such as age, experience, and nationality highlighting the need for tailored interventions that consider the diverse needs of the workforce. These findings underscored the value of targeted workplace changes such as improved staffing, structured career development, and enhanced amenities, that could create a more supportive, effective ED environment.

The study had several limitations that need to be acknowledged. First, its cross-sectional design prevented the establishment of causality. In addition, the study was conducted in two hospitals in a single city in Saudi Arabia, which might limit the generalizability of the findings to other regions or healthcare settings. Furthermore, questionnaires were distributed in multiple runs, but detailed information on the number of runs was not included, which could have implications for the consistency of data collection. The use of convenience sampling to recruit participants introduced potential biases inherent to nonprobability sampling methods, further limiting the control over sampling biases and the representativeness of the sample. This limitation should be explicitly considered when interpreting the results. Finally, while the study provided valuable insights, no generalization can be made beyond the studied population. Future research should consider longitudinal designs, a larger and more diverse sample from multiple centers across various regions, and probability sampling methods to address these limitations and enhance the reliability and applicability of the findings.

Moreover, it is important to contextualize the findings of this study within the broader literature. The high satisfaction levels observed in this study align with findings from other research conducted in similar populations, indicating a potential pattern that warrants further exploration. Highlighting these consistencies with existing literature can provide a more robust understanding of the factors influencing satisfaction levels in this population and their relevance to broader healthcare contexts.

Conclusion

The study highlighted both positive aspects and critical challenges regarding job satisfaction among ED staff in the surveyed hospitals in Madinah. While elements such as patient care and interpersonal relationships were rated positively, significant concerns were identified, particularly regarding workload, supervisory support, training, and workplace amenities. These findings underscored the need for targeted interventions to address these challenges. It is important to note that the results reflected the perspectives of staff from two hospitals within a single city, limiting broader generalization to all of Madinah or other regions. Future research should focus on understanding these dynamics across diverse healthcare settings and delve deeper into the impact of specific workplace interventions on job satisfaction. In addition, studies employing longitudinal designs can better assess the sustained effects of such improvements.

List of Abbreviations

ED	Emergency Department
EDS	Emergency Department Staff
n	Number
UAE	United Arab of Emirates

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

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None.

Consent to Participate

Informed consent was obtained from all the participants.

Ethical approval

Ethical approval was obtained from the Institutional Review Board of the General Directorate of Health Affairs, the regional health authority overseeing research ethics in Madinah, Saudi Arabia via reference number ERC letter no. 2. Dated: 12/04/2016

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References

1. Purwanto A. The effect of work-family conflict on job satisfaction and performance: a study of Indonesian female employees. Int J Adv Sci Technol . 2020;29(3):6724–48.
2. Berlanda S, Pedrazza M, Fraizzoli M, de Cordova F. Addressing risks of violence against healthcare staff in emergency departments: the effects of job satisfaction and attachment style. Biomed Res Int. 2019;2019:5430870. https://doi.org/10.1155/2019/5430870
3. Li K, Chen H, Tan Z, Yin X, Gong Y, Jiang N, et al. Job satisfaction and its related factors among emergency department physicians in China. Front Public Health. 2022;10:925686. https://doi.org/10.3389/fpubh.2022.925686
4. Javanmardnejad S, Bandari R, Heravi-Karimooi M, Rejeh N, Sharif Nia H, Montazeri A. Happiness, quality of working life, and job satisfaction among nurses working in emergency departments in Iran. Health Qual Life Outcomes. 2021;19:1–8. https://doi.org/10.1186/s12955-021-01755-3
5. Li N, Zhang L, Xiao G, Chen J, Lu Q. The relationship between workplace violence, job satisfaction, and turnover intention in emergency nurses. Int Emerg Nurs. 2019;45:50–5. https://doi.org/10.1016/j.ienj.2019.02.001
6. Suhaimi A, Mulud ZA, Ahmad SK. Factors contributed to job satisfaction among nurses working at tertiary hospitals in the Klang Valley: an adaptation of Herzberg's theory. J Sustain Sci Manag. 2023;18(6):135–48. https://doi.org/10.46754/jssm.2023.06.012
7. Alzailai N, Barriball L, Xyrichis A. Burnout and job satisfaction among critical care nurses in Saudi Arabia and their contributing factors: a scoping review. Nurs Open. 2021;8(5):2331–44. https://doi.org/10.1002/nop2.843
8. Rajan D. Shift work, workload, and professionalism-related motivators affecting job satisfaction: an empirical study among medical laboratory technicians. Health Econ Rev. 2023;4(3):1–21. https://doi.org/10.61093/hem.2023.3-01
9. Şan İ. The factors affecting job satisfaction of emergency medical services professionals in Ankara. Cyprus J Med Sci. 2019;4(3):177–82. https://doi.org/10.5152/cjms.2019.848
10. Staempfli S, Lamarche K. Top ten: a model of dominating factors influencing job satisfaction of emergency nurses. Int Emerg Nurs. 2020;49:100814. https://doi.org/10.1016/j.ienj.2019.100814
11. Wang J, Mu K, Gong Y, Wu J, Chen Z, Jiang N, et al. Occurrence of self-perceived medical errors and its related influencing factors among emergency department nurses. J Clin Nurs. 2023;32(1–2):106–14. https://doi.org/10.1111/jocn.16200
12. Weiss DJ, Dawis RV, England GW, Lofquist LH. Minnesota Satisfaction Questionnaire (MSQ). University of Minnesota, Minneapolis; 1967. https://doi.org/10.1037/t05540-000
13. Spector PE. Measurement of human service staff satisfaction: development of the job satisfaction survey. Am J Community Psychol. 1985;13(6):693. https://doi.org/10.1007/BF00929796
14. West M, Bailey S. Healthcare leadership: cultures, climates, and compassion. In: Chambers N, editor. Research handbook on leadership in healthcare. Manchester, UK: Research Handbook on Leadership in Healthcare; 2023. pp 29–53. https://doi.org/10.4337/9781800886254.00010
15. Lateef AM, Mhlongo EM. Trends in patient-centered care in South West Nigeria: a holistic assessment of the nurse's perception of primary healthcare practice. Glob J Health Sci. 2020;12(6):73. https://doi.org/10.5539/gjhs.v12n6p73
16. Hanley A, Davis D, Kurz E. Job satisfaction and sustainability of midwives working in caseload models of care: an integrative literature review. Women Birth. 2022;35(4):e397–407. https://doi.org/10.1016/j.wombi.2021.06.003
17. Marrone JA, Quigley NR, Prussia GE, Dienhart J. Can supportive coaching behaviors facilitate boundary spanning and raise job satisfaction? An indirect-effects model. J Management. 2022;48(5):1131–59. https://doi.org/10.1177/01492063211003951
18. Ahli R, Hilmi MF, Abudaqa A. Moderating effect of perceived organizational support on the relationship between employee performance and its determinants: a case of entrepreneurial firms in UAE. Aptisi Trans Technopreneurship. 2024;6(2):199–212. https://doi.org/10.34306/att.v6i2.425
19. Odai LA, Yang J, Ahakwa I, Mohammed SI, Dartey S. Determining the impact of supervisory support on employee engagement in the telecommunication sector of Ghana: the role of supportive organizational culture. Sci Bus Rev. 2021;1(2):15–31. https://doi.org/10.33215/sbr.v1i2.588
20. Hu H, Wang C, Lan Y, Wu X. Nurses' turnover intention, hope, and career identity: the mediating role of job satisfaction. BMC Nursing. 2022;21(1):43. https://doi.org/10.1186/s12912-022-00821-5
21. Bailey C, Blake C, Schriver M, Cubaka VK, Thomas T, Hilber AM. A systematic review of supportive supervision as a strategy to improve primary healthcare services in Sub-Saharan Africa. Int J Gynaecol Obstet. 2016;132(1):117–25. https://doi.org/10.1016/j.ijgo.2015.10.004
22. Moran AM, Coyle J, Pope R, Boxall D, Nancarrow SA, Young J. Supervision, support, and mentoring interventions for health practitioners in rural and remote contexts: an integrative review and thematic synthesis of the literature to identify mechanisms for successful outcomes. Hum Resour Health. 2014;12:1–30. https://doi.org/10.1186/1478-4491-12-10
23. Rakhab A, Jackson C, Nilmanat K, Butterworth T, Kane R. Factors supporting career pathway development amongst

advanced practice nurses in Thailand: a cross-sectional survey. Int J Nurs Stud. 2021;117:103882. https://doi.org/10.1016/j.ijnurstu.2021.103882

24. Quek SJ, Thomson L, Houghton R, Bramley L, Davis S, Cooper J. Distributed leadership as a predictor of employee engagement, job satisfaction, and turnover intention in UK nursing staff. J Nurs Management. 2021;29(6):1544–53. https://doi.org/10.1111/jonm.13321
25. Tanimu J, Wachap AS, Tanko F. Staff development initiatives' effect on teaching faculty performance in Taraba State higher education institutions. Sci J Edu Humanities Soc Sci. 2024;2(1):1–15. https://doi.org/10.62536/sjehss.v2i1.7
26. Kuhlmann E, Falkenbach M, Brînzac MG, Correia T, Panagioti M, Ungureanu MI. The mental health needs of healthcare workers: when evidence does not guide policy. A comparative assessment of selected European countries. Int J Health Plann Manage. 2024;39(3):614–36. https://doi.org/10.1002/hpm.3752
27. Hussein MFF, Abubakar IR. Perspectives of families and healthcare staff on the design of inpatient hospital rooms in Saudi Arabia. HERD. 2025;18(1):122–41. https://doi.org/10.1177/19375867241279366
28. Kameyama J, Hashizume Y, Takamura Y, Nomura S, Gomi T, Yanagi H. Work engagement, well-being, and intent to continue working based on educational support among foreign care workers in Japan. Environ Health Prev Med. 2022;27:4. https://doi.org/10.1265/ehpm.21-00248
29. Ochieng G. Job-related stress and burnout on turnover intention of nurses in Dallas, Texas, during COVID-19. Walden University, Minneapolis, MN; 2021.
30. Valk R, Yousif L. "Going beyond to deliver hip hospitality": exploring motivation and job satisfaction of hospitality workers in Dubai. Int J Organ Anal. 2023;31(2):293–316. https://doi.org/10.1108/IJOA-12-2020-2517