Review Article

Burnout Syndrome among Emergency Physicians in Saudi Arabia: A Systematic Review

Abdullah M. Basnawi[1], Hussam Y. Hader[2], Mohammed K. Al Makir[3], Danah A. Abu Sabir[3], Abdulelah H. Al-Balawi[3], Razan I. Bahkali[4], Deema H. Alghbban[3], Abdulaziz A. Alqarni[5], Sara A. Almuteb[4], Amal A. Albalawi[3], Yasmin J. Albalawi[3], Daey A. Aljahany[3], Omayrah A. Alanazi[6], Abdullah M. AL Madshush[6]

[1]Consultant of Emergency Medicine, Faculty of Medicine, Department of Internal Medicine, .Tabuk University, Tabuk, KSA. [2]General practitioner, Aseer central hospital, Abha, KSA. [3]Medical Student, college of Medicine, University of Tabuk, Tabuk, KSA. [4]Medical student, College of Medicine, Almaarefa University, Riyadh, KSA. [5]Medical intern, College of Medicine, King Khalid University, Abha, KSA. [6]Medical Intern, college of Medicine, University of Tabuk, Tabuk, KSA.

ABSTRACT

Objectives: To study the risk factors and prevalence of burnout and its dimensions among emergency physicians in Saudi Arabia.

Methods: PubMed, SCOPUS, Web of Science, and Science Direct were systematically searched for relevant literature. Rayyan QRCI was employed throughout this comprehensive process.

Results: We included fourteen studies with a total of 1810 patients (Participants), and 1068 (59%) were males. The MBI-HSS was the scale used to assess burnout. The prevalence of burnout ranged from 15.57% to 76%. The following factors were associated with higher burnout risk: smokers, people using medication for sleep disorders, number of vacation days annually, number of workdays per week, female sex, single status, early medical practice participants, resident physician/surgeon employment category participants, people whose current job negatively impacted their family life, and people with back pain.

Conclusion: Saudi physicians in emergency medicine have the highest burnout rates of any profession, making them particularly vulnerable to burnout. Nonetheless, there remains a high level of job satisfaction among emergency physicians, and further research is necessary to fully understand the intricate relationship between burnout and job satisfaction. Because burnout is linked to particular personality traits and particularly coping mechanisms, doctors who are at high risk of experiencing burnout should be recognized early on and appropriately consulted. In order to make progress toward the goal of effectively treating burnout syndrome in the future, more case-control studies pertaining to behavioural intervention and the promotion of healthy lifestyles are required.

Keyword: Emergency medicine; Burnout; Saudi Arabia; Systematic review.

Introduction

Occupational burnout, which has three characteristics that result from continuous job or organizational stressors are lack of personal achievement (PA), detainment (DP), and emotional weariness (EE). Nowadays, Burnout in the workplace Has become more commonplace days. In addition to the elevated instances of divorce, unemployment, and illnesses of the body and mind, burnout has also been linked to a declining workforce, a dysfunctional economy, and low productivity [1, 2].

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Address for correspondence: Hussam Yahya A Hader, General practitioner, Aseer central hospital, Abha, Saudi Arabia.
E-mail: hussamo07@outlook.com

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Healthcare personnel face physical and psychological stress, which makes occupational burnout a significant problem [3]. Comparing with general population, it is believed that healthcare professionals, including doctors, are particularly prone to burnout. Emergency medicine presents intellectual, physical, and emotional challenges. This highlights the significance of recognizing burnout in urgent care practitioners and the possible negative effects it may have on these professionals, their patients, and healthcare facilities [4]. Overwhelming workloads, a lack of control, inadequate compensation, a lack of community (peer and social support), unfairness, and competing values (work vs. family) are among the factors linked to worker burnout [5]. The high frequency of burnout and occupational stress in emergency departments (EDs) around the world has been extensively documented in the literature [6]. According to several studies, burnout is more common among ED nurses and doctors (between 26% and 82%) than in other disciplines [7-10]. Furthermore, Vagni et al., revealed that 85% of emergency department nurses had at least one sign of additional trauma stress disorder [11]. Among ED nurses, 86% feel somewhat to very empathic exhausted, compared to the ED personnel, 52% reported feeling moderately to severely anxious [12]. Workplace stresses that are directly related to this syndrome include high demands for emergency department services, crowding, pressure to perform, loss of control, exposure to traumatic occurrences, and resource limitations [9, 13]. Working in a chaotic, constantly changing workplace that necessitates quick, making key decisions and being able to respond to situations when life or death is involved are two further professional stresses that EDs must deal with [14]. Delayed interventional and preventative actions, along with a late diagnosis of burnout, can negatively impact employees' physical and mental well-being and work quality and efficiency. This can ultimately result in increased costs for healthcare organizations due to absenteeism, relocation, and lost productivity [15, 16]. Job stress has an impact on occupational burnout. Thus, actions like providing employees with workplace assistance and allowing them to participate in decision-making can lower stress and, in turn, lower the risk of occupational burnout. Conversely, resilience is crucial in avoiding burnout in the workplace. Additionally, when job stress decreases, the quality of healthcare services increases [17]. It is crucial to determine the prevalence as well as the possibility of burnout among doctors who provide emergency medical services (EMS), because of the stressful and difficult work environment that emergency doctors and residents face, who serve as first responders at patients' bedside and are vital in saving lives. Examining the causes or incidence of burnout is the main objective for this review.and its dimensions among emergency physicians in Saudi Arabia.

Methods

Recommended Disclosure Things for Organizing Studies and Meta-Analyses, or PRISMA guidelines were followed when carrying out this systematic review [18].

Study Design and Duration: January 2024 marked the start of this systematic review.

Method of searching: A thorough search was conducted across four key databases: PubMed, To locate pertinent material, Investigate Science Direct, Web of Science, and SCOPUS. We limited our search to English and considered the particular needs of each database. The following keywords were transformed into subject terms in Scopus or PubMed Mesh terms in order to locate the pertinent publications.:"Emergency medicine," "Emergency physicians," "Burnout," "Emotional exhaustion," "Depersonalization," "Personal accomplishment," and "Saudi Arabia." The essential the operators "OR" and "AND" in Boolean logic were used to match terms. The search yielded human trials, articles that could be downloaded for free, and publications with full text in English.

Qualification standards: Next qualifying requirements have been added with the assistance of PICOS:

1) Population (P): physicians in emergency departments at risk of experiencing burnout.

2) Intervention (I): Research whereby burnout was assessed with adequate data using Medical service survey data from the Maslach Burnout Inventory (MBI-HSS).

3) Results (O): The frequency of burnout and its three facets (high EE, high DP, and low PA) among individuals at high risk of burnout.

4) Research design (S): includes both cross-sectional and intervention studies.

Disqualification standards: We did not examine any papers that fell into the following categories: letters, reviews, conference abstracts, Case reports, incomplete data, and private information. As soon as the investigators completed the eligibility examination, the authors held a discussion to settle any disputes.

Information extraction: Two times, Rayyan (QCRI) was employed to confirm the findings of the search technique [18]. In order to evaluate the titles and abstracts' pertinence, the combined search results were supplemented with inclusion/exclusion criteria by the researchers. The reviewers gave each submission that met the inclusion requirements a thorough look. The authors spoke about methods for resolving disputes. A data extraction form that had already been generated was used to upload the approved research. Details about the study's names, authors, year, location, and subjects the authors obtained data on gender, burnout scale, prevalence of burnout and its components, and major outcomes. An additional sheet was created for the assessment of bias risk [19]

Method for synthesizing data: The summary tables, which incorporated information from relevant studies, offered an in-depth evaluation of the components and study findings. After the information was gathered for the systematic review, the most efficient way to use the information from the research articles that were included was chosen.

Potential for partiality in evaluation: Using the critical evaluation criteria for research providing frequency data, the study was assessed, according to the Joanna Briggs Institute's (JBI) guidelines [20]. Nine questions were included in this method of evaluating research. If the response was affirmative, the question received a score of 1. A score of 0 was assigned to any answer that was no, ambiguous, or irrelevant. In terms of general quality, less than four, five to seven, and more than eight grades were considered to be of low, moderate, and excellent quality, correspondingly. Academics evaluated the quality of their own study, and differences were resolved through debate.

Results

Search outcomes: Following the elimination of 92 duplicates, ultimately, 289 study articles were found through the thorough search. After 197 studies had their titles and abstracts screened, 153 were not included. Two articles and 48 reports were successfully retrieved out of the search. After 46 research were chosen for full-text review, 12 had their study results removed because they were inaccurate, 16 because the population type was incorrect, 8 because the research was not done in Saudi Arabia, and 2 articles were letters to the editor. Eight research publications in this systematic review satisfied the requirements for inclusion. An outline of the process used to choose the research is shown in (Figure 1). Features of the studies that were included

The collected research articles' social and demographic data is displayed in (Table 1). Among the eight studies that made up our results, 1068 (or 59%) of the 1810 patients were men. Eight cross-sectional investigations were conducted [21–28]. There were four research carried out in Riyadh. [21, 25, 26, 28], one in the areas of the Southwest [22], one in the vicinity of Al-Jouf [23], one located in Dammam. [24], as well as ones in Jeddah, Makkah, and Riyadh [27].

(Table 2) demonstrates the clinical traits. Scores for burnout were expressed as mean values or prevalence; in this study, we used prevalence. The MBI-HSS was the scale used to assess burnout. Burnout was prevalent in a spectrum of 15.57% [23] to 76% [24]. The studies that were included stated that emergency personnel in Saudi Arabia are at high risk of burnout [21-28]. The following factors were associated with higher burnout risk: smokers, people using medication for sleep disorders [22], weekly workdays and the total amount of vacation days [23],Women's gender, single status, involvement in early medical practice, employment category for residents and physicians and surgeons, persons whose present job badly affected their family life, and those with back pain [25, 27]. Another study stated that married doctors were more likely than single doctors to experience burnout [27].

Discussion

This review assessed the frequency and protective variables against burnout in emergency Saudi physicians. The MBI-HSS was the scale used to assess burnout, which strengthens our results as it decreases the risk of inter-heterogeneity between studies. MBI incorporates EE, DP, and PA and is regarded as the gold standard method for measuring physician burnout [29]. Regarding the three subscores (low PA, DP, and EE), A positive correlation was found between elevated EE and DP levels, and both were able to distinguish between workers who were burnt out and those who werenot. Thus, researchers assert that having just elevated EE and DP is a necessary component of burnout. [30].The stability of the results was confirmed by the frequency of elevated EE and DP values in our investigation, which was consistent.

In the current study, in Saudi Arabia, the percentage of emergency medical personnel who experienced burnout varied from 15.57% to [23] to 76% [24]. In a similar comprehensive review, Boutou et al. [31] stated that the prevalence of burnout varies greatly, ranging from 25% [32] among doctors working in pediatric emergency rooms to 77.8% among EM trainees in the United States [33]. According to Zhang et al. [34], using MBI measurements, significant

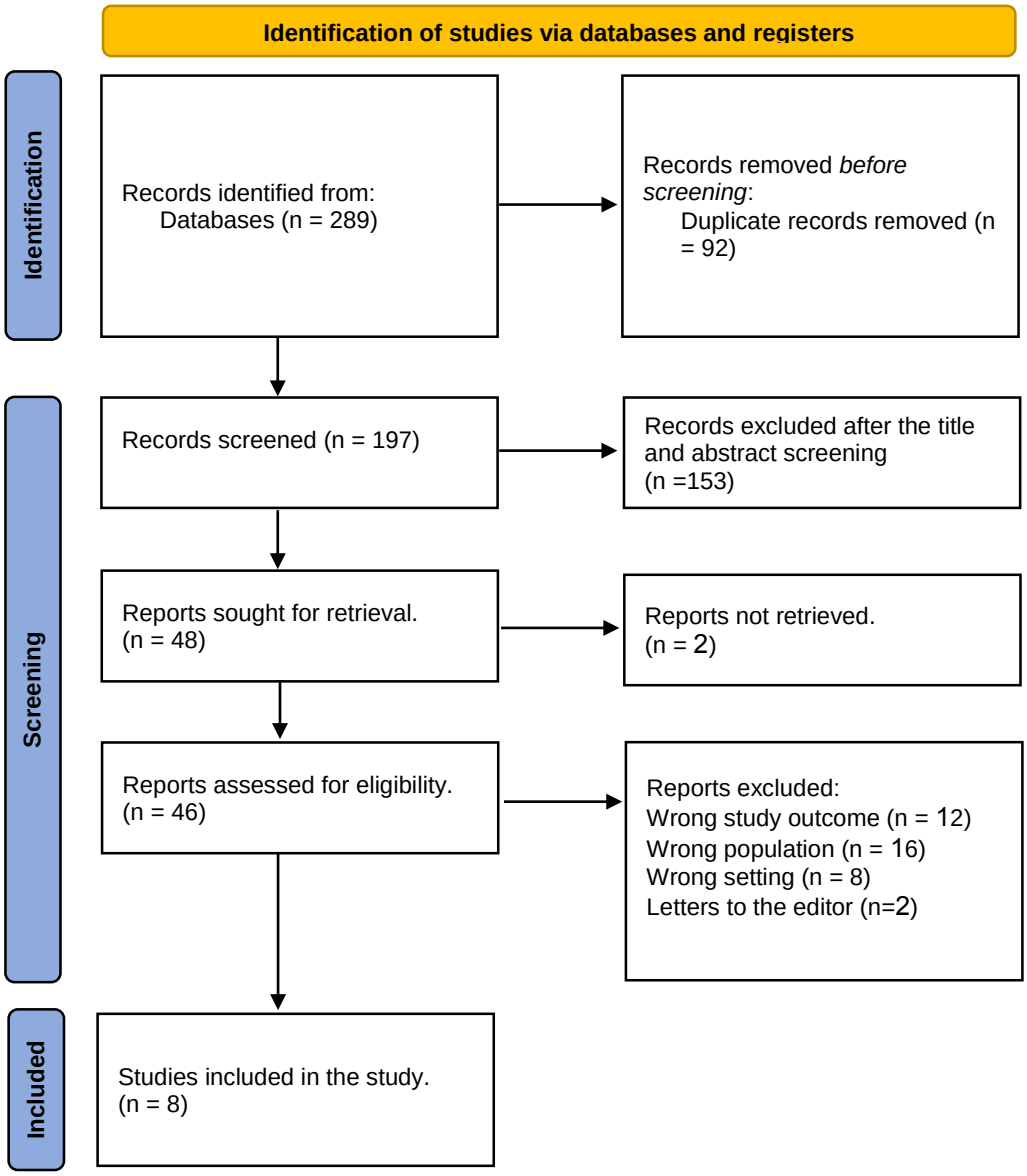

Figure 1: PRISMA flowchart summarizes the study selection process.

Table 1: Sociodemographic characteristics of the included participants.

Study	Study design	City	Participants	Mean age	Gender number (Males %)
Alsaawi et al., 2019 [21]	Cross-sectional	Riyadh	265	NM	223 (84.2)
Alqahtani et al., 2019 [22]	Cross-sectional	Southwestern regions	282	25 to ≥ 40	82 (29.1)
Alhuwaydi et al., 2023 [23]	Cross-sectional	Al-Jouf region	289	≤ 25 to 54	84 (29.1)
Alshahrani et al., 2022 [24]	Cross-sectional	Dammam	104	NM*	58 (55.8)
Aldrees et al., 2013 [25]	Cross-sectional	Riyadh	348	35 ± 9.8	252 (72.4)
Alsaawi et al., 2014 [26]	Cross-sectional	Riyadh	53	25-54	45 (85.0)
Alaslani et al., 2016 [27]	Cross-sectional	Makkah, Riyadh and Jeddah	199	29.7±4.8	107 (53.8)
ALmutairi et al., 2020 [28]	Cross-sectional	Riyadh	270	22-52	217 (80.2)

Table 2: Clinical characteristics and outcomes of the included studies, using MBI-HSS as the scale to assess

Study	Burnout dimensions			Burnout prevalence	Main outcomes	JBI
	EE prevalence	DP prevalence	PA prevalence			
Alsaawi et al., 2019 [21]	95 (35.8%)	135 (50.9%)	107 (40.4%)	NM*	Emergency physicians are particularly at high risk for burnout. To lessen the negative impacts of burnout in this sector, regulators and medical directors must endeavour to enhance working conditions and work-life balance.	Moderate
Alqahtani et al., 2019 [22]	32 (11.3%)	58 (20.6%)	116 (41.1%)	46 (16.3%)	A significant percentage of doctors employed at primary hospital emergency rooms suffered from burnout syndrome, characterized by high levels of emotional tiredness and low levels of personal accomplishment. Burnout was more common in men, smokers, and people using medication for sleep disorders than in other groups. Characteristics connected to the workplace were not linked to burnout syndrome.	Moderate
Alhuwaydi et al., 2023 [23]	153 (52.9%)	206 (71.28%)	145 (50.06%)	45 (15.57%)	This study has identified a number of variables that can lead to burnout, such as age, marital status, employment status, number of vacation days annually, and number of workdays per week.	High
Alshahrani et al., 2022 [24]	33 (31.7%)	55 (55.9%)	54 (51.9%)	79 (76%)	Burnout disorder was prevalent among medical professionals who worked in crisis departments of emergency hospitals. They were particularly affected by high levels of compassion fatigue and low levels of personal achievement.	Moderate

Aldrees et al., 2013 [25]	188 (54%)	121 (35%)	116 (33%)	243 (69.8)	Young age, female sex, single status, early medical practice participants, resident physician/surgeon employment category participants, people whose current job negatively impacted their family life, people experiencing sleep deprivation, and people with back pain were all disproportionately affected by burnout.	Moderate
Alsaawi et al., 2014 [26]	21 (40%)	21 (40%)	17 (32%)	NM	The findings on emergency physicians' moderate to high risk of burnout are in line with earlier studies that have been published in the literature.	Moderate
Alaslani et al., 2016 [27]	133 (66.7%)	112 (56.4%)	190 (95.6%)	97 (48.7%)	One possible explanation for the high rate of burnout among emergency physicians is the significant challenges they face when caring for critically ill patients. Married doctors were more likely than single doctors to experience burnout. Compared to male physicians, female physicians were more likely to experience emotional weariness and depersonalization.	High
ALmutairi et al., 2020 [28]	170 (63%)	108 (40%)	58 (21.5%)	NM	The research assessed the relationship between burnout and EMS workers' coping mechanisms as well as their sociodemographic and occupational traits. The majority of EMS personnel were highly burned out. Three coping strategies were most commonly employed: CMC2 (talking with coworkers or other volunteers), CMC3 (looking forward to time off work), and CMC7 (considering the advantages of one's job).	Moderate

Amounts of EE and DP are seen in 40% of EM doctors. A possible explanation that can be determined for the discrepancy in burnout prevalenceis that the included studies comprised emergency department physicians of various sub-specialities such as pediatric or surgery.Our findings found that the following factors were associated with higher burnout risk; smokers,people using medication for sleep disorders [22], amount of workdays per week and number of vacation days per year [23],Women's gender, single status, involvement in early medical practice, employment category for residents and physicians and surgeons, persons whose present job badly affected their family life, and those with back pain [25, 27]. However, another study stated that married doctors were more likely than single doctors to experience burnout [27]. Burnout among emergency physicians is influenced by factors that are both linked to and

unrelated to their jobs. The relationship between burnout and years of experience working in emergency medicine is not well-established. On the other hand, it seems that time dedicated to ongoing professional development and away from actual clinical responsibilities (such as research) may lessen burnout. Comparing the levels of burnout among academic and non-academic emergency doctors is something we suggest doing, as is also evaluating how burnout is affected by continued professional growth. Designing ways to broaden the extent to which clinical practice involves non-clinical tasks and continuous professional activity is necessary in light of this.There are also contradicting findings about the impact of age, sex, and other demographic variables on emergency physician burnout. Research is required to assess this link and determine whether or not certain populations are influenced by demographic characteristics. More research needs to be done on the influence of lifestyle elements (such physical activity, smoking, etc.). We recommend comparing the degrees of burnout experienced by academic and emergency doctors who are not academics and assessing the impact of ongoing improvement of burnout in the workplace. It is necessary to devise suitable tactics to lessen anxiety when making decisions in emergency rooms [35]. It is hard for people or organizations to forecast which team members will experience burnout because there isn't a strong consensus on the components that contribute to burnout. Self-evaluation of burnout symptoms is, at most, arbitrary. Establishments can use reliable tools, like the MBI, as a monitoring tool to find people who are burnt out or at high risk of burning out (high ratings on the emotional weariness, depersonalization, or personal achievement subscales), as well as evaluate how well programs continue to avoid burnout.We suggest conducting multicenter research in this field in the future. Single-center studies are likely to have difficulties with generalizability because the findings may indicate a problem unique to the institution that is causing staff burnout or unhappiness and would not apply to other institutions. Additionally, we would advise that multicenter trials incorporate both sizable referral centers and tiny community hospitals. This would facilitate comparisons between personnel in small and large institutions and increase the likelihood of producing a representative study sample.

Conclusion

Saudi physicians in emergency medicine have the highest burnout rates of any profession, making them particularly vulnerable to burnout. Nonetheless, there remains a high level of job satisfaction among emergency physicians. Much more investigation is required to completely comprehend the complex link between work satisfaction and burnout. Numerous work-related factors, including a high workload, a hostile work environment, strained relationships among coworkers, low job satisfaction, and difficulty striking a balance between work and family life, have been found to be independently linked to burnout. As a result, in order to address these conditions, EM physicians must work together to optimize the working environment and provide the necessary support to each other. Additionally, because burnout is linked to particular personality traits and particularly coping mechanisms, doctors who are at high risk of experiencing burnout should be recognized early on and appropriately consulted. In order to make progress toward the goal of effectively treating burnout syndrome in the future, more case-control studies pertaining to behavioural intervention and the promotion of healthy lifestyles are required.

Conflict of Interest

None

Funding

None

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