Review of Contemporary Philosophy
ISSN: 1841-5261, e-ISSN: 2471-089X
Vol 23 (2), 2024
pp. 79 – 87

Pevalence and Management of Nurses Burnout in Saudi Arabia: A Systematic Review

Mohammed Maniea Abdullah Alsharekh[1], Abdullah Mazi Khamis Alanazi[1], Mohammed Abdulaziz Ali Albulayhid[2], Mamdouh Saeed Msaeead Almutairi[3], Hamed Obaidullah Asaf Al-Muntashari[4]

[1]nurse, Prince Sultan Military Medical City, Riyadh, Saudi Arabia

[2]emergency Medicine Technician, Prince Sultan Military Medical City, Riyadh, Saudi Arabia

[3]king Salman Armed Forces Hospital, Tabuk, Saudi Arabia

[4]laboratory Technician, King Fahd Armed Forces Hospital, Jeddah

Abstract

Objectives: To investigate the available literature on the prevalence and management of nurses' burnout in Saudi Arabia.

Methods: To locate research that met the inclusion criteria, a thorough computerized search of relevant databases was carried out. A comprehensive search was carried out on PubMed, SCOPUS, Science Direct, and Web of Science to locate relevant material.

Results: Our data included eleven trials with 4370 participants and 1205 (27.6%). The prevalence of burnout among Saudi nurses ranged from 5% to 82.3. Nurses in specific age ranges (18–25) and with less experience are more likely to burnout. High levels of stress and burnout are experienced by nurses who care for patients with COVID-19 and ICU units. In order for staff nurses to work in a positive workplace where they can feel inspired and supported, leaders must provide them with the support and attention they need.

Conclusion: In Saudi Arabia, nurse burnout is a pervasive, potentially devastating problem both to nurses and patient care. The results suggest that a range of environmental and institutional change, particularly in organizational and cultural contexts are urgently needed to tackle the structural sources of burnout. There may in fact be interventions that are specifically targeted to the nursing structure and practice on which we might improve job satisfaction among nurses, reduce burnout rates, and ultimately enhance patient directed care. Sustained efforts to enhance the way we work, improve our mental health & build a wellness culture in healthcare will also be key to sustainable success.

Keywords: *Burnout; Nurses; Saudi Arabia; Systematic review*

Received 5 November 2023 **Revised** 20 November 2023 **Accepted** 22 December 2023

Introduction

Nurses play a pivotal role in the healthcare system, acting as the primary caregivers for patients and significantly influencing the quality of care provided. However, the demanding nature of nursing can lead to high levels of stress and, eventually, burnout. In recent years, research has increasingly focused on the prevalence and management of burnout among nurses in Saudi Arabia, revealing alarming trends that warrant attention and action [1].

The phenomenon of burnout is characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. In Saudi Arabia, numerous studies have indicated a concerning

prevalence of burnout among nurses, with rates reported to be as high as 60% [2]. Contributing factors include long working hours, inadequate staffing levels, and the emotional toll of patient care, particularly in high-pressure environments such as emergency rooms and intensive care units. The impact of cultural expectations and the hierarchical structure of the healthcare system may also exacerbate stress levels among nurses [3].

To address this serious issue, various management strategies have been proposed. First and foremost, healthcare institutions need to recognize the signs of burnout and implement supportive measures. This could involve offering mental health resources, stress-relief workshops, and fostering a culture where seeking help is encouraged. The establishment of mentorship programs can also facilitate support networks among nursing staff, providing an outlet for sharing experiences and coping strategies [4].

Additionally, improving working conditions is essential for mitigating burnout. Strategies may include optimizing nurse-to-patient ratios, implementing more flexible scheduling, and enhancing the overall work environment through physical and organizational improvements. Leadership development is also crucial, as effective management can create a more supportive atmosphere where nurses feel valued and empowered [5].

Nurses play a pivotal role in healthcare delivery, and their well-being is crucial for patient care quality and safety. Burnout among nurses is a global concern with potential detrimental effects on individuals, healthcare organizations, and patient outcomes. Understanding the prevalence and factors contributing to nurses' burnout in Saudi Arabia is essential to develop targeted interventions to mitigate this issue and improve the overall healthcare system. Despite the growing recognition of nurses' burnout as a significant problem, there is a paucity of comprehensive research on the prevalence and management of this issue in Saudi Arabia. Existing studies have often focused on specific regions or hospitals, limiting the generalizability of findings. A systematic review provided a comprehensive overview of the available evidence, identify knowledge gaps, and inform the development of effective strategies to address nurses' burnout in the Saudi Arabian context. The aim of this systematic review is to investigate the available literature on the prevalence and management of nurses' burnout in Saudi Arabia to inform the development of effective interventions to improve nurses' well-being and patient care.

Study Objectives:

1. To identify and synthesize existing studies on the prevalence of nurses' burnout in Saudi Arabia.
2. To explore the factors associated with nurses' burnout in Saudi Arabia.
3. To evaluate the effectiveness of interventions implemented to manage nurses' burnout in Saudi Arabia.
4. To identify gaps in the current knowledge base regarding nurses' burnout in Saudi Arabia.
5. To provide recommendations for future research and interventions to address nurses' burnout in Saudi Arabia.

Methodology

In order to thoroughly review the body of research on the occurrence and treatment of burnout among Saudi Arabian nurses, this study used a systematic review design. The present study adhered to PRISMA [6] standards in its composition. A comprehensive search strategy was developed to identify relevant studies. Electronic databases (e.g., PubMed, Cochrane Library, Scopus, and Web of Science) were searched using a combination of keywords and Medical Subject Headings (MeSH) terms related to nurses, burnout, prevalence, and Saudi Arabia. Additionally, reference lists of included studies were screened for potential additional articles.

Selection criteria

Inclusion Criteria:

- Studies conducted in Saudi Arabia.

- Studies focusing on nurses.
- Studies reporting on the prevalence of nurses' burnout and investigating factors associated with nurses' burnout.
- Studies evaluating interventions to manage nurses' burnout.
- Studies published in peer-reviewed journals.
- Studies available in English or Arabic.

Exclusion Criteria:

- Studies focusing on other healthcare professionals.
- Studies without quantitative data on burnout prevalence or intervention outcomes.
- Grey literature (e.g., conference abstracts, dissertations without full-text availability).
- Case reports or case series.

Data Extraction

To ensure precision, the search results were verified using Rayyan (QCRI) [7]. Titles and abstracts retrieved in the search were evaluated for relevance according to the inclusion and exclusion criteria. Papers meeting the inclusion criteria underwent detailed review by the research team. Any discrepancies were resolved through consensus. Key study information, including titles, authors, publication year, study setting, participant demographics, gender distribution, diagnostic tool of burnout, prevalence, and factors associated with burnout, were recorded using a predefined data extraction form. An independent assessment tool was developed to assess the risk of bias.

Quality Assessment

The Joanna Briggs Institute (JBI) [8] critical evaluation criteria for studies providing prevalence data were used to determine the study's quality. This tool consists of nine questions. A score of 1 is given for a positive response, while a score of 0 is given for a negative, ambiguous, or irrelevant response. The following scores were categorized as low, moderate, and high quality, respectively: below 4, between 5 and 7, and above 8. The quality of the studies was evaluated by researchers independently, and differences were settled through discussion.

Results

Systematic search outcomes

A comprehensive search turned up 919 study papers after 478 duplicates were eliminated. Following an examination of the abstracts and titles of 441 investigations, 389 papers were excluded. There were two missing items from the 52 reports that had to be collected. The full-text screening process was completed on 50 publications; 29 were rejected due to improper study results, 8 because the population type was inappropriate, and 2 were editor's letters. Eleven scientific papers that met the eligibility criteria were included in this systematic review. The method used to choose the literature is shown in a diagram in **Figure 1.**

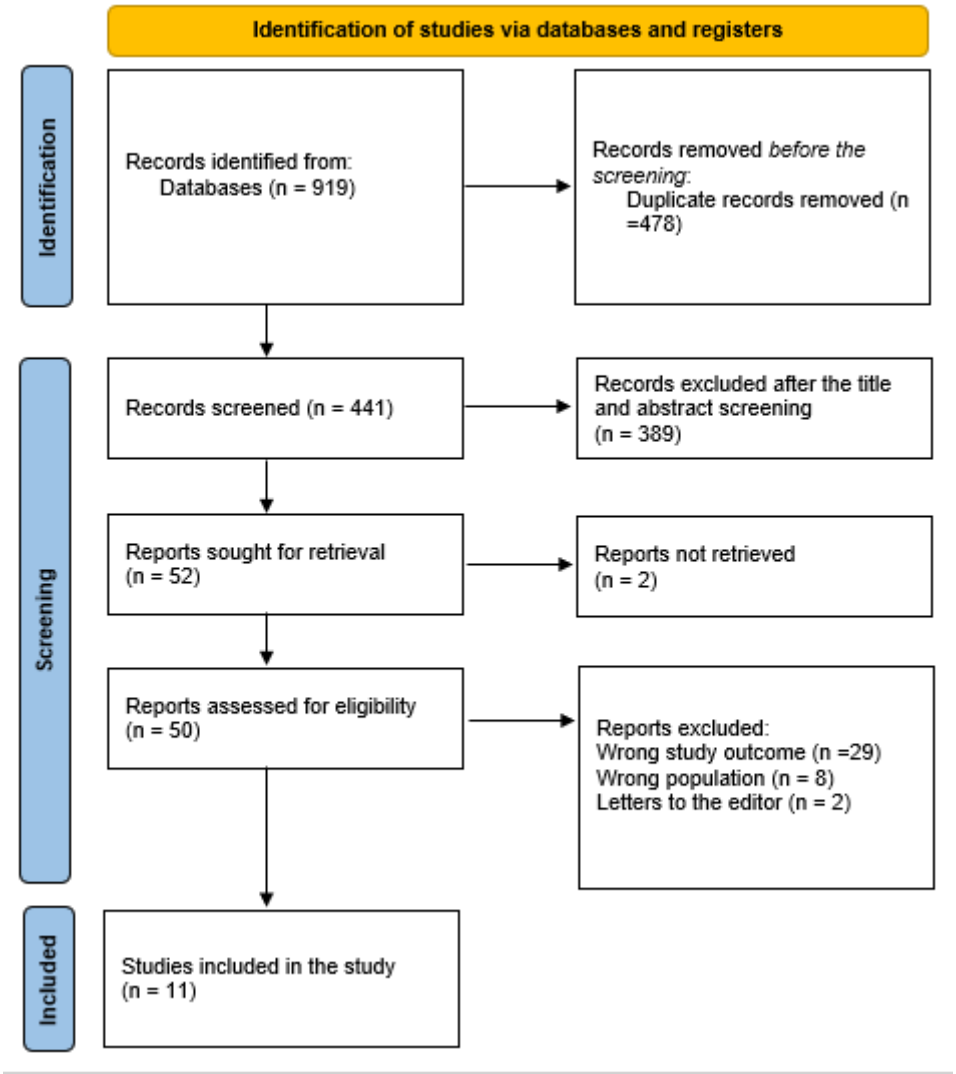

Figure 1: A PRISMA diagram is used to summarize the study decisions.

Sociodemographics of the comprised participants and studies

Table 1 displays the sociodemographic information from the research articles. Our data included eleven trials with 4370 participants and 1205 (27.6%). All of the included studies were cross-sectional [8-18]. Three studies were conducted in Riyadh [8, 11, 15], two in Hail [12, 14], one in Taif [9], one in Najran [10], one in Jeddah [13], one in Abha [16], one in Al-Madinah [17], and one in Dammam [18].

Clinical outcomes

Diagnosis and assessment of burnout were implemented using different tools, including ProQoL [8, 11, 15], MBI [13, 14, 16, 17, 18], ALQ [9], a predesigned survey [10], and CBI [12]. The prevalence of burnout among Saudi nurses ranged from 5% [16] to 82.3 [18]. Nurses in specific age ranges (18–25) and with less experience are more likely to burnout [11]. High levels of stress and burnout are experienced by nurses who care for patients with COVID-19 [10, 12]. In order for staff nurses to work in a positive workplace where they can feel inspired and supported, leaders must provide them with the support and attention they need.

Table 1: Sociodemographic parameters of the involved populations.

Study	Study design	City	Participants	Mean age	Males (%)

Rayani et al., 2024 [8]	Cross-sectional	Riyadh	177	18-56	82 (46.3%)
Alsalmi & Alilyyani, 2024 [9]	Cross-sectional	Taif	188	25-60	81 (43%)
Mary Pappiya et al., 2023 [10]	Cross-sectional	Najran	1594	25-55	438 (27.5%)
Alreshidi & Rayani, 2023 [11]	Cross-sectional	Riyadh	177	18-56	82 (46.3%)
Siam et al., 2022 [12]	Cross-sectional	Hail	77	20-60	27 (35.1%)
Qedair et al., 2022 [13]	Cross-sectional	Jeddah	250	18-55	17 (6.8)
Grande et al., 2022 [14]	Cross-sectional	Hail	809	NM	107 (13.2%)
Bahari et al., 2022 [15]	Cross-sectional	Riyadh	464	24-62	43 (9.3%)
Almodibeg & Smith, 2021 [16]	Cross-sectional	Abha	39	NM	4 (10.3%)
Shahin et al., 2020 [17]	Cross-sectional	Al-Madinah	200	NM	54 (27%)
Alqahtani et al., 2020 [18]	Cross-sectional	Dammam	395	35.4 ± 7.04	270 (68.4%)

Table (2): Clinical parameters and outcomes of the comprised research.

Study ID	Burnout diagnostic tool	Prevalence of burnout	Main outcomes	JBI
Rayani et al., 2024 [8]	ProQOL	NM	Compared to previous years, integrated nurses in the medical city demonstrated greater levels of secondary traumatic stress and burnout. Higher job satisfaction and years of nursing expertise were beneficial indicators of compassion satisfaction, while respondents	Moderate

			aged 36 or older included a negative component.	
Alsalmi & Alilyyani, 2024 [9]	ALQ	NM	In order for staff nurses to work in a positive workplace where they can feel inspired and supported, leaders must provide them with the support and attention they need. In this situation, it has been discovered that authentic leadership can inspire nurses to perform better by giving them the necessary support while they manage stress and other psychological and physical difficulties.	Low
Mary Pappiya et al., 2023 [10]	Predesigned survey	668 (41.9%)	High levels of stress and burnout are experienced by nurses who care for patients with COVID-19. Acknowledging the level of stress and burnout experienced by nurses is crucial, particularly considering the duration of the pandemic.	Moderate
Alreshidi & Rayani, 2023 [11]	ProQOL	125 (70.6%)	Nurses in specific age ranges (18–25) and with less experience are more likely to burn out, however possessing professional credentials appears to partially mitigate negative effects.	High
Siam et al., 2022 [12]	CBI	NM	During the COVID-19 epidemic, the investigated nurses experienced a considerable degree of burnout. Burnout related to clients received lower scores than personal burnout, which had the highest rates.	Moderate
Qedair et al., 2022 [13]	MBI	112 (44.8%)	A significant proportion of nurses experienced burnout, and there was a clear correlation between burnout levels and specific demographic information, such as nationality and working unit.	Moderate
Grande et al., 2022 [14]	MBI	NM	Higher degrees of burnout may reduce the influence of higher levels of professional competence and nurse professional values on nurse competence, even while these factors improve nurse competence. Three important factors are emphasized by the burnout-moderated model of how professional competence and values of nurses affect such competency.	Moderate
Bahari et al., 2022 [15]	ProQOL	NM	Nurses exhibited moderate levels of burnout, secondary traumatic stress, and compassion satisfaction.	High
Almodibeg & Smith, 2021 [16]	MBI	2 (5%)	It is critical to understand the frequency and underlying causes of occupational burnout syndrome among perioperative nurses in order to develop workforce strategies that effectively	Moderate

			support practitioners' well-being. Among perioperative nurses employed by a single Saudi Arabian facility, the prevalence of occupational burnout syndrome was minimal.	
Shahin et al., 2020 [17]	MBI	NM	Stressors connected to the workplace were the leading causes of burnout. In order to reduce and avoid burnout among nurses working in primary health care facilities, a thorough interventional strategy is required.	Moderate
Alqahtani et al., 2020 [18]	MBI	325 (82.3%)	Psychiatric nurses frequently have burnout syndrome, most likely as a result of their growing workloads and obligations. Burnout syndrome can have a detrimental impact on work performance, which could endanger patient care.	High

*NM=Not-mentioned

ProQOL-5= Professional Quality of Life Scale version-5, ALQ= Authentic Leadership Questionnaire, CBI= Copenhagen Burnout Inventory, MBI= Maslach Burnout Inventory.

Discussion

The present study is focused on understanding the prevalence and causes of burnout and how this menace can be prevented in nurses working in the intensive care unit The prevalence of burnout among Saudi nurses ranged from 5% [16] to 82.3 [18]. **Woo *et al.*** reported that a tenth of nurses globally may have had high burnout symptoms, according to the aggregated prevalence estimates of 11.23% for high burnout symptoms throughout the included studies [20].

This review found that the diagnosis and assessment of burnout were implemented using different tools, including ProQoL [8, 11, 15], MBI [13, 14, 16, 17, 18], ALQ [9], a predesigned survey [10], and CBI [12]. The three aspects of burnout syndrome are evaluated by the MBI-HSS instrument. Each subscale's scores are taken into account independently and are not added up to a final score. Compassion fatigue is measured by two subscales, one of which is burnout as measured by the ProQOL scale. It uses ten questions to measure burnout; the raw values are added together and transformed into t-scores. The H-BO cut-off scores are t-score ≥57 or raw-sum score ≥42. Moreover, different conceptualizations of burnout (such as CBI) view weariness as the only factor that determines burnout, which runs counter to the MBI's multidimensional model. The substantial variation can be explained by the different definitions of H-BO [21].

We found that nurses in specific age ranges (18–25) and with less experience are more likely to burnout [11]. High levels of stress and burnout are experienced by nurses who care for patients with COVID-19 [10, 12]. In order for staff nurses to work in a positive workplace where they can feel inspired and supported, leaders must provide them with the support and attention they need. **Olorunfemi** reported that the occurrence of mentally taxing events, multidisciplinary challenges, working conditions and pressures, organizational concerns, and other variables are plausible causes of burnout among ICU nurses [22]. The results of this systematic review have important implications for the management and policies of healthcare in Saudi Arabia. Maintenance of a stable and efficient health care workforce depends on addressing nurse burnout. Institutions must also have complex strategies in place including routine psychiatric assessments, stress coping programs and programs that advocate for work-life balance. Policy makers should as well consider revising staffing policies to ensure adequate nurse-to-patient ratios and limit excessive workloads. Furthermore, incorporation of mental health support services within healthcare organizations can help nurses deal with stressful situations associated with their jobs, eventually leading to increased patient outcomes and a more resilient nursing force.

Conclusion

In Saudi Arabia, nurse burnout is a pervasive, potentially devastating problem both to nurses and patient care. The results suggest that a range of environmental and institutional change, particularly in organizational and cultural contexts are urgently needed to tackle the structural sources of burnout. There may in fact be interventions that are specifically targeted to the nursing structure and practice on which we might improve job satisfaction among nurses, reduce burnout rates, and ultimately enhance patient directed care. Sustained efforts to enhance the way we work, improve our mental health & build a wellness culture in healthcare will also be key to sustainable success.

References:

1. Qedair JT, Balubaid R, Almadani R, et al. Prevalence and factors associated with burnout among nurses in Jeddah: a single-institution cross-sectional study. *BMC Nurs*. 2022;21(1):287. Published 2022 Oct 26. doi:10.1186/s12912-022-01070-2
2. Shahin MA, Al-Dubai SAR, Abdoh DS, Alahmadi AS, Ali AK, Hifnawy T. Burnout among nurses working in the primary health care centers in Saudi Arabia, a multicenter study. *AIMS Public Health*. 2020;7(4):844-853. Published 2020 Nov 5. doi:10.3934/publichealth.2020065
3. Chuang CH, Tseng PC, Lin CY, et al. Burnout in the intensive care unit professionals: a systematic review. *Medicine.* 2016;95:e5629.
4. Karkar A, Dammang ML, Bouhaha BM. Stress and burnout among hemodialysis nurses: A single-center, prospective survey study. *Saudi J Kidney Dis Transpl.* 2015;26:12
5. Aldubai SA, Aljohani AM, Alghamdi AG, et al. Prevalence and associated factors of burnout among family medicine residents in Al Madina, Saudi Arabia. *J Fam Med Prim Care.* 2019;8:657–662.
6. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, Chou R. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. International journal of surgery. 2021 Apr 1;88:105906.
7. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan—a web and mobile app for systematic reviews. Systematic reviews. 2016 Dec;5:1-0.
8. Munn Z, Aromataris E, Tufanaru C, Stern C, Porritt K, Farrow J, Lockwood C, Stephenson M, Moola S, Lizarondo L, McArthur A. The development of software to support multiple systematic review types: the Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI SUMARI). JBI evidence implementation. 2019 Mar 1;17(1):36-43.
9. Rayani A, Hannan J, Alreshidi S, Aboshaiqah A, Alodhailah A, Hakamy E. Compassion Satisfaction, Burnout, and Secondary Traumatic Stress among Saudi Nurses at Medical City: A Cross-Sectional Study. InHealthcare 2024 Apr 17 (Vol. 12, No. 8, p. 847). MDPI.
10. Alsalmi M, Alilyyani B. The role of authentic leadership in nurses' stress and burnout in emergency departments. Leadership in Health Services. 2024 Jan 16;37(1):147-58.
11. Mary Pappiya E, Mubarak Al Baalharith I, Arulappan J, Missiriya Jalal S, Venkatesan K, Salem Al Grad H, Baraik S. Alawad A. Stress and burnout among frontline nurses during COVID-19 pandemic in a middle eastern country. SAGE Open Nursing. 2023 Jul;9:23779608231185918.
12. Alreshidi SM, Rayani AM. Predictors of Compassion Satisfaction, Compassion Fatigue, and Burnout Among Nursing Professionals in a Medical City in Saudi Arabia. Risk Management and Healthcare Policy. 2023 Dec 31:2883-92.
13. Siam BG, Alrasheedi LN. Burnout among emergency nurses during COVID-19 pandemic at hail governmental hospitals in the Kingdom of Saudi Arabia. Ethiopian Journal of Health Sciences. 2022 Nov 1;32(6).
14. Qedair JT, Balubaid R, Almadani R, Ezzi S, Qumosani T, Zahid R, Alfayea T. Prevalence and factors associated with burnout among nurses in Jeddah: a single-institution cross-sectional study. BMC nursing. 2022 Oct 26;21(1):287.
15. Grande, R.A.N., Berdida, D.J.E., Villagracia, H.N., Raguindin, S.M., Cornejo, L.T.O., Al Reshidi, N.M., Alshammari, A.T., Aljebari, B.J. and AlAbd, A.M.A., 2022. The moderating effect of burnout on

professionalism, values and competence of nurses in Saudi Arabia amidst the COVID-19 pandemic: A structural equation modelling approach. Journal of Nursing Management, 30(7), pp.2523-2536.
16. Bahari G, Asiri K, Nouh N, Alqahtani N. Professional quality of life among nurses: compassion satisfaction, burnout, and secondary traumatic stress: a multisite study. SAGE Open Nursing. 2022 Jul;8:23779608221112329.
17. Almodibeg BA, Smith H. A cross-sectional survey to explore the prevalence and causes of occupational burnout syndrome among perioperative nurses in Saudi Arabia. Nursing Open. 2021 Jan;8(1):364-71.
18. Shahin MA, Al-Dubai SA, Abdoh DS, Alahmadi AS, Ali AK, Hifnawy T. Burnout among nurses working in the primary health care centers in Saudi Arabia, a multicenter study. AIMS Public Health. 2020;7(4):844.
19. Alqahtani R, Al-Otaibi S, Zafar M. Burnout syndrome among nurses in a psychiatric hospital in Dammam, Saudi Arabia. Nursing and Midwifery Studies. 2020 Apr 1;9(2):110-5.
20. Woo T, Ho R, Tang A, Tam W. Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. Journal of psychiatric research. 2020 Apr 1;123:9-20.
21. Stamm BH. The concise ProQOL manual . ProQOL. org. Pocatello, ID.[Google Scholar]. 2010.
22. Olorunfemi OS. Burnout among Nurses in the Intensive Care Unit: A Systematic Literature Review.