



Nurses' Burnout Level and Clinical Competence in Emergency Department: A Scoping Review

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ABSTRACT

The condition of nurse fatigue includes emotional exhaustion, lack of respect for others, and decreased self-achievement (Burnout) results in the disruption of routine services in the Emergency Room. Routine services in the Emergency Room such as CPR procedures that require special nurse competence with zero tolerance will result in suboptimal results and delays in service. This literature study aimed to determine the relationship between nurse fatigue and nurse competence in the Emergency Room. The method used in writing this Scoping Review is PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). Searching for literature or references focuses on 2018 – 2022 and Original Research. The databases used in the search for references or literature are Pubmed, Proquest, Science Direct, and Google Scholar. The data was analyzed using the Joanna Briggs Institute (JBI) for cross-sectional, quantitative and prospective/cohort study. The results from 10 articles show a relationship between the nurses' burnout level and clinical competence in the Emergency Department. A better arrangement of emergency units work patterns, such as proportional remuneration, regular supervision, rewards mechanism, safe operating conditions, cooperative team, balance nature of work, regular work promotion, and effective communication, could reduce the burnout level of the emergency nurse.

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ABSTRAK

Kondisi kelelahan perawat yang meliputi kelelahan emosional, kurang menghargai orang lain, dan penurunan prestasi diri (Burnout) mengakibatkan terganggunya pelayanan rutin di IGD. Pelayanan rutin di IGD seperti prosedur CPR yang membutuhkan kompetensi perawat khusus dengan zero tolerance akan mengakibatkan hasil yang kurang optimal dan keterlambatan pelayanan. Tujuan dari studi literatur ini adalah untuk mengetahui hubungan kelelahan perawat dengan kompetensi perawat di Instalasi Gawat Darurat. Metode yang digunakan dalam penulisan Scoping Review ini adalah PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analyses). Proses pencarian literatur atau referensi berfokus pada tahun 2018 – 2022 serta Original Research. Basis data yang digunakan dalam pencarian referensi atau literatur adalah Pubmed, Proquest, Science Direct, dan Google Scholar. Data dianalisis menggunakan Joanna Briggs Institute (JBI) untuk studi cross sectional, kuantitatif dan prospektif/kohort. Hasil yang diperoleh dari 10 artikel adalah ada hubungan antara tingkat burnout perawat dengan kompetensi klinis di Instalasi Gawat Darurat. Penataan pola kerja unit gawat darurat yang lebih baik, seperti remunerasi yang proporsional, pengawasan teratur, mekanisme penghargaan, kondisi operasi yang aman, tim kooperatif, sifat

keseimbangan kerja, promosi kerja reguler, komunikasi yang efektif, dapat mengurangi tingkat kejenuhan perawat gawat darurat

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INTRODUCTION

Burnout condition in the Emergency Room as a common situation for the nurse as response towards stressors that is prolong and not well managed (1). Nurse will always be taking care of the patients professionally within 24 hours every weekday in shift which can alter their biological functions that lead to physical and mental disturbance (2). The increasing demand of high quality of care will affect the needs of nurse's emotional control and their expression continuously (3). Several factors that worsen the burnout condition such as work in shift, teamwork, interpersonal communication, wages, environment, human resources, and stress management(2). Thus, they are often faced with factors that generate occupational stress with the potential to affect their mental health.

The highest burnout level is in emergency room due to the characteristic of the life-threatening patient condition, the zero respond time, emotional stressors and a low sense of personal accomplishment (1). The emergency nurse can prevent the burnout condition by doing the early assessment of the stressors, the change of behavior and psychological condition (2). The hospital should arrange the method for

prevent the burnout condition in emergency nurse staff by improving nurses' stress management during interactions with patients and family. The development of nurses' emotional competence will be helpful for emergency nurses to cope with the emotional labor stress and burnout (3). The impact of burnout in emergency nurse staff can elevate the cost of nursing turnover as high as 150%, lowering the level of patient safety, increasing the patient's negative attitude towards the emergency nursing staff, decreasing patient satisfaction and lowering the quality of healthcare (4) However, the nurse's level of competence still needs to be well developed (5) There were several factors that influence the nurse's competence such as communication skills, interest, work experience and personal factors such as ethical and professional principles, knowledge, and skills. The expert level of nursing competence will improve the patient's quality of care (5) The high level of competence (for example the ability of nurses to write prescriptions) can maintain the maximum standards of patient care, add access to medical services, improve nursing skills, and keep their professional status (6)

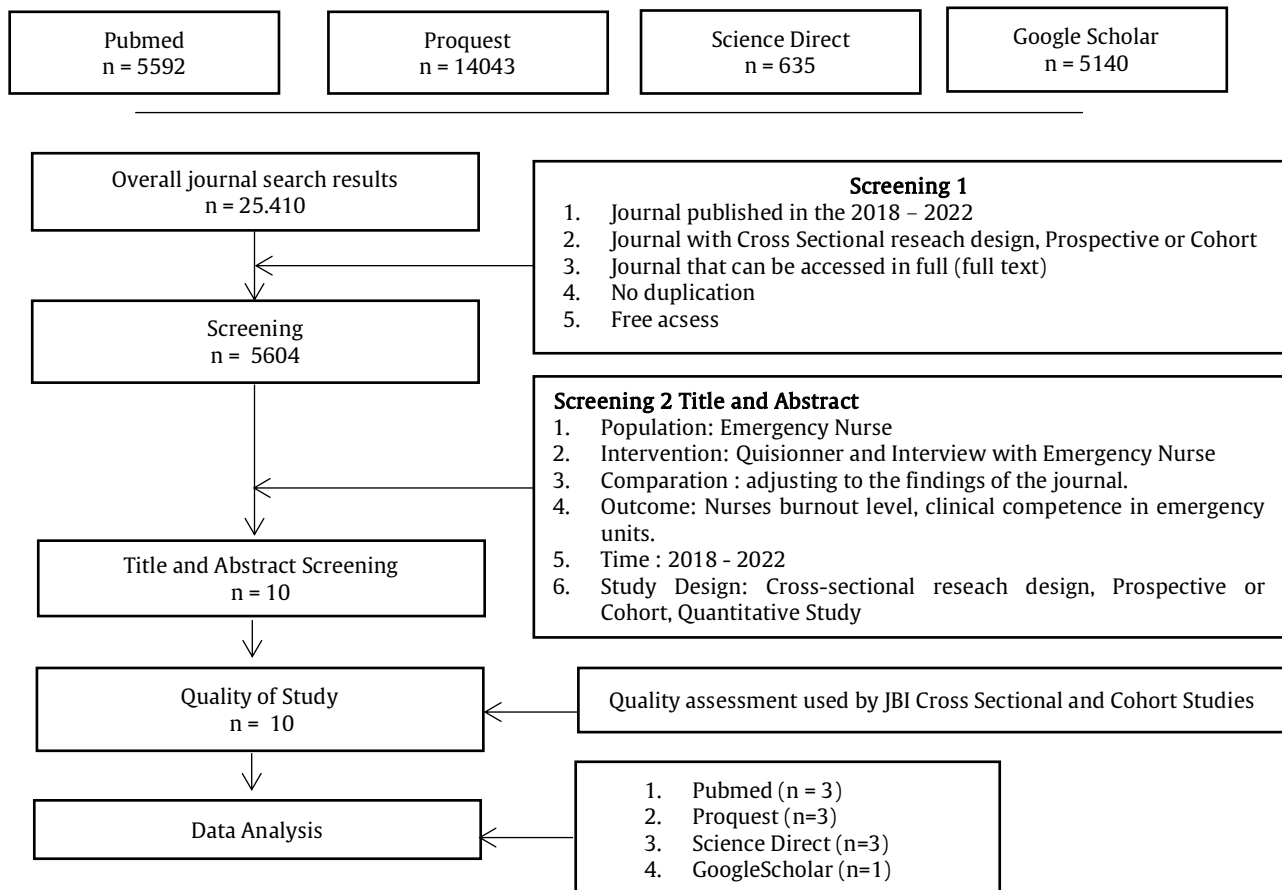


Figure 1. Flowchart Diagram

METHOD

Search Strategy

This literature review searching for high and medium-quality criteria from 4 databases: Google Scholar, ProQuest, Pubmed, and ScienceDirect. Keywords in this literature review consist of: ("nurses' burnout") OR ("nurse tiredness") AND ("nurses' emergency") AND ("nurses' competence"). The results for article selection on November 29, 2022: Google Scholar for 3 journals, Proquest for 2 journals, Pubmed with 3 journals, and ScienceDirect 2. The search was conducted to analyze Nurses' Burnout Level and Clinical Competence in Emergency Department.

Inclusion Criteria

The inclusion criteria of this literature review are: 1) article published in the 2018-2022; 2) International reputable articles; 3) study design: cross sectional and prospective/cohort study. 4) free access and full text journal; 5) No duplication article.

Study Selection and Data Extraction

In this investigation, screening was done using the titles and abstracts that the search strategy produced. While other freely accessible journals are checked using predetermined inclusion criteria, irrelevant journal papers are published. The collected journals are then extracted into tabular form to facilitate describing the research journal's contents. The

author (author), the year the journal was released, the nation of the journal publisher, the journal's study design, the quality score, the research population/research sample, and the result are all listed in the data analysis table (the results of the journal research).

Quality Assessment

Researchers assessed each study's methodological quality using the Joanna Briggs Institute (JBI) tool. The JBI instrument was chosen to evaluate the trustworthiness, relevance, and results of this papers with the Cross-Sectional study design (8 items) and Prospective/Cohort study design (11 items).

RESULT AND DISCUSSION

Literature Search

The 25.410 journals found by the literature search on November 29, 2022, were then narrowed down to 5604 by a set of criteria that included only those that had been published between 2018 – 2022, had Cross Sectional research study designs, Prospective or Cohort research design, and completely accessible journal (full text). Ten (10) journals passed the inclusion requirements after the second screening of journals, which involved examining titles and abstracts in accordance with PICOTS (Problem, Intervention, Compare, Outcome, Time, and Study Design).

Table 1
Data Analysis

No	Title / Years / Country	Aims	Method	Intervention	Result
1	An Interpretative Study on Nurses' Perspectives of Working in an Overcrowded Emergency Department in Taiwan / 2018 / Taiwan	Gain in-depth understanding of the meaning of being worked in an overcrowded Emergency Department (ED) among registered nurses (RN)	An interpretative approach	All RNs employed at the participating ED were invited to the interview	1. ED space is inflexible but does not rigidly determine the number of clients who can be treated 2. Reduced length of ED stay translates to a shorter hospitalization, which in turn opens more ward beds and reduces the overcrowded ED. Subsequently, RNs can provide care to patients who need urgent care and therefore feel less frustrations while working in a blocked and super busy ED
2.	Leadership communication, stress, and burnout among frontline emergency department staff amid the COVID-19 pandemic: A mixed methods approach / 2021 / USA	Understand whether perceptions of support and communication by local leadership were associated with reduced reports of stress and burnout among frontline HCWs	Mixed methods including surveys and semi-structured interviews	Interviews followed a semi-structured interview protocol (See supplementary for protocol), which included questions about communication, support, and burnout	1. This study goes further than suggesting communication alone reduces burnout and stress. 2. Instead, the nature of the communication increases staff perception of leadership support which is important for establishing trust and quelling anxiety. Crises represent an opportunity for information vacuums and thus staff look to leadership for guidance
3	Prevalence And Associated Factors of Burnout Risk	This study aimed to assess (1) the prevalence of burnout risk among nurses	A Cross-Sectional Study	A total of 442 ICU and emergency nurses completed the questionnaire	1. The overall prevalence of burnout risk was higher among emergency nurses than among ICU nurses before and during the

<p>Among Intensive Care and Emergency Nurses Before And During The Coronavirus Disease 2019 Pandemic: A Cross-Sectional Study In Belgium / 2021 / Belgium</p>	<p>working in intensive care units and emergency department before and during the coronavirus disease 2019 pandemic and (2) the individual and work-related associated factors.</p>	<p>in the first wave of the study and 1616 in the second.</p>	<p>COVID-19 pandemic. Among emergency nurses, the prevalence remained stable over time (from 69.8% to 70.7%) and was not significantly different between the first and second waves of the study ($\chi^2 = 0.15$, $P = .68$)</p> <ol style="list-style-type: none"> In addition, approximately half of ICU (48.9%) and emergency nurses (51.4%) said they did not have sufficient PPE for COVID-19. Finally, ICU and emergency nurses reported high social support from both their colleagues (18.5 of 24) and their superiors (14.8 of 20) during the COVID-19 pandemic. For ICU nurses, high social support from colleagues (OR = 0.89, $P < .01$) and from superiors and management (OR = 0.92, $P < .01$) were significantly associated with lower odds of being at high risk of RPA. Among emergency nurses, those with more seniority in the health care sector (OR = 1.17, $P < .01$) and those reporting a lower workload (OR = 1.80, $P < .01$) during the COVID-19 pandemic had higher odds of being at risk of RPA than emergency nurses with less seniority and reporting a stable workload. 	
<p>4 The Impact of Burnout on Emergency Nurses' Intent to Leave: Across-Sectional Survey / 2022 / Romania</p>	<p>This study examined the relationship among orientation, burnout (emotional exhaustion, depersonalization, and low sense of personal accomplishment), and intent to leave.</p>	<p>A cross-sectional survey design</p>	<p>Emergency nurses who were members of the Emergency Nurses Association were invited to participate in an anonymous survey.</p>	<ol style="list-style-type: none"> Creating work environments to help emergency nurses find joy in their work may be critical to work-life balance and staff retention Our results were in concordance with those reported in the literature in that emotional exhaustion and sense of personal accomplishment were key factors influencing emergency nurses' intent to leave
<p>5 The Implementation of a Cultural Change Toolkit To Reduce Nursing Burnout And Mitigate Nurse Turnover In The Emergency Department / 2021 / Texas</p>	<p>To determine if the implementation of evidence-based interventions would improve the perception of the practice environment, decrease the levels of nursing burnout, and decrease the voluntary nurse turnover rate in the emergency department.</p>	<p>Quantitative data collected</p>	<p>using an initial demographic questionnaire, the Anticipated Turnover Scale, and the Oldenburg Burnout Inventory to measure the level of nursing burnout and the turnover intention among nurses</p>	<ol style="list-style-type: none"> There was a reduction in both the anticipated turnover (mean anticipated turnover score, pre implementation 3.133, post implementation 2.989) and burnout scores among nursing staff (mean burnout score, pre implementation 4.808, postimplementation 4.463). The reduction in overall burnout scores were statistically significant following a paired t-test analysis ($P=0.004$). There were no resignations among nursing staff throughout the project period.
<p>6 Cross-Sectional Analysis of Burnout, Secondary Traumatic Stress, And Compassion Satisfaction</p>	<p>The purpose of this study was to assess burnout, secondary traumatic stress, and compassion satisfaction scores in emergency nurses after</p>	<p>Cross-Sectional Study</p>	<p>The Professional Quality of Life Scale version 5 questionnaire was sent to nurses working in the emergency department before</p>	<p>Levels of burnout and secondary traumatic stress are consistently present along with a moderate level of compassion satisfaction. The scores were not significantly different after working through the COVID-19 surge experienced in Southern California, along with short</p>

	Among Emergency Nurses in Southern California Working Through the Covid-19 Pandemic / 2022 / Torrance	working through the COVID-19		2021 from urban, adult, and pediatric receiving hospitals in Southern California	staffing, changes in practice, critically ill patients, and overcrowded departments.
7	Nurse evaluation of stress levels during CPR training with heart rate variability using smartwatches according to their personality: A prospective, observational study / 2022 / Korea	To evaluate nurses' stress levels during CPR simulation training using heart rate variability (HRV) measured with a smartwatch and to determine the correlation between individual personality traits and stress levels.	This prospective observational study	Advanced life support training with more than six months of clinical experience, their stress levels while performing as a CPR team leader were measured	There is a positive correlation between stress and self-regulated learning skills and evidence suggests that stress may be related to an individual's personality type
8	The Impact of Burnout Syndrome on Job Satisfaction among Emergency Department Nurses of Emergency Clinical County Hospital "Sfântul Apostol Andrei" of Galati, Romania / 2022 / Romania	this study was to identify the level of Burnout syndrome among Emergency Department nurses, as well as the impact of Burnout syndrome on job satisfaction.	Cross-sectional study	We issued a total of 112 questionnaires, receiving 80 complete and valid questionnaires with a response rate of 71.42%.	Significant correlations were obtained between the dimensions of the Burnout syndrome and the scales of professional satisfaction, which confirms that there is a positive relationship between the two aspects and nurses who present a high risk of burnout associate increased professional satisfaction.
9	Evaluation of the relationship between the cultural competence and job burnout of nurses / 2019 / Iran	The objective of this research was to evaluate the relationship between cultural competence and job burnout among nurses working in selected hospitals affiliated to Tehran University of Medical Sciences in 2017.	a descriptive-correlational study	The questionnaires were provided to the researcher at the date agreed upon by the parties. Out of 250 distributed questionnaires, 232 questionnaires were collected.	Based on Pearson correlation coefficient between cultural competence and burnout, results showed a reverse and significant relationship between depersonalization and preparedness for cultural care, so that by increasing the level of preparedness in cultural care, the level of depersonalization decreases in nurses, and vice versa, and the rest of the dimensions of burnout did not show a significant relationship with none of the dimensions of cultural competence in this study
10	A Multicenter Study into Burnout, Perceived Stress, Job Satisfaction, Coping Strategies, and General Health among Emergency Department Nursing Staff / 2020 / Cordoba	The aims of this study were to estimate burnout, perceived stress, job satisfaction, coping and general health levels experienced by nurses working in emergency departments in Spain and to analyze the relationships between sociodemographic,	A quantitative, observational, cross-sectional, multicenter study	The study was carried out at the EDs of four hospitals in Andalusia (southern Spain). ED 1 has 165,520 visits per year and a reference population of 481,296 inhabitants; ED 2 has 135,000 visits per year and a reference	1. A total of 171 nurses participated in the study. The participants' mean age was 47.85 (8.11) years, and 73.10% were women. Of the group, 60.23% were single, 48.54% did daily physical exercise, and 67.25% had a permanent contract. 2. As regards the levels of burnout (Figure 1), ED nurses had a higher prevalence of low levels of EE (59.65%) and high levels of DP (43.27%) and PA (53.22%). The prevalence of high level of

<p>Turkiye. occupational, and psychological variables and the occurrence of burnout syndrome among these professionals.</p>	<p>population of 461,078 inhabitants; ED 3 has 48,000 visits per year and a reference population of 62,234 inhabitants; ED 4 has 18,000 visits per year and a reference population of 24,287 inhabitants</p>	<p>burnout was 8.19%. 3. the average perceived stress and job satisfaction scores among all the workers were found to be 21.30 (5.94) and 67.19 (6.98) points, respectively. Higher scores of EE were positively correlated with anxiety ($p = 0.001$) and social dysfunction ($p = 0.002$) 4. The differences between the average burnout (EE, DP, and PA) scores were evaluated according to the participants' sociodemographic data and occupational characteristics. Accordingly, those who did not take part in daily physical exercise had higher mean DP ($p = 0.005$) scores. There were negative significant relationships between PA and age ($p = 0.03$), time of service at the ED ($p = 0.03$), and work experience ($p = 0.02$)</p>
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Based on 10 articles that meet the inclusion criteria and have been analyzed, the results are shown below:

1. Nurses who work in Emergency Department were easier to become frustrated, depressed and have high burnout level as compared to nurses who work in another unit, due to the high pressure of critical condition, crowded settings, workload and high expectation from the patient and family to get the highest standard of care.
2. The high level of burnout condition will lower the quality of care in emergency units, decrease the patient level of satisfaction, reduce the level of professional competence of emergency nurse, lead the nurse to quit this job, elevate the self-depersonalization and cause the severe crises situation of emergency unit.
3. Several approaches are needed to lower the burnout level and increasing the professional level of emergency nurse competence. Build the trust among the team member and establish more support system can help the emergency nurse to stay longer and convenient in emergency unit. Shortened the shift time, manage the emergency nursing procedure based on evidence-based practice, enhance the opportunity for the staff and all team member to express their needs and provide the positive feedback, reward, and appraisal to help them lessen the overload duty in emergency units.

DISCUSSION

Nurse Burnout Level

Emergency nurses are at the greatest risk to become burnout than nurse in another unit. Several personal factors that result the high burnout level are the age, gender, type of personality, self-control, and self-management ability. Several professional factor that includes cause burnout are the type of service in the unit (like emergency room that very crowded and high-pressured condition), characteristics of the work environment, overload duty, overtime shift work, less support, lack of resources, low decision-making autonomy, bad management system (7). Some study had

shown that estimated 26% of emergency nurses got high burnout level due to their daily work shift (8). The burnout phenomena should be well solved due to the increasing rate of nursing quit.

Prolong burnout condition can lower patient safety and the quality of health care in emergency unit. The estimated of financial loss can reach from \$10,000 to \$88,000 depending on the nurse position (9). The high emotional exhaustion, self-depersonalization, and low personal accomplishment among emergency nurse will decrease the satisfaction of patient and their family so the hospital can loss the patient loyalty and will seriously impact to hospital reputation. However, the better arrangement of emergency unit, such as proportional remuneration, regular supervision, rewards mechanism, safe operating conditions, cooperative team, balance nature of work, regular work promotion, effective communication, could reduce the burnout level of emergency nurse (10).

Clinical Competence in Emergency Department

Emergency nurses must improve their knowledge level for caring the patient to meet their optimum health care needs (11). They need to be skilled not only in technical areas but also in decision-making, prioritizing, and teamwork. Nurses working in emergency rooms offer special patient care in a variety of quickly changing circumstances. To guarantee safe and effective patient care in this specialized context, it is critical to establish the clinical competences needed of emergency nurses (12). Stress in nurses, especially emergency nurses, is influenced by situational factors like patient violence, holidays, or health-related events like the seasonal flu in addition to organizational culture factors like work overload, inappropriate treatment by the organization, and environmental factors like system and noises. Personal factors like education, burnout, and compassion fatigue, as well as environmental factors like understaffing and time constraints, were the main causes of distress (13). Effective communication, cooperation, and understanding between parties are all professional practices that are compatible with

the primary traits of clinical leadership can enhance level of emergency nurse competence (14).

CONCLUSION AND RECOMMENDATIONS

After conducting a number of research procedures, based on the findings of research published in national and international journals regarding the study of nurses' burnout level and clinical competency in emergency departments, it can be concluded that nurses working in emergency departments were more likely to experience frustration, depression, and high levels of burnout than nurses working in other units, likely because of the high pressure of critical conditions, crowded settings, and long hours. Building teamwork and support networks can enable the emergency nurse to work more conveniently and for longer in the emergency unit. reduced the shift duration and managed the emergency nursing protocol appraisals based on evidence-based practice to assist them reduce overworked emergency unit employees.

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ETHICAL CONSIDERATION

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Conflict of Interest statement

There is no conflict of interest, according to the author.

REFERENCES

- Jose S, Dhandapani M, Cyriac MC. Burnout and resilience among frontline nurses during covid-19 pandemic: A cross-sectional study in the emergency department of a tertiary care center, north india. *Indian Journal of Critical Care Medicine*. 2020 Nov 1;24(11):1081–8.
- Vidotti V, Ribeiro RP, Galdino MJQ, Martins JT. Burnout syndrome and shift work among the nursing staff. *Rev Lat Am Enfermagem*. 2018;26.
- Kim JS. Emotional Labor Strategies, Stress, and Burnout Among Hospital Nurses: A Path Analysis. *Journal of Nursing Scholarship*. 2020 Jan 1;52(1):105–12.
- Lee MMD, Gensimore MM, Maduro RS, Morgan MK, Zimbardo KS. The Impact of Burnout on Emergency Nurses' Intent to Leave: A Cross-Sectional Survey. *J Emerg Nurs*. 2021 Nov 1;47(6):892–901.
- Zakeri MA, Bazmandegan G, Ganjeh H, Zakeri M, Mollaahmadi S, Anbariyan A, et al. Is nurses' clinical competence associated with their compassion satisfaction, burnout and secondary traumatic stress? A cross-sectional study. *Nurs Open*. 2021 Jan 1;8(1):354–63.
- Bartosiewicz A, Łuszczki E, Dereń K. Personalized nursing: How life satisfaction and occupational burnout influence new competences of Polish nurses. *J Pers Med*. 2020 Jun 1;10(2):1–13.
- Butera S, Brasseur N, Filion N, Bruyneel A, Smith P. Prevalence and Associated Factors of Burnout Risk Among Intensive Care and Emergency Nurses Before and During the Coronavirus Disease 2019 Pandemic: A Cross-Sectional Study in Belgium. *J Emerg Nurs*. 2021 Nov 1;47(6):879–91.
- de la Cruz SP, Cebrino J, Herruzo J, Vaquero-Abellán M. A multicenter study into burnout, perceived stress, job satisfaction, coping strategies, and general health among emergency department nursing staff. *J Clin Med*. 2020 Apr 1;9(4).
- Adams A, Hollingsworth A, Osman A. The Implementation of a Cultural Change Toolkit to Reduce Nursing Burnout and Mitigate Nurse Turnover in the Emergency Department. *J Emerg Nurs*. 2019 Jul 1;45(4):452–6.
- Moscu CA, Marina V, Dragomir L, Anghel AD, Anghel M. The Impact of Burnout Syndrome on Job Satisfaction among Emergency Department Nurses of Emergency Clinical County Hospital "Sfântul Apostol Andrei" of Galati, Romania. *Medicina (B Aires)*. 2022 Oct 25;58(11):1516.
- Azarmnejad E, Sarhangi F, Javadi M, Rejeh N, Amirsalari S, Tadrissi SD. The effectiveness of familiar auditory stimulus on hospitalized neonates' physiologic responses to procedural pain. *Int J Nurs Pract*. 2017;23(3):1–7.
- Hassankhani H, Hasanzadeh F, Powers KA, Dadash Zadeh A, Rajaie R. Clinical Skills Performed By Iranian Emergency Nurses: Perceived Competency Levels and Attitudes Toward Expanding Professional Roles. *J Emerg Nurs*. 2018 Mar 1;44(2):156–63.
- Cho YJ, Han YR, Jeong YW. Professional Self-Concept, Job Stress, and Triage Competency Among Emergency Nurses: Secondary Data Analysis of a Cross-Sectional Survey. *J Emerg Nurs*. 2022 May 1;48(3):288–98.
- Habibi Soola A, Ajri-Khameslou M, Mirzaei A, Bahari Z. Predictors of patient safety competency among emergency nurses in Iran: a cross-sectional correlational study. *BMC Health Serv Res*. 2022 Dec 1;22(1).

