

Occupational Stress Among Nurse: Causes, Effects, and Coping Strategies

Mohammed Hamad Abumalik¹, Abdulaziz Mohammad Albiaz², Mohammad Abdullah Almutairi³, Abdulmajeed Mohammed Binjrees³, Sara Eid Alosaimi⁴, Esmah Abdullah Al Mutairy⁵, Faihan Sagr Ali Al Otaibi⁶, Ali Mohammed Alasmari⁷, Shorouk Qasim Ahmed Moharam⁸, Ali Hamad Mohammed Somily⁹

1 Nursing Specialist, Dawadmi hospital, Saudi Arabia.

2 Nursing specialist Dawadmi, Dawadmi general hospital, Saudi Arabia.

3 Nursing specialist, Dawadmi general hospital, Saudi Arabia.

4 Nursing technician, Children's Hospital, Saudi Arabia.

5 Nursing technician, King kalid dispensary in onizah, Saudi Arabia.

6 Nursing Technician, Third Settlement - Sager Hospital - Al-Dairiyah Health Center, Saudi Arabia.

7 Nurse technician ,Taif Health Cluster, Saudi Arabia.

8 Nurse, King Saud Medical City, Saudi Arabia.

9 Nurse, Samtah hospital, Saudi Arabia.

Background: Nurses in emergency medicine are generally responsible for delivering fast, life-saving treatment in high-stress events. Frontline healthcare workers like nurses are especially likely to experience occupational stress. Working long hours, a high patient-to-nurse ratio, addressing emotional demands, and insufficient internal organizational support are among the factors that tax nurses. Other probable consequences of chronic stress include mental and physical health problems, reduced work satisfaction, and inadequate patient treatment. Our ability to identify the components of professional stress and how they manifest themselves determines the lifetime of healthcare systems as well as the state of nurses. Researching effective coping mechanisms can also lead to feasible behaviors to aid to reduce stress and increase resilience at work.

Aim: Finding the causes and effects of professional stress on nurses is the main aim of this study. Examining numerous approaches also helps one to find ways to manage stress and improve nurses' condition. Research aimed to promote the development of policies and projects in this subject helps nursing practitioners locate a suitable workplace.

Conclusion: Occupational stress among nurses still presents a difficult issue for worldwide healthcare systems. The findings underscore the need of using targeted interventions to solve the fundamental causes of stress—which include emotional pressures, organizational inefficiencies, and severe workloads—by means of When healthcare organizations use good coping strategies and foster supportive work cultures, one can have better job satisfaction, higher nurse retention, and excellent patient care. Giving nurses' mental health and well-being top priority will help healthcare services to be sustainable.

Keywords: Occupational stress, Nursing profession, Workplace stress Stress management, Coping strategies

Introduction

Nurses in emergency medicine are generally responsible for delivering fast, life-saving treatment in high-stress events; hence, they are quite vital for occupational stress management. The fast-paced and chaotic character of emergency rooms demands quick decisions, constant vigilance, and advanced professional judgment especially during triage, when giving severely sick patients top priority may cause moral difficulty. Emergency nurses often come into touch with

occupational violence, verbal abuse and physical attack from patients or their relatives, therefore aggravating their psychological load.¹

While high patient volume, understaffing, and long shifts worsen physical and psychological tiredness, the emotional toll of watching tragedy, untimely deaths, and devastated families causes compassion fatigue. These demands undermine not only nurses' emotional and physical wellbeing but also their job satisfaction and may affect patient care. Enough staffing, mental health services, and debriefing events will help to meet these challenges by means of institutional support. Nurses would benefit also from professional development in stress management and conflict resolution as well as encouragement of peer support systems and personal health practices including mindfulness. Improving the workplace for emergency nurses depends equally on advocating for safer working conditions including rules against workplace violence.²

There is a correlation between occupational stress and negative health outcomes, including impaired mental and physical functioning, and poor job performance. A person's physical and mental health, as well as their ability to accomplish their jobs properly, are obviously negatively impacted by stress. It has become both common and costly for modern businesses to deal with occupational stress, according to the World Health Organization.^{3,4}

The American Institute of Stress found that stress was a major contributor to 80% of work-related injuries and 40% of all financial burdens in the workplace. Nursing is a tough and difficult job with complex demands and needs; the major stresses are excessive expectations, too much responsibility, and not enough authority. Iranian research shows that 7.4% of nurses miss work per week owing to mental or physical exhaustion or impairment, which is 80% greater than the absence rate for other occupations.^{5,6}

According to the International Council of Nurses, there is a strong correlation between occupational stress and around 90% of workers' medical problems. Additionally, it is estimated that work-related stress costs between \$200 million and \$300 million per year in the US. How well nurses can take care of their patients and how much stress they are under on the job are both affected by this. Since they have such a direct impact on people's lives and may improve patient care by taking care of themselves, nurses should prioritize their own health and wellness.^{7,8}

Nurses, who are physically close to their patients, can experience high levels of stress due to factors such as their work environment, the hospital's patient load, staffing levels, mandatory overtime, and the ward manager's attitude. Stress is a recognized and even beneficial part of contemporary nursing, even though the long-term effects of disorders like hypertension, which can cause cardiovascular disease, lower their quality of life. Numerous studies have shown that occupational stress affects healthcare quality in some way.⁹

Beyond this, stress on the workplace increases the likelihood of work-related injuries, as well as issues like coworker conflict, health problems, job discontent, low creativity, poor professional satisfaction, inadequacy, sadness, disgust, fatigue, and inadequate nursing care. For nurses to have a better work-life balance and provide higher quality care to patients, it is necessary to minimize the psychological and behavioral repercussions of the inevitable pressures they face in the field. Skills, job design, leadership style, and capacity are examples of personal factors that can impact low caring behaviors, but there are also organizational factors to consider. The increasing demands placed on nurses can lead to stress in the workplace, which in turn can impact their ability to provide compassionate care.^{10,11}

When doctors and nurses are under constant pressure, they lose compassion for their patients and are more likely to make mistakes that harm their patients. Much research has shown

that this affects healthcare delivery and patient outcomes in some way or another. An example of this is the correlation between callous behavior on the job and conflicts with coworkers. Careful behavior and work satisfaction were significantly related when measured by both individual and group evaluations of nurses' experiences with management. No correlation was discovered between caring actions and occupational stress or workload in an Indonesian study.^{12,13}

Workplace stress has a negative effect on nurses' health-related quality of life, which in turn affects patient outcomes, according to Sarafis et al.,¹⁴ who argue that more research into this area is needed. The potential causes of stress for nurses working in the healthcare industry have been identified. There are large differences in the levels of stress experienced by nurses due to their jobs, which can be attributable to a variety of factors including general, cultural, and professional challenges, as well as to individual differences and working conditions.¹⁵

Since nurses strive to improve patients' overall health in addition to the quality of treatment they get, it is their responsibility as part of the healthcare system to address issues that negatively impact patients' quality of life. To make nurses' jobs easier and more effective, it is important to assess their work-life balance, identify psychological risk factors, and create plans for preventive interventions. Stress on the job negatively impacts nurses' physical and mental health, which in turn impacts the quality of care they provide to patients, according to our research.¹⁶

The Prevalence of Occupational Stress in Nursing

Occupational stress has greatly affected the health of workers, especially nurses, and has been on the rise over the last 30 years on a global scale [1]. When it comes to enhancing the quality and accessibility of health care for populations, health professionals are indispensable. Worldwide, midwives and nurses make up almost half of the health care workforce. When employees feel that their efforts are not being adequately compensated for, it can lead to a range of physical and emotional reactions that are collectively known as occupational stress. The World Health Organization has declared occupational stress a worldwide epidemic due to its recent association with 90% of all medical visits. Negligence, absenteeism, poor patient care, professional burnout, and desertion are some of the ways it affects healthcare service delivery. Frontline healthcare workers who volunteered to be part of the COVID-19 outbreak response team reported higher rates of workload and fatigue than other healthcare workers, according to several cross-sectional studies.^{17,18}

Why Nurses Are at Higher Risk of Workplace Stress

Because of the continuous pressure and demanding conditions, they deal with on the job, nurses are more prone than employees in many other professions to experience stress in the workplace. The enormous amount of patient's nurses are expected to handle due to staffing shortages causes them considerable stress since it leaves little time to offer each patient the attention they need. Furthermore, nursing is emotionally taxing, which can be psychologically depleting particularly if one is surrounded with death, significant disease, and suffering all the time. Long hours and forced overtime merely compound the situation by causing physical exhaustion and a disturbance of the work-life balance.¹⁹

As they endeavor to meet the needs of their patients, their families, and their colleagues, nurses routinely deal with interpersonal problems and work ambiguity; they also act as mediators and advocates—as if that weren't demanding enough. The high stakes of healthcare mean that occasionally nurses feel overwhelmed by the necessity to make rapid judgments that can have life-or-death consequences. Many nurses claim their firms provide little help; they are underfunded, undertrained, and receive inadequate mental health care. Dealing with aggressive or violent clients

or their families at work adds still another major source of stress. This is especially true in high-risk environments like mental health facilities or emergency rooms.²⁰

These elements taken together provide a perfect storm of stresses that might lower job satisfaction, impair health, and cause burnout. To address these issues, healthcare facilities must work together providing nurses with sufficient staffing, emotional support, and professional tools to create a better and more sustainable working environment.²¹

Defining Stress in the Context of Healthcare

Stress in the context of healthcare is the emotional, psychological, and physical weight professionals carry when their jobs demand more than they can reasonably handle. Often a reaction to the high-stress nature of healthcare environments, where lives are at risk, judgments are essential, and the workload may be relentless is in this context, stress encompasses not only the labor but also the emotional difficulties of tending to patients who can be quite ill, in pain, or approaching death.²²

Among the several forms that healthcare stresses take are acute stress from immediate crises—such as medical emergencies—as well as chronic stress coming from continuous exposure to demanding conditions—such as long shifts, heavy patient loads, or insufficient resources. It might show up as emotional tiredness, anxiety, fatigue, and annoyance. Especially for nurses, whose roles as front-line caretakers, mediators between patients and doctors, advocates of patients's needs—often in the face of inadequate organizational support—often considerably raise stress.²³

Within the framework of healthcare, creating effective stress management techniques relies on awareness of it in that sense. Stress unchecked can cause burnout, poor performance on tasks, and negative effects on patient care. Appreciating the unique pressures medical workers go through helps one create supportive settings that foster resilience and well-being.²⁴

Causes of Occupational Stress

Workload and Staffing Problems

Workload and personnel shortages are two of the primary causes of stress in the medical field. High patient-to-nurse ratios seriously increase their burden and limit the time and care nurses can give to every patient, so presenting great difficulties for them. From this imbalance, one could experience overworking and overwhelm. Understaffing may also force nurses to cover extra shifts or work longer hours, therefore aggravating their fatigue and burnout. A nurse's quality of work may suffer, and they may start to worry about making mistakes or not fulfilling patient expectations when their workload is more than their capacity. Particularly showing these difficulties are emergency rooms, intensive care units, long-term care facilities where patient acuity is higher, and demands are more severe.²⁵

Emotional and psychological facets of patient care

Nursing is physically demanding and by nature emotional. Many times, in crucial or end-of-life events, nurses are supposed to treat patients compassionately—which might cause emotional tiredness. For nurses, seeing patient suffering, offering end-of-life care, or handling patient death can cause a great emotional conflict. Their mental health issues result from the pressure to remain emotionally cool in such situations. Moreover, occasionally nurses must break terrible news to patients and their families that could cause emotional turmoil. The difficulty separating personal emotions from professional responsibilities could lead to burnout, compassion fatigue, and lower job satisfaction.²⁶

Team Dynamics and Personal Issues

For nurses especially, personal conflicts inside healthcare teams cause great stress. Among nurses, doctors, and other healthcare professionals, conflicts can result from many communication styles, misinterpretation, or incompatible priorities. The hierarchical organization of healthcare institutions can create power conflicts since sometimes nurses feel undervalued or abused. Lack of cooperation and poor communication inside teams can aggravate tension and cause emotions of isolation and unhappiness. Unresolved conflicts can also erode confidence, influence patient treatment, and create workplace friction, therefore raising stress levels for everyone engaged.²⁷

Leadership and Organization: Important Elements

The degree of stress nurses experience is significantly influenced by the organizational settings and leadership styles. Inappropriate resources, poor leadership, and lack of support can cause a situation whereby nurses feel overburdened and unsupported. Nurses are left to control stress without the tools or resources when healthcare facilities ignore giving adequate training, appropriate staffing, or clear procedures. Moreover, poor leadership could overlook elements of stress, therefore depriving nurses of direction or chances for professional growth. From a poisonous work culture created by a lack of organizational openness, disregard of nurses in decision-making, and appreciation of their efforts, low morale and high turnover rates follow. Conversely, encouraging leadership can help to reduce stress by creating suitable surroundings, providing guidance, and giving staff members priority.²⁸

Physical and psychological consequences for nurses

For nurses who can greatly compromise their quality of life, occupational stress has substantial physical and psychological effects. Physical symptoms of prolonged stress can include headaches, weariness, stomach problems, and trouble sleeping. Chronic stress can also aggravate more serious medical conditions including cardiovascular disease, hypertension, and a damaged immune system. Likewise affected is mental health; many nurses battle with emotional weariness, anxiety, and hopelessness. The emotional demands of patient care combined with the ongoing pressure of the work could lead to a decline in mental well-being that would manifest as burnout, emotional numbness, or difficulty adjusting to the demands of the career.²⁹

Job unhappiness and burnout

Among the main consequences of job pressure among nurses is burnout. Burnout is a disorder of emotional, physical, and psychological weariness brought on by prolonged stress related to one's work. Burnout-stricken nurses could feel less able to perform their professions, overburdened by their responsibilities, and detached from their field of work. Among the burnout symptoms are persistent exhaustion, lack of desire, reduced empathy, and diminished sense of accomplishment. Often following burnout is job dissatisfaction, which leads to disengagement from employment. Burned-out nurses could feel as though their efforts are unrecognized, which would cause a lack of enthusiasm and a feeling of pessimism, thereby increasing stress levels and so impacting their general job satisfaction.³⁰

Changes in Patient Care Safety and Quality

Occupational stress influences not only nurses' own well-being but also the quality and safety of patient care. Stressed nurses find it more difficult to concentrate, make decisions, or properly communicate with colleagues or patients. This increases the risk of mistakes like missed diagnosis, pharmacological errors, or delayed treatment. Stress can also influence the capacity of the nurse to provide patient satisfaction; healing depends on sympathetic and compassionate treatment, which is compromised. Stress on nursing staff taken can result in lower-quality

treatment, patient discontent, and increased probability of adverse occurrences therefore jeopardizing patient safety.³¹

Retention and Turnover: Difficulties

Occupational stress greatly affects challenges with nurse turnover and retention. High stressed-out nurses are more likely to seek employment in less demanding environments or even fully retire from their careers. High turnover rates force experienced staff members to quit, therefore aggravating staffing shortages and increasing the burden on the surviving nurses. This sets off a cycle of burnout, tension, and too much turnover that can throw off medical teams and jeopardize the treatment flow. Maintaining qualified nurses is a challenge for healthcare organizations; nonetheless, increasing retention rates depends on addressing the underlying reasons of stress. Sometimes organizations that ignore to recognize and lower workplace stress pay more for recruiting, suffer with the delivery of services, and have a pressured workforce—all of which can have negative consequences on patient outcomes and the general running of the healthcare system.³²

Mindfulness, exercise, and time management—individual approaches

Nurses' occupational stress management depends much on their own coping mechanisms. By use of mindfulness techniques including meditation and deep-breathing exercises, nurses can help to keep present in the moment and lower tension by soothing the mind and enhancing emotional control. Regular physical exercise—including walking, yoga, or strength training—can help to relieve tension, boost mood, and lessen the physical consequences of stress including muscular stiffness and tiredness.³³

Moreover, effective handling of their task by nurses depends on good time management abilities. Nurses can control their obligations without feeling overburdened by giving work top priority, creating reasonable goals, and scheduling frequent breaks. When regularly used, these strategies can help nurses develop resilience and lessen the daily effects of stressors.³⁴

Peer Assistance and Team-Based Interventions

Important coping mechanisms in nursing are peer support and teamwork since they foster unity and shared accountability. Having coworkers who support you and recognize the difficulties of nursing will help you both practically and emotionally. Peer support lets nurses exchange coping strategies, debrief following trying events, and provide encouragement to one another. Additionally, helping nurses feel more connected and less alone are team-based therapies whereby colleagues work on fixing problems or offering feedback. Good team dynamics promote communication and trust, which can help to reduce stress and raise job satisfaction. Nurses who foster a culture of mutual support will be able to rely on one another to negotiate the emotional and physical challenges of their profession.³⁵

Policy and training program institutional support

Reducing occupational stress for nurses depends critically on institutional assistance. Policies that support a good work-life balance—that is, flexible scheduling, enough staffing levels, and breaks to avoid burnout—must be followed by healthcare institutions. Stress management, communication skills, and conflict resolution-oriented training courses equip nurses with the means to more successfully manage difficult circumstances. By means of mentoring and leadership development initiatives, institutions also help nurses to advance professionally under direction and assistance from seasoned colleagues. Giving nurses a strong support network inside the hospital enables them to feel appreciated and increases their capacity to control stress in the long term.³⁶

Creating Resilience Through Expert Growth

Coping with occupational stress depends on first building resilience by means of professional development. Apart from improving clinical competency, continuous education and skill development help to build confidence and accomplishment in the profession. Resilient nurses are more suited to managing stress and fit for changing work surroundings. Professional development courses emphasizing emotional intelligence, leadership, and self-care can also enable nurses to acquire the mental and emotional tools required to handle the demands of their positions. Healthcare companies may build a workforce that is not just competent but also resilient, flexible, and able to properly control stress by making investments in the development of their nursing staff. Encouragement of ongoing education and self-improvement helps nurses to take charge of their work life and lessen the harmful effects of stress on their careers and welfare.³⁷

Advice and Interventions

Developing Inspired Work Environment

Supportive working environments help nurses to reduce occupational stress. The focus of healthcare facilities should be on establishing a friendly environment in which nurses feel supported, valued, and appreciated. One can reach this by means of encouragement of honest communication, respect of nurses' efforts, and availability of opportunities for social interaction and peer support. Reducing stress also depends considerably on a well-designed workplace with ample resources, comfy desks, and reasonable workloads. Giving nurses access to counseling services or employee support programs would also help them to gently control both personal and occupational stress.³⁸

The Part Played by Leadership in Stress Reduction

For nurses, solving occupational stress mostly falls on their leaders. Strong, compassionate, and capable leadership is what makes a workplace where nurses feel supported and empowered what it is. Leaders should give staff well-being first priority by implementing policies that encourage work-life balance, thus reducing overly high workloads, and so supporting suitable workforce numbers. Leaders should also be sharp in identifying pressures, settling conflicts, and providing mental health support. Encouragement of trust, openness, and appreciation helps leadership to reduce stress, increase job satisfaction, and maintain nursing staff members. Programs for the development of leadership among nurse managers are also very important since they equip them the means to operate teams effectively and support staff resilience.

Good Staffing Strategies to Handle Unnecessary Work

Reducing occupational stress in nursing depends mostly on treating overwork with reasonable staffing levels. Enough staffing assures nurses not to be overburdened and to treat patients with quality without compromising their health. Healthcare facilities must decide on staffing levels that meet patient needs considering present nursing resources. This can call for flexible shift schedules, the use of technology to speed up tasks, or the hiring of additional support to lessen the load on nurses. By ensuring that nurses are not overworked, organizations may considerably reduce stress levels and improve nurse satisfaction as well as patient care results.³⁹

Future Stress Management Research Direction:

Future research on stress management in nursing should focus on identifying evidence-based and creative solutions to aid to lower stress. Studies on the effectiveness of many coping strategies including mindfulness programs, cognitive-behavioral therapy, and peer support networks should More research is also needed to determine over long years how occupational stress influences nurses' health, job satisfaction, and patient care quality. Furthermore, under consideration are how organizational factors such workload distribution, leadership styles, and

workplace culture influence stress levels in healthcare facilities. Through better research in several fields, healthcare facilities can develop more effective treatments to reduce occupational stress and support the mental health and well-being of their nursing staff.⁴⁰

Conclusion

Nursing must deal with occupational stress since it directly influences the standard of treatment delivered to patients. Nurses are the basis of healthcare systems; hence their performance is significantly influenced by their mental and physical state. By identifying and addressing stressors, healthcare firms could increase worker satisfaction, reduce burnout, and inspire a better workforce. Among the several benefits of decreased stress for nurses are improved patient outcomes, greater rates of nurse retention, and more effective running of the whole healthcare system.

In nursing, occupational stress calls for collaboration among nurses, hospitals, legislators, professions associations, and other organizations. While healthcare systems must create motivating and sustainable work environments, nurses must be empowered with the necessary knowledge and tools to handle their stress. Leaders inside healthcare firms must give nurse well-being priority while legislators push for measures assuring fair working conditions and necessary resources. Working together, the healthcare industry can create a future when nurses thrive in providing the best possible treatment while maintaining their own health and well-being.

References

- ¹ Jiaru J, Yanxue Z, Wennv H. Incidence of stress among emergency nurses: A systematic review and meta-analysis. *Medicine (Baltimore)*. 2023 Jan 27;102(4):e31963. doi: 10.1097/MD.00000000000031963. PMID: 36705357; PMCID: PMC9875949.
- ² Wolotira EA. Trauma, Compassion Fatigue, and Burnout in Nurses: The Nurse Leader's Response. *Nurse Lead*. 2023 Apr;21(2):202-206. doi: 10.1016/j.mnl.2022.04.009. Epub 2022 May 13. PMID: 35582625; PMCID: PMC9098943.
- ³ Unaldi Baydin N, Tiryaki Sen H, Kartoglu Gurler S, Dalli B, Harmanci Seren AK. A study on the relationship between nurses' compulsory citizenship behaviours and job stress. *J Nurs Manag*. 2020;28(4):851–9. doi: 10.1111/jonm.13009.
- ⁴ Labrague LJ, Nwafor CE, Tsaras K. Influence of toxic and transformational leadership practices on nurses' job satisfaction, job stress, absenteeism and turnover intention: A cross-sectional study. *J Nurs Manag*. 2020;28(5):1104–13. doi: 10.1111/jonm.13053.
- ⁵ Jacobs AC, Lourens M. Emotional challenges faced by nurses when taking care of children in a private hospital in South Africa. *Africa J Nurs Midwifery*. 2016;18(2):196–210.
- ⁶ Nasiry Zarrin Ghabaee N, Talebpour Amir F, Hosseini Velshkolaei M, Rajabzadeh R. Quality of life and its relationship to the Job stress in among nursing staff in Hospitals of Sari, in 2015. *J Nursing Educ*. 2016;5(2):40–8.

-
- ⁷ Hassard J, Teoh KR, Visockaite G, Dewe P, Cox T. The cost of work-related stress to society: A systematic review. *J Occup Health Psychol*. 2018;23(1):1. doi: 10.1037/ocp0000069.
- ⁸ Layali I, Ghajar M, Abedini E, Emadian SO, Joulaei M. Role of Job Stressors on Quality of Life in Nurses. *J Mazandaran Univ Med Sci*. 2019;29(180):129–133.
- ⁹ Bahrami M. Nurses' quality of life in medical-surgical wards of an oncology center affiliated to the Isfahan University of Medical Sciences. *Nurs J Vulnerable*. 2016;3(7):36–46.
- ¹⁰ Rizkianti I, Haryani A. The Relationship Between Workload and Work Stress With Caring Behavior Of Nurses in Inpatient Rooms. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*. 2020;5(2):159–166.
- ¹¹ Parveen R, Hussain M, Afzal M, Parveen MK, Majeed MI, Tahira F, Sabir M. The impact of occupational stress on nurses caring behavior and their health related quality of life. *Saudi J Med Pharm Sci*. 2017;3(9):1016–1025.
- ¹² Rizkianti I, Haryani A. The Relationship Between Workload and Work Stress With Caring Behavior Of Nurses in Inpatient Rooms. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*. 2020;5(2):159–166.
- ¹³ Oluma A, Abadiga M. Caring behavior and associated factors among nurses working in Jimma University specialized hospital, Oromia, Southwest Ethiopia, 2019. *BMC Nurs*. 2020;19(1):1–7. doi: 10.1186/s12912-020-0407-2.
- ¹⁴ Sarafis P, Rousaki E, Tsounis A, Malliarou M, Lahana L, Bamidis P, Niakas D, Papastavrou E. The impact of occupational stress on nurses' caring behaviors and their health related quality of life. *BMC Nurs*. 2016;15(1):1–9. doi: 10.1186/s12912-016-0178-y.
- ¹⁵ Babapour AR, Gahassab-Mozaffari N, Fathnezhad-Kazemi A. Nurses' job stress and its impact on quality of life and caring behaviors: a cross-sectional study. *BMC Nurs*. 2022 Mar 31;21(1):75. doi: 10.1186/s12912-022-00852-y. PMID: 35361204; PMCID: PMC8968092.
- ¹⁶ Hsu MY, Kernohan G. Dimensions of hospital nurses' quality of working life. *J Adv Nurs*. 2006;54(1):120–131. doi: 10.1111/j.1365-2648.2006.03788.x.
- ¹⁷ Gribben L, Semple CJ. Factors contributing to burnout and work-life balance in adult oncology nursing: an integrative review. *Eur J Oncol Nurs*. Feb. 2021;50. <https://doi.org/10.1016/J.EJON.2020.101887>.
- ¹⁸ World Health Organization. Nursing and midwifery: Key fact. Accessed: Jul. 26, 2022. [Online]. Available: <https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery>

- ¹⁹ Izdebski Z, Kozakiewicz A, Białorudzki M, Dec-Pietrowska J, Mazur J. Occupational Burnout in Healthcare Workers, Stress and Other Symptoms of Work Overload during the COVID-19 Pandemic in Poland. *Int J Environ Res Public Health*. 2023 Jan 30;20(3):2428. doi: 10.3390/ijerph20032428. PMID: 36767797; PMCID: PMC9916221.
- ²⁰ Izdebski Z, Kozakiewicz A, Białorudzki M, Dec-Pietrowska J, Mazur J. Occupational Burnout in Healthcare Workers, Stress and Other Symptoms of Work Overload during the COVID-19 Pandemic in Poland. *Int J Environ Res Public Health*. 2023 Jan 30;20(3):2428. doi: 10.3390/ijerph20032428. PMID: 36767797; PMCID: PMC9916221.
- ²¹ Khamisa, Natasha & Peltzer, Karl & Ilic, Dragan & Oldenburg, Brian. (2017). Effect of personal and work stress on burnout, job satisfaction and general health of hospital nurses in South Africa. *Health SA Gesondheid*. 22. 252-258. 10.1016/j.hsag.2016.10.001.
- ²² Rink LC, Oyesanya TO, Adair KC, Humphreys JC, Silva SG, Sexton JB. Stressors Among Healthcare Workers: A Summative Content Analysis. *Glob Qual Nurs Res*. 2023 Mar 30;10:23333936231161127. doi: 10.1177/23333936231161127. PMID: 37020708; PMCID: PMC10068501.
- ²³ Herraiz-Recuenco L, Alonso-Martínez L, Hannich-Schneider S, Puente-Alcaraz J. Causes of Stress among Healthcare Professionals and Successful Hospital Management Approaches to Mitigate It during the COVID-19 Pandemic: A Cross-Sectional Study. *Int J Environ Res Public Health*. 2022 Oct 10;19(19):12963. doi: 10.3390/ijerph191912963. PMID: 36232267; PMCID: PMC9565124.
- ²⁴ Goudarzian AH, Nikbakht Nasrabadi A, Sharif-Nia H, Farhadi B, Navab E. Exploring the concept and management strategies of caring stress among clinical nurses: a scoping review. *Front Psychiatry*. 2024 May 28;15:1337938. doi: 10.3389/fpsy.2024.1337938. PMID: 38863606; PMCID: PMC11165118.
- ²⁵ Diehl E, Rieger S, Letzel S, Schablon A, Nienhaus A, Escobar Pinzon LC, Dietz P. The relationship between workload and burnout among nurses: The buffering role of personal, social and organisational resources. *PLoS One*. 2021 Jan 22;16(1):e0245798. doi: 10.1371/journal.pone.0245798. PMID: 33481918; PMCID: PMC7822247.
- ²⁶ Alodhialah, A. M., Almutairi, A. A., & Almutairi, M. (2024). Exploring Nurses' Emotional Resilience and Coping Strategies in Palliative and End-of-Life Care Settings in Saudi Arabia: A Qualitative Study. *Healthcare*, 12(16), 1647. <https://doi.org/10.3390/healthcare12161647>

-
- ²⁷ Alshehry AS. Nurse-Patient/Relatives Conflict and Patient Safety Competence Among Nurses. *Inquiry*. 2022 Jan-Dec;59:469580221093186. doi: 10.1177/00469580221093186. PMID: 35416728; PMCID: PMC9016524.
- ²⁸ Bolado GN, Ataro BA, Gadabo CK, Ayana AS, Kebamo TE, Minuta WM. Stress level and associated factors among nurses working in the critical care unit and emergency rooms at comprehensive specialized hospitals in Southern Ethiopia, 2023: explanatory sequential mixed-method study. *BMC Nurs*. 2024 May 21;23(1):341. doi: 10.1186/s12912-024-02004-w. PMID: 38773519; PMCID: PMC11106981.
- ²⁹ Magnavita, N., Mele, L., Meraglia, I., Merella, M., Vacca, M. E., Cerrina, A., Gabriele, M., Labella, M., Soro, M. T., Ursino, S., & Matera, C. (2022). The Impact of Workplace Violence on Headache and Sleep Problems in Nurses. *International Journal of Environmental Research and Public Health*, 19(20), 13423. <https://doi.org/10.3390/ijerph192013423>
- ³⁰ Khatatbeh H, Pakai A, Al-Dwaikat T, Onchonga D, Amer F, Prémusz V, Oláh A. Nurses' burnout and quality of life: A systematic review and critical analysis of measures used. *Nurs Open*. 2022 May;9(3):1564-1574. doi: 10.1002/nop2.936. Epub 2021 May 15. PMID: 33991408; PMCID: PMC8994939.
- ³¹ Roger A. Atinga, Mtebi Nkrabia Gmaligan, Alice Ayawine, John K. Yambah “It's the patient that suffers from poor communication”: Analyzing communication gaps and associated consequences in handover events from nurses’ experiences, *SSM - Qualitative Research in Health*, Volume 6, 2024, 100482, ISSN 2667-3215, <https://doi.org/10.1016/j.ssmqr.2024.100482>.
- ³² Kelly LA, Gee PM, Butler RJ. Impact of nurse burnout on organizational and position turnover. *Nurs Outlook*. 2021 Jan-Feb;69(1):96-102. doi: 10.1016/j.outlook.2020.06.008. Epub 2020 Oct 4. PMID: 33023759; PMCID: PMC7532952.
- ³³ Green AA, Kinchen EV. The Effects of Mindfulness Meditation on Stress and Burnout in Nurses. *J Holist Nurs*. 2021 Dec;39(4):356-368. doi: 10.1177/08980101211015818. Epub 2021 May 17. Erratum in: *J Holist Nurs*. 2022 Sep;40(3):NP1-NP5. doi: 10.1177/08980101221127086. PMID: 33998935.
- ³⁴ Vizeshfar F, Rakhshan M, Shirazi F, Dokoohaki R. The effect of time management education on critical care nurses' prioritization: a randomized clinical trial. *Acute Crit Care*. 2022 May;37(2):202-208. doi: 10.4266/acc.2021.01123. Epub 2022 Apr 28. PMID: 35545237; PMCID: PMC9184972.

- ³⁵ Carvello M, Zanotti F, Rubbi I, Bacchetti S, Artioli G, Bonacaro A. Peer-support: a coping strategy for nurses working at the Emergency Ambulance Service. *Acta Biomed.* 2019 Nov 11;90(11-S):29-37. doi: 10.23750/abm.v90i11-S.8923. PMID: 31714498; PMCID: PMC7233625.
- ³⁶ Cohen C, Pignata S, Bezak E, Tie M, Childs J. Workplace interventions to improve well-being and reduce burnout for nurses, physicians and allied healthcare professionals: a systematic review. *BMJ Open.* 2023 Jun 29;13(6):e071203. doi: 10.1136/bmjopen-2022-071203. PMID: 37385740; PMCID: PMC10314589.
- ³⁷ Han P, Duan X, Jiang J, Zeng L, Zhang P, Zhao S. Experience in the development of nurses' personal resilience: A meta-synthesis. *Nurs Open.* 2023 May;10(5):2780-2792. doi: 10.1002/nop2.1556. Epub 2022 Dec 16. PMID: 36524529; PMCID: PMC10077349.
- ³⁸ Mabona JF, van Rooyen D, Ten Ham-Baloyi W. Best practice recommendations for healthy work environments for nurses: An integrative literature review. *Health SA.* 2022 Apr 25;27:1788. doi: 10.4102/hsag.v27i0.1788. PMID: 35548062; PMCID: PMC9082217.
- ³⁹ Babapour, AR., Gahassab-Mozaffari, N. & Fathnezhad-Kazemi, A. Nurses' job stress and its impact on quality of life and caring behaviors: a cross-sectional study. *BMC Nurs* 21, 75 (2022). <https://doi.org/10.1186/s12912-022-00852-y>
- ⁴⁰ Ohue T, Menta M. Effectiveness of Mentorship Using Cognitive Behavior Therapy to Reduce Burnout and Turnover among Nurses: Intervention Impact on Mentees. *Nurs Rep.* 2024 Apr 23;14(2):1026-1036. doi: 10.3390/nursrep14020077. PMID: 38804410; PMCID: PMC11130845.