

# Exploring Strategies to Mitigate Moral Distress among Critical Care Nurses: A Discussion Paper

Yee Bit-Lian<sup>1\*</sup>, Rashidah Binti Sharuddin<sup>1</sup>, Salina Binti Mohd Hasim<sup>1</sup>, Siti Fatimah Md Shariff<sup>1</sup>, Y. Surahaya Mohd Yusof<sup>1</sup>, Aniszahura Abu Salim<sup>1</sup>

<sup>1</sup>Faculty Of Technology and Applied Sciences, Open University Malaysia, Block C, Kelana Centre Point, Jalan Ss7/19, 47301 Petaling Jaya, Selangor.

\*Corresponding Author

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.9010396>

Received: 14 December 2024; Accepted: 18 December 2024; Published: 25 February 2025

## ABSTRACT

Moral distress, a pervasive challenge in critical care nursing, arises when external constraints prevent nurses from acting in alignment with their ethical convictions. This phenomenon significantly impacts nurses, patients, and healthcare systems, leading to burnout, ethical disengagement, and systemic inefficiencies. This review synthesizes existing literature to explore the evolution, causes, and consequences of moral distress in critical care settings. Key contributors include systemic factors like resource limitations and rigid organizational policies, interpersonal conflicts, and high-stakes clinical challenges such as end-of-life care and futile treatments. The review emphasizes the profound implications of moral distress, highlighting its role in reduced job satisfaction, compromised patient care, and increased turnover. Strategies to mitigate moral distress include fostering supportive ethical climates, implementing ethics education, and promoting self-care and resilience-building practices. Additionally, it underscores the need for systemic reforms, longitudinal research, and the integration of technology in ethical decision-making. Addressing moral distress is vital for enhancing nurse well-being, improving patient outcomes, and sustaining healthcare systems.

**Keywords:** Moral distress; Critical care nursing; Ethical dilemmas; Burnout; systems; Resilience-building

## INTRODUCTION

Moral distress, a concept first introduced by Andrew Jameton in 1984, describes the psychological unease and emotional turmoil experienced when individuals recognize the ethically appropriate action but feel constrained from executing it due to external factors (Jameton, 1984). Initially conceptualized within the field of nursing, Jameton's framework highlighted the challenges healthcare providers face when institutional policies, procedural limitations, or hierarchical dynamics prevent them from acting in alignment with their ethical beliefs. Over the years, the scope of moral distress has expanded, encompassing a variety of disciplines and contexts, but its resonance within critical care nursing remains particularly profound (McAndrew et al., 2018; Selvakumar & Kenny, 2023; Miley et al., 2024).

Critical care nursing is a uniquely positioned at the intersection of high-stakes decision-making, emotionally charged environments, and complex ethical dilemmas. Nurses in this area frequently navigate situations involving life-and-death scenarios, resource allocation, and end-of-life care (Fumis et al., 2017; Hansson et al., 2021; Hyatt & Gruenglas, 2023). For instance, critical care nurses may be required to provide aggressive interventions they perceive as futile, to comply with institutional directives that conflict with patient-centered care, or reconcile their professional obligations with the demands of distressed families' members. These scenarios often leave nurses feeling powerless, complicit, or morally compromised, amplifying the psychological burden of their roles (Fumis et al., 2017; McAndrew et al., 2018).

We believe, addressing moral distress is not only crucial for the well-being of nurses but also for the overall efficacy and sustainability of healthcare systems. Unresolved moral distress has been linked to a host of adverse

outcomes, including burnout, compassion fatigue, and high turnover rates among nursing staff (Fumis et al., 2017; Hansson et al., 2021; Hyatt & Gruenglas, 2023). Furthermore, it can compromise and jeopardize the quality of patient care, as emotionally exhausted nurses may struggle to maintain the compassion, focus, and resilience required in critical care settings. The ripple effects extend to healthcare organizations, which face the challenges of staff shortages, decreased morale, and the financial costs of replacing experienced professionals (Grace et al., 2024; Selvakumar & Kenny, 2023). Recognizing the far-reaching implications of moral distress, this review aims to deepen the understanding of its nature, causes, and consequences within critical care nursing. By synthesizing current literature, we seek to highlight the systemic, interpersonal, and clinical factors that contribute to moral distress and subsequently to propose strategies for remedy and mitigation. Ultimately, addressing this issue requires a multifaceted approach. In which, as for now, we think that the one that prioritizes ethical resilience, fosters supportive work environments, and empowers nurses to navigate the ethical complexities inherent in their nursing practice.

## UNDERSTANDING MORAL DISTRESS

### Evolution of the Concept

The concept of moral distress has evolved significantly since its initial introduction by Jameton in 1984. In its original framing, moral distress was described as arising when external constraints—such as institutional policies or hierarchical pressures—prevented healthcare providers from acting on their ethical convictions (Jameton, 1984). Over time, scholars have expanded this understanding to encompass a broader range of factors, emphasizing its multidimensional nature. For instance, Epstein and Hamric (2009) introduced the concepts of "moral residue" and the "crescendo effect." In their work, Moral residue refers to the lingering emotional aftereffects of unresolved moral distress, which can accumulate over time and intensify with repeated exposure to ethically challenging situations. On the other hand, they emphasized that the crescendo effect describes how this accumulation amplifies the psychological and emotional toll on healthcare providers, making them increasingly vulnerable to burnout and disengagement. Contemporary frameworks also highlight the systemic and interpersonal dimensions of moral distress (Miao et al., 2024; Sperling, 2021). Beyond individual experiences, moral distress is now recognized as a phenomenon influenced by organizational culture, resource limitations, and the ethical climate of healthcare settings (Sperling, 2021). This expanded understanding underscores the need for comprehensive interventions to address the root causes of moral distress and foster ethical resilience among healthcare professionals (Filip et al., 2022; Kang et al., 2024; Supady et al., 2021).

### Key Ethical Dilemmas in Critical Care

Critical care nurses are frequently confronted with ethical dilemmas that place them at the centre of morally distressing situations. For examples, among these, end-of-life decisions, futile treatments, and resource allocation are particularly prominent (Fumis et al., 2017; Hansson et al., 2021; Hyatt & Gruenglas, 2023). By examining the evolution of moral distress and the key ethical dilemmas faced in critical care settings, it becomes evident that addressing this phenomenon requires a wide-ranging of approach (Epstein & Delgado, 2010). Strategies must account for both individual and systemic factors, ensuring that nurses are equipped to navigate the ethical complexities inherent in their practice while maintaining their well-being and professional integrity (Duarte et al., 2016; Rushton et al., 2015; Ren et al., 2022), and further protect nurses' mental health.

**End-of-Life Decisions:** Critical care nurses often play a pivotal role in discussions about withdrawing or withholding life-sustaining treatments. These decisions are emotionally charged and ethically complex, especially when there is a lack of consensus among the healthcare team, patients, and families. Nurses may feel torn and devastated between their professional judgment and the desires of family members, leading to significant moral conflict. **Futile Treatments:** Providing intensive and aggressive interventions for patients with minimal chances of recovery is another common source of moral distress. Nurses may question the ethical justification of such treatments, particularly when they perceive them as prolonging suffering rather than improving quality of life. These situations often leave nurses feeling morally-not-so-right in their practices that conflict with their ethical convictions. **Resource Allocation:** The allocation of limited resources, such as ventilators, ICU beds, or medications, is a recurring ethical challenge in critical care. This issue becomes even

more pronounced during public health crises, such as the COVID-19 pandemic, where nurses are forced to make difficult decisions about which patients receive life-saving interventions. These decisions, often guided by institutional policies, can conflict with nurses' personal and professional ethics, further exacerbating feelings of guilt and moral distress.

## CAUSES OF MORAL DISTRESS

Addressing the causes of moral distress requires a nuanced understanding of these systemic, interpersonal, and clinical factors. We believe, by identifying and addressing these root causes, healthcare organizations can develop targeted strategies to lessen their moral distress and support nurses in delivering ethically sound and compassionate care.

**Systemic Factors:** Systemic issues within healthcare organizations are among the most significant contributors to moral distress. Organizational policies that prioritize efficiency and cost-effectiveness over individualized patient care often conflict with nurses' ethical obligations (Fourie, 2015; Morley et al., 2020). For example, rigid protocols may limit nurses' ability to tailor treatments to patients' specific needs or advocate for ethical practices (Niederhauser A, Schwappach, 2022; Schwappach DL, Gehring, 2014a). Additionally, resource limitations such as staffing shortages, inadequate medical supplies, or restricted access to critical technologies exacerbate the ethical tensions faced by nurses (Martinez et al., 2017; Schwappach & Gehring, 2014b; Haan et al., 2018). These constraints force nurses to make difficult choices that may compromise the quality of care, further intensifying feelings of moral conflict. Finally, hierarchical structures within healthcare systems can marginalize nurses' voices in decision-making processes (Jones A, Kelly, 2014; Haan et al., 2018), leaving them feeling powerless to influence outcomes that align with their professional ethics. At this point of our review, International Council for Nurses (ICN, 2024) reported that 40% to 80% of nurses claimed having experienced symptoms of psychological distress, nurses' intention to leave rates having risen to 20% or more and annual hospital turnover rates increasing to 10% and even more.

**Interpersonal Dynamics:** The relationships and interactions among healthcare professionals, patients, and families play a crucial role in generating moral distress (Rushton, 2016). Conflicts with colleagues or physicians often arise when there are differing opinions about treatment goals or care plans. For instance, a nurse may disagree with a physician's decision to continue aggressive interventions that the nurse perceives as futile (Coremans et al., 2024; Miljeteig et al., 2024). Indirectly, such disagreements can create tension and leave nurses feeling unsupported in advocating for their ethical perspectives (Coremans et al., 2024; Nadolny et al., 2024). Similarly, interactions with families can be a source of distress, particularly when family members insist on pursuing treatments that conflict with the nurse's assessment of the patient's best interests. These situations often place nurses in emotionally fraught positions where they must balance compassion for the family with their professional responsibilities (Fourie, 2015; Yi et al, 2024). Question remains if the Do-Not-Resuscitate policy still serving the patient's best interest.

**Clinical Challenges:** The high-stakes and fast-paced nature of critical care setting further amplifies the ethical challenges nurses will encounter in day-to-day nursing care. High-stakes decision-making, where nurses must act quickly to stabilize patients, often leaves little room for ethical deliberation (Yi et al., 2024; Martinez et al., 2017), for instance, in situation when code blue or code pink where that required fast clinical judgement and clinical decision making. To add salt to the wound, decisions made under these conditions can later lead to second-guessing or feelings of guilt if outcomes do not align with the nurse's ethical intentions (Yi et al., 2024). Furthermore, ethical conflicts in treatment goals frequently arise in critical care settings. For example, nurses may be required to implement interventions that prioritize prolonging life even when they believe such measures compromise the patient's dignity or quality of life. These conflicts can create significant moral strain, as nurses struggle to resolve their professional obligations with their personal values (Rushton et al., 2015; Martinez et al., 2017).

## IMPACT OF MORAL DISTRESS

We discuss this section into impact of moral distress on nurses, patient care and healthcare system. *On Nurses:*

Moral distress has profound implications for the psychological and emotional well-being of nurses. One of the most common outcomes is burnout, characterized by emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment (Miley et al., 2024). Prolonged exposure to moral distress can erode nurses' resilience, leaving them unable to cope with the demands of their roles. In more severe cases, nurses may experience "moral injury", whereby, a deep psychological harm that arises when they feel forced to act in ways that violate their moral or ethical beliefs (Forozeiya et al., 2019; Griffin et al., 2023; Weissinger et al., 2024). This can manifest as guilt, shame, or a sense of betrayal, further exacerbating emotional distress. Additionally, moral distress often leads to reduced job satisfaction, as nurses feel disconnected from the values and motivations that initially drew them to the profession (Griffin et al., 2023; Guttormson et al., 2022). *On Patient Care:* The impact of moral distress extends beyond nurses to the quality of patient care. Nurses experiencing high levels of moral distress may become ethically disengaged, distancing themselves from the emotional and ethical dimensions of their work as a coping mechanism belief (Forozeiya et al., 2019; Griffin et al., 2023). This disengagement can result in compromised quality of care, as nurses may struggle to maintain focus, make sound decisions, or provide the compassionate attention that patients require. Furthermore, unresolved moral distress can lead to errors in judgment or lapses in communication, ultimately affecting patient outcomes. When nurses are emotionally exhausted or morally conflicted, the trust and rapport necessary for effective patient care may also be undermined (Martinez et al., 2017; Schwappach & Gehring, 2014a; Schwappach & Gehring, 2014b).

**Finally, On Healthcare Systems:** At the organizational level, moral distress contributes to systemic challenges such as increased turnover rates and staff shortages. Nurses who experience chronic moral distress are more likely to leave their positions, and in some cases, the profession entirely (Morley et al., 2022; Sperling, 2021). This turnover place a significant financial burden on healthcare systems, which must allocate resources to recruit, train, and retain new staff (Selvakumar, & Kenny, 2023). Moreover, as a repercussion, the loss of experienced nurses can disrupt team dynamics and reduce overall morale within healthcare settings. These systemic effects create a feedback loop, as understaffed units and overburdened remaining staff face even greater ethical and moral injury, prolonging the cycle of moral distress (Selvakumar, & Kenny, 2023; Filip et al., 2022). Addressing the multifaceted impact of moral distress requires comprehensive interventions that prioritize nurse well-being, patient safety, and organizational sustainability. By fostering supportive work environments and implementing targeted strategies, healthcare systems can mitigate the adverse effects of moral distress and promote a culture of ethical resilience (Kang et al., 2024; Selvakumar & Kenny, 2023).

## STRATEGIES TO MITIGATE MORAL DISTRESS

By implementing these organizational, educational, and individual-level strategies, healthcare systems can create a more supportive environment for nurses. These interventions not only reduce the prevalence and impact of moral distress but also enhance overall nurse well-being, patient care quality, and organizational sustainability.

### Organizational Interventions

Addressing moral distress requires systemic changes that prioritize the well-being of nurses and create an ethically supportive environment. *Ethics Committees and Structured Debriefings:* Establishing accessible ethics committees can provide nurses with a platform to discuss complex ethical dilemmas and seek guidance in decision-making (Salari et al., 2022). Structured debriefings, held after ethically challenging cases, allow teams to reflect on decisions and outcomes, fostering a culture of open dialogue and ethical transparency (Tavakol et al., 2023; Latimer et al., 2023). *Adequate Staffing and Supportive Ethical Climates:* Ensuring adequate staffing levels can reduce the workload and prevent ethical compromises caused by time pressures (Abou Hashish, 2017). Additionally, fostering a supportive ethical climate—where nurses feel empowered to voice concerns and participate in decision-making—can significantly alleviate feelings of powerlessness and moral conflict (Tavakol et al., 2023; Waterfield et al., 2022).

### Educational and Training Approaches

**Ethics Education and Simulation-Based Training:** Incorporating ethics education into nursing curricula and ongoing professional development equips nurses with the knowledge and skills to navigate ethical challenges effectively (Tavakol et al., 2023). Simulation-based training, which replicates real-world scenarios, allows



nurses to practice handling ethical dilemmas in a controlled environment, building confidence and competence (Hoskins et al., 2018). *Developing Moral Resilience*: Moral resilience, defined as the capacity to sustain or restore integrity in response to moral adversity, can be cultivated through targeted interventions. Workshops and training programs (Hoskins et al., 2018; Tavakol et al., 2023) that focus on resilience-building strategies, such as mindfulness, reflective practice, and adaptive coping mechanisms, help nurses manage the emotional toll of moral distress.

### Individual-Level Strategies

**Self-Care Practices and Peer Support Programs:** Encouraging nurses to prioritize self-care, such as maintaining a healthy work-life balance, engaging in mindfulness exercises, and seeking peer support, can mitigate the emotional impact of moral distress (Alodhialah, et al., 2024; Williams et al., 2022; Browne & Tie, 2024). Peer support programs provide a safe space for nurses to share experiences and offer mutual encouragement (Lin et al, 2024; Williams et al., 2022; Flaubert et al., 2021). *Access to Counseling and Mental Health Resources:* Providing nurses with access to counselling services and mental health resources is critical for addressing the psychological effects of moral distress. Professional counselling can help nurses process their emotions, develop coping strategies, and regain a sense of control over their ethical challenges (Alodhialah, et al., 2024; Flaubert et al., 2021; Nagle et al., 2023).

## RESEARCH GAPS AND FUTURE DIRECTIONS

**Need for Longitudinal Studies and Cross-Cultural Research:** Despite the growing body of literature on moral distress, there remains a significant need for longitudinal studies that track its effects over time. Such research can provide deeper insights into how moral distress evolves and its long-term consequences on nurses' mental health, job satisfaction, and career trajectories (Bulfone, et al., 2024; Seiler et al., 2024). Additionally, cross-cultural research is essential to understand how moral distress manifests in diverse healthcare settings (Seiler et al., 2024). Cultural differences in ethical norms, organizational structures, and resource availability can shape the experiences of moral distress, highlighting the need for globally relevant strategies (Berlinger & Berlinger, 2017; Seiler et al., 2024; Whitehead et al., 2021). Seiler et al. (2024), on the other hand, proposed a "Psychoneuroimmunological Model on moral distress", which explainee that the multi-directional pathways of these systems enable human behavior to impact immunity.

**Evaluation of Intervention Effectiveness:** While various interventions have been proposed to mitigate moral distress, there is limited empirical evidence on their effectiveness. Future research should focus on evaluating these interventions through rigorous methodologies, such as randomized controlled trials or longitudinal cohort studies. For example, studies could assess the impact of ethics education programs, debriefing sessions, or resilience-building workshops on reducing moral distress and improving nurse outcomes. Such evaluations would provide valuable guidance for healthcare organizations seeking to implement evidence-based strategies (Hoskins et al., 2018; Tavakol et al., 2023).

**Exploring Technology's Role in Ethical Decision-Making Support:** Advances in technology offer new opportunities to address moral distress (Benzinger et al., 2023; Moustaq Karim et al., 2024; Seibert et al., 2023). For instance, decision-support tools powered by artificial intelligence could help nurses navigate complex ethical dilemmas by providing evidence-based recommendations and highlighting potential ethical considerations. Virtual reality (VR) simulations could also be used for ethics training, allowing nurses to practice decision-making in realistic scenarios without the pressure of real-world consequences (Machado, et al., 2024; Moustaq Karim et al., 2024; Seibert et al., 2023). Research into these technological applications could uncover innovative ways to support nurses and enhance their ethical competence.

## CONCLUSION

This review paper has highlighted the pervasive and multifaceted nature of moral distress in critical care nursing. From its systemic causes to its profound impacts on nurses, patients, and healthcare organizations, moral distress remains a significant challenge requiring urgent attention. It is clear that addressing moral distress requires a

comprehensive, multi-pronged approach that includes systemic reforms, targeted education, and individual support mechanisms. We reckon a call to action for systemic reforms and continued research. Healthcare organizations must prioritize creating environments that support ethical practice and empower nurses to voice their concerns. This includes implementing adequate staffing, fostering inclusive decision-making processes, and providing resources for mental health support. Additionally, continued research is needed to evaluate the effectiveness of interventions and develop innovative strategies tailored to diverse healthcare settings. Policymakers, educators, and healthcare leaders must collaborate to ensure that moral distress is addressed at all levels of the healthcare system. Ultimately, ethical practice is fundamental to both nurse well-being and the delivery of high-quality patient care. By addressing moral distress, healthcare systems can foster a culture where nurses feel valued, supported, and empowered to navigate ethical challenges. This not only enhances job satisfaction and retention but also ensures that patients receive care grounded in compassion, integrity, and excellence. The journey toward mitigating moral distress is a collective effort—one that requires commitment, innovation, and unwavering dedication to the principles of ethical nursing practice.

## ACKNOWLEDGEMENT

This research was funded by Centre for Research and Innovation, Open University Malaysia, grant ID: OUM-IRF-2022-014. Additionally, it was approved by Medical Research and Ethics Committee, Ministry of Health (Approval number: NMRR ID-23-00976-MDM).

## CONFLICT OF INTEREST

The authors declare that they have no competing interests.

## REFERENCES

1. Abou Hashish, E. A. (2017). Relationship between ethical work climate and nurses' perception of organizational support, commitment, job satisfaction and turnover intent. *Nurs Ethics*, 24(2):151-166. doi: 10.1177/0969733015594667.
2. 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>
3. Berlinger, N., & Berlinger, A. (2017). *AMA J Ethics*, 19(6):608-616. doi: 10.1001/journalofethics.2017.19.6.msoc1-1706.
4. Benzinger L, Ursin F, Balke WT, Kacprowski T, Salloch S. (2023). Should Artificial Intelligence be used to support clinical ethical decision-making? A systematic review of reasons. *BMC Med Ethics.*,24(1):48. doi: 10.1186/s12910-023-00929-6.
5. Browne, C., & Tie, Y. C. (2024). Promoting Well-being: A Scoping Review of Strategies Implemented During the COVID-19 Pandemic to Enhance the Well-being of the Nursing Workforce. *International Journal of Nursing Studies Advances*, 6,100177, <https://doi.org/10.1016/j.ijnsa.2024.100177>.
6. Bulfone, G., Bressan, V., Zerilli, I., Vinci, A., Mazzotta, R., Ingravalle, F., & Maurici, M. (2024). Moral Distress and Its Determinants among Nursing Students in an Italian University: A Cross-Sectional Study. *Nursing Reports*, 14(3), 2140-2152. <https://doi.org/10.3390/nursrep14030160>
7. Coremans R, Saerens A, De Lepeleire J, Denier Y. (2024). From moral distress to resilient ethical climate among general practitioners: Fostering awareness. A qualitative pilot study. *PLoS One*.19(8),e0306026. doi: 10.1371/journal.pone.0306026.
8. Duarte J, Pinto-Gouveia J, Cruz B. (2016). Relationships between nurses' empathy, self-compassion and dimensions of professional quality of life: A cross-sectional study. *Int J Nurs Stud*, 60,1-11. doi: 10.1016/j.ijnurstu.2016.02.015.
9. Epstein, E.G., Delgado, S., (Sept 30, 2010) "Understanding and Addressing Moral Distress" *OJIN: The Online Journal of Issues in Nursing* Vol. 15, No. 3, Manuscript 1.
10. Epstein, Elizabeth & Hamric, Ann. (2009). Moral Distress, Moral Residue, and the Crescendo Effect. *The Journal of clinical ethics*. 20. 330-42. 10.1086/JCE200920406.
11. Fourie C. (2015). Moral distress and moral conflict in clinical ethics. *Bioethic.*, 29(2),91-7. doi:

10.1111/bioe.12064.

12. Filip R, Gheorghita Puscaselu R, Anchidin-Norocel L, Dimian M, Savage WK. (2022). Global Challenges to Public Health Care Systems during the COVID-19 Pandemic: A Review of Pandemic Measures and Problems. *J Pers Med.*,12(8), 1295. doi: 10.3390/jpm12081295.
13. Flaubert, J. L., Le Menestrel, S., Williams, D. R., et al., editors. (2021). *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*. Washington (DC): National Academies Press (US); 2021 May 11. 10, Supporting the Health and Professional Well-Being of Nurses. National Academies of Sciences, Engineering, and Medicine; National Academy of Medicine; Committee on the Future of Nursing 2020–2030. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK573902/>
14. Forozeiya, D., Vanderspank-Wright, B., Bourbonnais, F. F., Moreau, D., & Wright, D. K. (2019). Coping with moral distress – The experiences of intensive care nurses: An interpretive descriptive study. *Intensive and Critical Care Nursing*, 53, 23-29, <https://doi.org/10.1016/j.iccn.2019.03.002>.
15. Fumis, R. R. L., Junqueira Amarante, G. A., de Fátima Nascimento, A., &Vieira Junior, J. M. (2017). Moral distress and its contribution to the development of burnout syndrome among critical care providers. *Ann Intensive Care*, 7(1):71. doi: 10.1186/s13613-017-0293-2.
16. Grace, P. J., Peter, E., Lachman, V. D., Johnson, N. L., Kenny, D. J., & Wocial, L. D. (2024). Professional responsibility, nurses, and conscientious objection: A framework for ethical evaluation. *Nurs Ethics*, 31(2-3), 243-255. doi: 10.1177/09697330231180749.
17. Griffin, M., Hamilton, P., Harness, O., Credland, N., & McMurray, R. (2023). ‘Running Towards the Bullets’: Moral Injury in Critical Care Nursing in the COVID-19 Pandemic. *J Manag Inq*, 26,10564926231182566. doi: 10.1177/10564926231182566.
18. Haan MM, van Gurp JLP, Naber SM, Groenewoud AS. (2018). Impact of moral case deliberation in healthcare settings: a literature review. *BMC Med Ethics*.19(1), 85. doi: 10.1186/s12910-018-0325-y.
19. Hansson, S. O., & Fording, B. (2021). Ethical conflicts in patient-centred care. *Clinical Ethics*, 16(2), 55-66. doi:10.1177/1477750920962356
20. Hyatt, J. & Gruenglas, J. (2023) *Ethical Considerations in Organizational Conflict. Conflict Management - Organizational Happiness, Mindfulness, and Coping Strategies*. Intech Open. Available at: <http://dx.doi.org/10.5772/intechopen.1002645>.
21. Hoskins, K., Grady, C., Ulrich, C.M., (January 31, 2018) "Ethics Education in Nursing: Instruction for Future Generations of Nurses" *OJIN: The Online Journal of Issues in Nursing* Vol. 23, No. 1, Manuscript 3.
22. International Council for Nurses (ICN). (2024). *ICN Report Says Shortage of Nurses is a Global Health Emergency*. <https://www.icn.ch/news/icn-report-says-shortage-nurses-global-health-emergency>
23. Jameton, A. (1984). *Nursing Practice: The Ethical Issues*.
24. Jill, L., Guttormson, K. C., McAndrew, N., Fitzgerald, J., Losurdo, H., & Loonsfoot, D. (2022). Critical Care Nurse Burnout, Moral Distress, and Mental Health During the COVID-19 Pandemic: A United States Survey. *Heart & Lung*, 55, 127-133, <https://doi.org/10.1016/j.hrtlng.2022.04.015>.
25. Jones A, Kelly D. (2014). Deafening silence? Time to reconsider whether organisations are silent or deaf when things go wrong. *BMJ Qual Saf.*,23(9),709-13. doi: 10.1136/bmjqs-2013-002718.
26. Kang, B., Oh, E.G., Kim, S. et al. (2024). Roles and experiences of nurses in primary health care during the COVID-19 pandemic: a scoping review. *BMC Nus.*, 23, 740, <https://doi.org/10.1186/s12912-024-02406-w>
27. Latimer AL, Otis MD, Mudd-Martin G, Moser DK. (2023). Moral distress during COVID-19: The importance of perceived organizational support for hospital nurses. *J Health Psychol.*, 28(3):279-292. doi: 10.1177/13591053221111850.
28. Lin, Y.P., Jiang, C. C., Pan Y. J., & Xu Z. Q. (2024). The impact of mindfulness on nurses perceived professional benefits: the mediating roles of workplace spirituality and work-life balance. *Frontiers in Psychology*, 15, DOI=10.3389/fpsyg.2024.1346326
29. Martinez W, Lehmann LS, Thomas EJ, Etchegaray JM, Shelburne JT, Hickson GB, Brady DW, Schleyer AM, Best JA, May NB, Bell SK. (2017). Speaking up about traditional and professionalism-related patient safety threats: a national survey of interns and residents. *BMJ Qual Saf.*, 26(11), 869-880. doi: 10.1136/bmjqs-2016-006284.
30. McAndrew, N. S., Leske, J., & Schroeter, K. (2018). Moral distress in critical care nursing: The state of

- the science. *Nurs Ethics*, 25(5), 552-570. doi: 10.1177/0969733016664975.
31. Miley, M., Mantzios, M., Egan, H., & Connabeer, K. (2024). Exploring the moderating role of health-promoting behaviours and self-compassion on the relationship between clinical decision-making and nurses' well-being. *J Res Nurs*, 28, 17449871241270822. doi: 10.1177/17449871241270822.
  32. Miljeteig I, Førde R, Rø KI, Bååthe F, Bringedal BH. (2024). Moral distress among physicians in Norway: a longitudinal study. *BMJ Open*, 14(5), e080380. doi: 10.1136/bmjopen-2023-080380.
  33. Moustaq Karim Khan Rony, Daifallah M. Alrazeeni, Fazila Akter, Latifun Nesa, Dipak Chandra Das, Muhammad Join Uddin, Jeni Begum, Most. Tahmina Khatun, Md. Abdun Noor, Sumon Ahmad, Sabren Mukta Tanha, Tuli Rani Deb, & Mst. Rina Parvin. (2024). The role of artificial intelligence in enhancing nurses' work-life balance. *Journal of Medicine, Surgery, and Public Health*, 3,100135, <https://doi.org/10.1016/j.glmedi.2024.100135>.
  34. Machado, J., Sousa, R., Peixoto, H., & Abelha, A. (2024). Ethical Decision-Making in Artificial Intelligence: A Logic Programming Approach. *AI*, 5(4), 2707-2724. <https://doi.org/10.3390/ai5040130>
  35. Miao, C., Liu, C., Zhou, Y. et al. (2024). Nurses' perspectives on professional self-concept and its influencing factors: A qualitative study. *BMC Nurs*, 23, 237 <https://doi.org/10.1186/s12912-024-01834-y>
  36. Morley G, Grady C, McCarthy J, Ulrich CM. (2020). Covid-19: Ethical Challenges for Nurses. *Hastings Cent Rep.*, 50(3), 35-39. doi: 10.1002/hast.1110.
  37. Nagle, E., Šuriņa, S., & Griškēviča, I. (2023). Healthcare Workers' Moral Distress during the COVID-19 Pandemic: A Scoping Review. *Social Sciences*, 12(7), 371. <https://doi.org/10.3390/socsci12070371>
  38. Nadolny S, Bruns F, Nowak A, Schildmann J. (2024). Moral competency of students at a german medical school - A longitudinal survey. *BMC Med Educ.*,24(1):691. doi: 10.1186/s12909-024-05674-x.
  39. Niederhauser A, Schwappach DLB. (2022). Speaking up or remaining silent about patient safety concerns in rehabilitation: A cross-sectional survey to assess staff experiences and perceptions. *Health Sci Rep.*, 5(3), e631. doi: 10.1002/hsr2.631.
  40. Ren Z, Zhao H, Zhang X, Li X, Shi H, He M, Zha S, Qiao S, Li Y, Pu Y, Sun Y, Liu H. (2024). Associations of job satisfaction and burnout with psychological distress among Chinese nurses. *Curr Psychol.*, 1-11. doi: 10.1007/s12144-022-04006-w.
  41. Rushton CH, Batcheller J, Schroeder K, Donohue P. (2015). Burnout and Resilience Among Nurses Practicing in High-Intensity Settings. *Am J Crit Care.*, 24(5), 412-20. doi: 10.4037/ajcc2015291.
  42. Rushton CH. (2016). Moral Resilience: A Capacity for Navigating Moral Distress in Critical Care. *AACN Adv Crit Care.*, 27(1),111-9. doi: 10.4037/aacnacc2016275.
  43. Seiler, A., Milliken, A., Leiter, R. E., Blum, D., & Slavich, G. M. (2024). The Psychoneuroimmunological Model of Moral Distress and Health in Healthcare Workers: Toward Individual and System-Level Solutions. *Comprehensive Psych neuroendocrinology*, 17, <https://doi.org/10.1016/j.cpniec.2024.100226>.
  44. Selvakumar, S., & Kenny, B. (2023). Ethics of care and moral resilience in health care practice: A scoping review. *Clinical Ethics*, 18(1), 88-96. doi:10.1177/14777509211061845
  45. Sperling, D. (2021). Ethical dilemmas, perceived risk, and motivation among nurses during the COVID-19 pandemic. *Nursing Ethics.*, 28(1), 9-22. doi:10.1177/0969733020956376
  46. Supady A, Curtis JR, Abrams D, Lorusso R, Bein T, Boldt J, Brown CE, Duerschmied D, Metaxa V, Brodie D. (2021). Allocating scarce intensive care resources during the COVID-19 pandemic: practical challenges to theoretical frameworks. *Lancet Respir Med*, 9(4), 430-434. doi: 10.1016/S2213-2600(20)30580-4.
  47. Seibert K, Domhoff D, Bruch D, Schulte-Althoff M, Fürstenau D, Biessmann F, Wolf-Ostermann K. Application Scenarios for Artificial Intelligence in Nursing Care: Rapid Review. *J Med Internet Res*. 2021 Nov 29;23(11): e26522. doi: 10.2196/26522.
  48. Salari, N., Shohaimi, S., Khaledi-Paveh, B. et al. (2022). The severity of moral distress in nurses: a systematic review and meta-analysis. *Philos Ethics Humanit Med.*, 13, <https://doi.org/10.1186/s13010-022-00126-0>
  49. Schwappach DL, Gehring K. (2014). 'Saying it without words': a qualitative study of oncology staff's experiences with speaking up about safety concerns. *BMJ Open*. ,4(5), e004740. doi: 10.1136/bmjopen-2013-004740.



50. Schwappach DL, Gehring K. (2014). Trade-offs between voice and silence: a qualitative exploration of oncology staff's decisions to speak up about safety concerns. *BMC Health Serv Res.*,14,303. doi: 10.1186/1472-6963-14-303.
51. Tavakol N, Molazem Z, Rakhshan M, Asemani O. (2023). An educational program of reducing moral distress (PRMD) in nurses; designing and evaluating. *BMC Med Educ.*, 23(1), 501. doi: 10.1186/s12909-023-04445-4.
52. Waterfield D, Barnason S. (2022). The integration of care ethics and nursing workload: A qualitative systematic review. *J Nurs Manag.*, 30(7):2194-2206. doi: 10.1111/jonm.13723.
53. Weissinger GM, Swavely D, Holtz H, Brewer KC, Alderfer M, Lynn L, Yoder A, Adil T, Wasser T, Cifra D, Rushton C. (2024). Critical Care Nurses' Moral Resilience, Moral Injury, Institutional Betrayal, and Traumatic Stress After COVID-19. *Am J Crit Care.*,33(2), 105-114. doi: 10.4037/ajcc2024481.
54. Whitehead PB, Locklear TM, Carter KF. (2021). A Longitudinal Study of the Impact of Schwartz Center Rounds on Moral Distress. *J Nurs Adm.*, 51(7-8):409-415. doi: 10.1097/NNA.0000000000001037.
55. Williams SG, Fruh S, Barinas JL, Graves RJ. (2022). Self-Care in Nurses. *J Radiol Nurs.*, 41(1):22-27. doi: 10.1016/j.jradnu.2021.11.001.
56. Yi L, Chen Z, Jiménez-Herrera MF, Gan X, Ren Y, Tian X. (2024). The impact of moral resilience on nurse turnover intentions: the mediating role of job burnout in a cross-sectional study. *BMC Nurs*, 23(1), 687. doi: 10.1186/s12912-024-02357-2.