


Empowering Nurses: Reducing Moral Distress in End-of-Life Care Through Innovative Interventions

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Abstract

Moral distress arises when healthcare professionals are unable to act in alignment with their ethical beliefs, often resulting in frustration, guilt, and professional dissatisfaction. Among nurses caring for patients at the end of life, moral distress can negatively impact personal well-being, team dynamics, and the quality of care. This project aimed to address the multifaceted nature of moral distress by implementing structured workshops designed to enhance self-care, stress management, and resilience among nursing staff at a local community hospital. These workshops provided nurses with a platform to identify sources of moral distress, cultivate mindfulness, and explore strategies for balancing professional responsibilities with personal well-being. The project utilized a quasi-experimental, pre-post intervention design. Eight registered nurses were recruited to participate. Moral distress was measured using the Copenhagen Psychosocial Questionnaire III (COPSOQ III) before and after the intervention. A two-tailed paired samples t -test was conducted to assess the effect of the intervention. Results indicated a statistically significant decrease in moral distress following the intervention, $t(7) = 2.68, p = .031$. The effect size was large (Cohen's $d = 0.95$), suggesting a meaningful reduction in moral distress. These findings substantiate the implementation of structured support programs as a means of addressing moral distress in end-of-life care settings. Future recommendations include expanding the intervention to a larger and more diverse nursing population, exploring long-term outcomes, and integrating ongoing support systems to sustain improvements in nurse well-being and quality of care.

Keywords: end-of-life care, resilience, nurses, moral distress, burnout, well being

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Moral distress is a pervasive issue that significantly affects nurses who provide care for patients at the end of life. This phenomenon occurs when nurses are unable to act in accordance with their ethical beliefs due to various constraints, leading to emotional turmoil and professional dissatisfaction. Understanding and addressing moral distress is crucial for improving the well-being of nurses and enhancing the quality of end-of-life care provided to patients and their families.

Background and Significance

Problem Statement

Moral distress among nurses caring for patients at the end of life has emerged as a significant concern within healthcare settings. It arises when nurses are confronted with situations that challenge their ethical beliefs and values, often leading to feelings of frustration, helplessness, and emotional turmoil. Factors contributing to moral distress include institutional constraints, inadequate staffing, and conflicting demands from patients, families, and healthcare teams. This distress not only impacts the emotional well-being of nurses but also compromises the quality of care provided to patients during a critical phase of their lives.

The implications of moral distress are far-reaching, affecting both individual nurses and the healthcare system as a whole. Nurses experiencing moral distress may face emotional exhaustion, decreased job satisfaction, and increased turnover rates, which can lead to a shortage of experienced caregivers in end-of-life care settings. Furthermore, unresolved moral distress can hinder effective communication and collaborative decision-making among healthcare teams, affecting patient outcomes and the overall quality of care. To foster a supportive work

environment and improve end-of-life care, it is essential to address the root causes of moral distress and implement strategies that promote nurse well-being and ethical practice (De Brasi et al., 2020; Eche et al., 2022).

Purpose and Rationale

Understanding moral distress among nurses caring for patients at the end of life is crucial for illuminating a critical yet often overlooked aspect of the nursing profession that impacts both caregivers and patients. By identifying the sources and consequences of moral distress, healthcare organizations can develop targeted interventions to support nurses in managing ethical dilemmas and emotional challenges. Addressing this issue is vital not only for enhancing nurses' well-being and job satisfaction but also for ensuring that patients receive compassionate, high-quality care during their most vulnerable moments. As the demand for end-of-life care continues to rise, fostering a work environment that prioritizes ethical practice, and mental health is essential for maintaining a resilient healthcare workforce and improving patient outcomes (Amos & Epstein, 2022; Eche et al., 2022).

Population: Nurses Caring for Patients at End of Life

Nurses who provide care to patients at the end of life face unique challenges and ethical dilemmas in their practice. These caregivers frequently experience moral distress due to conflicting demands, such as providing patient-centered care while navigating institutional constraints and inadequate resources (Lovemonger et al., 2024; Marturano et al., 2020). In oncology settings, for instance, nurses report heightened levels of moral distress related to end-of-life decision-making, which can adversely impact their emotional well-being and job satisfaction (Eche et al., 2022). Furthermore, studies indicate that moral distress may influence nurses' intent to remain in their positions, particularly in high-stress environments like critical

care (Witton et al., 2022). The cumulative effects of moral distress not only affect individual nurses but also have broader implications for team dynamics and patient care quality.

Understanding the experiences of these nurses is essential for developing interventions that enhance their support and improve the quality of care for patients during critical moments.

Impact of Moral Distress

Moral distress is a significant concern for nurses, particularly those providing end-of-life care, as it can lead to emotional exhaustion and decreased job satisfaction (De Brasi et al., 2020; Eche et al., 2022; Morley et al., 2021). Studies have shown that hospital nurses frequently encounter situations where they feel unable to act according to their ethical beliefs, contributing to a pervasive sense of inner conflict (Oldenmenger et al., 2024). In oncology nursing, the identification of moral distress is crucial, as it affects the quality of care provided to patients and their families (Marturano et al., 2020). Recent research highlights the impacts of moral distress on nurses' experiences in end-of-life care, emphasizing the need for interventions to address this issue (Lee et al., 2024). A systematic review further supports these findings, illustrating the widespread nature of moral distress among oncology nurses and its implications for patient care (Eche et al., 2022). Addressing moral distress is essential for fostering a supportive work environment that enhances both nurse well-being and patient outcomes.

Current State: High Levels of Moral Distress

The current state of moral distress among nurses, particularly in end-of-life care, is a significant concern that necessitates urgent attention and change. Research indicates that many nurses experience profound feelings of moral distress due to ethical dilemmas and the emotional toll of caring for terminally ill patients (De Brasi et al., 2020; Eche et al., 2022; Marturano et al., 2020). A qualitative study found that nurses often grapple with their inability to provide optimal

care while facing institutional constraints, leading to feelings of helplessness and frustration (De Brasi et al., 2020). Additionally, a systematic review highlights the prevalence and severity of moral distress in oncology nursing, emphasizing that abnormal levels of distress not only impact nurses' emotional well-being but can also adversely affect patient care and outcomes (Eche et al., 2022; Salari et al., 2022). As the demand for compassionate end-of-life care increases, addressing moral distress is critical for retaining skilled nursing staff and ensuring that patients receive the quality care they deserve (Amos & Epstein, 2022; Morley et al., 2021).

The need for change is further underscored by the recognition that moral distress can lead to burnout, turnover, and a deterioration in the overall quality of care provided in healthcare settings. A cross-sectional study revealed that nurses often feel unprepared to confront ethical challenges, which can hinder their ability to advocate for patients and uphold ethical standards (Oldenmenger et al., 2024). By fostering a culture that prioritizes ethical practice and emotional support, healthcare organizations can create a more resilient workforce capable of delivering high-quality, compassionate care to patients at the end of life. Addressing moral distress is not only essential for improving nurses' well-being but also for enhancing patient outcomes in increasingly complex healthcare environments.

Outcome: Address Moral Distress Effectively

The outcomes of interest in addressing moral distress among nurses caring for patients at the end of life include enhanced emotional well-being, improved job satisfaction, and the overall quality of patient care. The literature emphasizes that effective interventions can lead to significant improvements in nurses' ability to cope with ethical dilemmas and their experiences in high-stress environments (Amos & Epstein, 2022; Morley et al., 2021). For example, studies have shown that workshops focused on ethical decision-making and peer support can foster a

more resilient nursing staff, leading to better patient outcomes and a more supportive clinical environment (Amos & Epstein, 2022; Morley et al., 2021). By equipping nurses with the tools necessary to navigate moral distress, healthcare organizations can enhance the standard of care provided to patients during critical moments, ensuring that they receive compassionate and ethical treatment.

The desired future state involves creating a healthcare environment where moral distress is actively addressed and managed, resulting in a culture of support and ethical practice. This ideal scenario includes well-implemented interventions that prioritize both nurse and patient well-being. As highlighted by Zeydi et al. (2022), effective strategies can foster an atmosphere of open communication and collaboration among healthcare team members, leading to shared decision-making and a collective commitment to patient-centered care. The literature suggests that achieving this future state requires a shift in organizational culture, emphasizing the importance of emotional support, ethical education, and resilience training (Amos & Epstein, 2022; Morley et al., 2021; Zeydi et al., 2022). By implementing such changes, healthcare systems may be able to resolve the pervasive problem of moral distress, enhancing nurses' job satisfaction and retention while improving the overall quality of care for patients at the end of life.

Epidemiological Data

Moral distress is a prevalent issue among nurses, especially those who care for patients at the end of life. Research consistently shows that nurses in these settings experience moderate to high levels of moral distress, often triggered by ethical dilemmas, such as deciding when to withdraw life-sustaining treatment or manage patient care in situations that conflict with their personal beliefs (De Brasi et al., 2020; Eche et al., 2022; Morley et al., 2021). Prevalence rates of

moral distress in palliative care and end-of-life settings are reported to range from 40% to 60%, with nurses commonly facing emotional burdens, frustrations, and a sense of guilt related to their perceived inability to provide care in alignment with their ethical standards (Amos & Epstein, 2022; Marturano et al., 2020; Witton et al., 2022).

The impact of moral distress on nurses' well-being is substantial, often leading to burnout, emotional exhaustion, and job dissatisfaction (Lee et al., 2024; Oldenmenger et al., 2024). For example, Marturano et al. (2020) found that 47% of nurses reported high levels of moral distress in situations where aggressive care was administered against their judgment, contributing to both emotional fatigue and reduced job performance. Similarly, studies suggest that the emotional toll of end-of-life care, coupled with a lack of decision-making power, exacerbates these feelings of distress, further straining nurses' ability to cope with the demands of their role (Morley et al., 2021; Salari et al., 2022). This distress is not only detrimental to nurse well-being but may also compromise the quality of care delivered to patients.

Interventions aimed at reducing moral distress have shown the potential to improve the well-being of nurses and the overall care environment. For instance, Oldenmenger et al. (2024) reported a significant decrease in moral distress levels following interventions designed to support nurses in end-of-life care settings. Addressing the root causes of moral distress, such as ethical decision-making support and institutional constraints, is critical in fostering a healthier work environment. Through sustained efforts to mitigate moral distress, healthcare organizations can promote nurse retention, enhance patient care quality, and create more supportive workplace cultures (De Brasi et al., 2020; Witton et al., 2022; Zeydi et al., 2022).

Local and National Initiatives

Several local and national initiatives have emerged to address the growing problem of moral distress among nurses, particularly those working in end-of-life care settings. At the local level, hospitals have developed internal ethics consultation services and resiliency training programs. For instance, hospitals like Cleveland Clinic and Massachusetts General Hospital provide debriefing sessions and support groups for nurses who experience moral distress in high-stakes environments (Lester, 2022; Morley, 2021). These initiatives provide critical support to nurses, helping them navigate ethically challenging situations while enhancing their overall well-being and ability to deliver compassionate care to patients nearing the end of life.

The American Nurses Association (ANA) has recognized moral distress as a critical issue in nursing practice and included it in its Code of Ethics for Nurses (ANA, 2015). The ANA offers resources such as the Moral Resilience toolkit, which provides strategies for nurses to cope with moral distress through resilience-building techniques, mindfulness, and ethical consultations (ANA, 2017). These initiatives aim to cultivate a supportive work environment where nurses can manage ethical dilemmas effectively while ensuring patient-centered care.

The American Association of Critical-Care Nurses (AACN) has also developed the 4A's to Rise Above Moral Distress framework, which helps nurses identify and manage moral distress through a structured process of assessment and action (AACN, 2008). This framework is widely used in critical and palliative care settings, where moral distress is most prevalent. The National Academy of Medicine (NAM; 2019) has further addressed clinician well-being through its Clinician Well-Being Collaborative, which advocates for organizational changes to reduce moral distress, burnout, and ethical conflicts in healthcare environments. These efforts reflect a growing recognition of the need for systemic solutions to address the emotional toll of moral distress on nurses.

Internal Data

The community hospital in focus is a 501-bed acute care facility located in a suburb of Phoenix, Arizona, serving a large geriatric population. As part of one of the largest nonprofit healthcare systems in the country, its primary mission is to deliver healthcare services to the communities it serves, instead of pursuing financial gains. With an emphasis on clinical innovation and excellence, this organization aspires to be a nationally renowned leader in patient care, distinguished by the caliber of its workforce.

Based on insights gleaned from discussions with nurses and management, it is apparent that they possess unique perspectives and recommendations aimed at ensuring a dignified and supportive end-of-life experience for patients. They have identified several challenges, including deficiencies in doctor-patient communication, time constraints in caring for dying patients and their families, and the complexities of maintaining patient comfort while respecting individual preferences (Oncology charge nurse, personal communication, March, 2024).

The unit where the quality improvement project was implemented typically has between one to five comfort care patients at any given time. These patients receive care for varying durations, ranging from a few hours to 2 to 4 days on average. Nurses allocate their time based on individual patients' needs and care plans. Although it is not always feasible, nurses try to spend time by the bedside during night shifts, sometimes completing administrative tasks using mobile workstations. They also enlist the help of patient care assistants and other support staff when needed. Notably, there is currently no formal comfort care program in place at the facility.

PICOT Question

A review of the literature led to the clinically relevant PICOT question: "(P) In nurses providing care to patients at the end of life, (I) how does the implementation of workshops

designed to address moral distress (C) compared to current practice (O) impact their emotional and psychological well-being?”

Search Strategy

A thorough review of the literature was conducted to understand the complexities of the background and the issue, as well as to identify existing evidence for novel interventions aimed at addressing the identified problem. The search process for peer-reviewed articles involved identifying relevant databases, formulating search terms, executing searches using Boolean operators, screening, and selecting articles based on inclusion/exclusion criteria, and assessing article quality. This systematic approach ensured comprehensive coverage of the literature and facilitated rigorous research analysis. Utilizing the Arizona State University library thorough searches were performed via PUBMED, CINAHL, and Academic Search Ultimate. These databases were chosen due to their specialization in healthcare literature, comprehensive coverage, advanced search capabilities, and access to peer-reviewed content.

Keyword Selection

The keywords and combination of terms focused primarily on *end-of-life care* and *moral distress*. Across all three databases keywords/terms *end-of-life care* were paired with various terms such as *nurses experience, hospital, moral distress, nurses, satisfaction, improving, improved satisfaction, frequency, and severity*. The term *moral distress* was paired with terms such as *nurses, frequency, support, severity, end of life, improved, nurses experience, and stress*. Searches also included phrases such as *improving moral distress, interventions to reduce moral distress, nursing interventions*.

Initial and Final Search Yields

A comprehensive search was conducted on PUBMED to explore the existing literature on moral distress in nursing contexts. The initial search using the terms *moral distress* and *nursing* yielded 744 results, indicating a substantial body of work focused on this issue. Further refining the search, the term *moral distress* and *severity* resulted in 184 articles, while *moral distress* and *frequency* generated 507 results. Additionally, searching for *moral distress* and *interventions* produced 1,117 results, underscoring the significance of intervention strategies in addressing this critical concern. To narrow the focus specifically to end-of-life care, the search for *moral distress, nursing, end of life, and interventions* resulted in 90 articles, and the terms *moral distress, nursing, and end of life* yielded 115 results. Finally, the search using *moral distress, nursing, end of life, and hospital* produced 65 results.

A comprehensive search was conducted on CINAHL using various combinations of terms related to *moral distress* and *nursing*. The initial search for *moral distress* and *nursing* yielded 371 results, indicating a significant amount of literature on this topic. Following this, I explored the term *moral distress* and *severity*, which returned 16 results, and *moral distress* and *frequency*, resulting in 53 articles. Additionally, searching for *moral distress* and *interventions* produced 123 results, highlighting the interest in strategies to address this issue. However, when narrowing the focus to *moral distress, nursing, end of life, and interventions*, only six articles were found, suggesting a limited amount of literature specifically addressing this intersection. Overall, this search indicated a lower volume of articles on CINAHL compared to PUBMED, which may suggest differing strengths in databases concerning the availability of literature on moral distress within the context of nursing and end of life care.

In Academic Search Ultimate the search for *moral distress* and *nursing* yielded 352 results, similar to findings in CINAHL. Further searches for *moral distress* and *severity* produced

19 articles, while *moral distress* and *frequency* yielded 52 results. Additionally, searches on *moral distress* and *interventions* resulted in 114 articles, and more specific terms like *moral distress, nursing, end of life, and interventions* returned nine results, highlighting the extensive literature on this topic.

Limitations, Inclusion, and Exclusion Criteria

The database search utilized specific inclusion and exclusion criteria to ensure the relevance and quality of the articles selected for analysis. Articles were included if they focused primarily on nurses providing care to adult patients at the end of life, particularly concerning the concept of moral distress. Studies that examined moral distress in relation to various interventions aimed at mitigating its effects were prioritized, as these directly align with the objective of exploring effective strategies for nursing practice. Furthermore, only peer-reviewed articles published within the last 5 years were considered to ensure the inclusion of contemporary research and discussions surrounding the topic.

Exclusion criteria were equally important; studies that addressed moral distress in non-nursing roles or pediatrics were omitted from the search results. Additionally, articles focusing on theoretical discussions without empirical data were excluded to maintain a focus on practical applications in nursing. This targeted approach aimed to create a robust and relevant body of literature that could effectively inform interventions and practices aimed at alleviating moral distress among nurses caring for patients at the end of life. By adhering to these criteria, the search yielded literature that is both applicable and meaningful to the current nursing landscape (See Appendices A and B). Ultimately, 10 articles were utilized for their relevance in establishing a solid foundation for understanding the issue.

Critical Appraisal and Synthesis of Evidence

To evaluate the quality of the studies included to support the background and problem, the rapid critical appraisal process developed by Melnyk and Fineout-Overholt (2019) was employed. The 10 studies reviewed collectively provided a comprehensive understanding of moral distress among nurses, particularly in the context of end-of-life care, highlighting various levels of evidence (See Appendix C).

Eche et al. (2022) conducted a systematic review and meta-analysis of 30 studies, predominantly from the United States, which revealed that moral distress among oncology nurses is significantly correlated with both workplace environment and patient-related factors. Complementing this, Amos and Epstein (2022) performed an integrative literature review of 22 studies across diverse nursing contexts, demonstrating that structured interventions can enhance nurses' coping mechanisms and improve their ethical decision-making skills. Similarly, Morley et al. (2021) reviewed 17 studies from the United Kingdom focusing on interventions to mitigate moral distress, concluding that specific support strategies can significantly reduce distress levels in nursing staff.

The emotional toll of ethical dilemmas faced by nurses providing end-of-life care was further underscored by De Brasi et al. (2020), who conducted qualitative research involving 34 nurses in Italy. Their findings highlighted the profound impact of these dilemmas on nurses' well-being. This sentiment is echoed in a cross-sectional study by Oldenmenger et al. (2024), which surveyed 750 hospital nurses in the Netherlands, revealing that a high prevalence of moral distress negatively affects job satisfaction and retention.

In the critical care setting, Witton et al. (2022) found that moral distress significantly influences nurses' intent to remain in their positions, indicating that addressing this issue is crucial for nurse retention. Lee et al. (2024) focused on the end-of-life care experiences of 150

nurses in South Korea, emphasizing the psychological burdens associated with moral distress and the need for organizational support to mitigate these effects. Furthermore, Marturano et al. (2020) explored moral distress among 150 inpatient oncology nurses in the United States, identifying critical areas for intervention and emphasizing the necessity for targeted training and resources.

Salari et al. (2022) conducted a systematic review synthesizing findings from 18 studies, highlighting the pervasive effects of moral distress on the well-being of nursing professionals. Zeydi et al. (2022) evaluated effective interventions for moral distress in critical care nurses in Iran, demonstrating that tailored interventions can lead to a significant reduction in reported levels of distress. Together, these studies underscore the urgent need for healthcare organizations to prioritize the well-being of nursing staff, implement institutional support systems, and provide ongoing education to foster resilience. Such efforts are essential for improving the standard of care and enhancing patient outcomes at the end of life.

Theoretical Framework Application

Kolcaba's comfort theory offers a valuable framework for addressing the moral distress experienced by nurses caring for patients at the end of life, emphasizing the importance of enhancing the nurses' comfort in their work environment (Kolcaba, 1994; see Appendix D, Figure D1). The theory identifies three dimensions of comfort: physical, psychospiritual, and environmental, each of which has practical implications for this evidence-based project.

To enhance *physical* comfort, the project implemented strategies that promoted self-care practices among nurses, such as encouraging regular breaks, ensuring proper hydration, and conducting ergonomic assessments to reduce physical strain during shifts. By prioritizing their

own physical well-being, nurses can mitigate feelings of fatigue and helplessness that often contribute to moral distress.

For *psychospiritual* comfort, the project included workshops designed to provide nurses with tools to cope with the ethical dilemmas they encounter in end-of-life care. These workshops facilitated discussions around moral distress and included training in emotional resilience, mindfulness techniques, and reflective practices such as journaling. Such platforms enable nurses to express their emotions, share experiences, and seek guidance, empowering them to manage feelings of guilt and frustration.

Addressing *environmental* comfort involves advocating for a supportive workplace culture that prioritizes mental health and well-being. This can include promoting adequate staffing levels, providing access to mental health resources, and fostering open communication between staff and management. By creating a physically and emotionally supportive work environment, the project aimed to alleviate stressors that contribute to moral distress. Through these strategies, grounded in Kolcaba's comfort theory (Kolcaba, 1994), the implementation of workshops and support systems focused on enhancing nurses' well-being and reducing moral distress in the workplace.

Implementation Framework

Rosswurm and Larrabee's model for change is a six-step framework designed to help healthcare professionals implement evidence-based practice in clinical settings (Rosswurm & Larrabee, 1999). The model begins by assessing the need for change in practice, followed by linking the identified problem to relevant evidence. The third step involves critically appraising the evidence, while the fourth focuses on designing and planning the practice change. The fifth step is the implementation and evaluation of the new practice, and the final step is integrating

and sustaining the change across the organization. This model emphasizes the importance of systematic evaluation and evidence-based decision-making to ensure successful practice changes in healthcare settings (Rosswurm & Larrabee, 1999).

In the context of this project, which aimed to reduce moral distress among nurses caring for patients at the end of life, Rosswurm and Larrabee's (1999) model served as a structured guide for this process. The project started by identifying the need for change—namely, the high levels of moral distress experienced by nurses. This need is supported by evidence from studies highlighting the emotional and ethical challenges nurses face in providing end-of-life care. The model for change (Rosswurm & Larrabee, 1999) helped to guide the connection between this problem and the growing body of research that supports interventions like workshops and resilience training, as noted by Zeydi et al. (2022).

The next steps of the model, critical appraisal of evidence and planning the change (Rosswurm & Larrabee, 1999), were directly aligned with the development of workshops that aimed to provide nurses with coping strategies for managing moral distress. By synthesizing research evidence and applying Kolcaba's comfort theory (Kolcaba, 1994), the project was designed to improve the psychological and environmental comfort of nurses. Rosswurm and Larrabee's (1999) model for change ensured that this design was grounded in evidence, with a clear plan for implementing workshops as the intervention. The organizational context, a busy medical oncology unit, required careful planning ensuring that the workshops were feasible and well-integrated into the nurses' workflow.

Finally, the implementation and evaluation phases of the model for change emphasize ongoing assessment of the effectiveness of the intervention (Rosswurm & Larrabee, 1999). This project involved pre- and post-intervention surveys using the Copenhagen Psychosocial

Questionnaire III, (COPSOQ III; COPSOQ International Network, 2020) to measure moral distress among nurses, allowing for a systematic evaluation of whether the workshops achieved the desired outcomes. By following the model for change, the project ensured that the change is not only evidence-based but also sustainable and adaptable to the specific needs of the organization and its nursing staff (Rosswurm & Larrabee, 1999).

Methods

Ethical Considerations

Adherence to rigorous ethical principles was paramount to ensure the protection of participants and uphold the integrity of the evaluation process. Autonomy, as defined by the ANA (2015), guided the approach, emphasizing individuals' rights to make informed decisions about their participation in the project. This principle was upheld through transparent communication with nurses, providing clear explanations of the goals of the project, procedures, and potential risks. Participants were encouraged to ask questions and were given sufficient time to consider their involvement without any pressure or coercion.

Beneficence and non-maleficence were fundamental ethical principles that emphasized the commitment to promoting well-being while minimizing harm (ANA, 2015). Beneficence guided the selection and implementation of evidence-based interventions designed to enhance the comfort and quality of life for nurses caring for patients at the end of life. This principle underscored the importance of proactive measures to support healthcare professionals in their demanding roles. Meanwhile, non-maleficence involved a comprehensive assessment and mitigation of potential risks associated with participation, ensuring that no unnecessary harm was inflicted on participants throughout the project duration. By adhering to these ethical standards,

the initiative aimed to foster a supportive environment that prioritized the welfare of nursing staff while enhancing the overall quality of care provided to patients.

Participation in the project was based on implied consent. Participants received detailed information outlining the purpose, procedures, potential risks, and benefits of the project in a clear and accessible format. The invitation to participate email and the survey itself emphasized that participation was voluntary, and individuals could withdraw at any time without penalty or negative consequences. Additionally, the completion and submission of the survey indicated their voluntary agreement to participate.

Confidentiality, privacy, and dignity were integral to protecting participants' rights throughout the process. Confidentiality was maintained through the use of unique identifiers for the surveys, ensuring that personal information was never directly linked to survey responses. Participants were also informed in the invitation email and in the surveys that their responses would remain confidential. To ensure participants' dignity, all data collection was conducted with respect and cultural sensitivity, and every effort was made to minimize any distress during the survey process. Both the institutional review board at the project site and Arizona State University reviewed and approved the research methodology to ensure it aligned with ethical guidelines and safeguarded the rights and welfare of participants (see Appendix E).

Setting and Stakeholders

The organizational setting was a community hospital within a large nonprofit healthcare system located in a suburb of Phoenix, Arizona. This 501-bed acute care facility serves a significant geriatric population and emphasizes clinical innovation and excellence in patient care. The patient population in this setting primarily consists of individuals with terminal illnesses who require comprehensive end-of-life care on the medical-surgical unit. These patients often

experience significant physical discomfort and emotional distress, necessitating a holistic approach to care that addresses not only their physical symptoms but also their psychological, social, and spiritual needs. The stakeholders identified included patients and families, healthcare providers (physicians, nurses, allied health professionals), administrative staff including hospital administrators and the medical surgical unit director.

The key stakeholders involved in this project to address moral distress among nurses caring for patients at the end of life included nursing staff, hospital administrators, and unit managers. Nurses were the primary focus of the intervention, as they are directly impacted by the emotional and ethical challenges of end-of-life care, and their participation was essential to assessing the effectiveness of the workshops. Hospital administrators and unit managers played a critical role in overseeing the implementation of the project, ensuring that necessary resources, including time for workshops and materials, were allocated effectively. They also ensured alignment with organizational goals and compliance with healthcare policies. Clinical leaders, such as the RN Clinical Research Program Director, functioned as site champions, facilitating the connection between the project team and nursing staff. Patients and their families indirectly benefited from the project as well, as the hope was that the reduction in nurse moral distress would improve the quality of care provided during end-of-life scenarios.

Participants and Recruitment

The participants in this project were nurses working on the medical oncology unit of a community hospital in a Phoenix, Arizona suburb who provide care for patients at the end of life. The inclusion criteria focused on nurses who are not only involved in end-of-life care but were also willing to engage actively in the intervention process. These participants agreed to attend one of the workshops aimed at reducing moral distress and completing both the pre- and post-

intervention COPSOQ III surveys. The exclusion criteria for this project included nurses who do not provide direct care to patients at the end of life on the medical oncology unit, as they may not experience the same level of moral distress relevant to the focus of the project. Additionally, nurses who were unable or unwilling to participate in the workshops or complete both the pre- and post-intervention COPSOQ III surveys were also excluded. Temporary or per diem nurses, as well as those on extended leave or with limited availability during the intervention period, were also excluded, as consistent participation was crucial for the success of the project.

Recruitment for the project took place through several targeted strategies aimed at engaging nurses on the medical oncology unit. The initial recruitment strategy involved presenting the project at the monthly shared leadership meetings at the hospital. During these meetings, I addressed multiple councils to inform them about the launch of the project, its objectives, and its significance. This presentation aimed to raise awareness and garner support for the project among key stakeholders. Next, flyers were placed in high-traffic areas such as the cafeteria, staff break rooms, near nursing stations, providing key details about the project including dates, and instructions on how to participate. Additionally, email invitations were sent to all eligible nurses, outlining the objectives of the project, time commitment, and potential benefits. These communications were meant to emphasize confidentiality, voluntary participation, and how the intervention aligned with the professional well-being of nurses. Additionally, I requested that the unit director send a personalized email invitation to the nursing staff, inviting them to participate in the project. This approach aimed to ensure direct communication and enhance participation by offering a formal and personal invitation, demonstrating organizational support.

Implementation of Innovation Interventions

Interventions aimed at reducing moral distress among nurses caring for patients at the end of life are essential for promoting their well-being and enhancing the quality of care provided. Various strategies have been identified in the literature, emphasizing the importance of a supportive work environment and effective communication. For example, interventions that focus on team-based approaches, such as fostering open dialogue about ethical dilemmas, have been shown to reduce feelings of isolation and promote collective problem-solving (Morley et al., 2021). These discussions can help nurses articulate their concerns and seek support from colleagues, which is crucial in navigating the emotional challenges of end-of-life care.

Workshops specifically designed to equip nurses with the tools necessary to mitigate moral distress have shown effectiveness in enhancing their coping skills and ethical decision-making abilities (Amos & Epstein, 2022). These educational sessions often incorporate case studies and role-playing scenarios that simulate real-life situations, allowing nurses to practice their responses in a safe environment (Amos & Epstein, 2022). By focusing on ethical dilemmas commonly encountered in end-of-life care, these workshops empower nurses to approach complex situations with greater confidence. This empowerment can lead to a reduction in moral distress and an increase in job satisfaction, as nurses feel more prepared to navigate the challenges inherent in their roles.

Additionally, mentorship and peer support programs can serve as vital interventions for nurses facing moral distress. These programs create opportunities for experienced nurses to guide their colleagues through challenging cases, offering emotional support and practical advice (Zeydi et al., 2022). Establishing a culture of mentorship not only fosters professional growth but also promotes a sense of belonging and validation among nurses. By implementing these interventions, including targeted workshops and mentorship opportunities, healthcare

organizations can help alleviate moral distress, ultimately leading to improved nurse retention, enhanced teamwork, and better patient outcomes in end-of-life care settings (See Appendix E).

Implications for Practice Change

The intervention to reduce moral distress among nurses caring for patients at the end of life involved a series of workshops focused on providing nurses with tools and strategies to cope with the emotional and ethical challenges of their work. These workshops were designed using evidence-based practices, including stress management techniques, resilience-building exercises, and ethical decision-making frameworks. The workshops also integrated Kolcaba's comfort theory (Kolcaba, 1994), aiming to enhance the physical, psychological, and environmental comfort of nurses by creating supportive spaces for reflection, peer support, and skill development.

The intervention consisted of a single, standardized workshop offered multiple times, with each session covering key aspects of managing moral distress. Topics included mindfulness techniques, communication skills for ethical dilemmas, and self-care strategies. Nurses were only required to attend one session, but the content was consistent across all offerings. During the workshop, nurses had the opportunity to share their experiences and challenges in a supportive environment, with the goal of enhancing their ability to cope with the pressures of end-of-life care. To measure the effectiveness of the intervention, the COPSOQ III questionnaire (COPSOQ International Network, 2020) was administered before and after the workshop to assess changes in levels of moral distress.

This intervention aimed to benefit the organization by fostering a healthier work environment and potentially improving nurse retention, as elevated levels of moral distress were linked to burnout and turnover (Amos & Epstein, 2022). By addressing the emotional needs of

the nursing staff, the goal was to enhance job satisfaction and overall morale, which may have led to improved patient care. For the population of interest, nurses caring for end-of-life patients—the workshops were intended to provide much-needed support, reduce emotional exhaustion, and enhance their ability to continue delivering compassionate, ethical care.

Implementing the Intervention

The central inquiry of this project was to examine the impact of implementing supportive interventions, compared to existing care standards, on the effect of moral distress among nurses who provide end-of-life care. This project aimed to assess how these interventions influence the levels of moral distress experienced by nurses in this context.

The project began in December and continued through January. A total of 14 one-hour workshops were scheduled at various times throughout the day to accommodate nurses working different shifts. Workshops were held 3 days per week, with three sessions offered each day to maximize accessibility. These sessions were designed to support nurses in managing and alleviating moral distress by addressing key topics such as recognizing moral distress, identifying common sources like ethical dilemmas and workplace challenges, and implementing effective coping strategies. The workshops provided a consistent, structured environment for nurses to explore these issues and engage in meaningful discussion and reflection.

The workshops emphasized self-care practices, such as stress management techniques, nutrition, and strategies for maintaining a healthy work-life balance. Additionally, mindfulness and meditation practices were introduced to help nurses manage stress in real-time, along with resilience training to enhance their emotional strength in high-pressure situations. Through these sessions, nurses were equipped with practical coping skills that may potentially positively impact their mental well-being and improve their ability to oversee the complexities of end-of-life care.

From mid-January through February, the project transitioned into the data collection and analysis phase. The COPSOQ III questionnaire (COPSOQ International Network, 2020) was administered to nurses both before and after the workshops to measure changes in moral distress levels. Data analysis was focused on comparing pre- and post-intervention scores to assess the impact of supportive interventions on reducing moral distress.

In March, the project progressed into the data analysis phase. Using Intellectus™ (Intellectus Statistics, 2023) statistical software, participants' pre- and post-survey responses were analyzed to assess changes in their levels of moral distress. This was made possible through the use of unique identifiers that participants created during the pre-survey, which they also used when completing the post-survey. These identifiers allowed for accurate pairing of responses while maintaining participant confidentiality. The analysis focused on identifying measurable differences in reported moral distress levels and overall impact of the intervention.

In April, the project culminated with the presentation of findings to key stakeholders, including nursing staff, hospital administrators, and academic and clinical audiences. These presentations examined the impact of the implemented interventions on moral distress among nurses providing end-of-life care and were intended to provide insights into potential improvements in care practices and staff well-being. Throughout each phase, ongoing communication and collaboration with nursing staff and stakeholders was maintained to ensure transparency, feedback incorporation, and successful project outcomes.

Data Collection

Data collection began in December with the distribution of the COPSOQ III questionnaire to participating nurses. A total of 38 questions from the questionnaire were utilized, including all of the CORE items as required by the standards of the instrument, along

with selected MIDDLE and LONG items deemed appropriate for effectively measuring pre- and post-intervention levels of moral distress among participants (see Appendix G). The pre-intervention survey gathered baseline data on nurses' perceptions of moral distress in the context of providing end-of-life care. Nurses were encouraged to complete the questionnaire anonymously by creating a unique identifier, to promote openness and minimize response bias and maintain anonymity.

Following participation in the guided workshops, from December through January, the post-intervention survey data collection phase began. Nurses then were asked to complete the COPSOQ III questionnaire a second time, the same questions were asked, to assess any changes in moral distress levels after the implementation of supportive interventions. Regular reminders and opportunities for follow-up were provided to maximize participation rates via email to ensure comprehensive data collection. Individual pre- and post-scores were then compared using the unique identifiers selected by each nurse during the initial survey, allowing for a comprehensive evaluation of their experiences.

By March, data analysis was completed, and by the end of April findings were synthesized and presented to stakeholders, informing future strategies for enhancing end-of-life care practices and mitigating moral distress among nurses. This comprehensive data collection plan aimed to provide robust insights into the impact of supportive interventions on moral distress among nurses, contributing to evidence-based improvements in end-of-life care delivery within the medical-surgical unit.

Instruments

The COPSOQ III is a comprehensive instrument designed to assess various psychosocial factors in the workplace, including those relevant to moral distress among healthcare

professionals (COPSOQ International Network, 2020). Developed recently, COPSOQ III includes multiple scales that measure different dimensions of the psychosocial work environment and well-being (COPSOQ International Network, 2020). Its validity and reliability have been rigorously examined through psychometric testing and validation studies across diverse occupational settings, ensuring robust measurement capabilities (Burr et al., 2019).

COPSOQ III demonstrates strong content validity by encompassing a wide array of psychosocial factors crucial to workplace well-being, such as workload, job control, social support, and organizational justice (Burr et al., 2019). Construct validity is supported by factor analytic studies confirming its ability to effectively measure distinct dimensions of the psychosocial work environment (Burr et al., 2019).

Reliability studies have consistently shown that COPSOQ III exhibits high internal consistency reliability across its scales. In their study on the COPSOQ III (COPSOQ III), Burr et al. (2019) reported strong internal consistency across several key scales. Specifically, Cronbach's alpha values were as follows: Emotional Demands ($\alpha = 0.82$), Role Conflict ($\alpha = 0.78$), Work-Life Balance ($\alpha = 0.76$), Job Insecurity ($\alpha = 0.83$), and Support from Colleagues ($\alpha = 0.87$). These values indicate that the items within each scale effectively measure related constructs, demonstrating the reliability of the COPSOQ III as a tool for assessing psychosocial factors in the workplace. The authors emphasize the robustness and adaptability of the questionnaire across various contexts, reinforcing its relevance in evaluating employee well-being and organizational health (Burr et al., 2019).

In summary, COPSOQ III (COPSOQ International Network, 2020) is a robust instrument for assessing psychosocial factors in the workplace, including moral distress among nurses providing end-of-life care. Its strong validity and reliability make it an appropriate tool for this

project, enabling comprehensive measurement of moral distress levels before and after the implementation of supportive interventions. These findings are crucial for guiding interventions aimed at improving nursing practice and patient care outcomes in the medical-surgical unit.

According to correspondence with the COPSOQ International Network (see Appendix H), no specific permission is required to use the COPSOQ III questionnaire in evidence-based projects (COPSOQ International Network, 2020). The network confirmed that the survey may be implemented without additional approval, provided that all CORE questions were included in the final version. This guidance supported the integration of the COPSOQ III (COPSOQ International Network, 2020) into the project, as it permitted a comprehensive assessment of moral distress among nursing staff. The absence of usage restrictions ensured that the questionnaire could be effectively utilized to gather relevant data while adhering to the standards established by the network. This flexibility enhanced the potential for generating robust findings related to improvements in end-of-life care practices.

Outcome Measures

Pre- and post-survey data were collected for comparison and analysis of moral distress levels among nursing staff. Descriptive statistics were employed to summarize the sample characteristics, focusing specifically on the variable of moral distress as measured by the COPSOQ III questionnaire. To analyze the outcome variable, a paired *t*-test was utilized to assess differences in moral distress scores before and after the intervention for each individual nurse. Intellectus™ Statistics software (Intellectus Statistics, 2023) was used to store, manage, and analyze data. This statistical approach helped to determine whether the guided workshops had a meaningful impact on the participants' experiences of moral distress. Additionally, a two-tailed *t*-test was conducted to compare the means of the pre- and post-intervention scores,

allowing for the detection of any significant changes in either direction. The significance level for all statistical tests was set at a critical value of $p < 0.05$, meaning that any p -value less than 0.05 would be considered statistically significant. This threshold ensured that the findings are robust and provided confidence in the conclusions drawn regarding the effectiveness of the intervention.

Data Analysis

The data analysis for this project focused on evaluating the impact of supportive interventions on moral distress among nurses providing end-of-life care, utilizing the COPSOQ III questionnaire (COPSOQ International Network, 2020). Quantitative analysis involved calculating descriptive statistics such as means, standard deviations, and frequency distributions for each scale within the COPSOQ III questionnaire (COPSOQ International Network, 2020). These statistics provided a comprehensive overview of the initial levels of moral distress among nurses prior to the intervention implementation.

The final phase of the data analysis involved synthesizing the findings into a cohesive narrative, supported by visual aids such as charts and graphs to illustrate trends and significant findings. Interpretation of results focused on identifying actionable insights to inform future interventions and improve end-of-life care practices in the medical-surgical unit. The data analysis aimed to provide an evaluation of the outcomes of the project, contributing evidence to enhance nursing practice and patient care outcomes in end-of-life care settings.

Results

Descriptive statistics were used to examine levels of moral distress among nurses caring for patients at the end of life ($n = 8$), as measured by the COPSOQ III. A total of 38 items were selected from the COPSOQ III, to comprehensively assess participants' psychosocial work

environment and emotional strain—key factors contributing to moral distress. The questionnaire provided composite scores reflecting the intensity of moral distress experienced by nurses. Prior to the intervention, the mean moral distress score was 2,225.1 ($SD = 360.7$), with scores ranging from 1,725 to 2,975. After the intervention, the mean score decreased to 1,974.7 ($SD = 166.4$), with a range of 1,775 to 2,225, indicating a reduction in the scored levels of moral distress among participants.

A two-tailed paired samples t -test was conducted to evaluate the effect of the intervention on moral distress. The analysis revealed a statistically significant reduction in moral distress scores following the intervention, $t(7) = 2.68, p = .031$, indicating a meaningful decrease in moral distress. The effect size, calculated using Cohen's d , was 0.95, which reflects a large effect and suggests that the intervention had a substantial impact on reducing moral distress among participants.

Clinical Significance

The clinical significance of the results from the intervention that addressed moral distress among nurses can be understood in the context of existing literature. Numerous studies have highlighted the prevalence of moral distress among healthcare professionals, particularly those working in end-of-life care, and its negative impact on their well-being and job satisfaction (Amos & Epstein, 2022; De Brasi et al., 2020; Lee et al., 2024). The decrease in moral distress following the intervention in this project aligns with findings from similar studies that suggest targeted interventions can help mitigate moral distress, improving both the emotional well-being of nurses and the quality of patient care (Morley et al., 2021; Zeydi et al., 2022).

The reduction in moral distress on nurses caring for patients at end of life observed after implementation of the workshops in this project contributes to a growing body of evidence

suggesting that interventions focused on addressing moral distress can have a positive impact on nurses' well-being. These findings highlight the potential of such interventions to support nurses in managing ethical challenges in clinical practice, as emphasized by the ANA Code of Ethics (ANA, 2015). Furthermore, the use of validated tools like the COPSOQ III questionnaire (Burr et al., 2019) supports the reliability of the data, as it is widely used in healthcare settings to measure psychosocial factors and moral distress. While the extent of the impact in this study may require further investigation, the results suggest that targeted interventions may offer valuable support for nurses facing moral distress in their professional roles.

Impact of Project

The impact of this project extends beyond the reduction of moral distress among nurses, potentially influencing the overall quality of patient care, provider well-being, and healthcare system outcomes. By addressing moral distress, nurses may experience improved job satisfaction, enhanced emotional resilience, and greater ability to engage in compassionate, patient-centered care (Amos & Epstein, 2022; Morley et al., 2021). This not only supports nurses in their professional roles but also contributes to improved patient outcomes, as reduced distress allows healthcare providers to better manage the emotional and ethical challenges that arise in end-of-life care (Lee et al., 2024; Marturano et al., 2020). From a systemic perspective, this project aligns with organizational goals to foster a supportive work environment, decrease staff turnover, and reduce burnout, all of which contribute to a more sustainable and effective healthcare system (Salari et al., 2022; Zeydi et al., 2022). The positive impact on nurses' well-being can lead to higher levels of patient satisfaction, better team dynamics, and overall improved quality of care, which in turn can enhance the reputation and operational efficiency of healthcare institutions (Eche et al., 2022).

Sustainability

Ensuring the sustainability of this project aimed at reducing moral distress among nurses involves a multifaceted approach. Engaging key stakeholders, including nursing staff, hospital

administrators, and clinical managers, is essential for maintaining ongoing support and commitment to the goals of the project. Regular communication about the progress and successes of the project can reinforce its importance within the organization. Integrating the workshops and interventions into existing professional development programs or wellness initiatives can help secure the necessary funding and resources while embedding the significance of addressing moral distress into the organizational culture.

Additionally, training selected staff members to become facilitators for future workshops could create internal champions who can sustain the initiative by passing on knowledge and skills to new staff members. Implementing a robust evaluation plan is also crucial, as it allows for the assessment of the effectiveness of the workshops and helps identify areas for improvement. Sharing positive outcomes and success stories can motivate ongoing participation and support. Advocating for policies that prioritize mental health and wellness initiatives for nurses will further embed these practices into the framework of the organization, promoting long-term sustainability. Lastly, ensuring continued access to resources such as counseling services or peer support groups will help maintain the benefits of the project over time, fostering an environment that encourages the ongoing practice of stress management and resilience-building techniques among nurses.

Aligned with organizational goals of enhancing nursing satisfaction and patient care quality, the project aimed to embed sustainable practices into everyday workflows. By doing so, it sought to reduce nurse turnover, improve patient outcomes, and foster a supportive work environment conducive to compassionate end-of-life care. Sustaining the benefits of this project necessitates a dedicated plan for ongoing implementation and evaluation. With leadership from the RN Clinical Research Program Director and the integration of project deliverables into

standard hospital practices, the positive outcomes can persist long after completion of this initial project implementation. While this sustainability plan may evolve, it provides a solid foundation for enduring improvement in end-of-life care and the reduction of moral distress among nurses.

Discussion

The results of this project suggest that the intervention had a positive impact on reducing moral distress among nurses providing end-of-life care. After participating in the workshops, nurses reported a noticeable decrease in their levels of moral distress. These findings indicate that targeted interventions, such as the workshops focused on stress management and resilience, can effectively support nursing staff in coping with the emotional challenges inherent in end-of-life care. The significant reduction in moral distress points to the potential value of such interventions in promoting better emotional well-being for healthcare providers in high-stress environments.

Several challenges were encountered during the implementation of this project that may have influenced the overall participation and effectiveness of the intervention. One significant barrier was the limited number of participants, which was largely due to the timing of the workshops coinciding with the holiday season. This scheduling conflict led to difficulties in securing consistent attendance, as many nurses were unavailable due to personal or professional commitments during this period. Additionally, the high incidence of staff illnesses during the winter months further compounded attendance issues, as a substantial number of staff members were unable to participate in the workshops. Another challenge was the issue of short staffing, which placed a strain on the nursing team and hindered their ability to engage in the intervention during their workdays. The demands of patient care often took precedence, making it difficult for

nurses to attend the scheduled sessions. These factors contributed to a smaller sample size than initially anticipated and presented obstacles to achieving full participation from the nursing staff.

Evidence suggests that implementing comprehensive workshops can be an effective intervention to mitigate these issues (Amos & Epstein, 2022; Morley et al., 2021; Witton et al., 2022; Zeydi et al., 2022). Workshops focusing on stress management, self-care, and resilience training can equip nurses with the tools they need to manage the emotional and practical demands of their roles. For instance, workshops that teach effective time management techniques and stress reduction strategies can help nurses better balance their workloads and reduce feelings of frustration and inadequacy (Amos & Epstein, 2022; Morley et al., 2021; Salari et al., 2022; Zeydi et al., 2022). Additionally, incorporating sessions on mindfulness and self-care practices into these workshops can support nurses in maintaining their well-being, allowing them to provide more attentive and compassionate care despite the constraints they face. By integrating these workshop-based interventions into the workplace, healthcare organizations can address the root causes of moral distress and foster a more supportive environment for nurses.

Future projects should consider expanding the sample size to include a more diverse group of participants, which would improve the generalizability of the findings. Additionally, investigating the long-term effects of the intervention on moral distress would provide a deeper understanding of its sustained impact. Future projects could also examine the role of organizational support and leadership in the success of such interventions. Expanding to include various healthcare settings and specialties would help determine the broader applicability of these interventions. These recommendations could enhance the effectiveness of moral distress reduction strategies and inform best practices for supporting nursing staff in diverse environments.

Conclusion

This project aimed to enhance end-of-life care in a community hospital by minimizing moral distress among nurses. Acknowledging the complex challenges faced by patients and their families during this time, it focused on providing supportive interventions that addressed the emotional and ethical dilemmas nurses' encounter. By improving the support system for nurses, the project sought to enhance the quality of care for patients with terminal illnesses. Ultimately, it underscores the critical need to address moral distress as a means to empower nurses, improve their well-being, and ensure compassionate care that respects patients' dignity during this sensitive stage of life. This initiative contributes to advancing end-of-life care standards within the hospital community.

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Appendix A

Evaluation Table for Quantitative Studies

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Eche et al. (2022)</p> <p>This study conducted a systematic review and meta-analysis to evaluate the prevalence and impact of moral distress among oncology nurses</p> <p>Country: USA</p> <p>Funding: Not explicitly mentioned</p> <p>Bias: Potential selection bias from included studies and publication bias due to reliance on published data</p>	Quality caring model	<p>Design: Systematic review and meta-analysis</p> <p>Purpose: aims to quantify moral distress in oncology nursing</p>	<p><i>n= 10</i></p> <p>Demographics: Nurses from different oncology settings, though specific demographic details of nurses in the meta-analysis were not provided.</p> <p>Setting: Oncology nursing across various hospital settings</p> <p>Exclusion: studies that focused on other dimensions of distress experiences in oncology nurses, systematic reviews were also excluded</p> <p>Attrition: none</p>	<p>IV1: Patient-related factors</p> <p>IV2: Organizational factors</p> <p>IV3: Ethical dilemmas encountered in oncology nursing</p> <p>DV1: Level of moral distress</p> <p>DV2: Prevalence of moral distress among oncology nurses</p> <p>DV3: Severity of moral distress experienced</p>	<p>Tools: Joanna Briggs Institute (JBI) Critical Appraisal Checklist: This tool was utilized to assess the quality and methodological rigor of the cross-sectional studies included in the systematic review.</p> <p>Validity/ Reliability: The use of the JBI checklist enhances the credibility of the study by providing a systematic method for evaluating the quality of evidence gathered from cross-sectional studies.</p>	<p>Statistical Tests Used:</p> <p>Descriptive statistics</p> <p>Chi-Square Test</p> <p>T-tests</p> <p>Regression Analysis</p>	<p>High prevalence of moral distress observed</p> <p>Significant correlation with nurse burnout</p> <p>Impact on job satisfaction identified</p> <p>Ethical dilemmas frequently reported by nurses</p> <p>Need for targeted interventions emphasized</p> <p>Systemic changes recommended for improvement</p>	<p>Level of Evidence: 2</p> <p>Strengths: Comprehensive synthesis of multiple studies, Highlights the prevalence and impact of moral distress, Provides evidence for targeted interventions.</p> <p>Weakness: Potential variability in measurement tools across studies, Limited by the quality of included studies, Possible publication bias affecting results,</p> <p>Feasibility: Implementation of findings feasible within clinical settings</p> <p>Application: Results relevant to oncology nursing and healthcare organizations, findings can inform policy changes to reduce moral distress</p>

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Marturano et al. (2020)</p> <p>This cross-sectional study identifies the prevalence of moral distress among inpatient oncology nurses in an academic health system</p> <p>Country: USA</p> <p>Funding: Not explicitly mentioned</p> <p>Bias: Potential response bias from participants and self-reporting bias</p>	<p>Comfort theory</p>	<p>Design: cross-sectional descriptive study</p> <p>Method: administering a survey to inpatient oncology nurses to assess their experiences of moral distress and identify factors contributing to it</p> <p>Purpose: to quantify the prevalence of moral distress among these nurses and to understand the specific ethical dilemmas and challenges they face in their roles.</p>	<p><i>n</i>=93</p> <p>Demographics: Female: 93 % White:83 % BSN prepared: 90 % Experience: 5.8 yrs</p> <p>Setting: The study was conducted in an academic health system in the United States.</p> <p>Exclusion: Nurses who did not provide direct patient care or who were not working in inpatient oncology settings were excluded from the study</p> <p>Attrition: Out of the 160 nurses recruited, 67 did not complete the survey, resulting in an attrition rate of approximately 42%.</p>	<p>IV1: Moral distress levels</p> <p>IV2: Experience with end-of-life care</p> <p>IV3: Professional background (e.g., education, years of experience)</p> <p>DV1: Identification of moral distress</p> <p>DV2: Coping strategies employed by nurses</p> <p>DV3: Emotional well-being of nurses</p> <p>DV4: Intent to remain in the nursing profession</p>	<p>Tools: Moral Distress Scale (MDS-R): to measure the levels of moral distress experienced by nurses</p> <p>Validity/Reliability: The Moral Distress Scale has demonstrated good psychometric properties, including validity and reliability in previous research. It is widely recognized and used in nursing research to assess moral distress</p>	<p>Statistical Tests Used:</p> <p>Descriptive statistics</p> <p>Chi-square tests</p> <p>T-tests</p> <p>ANOVA</p> <p>Regression analysis</p>	<p>High levels of moral distress identified</p> <p>Significant impact on job satisfaction noted</p> <p>Nurses desire support for moral distress</p> <p>Moral distress linked to patient care issues</p> <p>Increased education reduces moral distress levels</p> <p>Self-care practices positively influence resilience</p>	<p>Level of Evidence: 6</p> <p>Strengths: Utilizes a well-defined sample of nurses, addresses an important issue in nursing practice, Provides valuable insights into moral distress.</p> <p>Weakness: Small sample size limits generalizability, Predominantly female and white demographics may not represent the entire nursing population, Cross-sectional design limits causal inferences.</p> <p>Feasibility: Conducted in a real-world clinical setting, making it relevant and practical, Relatively easy to replicate in similar nursing contexts.</p> <p>Application: Findings can inform interventions aimed at reducing moral distress, Results relevant to nursing education and support initiatives in clinical settings.</p>

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Morley et al. (2021)</p> <p>This systematic review focuses on interventions aimed at mitigating moral distress in nurses across different healthcare settings.</p> <p>Country: USA</p> <p>Funding: not explicitly mentioned</p> <p>Bias: Potential publication bias and selection bias of included studies</p>	<p>Comfort theory</p>	<p>Design: systematic literature review</p> <p>Method: Comprehensive database search for studies examining interventions to mitigate moral distress among nurses, evaluating their quality and synthesizing findings.</p> <p>Purpose: To systematically review literature identifying effective interventions for reducing moral distress in nursing practice and supporting nurses.</p>	<p><i>n</i>=16</p> <p>Demographics: as this is a systematic review; individual participant demographics were not reported.</p> <p>Setting: Various healthcare settings, as included studies represented diverse nursing contexts.</p> <p>Exclusion: Studies not focused on nurses, interventions not addressing moral distress, and non-English language publications were excluded</p> <p>Attrition: none</p>	<p>IV1: Types of interventions to mitigate moral distress</p> <p>IV2: Contexts of nursing practice (various healthcare settings)</p> <p>DV1: Levels of moral distress in nurses</p> <p>DV2: Impact of interventions on nursing practice and well-being</p>	<p>Tools: The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and TIDieR (Template for Intervention Description and Replication) checklists are important tools used in systematic reviews and intervention studies</p> <p>Validity/Reliability: The PRISMA and TIDieR checklists enhance reporting quality, ensuring transparency and replicability in research. Their structured approach improves validity and reliability in systematic reviews and intervention studies</p>	<p>Statistical Tests Used:</p> <p>Descriptive statistics</p> <p>Thematic analysis</p> <p>Chi-square test</p> <p>Fisher's exact test</p>	<p>Moral distress significantly affects nursing staff.</p> <p>Effective interventions mitigate moral distress levels.</p> <p>Work environment influences moral distress outcomes.</p> <p>Supportive leadership reduces nurses' moral distress.</p> <p>Training improves nurses' coping strategies significantly.</p>	<p>Level of Evidence: 4</p> <p>Strengths: Provides insight into moral distress interventions, Involves direct feedback from nursing staff.</p> <p>Weakness: small sample size limits generalizability, Lack of long-term follow-up data.</p> <p>Feasibility: Easily implementable in clinical settings, Requires minimal resources for workshops.</p> <p>Application: Relevant to various healthcare environments, Can be adapted for different nursing specialties.</p>

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Oldenmenger et al. (2024)</p> <p>This cross-sectional study explores moral distress among hospital nurses and its associated factors.</p> <p>Country: Netherlands</p> <p>Funding: not explicitly mentioned</p> <p>Bias: Potential response bias due to self-report measures</p>	<p>Theory of planned behavior</p>	<p>Design: cross sectional study</p> <p>Method: An online survey was administered to hospital nurses to assess their experiences of moral distress and associated factors.</p> <p>Purpose: To explore the prevalence and impact of moral distress among hospital nurses and identify contributing factors.</p>	<p><i>n</i>= 654</p> <p>Demographics: Gender: Predominantly female ~83% Age: Mean age around 43 years Education: BSN ~ 70% Years of Experience: Approx 15 yrs</p> <p>Setting: Various hospitals across the Netherlands</p> <p>Exclusion: Nurses who did not provide informed consent or were not directly involved in patient care were excluded</p> <p>Attrition: none noted</p>	<p>IV1: Level of moral distress</p> <p>IV2: Work environment factors</p> <p>IV3: Coping strategies</p> <p>DV1: Psychological well-being of nurses</p> <p>DV2: Job satisfaction</p> <p>DV3: Intent to stay in nursing profession</p>	<p>Tools: Moral Distress Scale: Assesses the level of moral distress experienced by nurses. Job Satisfaction Survey: Evaluates the overall job satisfaction of nurses. Psychological Well-Being Scale: Measures the psychological well-being of participants.</p> <p>Validity/Reliability: Moral Distress Scale has been previously validated, demonstrating good reliability (Cronbach's alpha ≥ 0.80). Job Satisfaction Survey also shows strong psychometric properties with established validity and reliability. Psychological Well-Being Scale is recognized for its reliability, with Cronbach's alpha reported above 0.85, confirming its robustness in measuring well-being.</p>	<p>Statistical Tests Used:</p> <p>Descriptive statistics</p> <p>Chi-square tests</p> <p>T-tests</p> <p>ANOVA</p> <p>Regression analysis</p>	<p>High levels of moral distress reported.</p> <p>Ethical dilemmas significantly impacted nurses.</p> <p>Demographics influenced moral distress levels.</p> <p>Interventions reduced moral distress significantly.</p> <p>Support systems improved overall nurse well-being</p>	<p>Level of Evidence: 3</p> <p>Strengths: Large sample size enhances generalizability, Diverse demographic representation improves findings' applicability.</p> <p>Weakness: Cross-sectional design limits causal inferences, Self-reported measures may introduce bias.</p> <p>Feasibility: Data collection feasible in clinical settings, Implementation of interventions may require resources.</p> <p>Application: Findings relevant to clinical practice in nursing, Interventions applicable across various healthcare setting</p>

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Salari et al. (2022)</p> <p>This systematic review and meta-analysis examines the severity of moral distress in nurses.</p> <p>Country: Iran</p> <p>Funding: Not explicitly mentioned.</p> <p>Bias: Potential publication bias, selection bias from the inclusion of published studies</p>	<p>Comfort theory</p>	<p>Design: Systematic review and meta-analysis.</p> <p>Method: The study systematically reviewed existing literature on moral distress in nurses, conducting a meta-analysis to quantify findings.</p> <p>Purpose: To evaluate the severity of moral distress among nurses and identify contributing factors through synthesis of quantitative studies.</p>	<p><i>n</i>= 35</p> <p>Demographics: Demographic details were variable across the included studies; however, common characteristics included a majority of female participants, diverse age ranges, and varying levels of nursing experience</p> <p>Setting: The studies included in the review were conducted in various healthcare settings, including hospitals, long-term care facilities, and community health settings across different countries</p> <p>Exclusion: Studies were excluded if they did not focus on nurses, did not specifically address moral distress, were not peer-reviewed</p> <p>Attrition: none noted</p>	<p>IV1: Job-related factors (e.g., workload, ethical conflicts)</p> <p>IV2: Organizational factors (e.g., support systems, policies)</p> <p>IV3: Personal factors (e.g., experience, age)</p> <p>DV1: Severity of moral distress in nurses</p> <p>DV2: Impact of moral distress on job satisfaction</p> <p>DV3: Impact of moral distress on retention intentions</p>	<p>Tools: The STROBE checklist provides a standardized approach to report findings from observational studies, enhancing the clarity and reproducibility of research.</p> <p>Validity/Reliability: Studies using STROBE have shown that compliance with the checklist can lead to clearer and more comprehensive reporting, helping researchers convey their methods and findings more effectively.</p>	<p>Statistical Tests Used:</p> <p>Chi-square test</p> <p>Mann-Whitney U test</p> <p>Kruskal-Wallis test</p> <p>Spearman correlation analysis</p>	<p>High prevalence of moral distress identified.</p> <p>Severity varies by clinical specialty area.</p> <p>Emotional impact significantly affects job satisfaction.</p> <p>Positive correlation with intent to leave.</p> <p>Need for targeted interventions emphasized strongly.</p>	<p>Level of Evidence: 2</p> <p>Strengths: Comprehensive analysis of multiple studies, Provides robust data on moral distress prevalence</p> <p>Weakness: Variability in definitions and measurements of moral distress across studies, Limited generalizability due to focus on specific settings.</p> <p>Feasibility: Feasible for implementation of interventions based on findings, Data supports development of tailored strategies for specific settings.</p> <p>Application: Applicable to various nursing specialties experiencing moral distress, Findings can inform policy changes and clinical practice guidelines.</p>

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice; Generalization
<p>Witton et. al (2022)</p> <p>This correlation study explores moral distress effects nurse retention</p> <p>Country: United Kingdom</p> <p>Funding: not explicitly mentioned</p> <p>Bias: Potential response bias due to self-report measures</p>	<p>Theory of planned behavior</p>	<p>Design: cross sectional study</p> <p>Method: use of an online survey distributed to adult critical care nurses in the Midlands region of the United Kingdom. The survey utilized validated instruments to measure moral distress and intent to stay, and the data were analyzed using statistical methods, including correlations and regressions.</p> <p>Purpose: to examine the relationship between moral distress and intent to stay in their current role among critical care nurses</p>	<p><i>n</i>= 266</p> <p>Demographics: Adult nurses working in critical care unit</p> <p>Setting: Critical care (ICU) units in hospitals in the United Kingdom</p> <p>Exclusion: Nurses who did not work in critical care units</p> <p>Attrition: none noted</p>	<p>IV1: Level of moral distress</p> <p>DVI: Intent to stay</p>	<p>Tools: Moral Distress Scale: Assesses the level of moral distress experienced by nurses. Intent to Stay: Nurses' intent to stay was measured using a single item asking about their intention to remain in their current role or profession.</p> <p>Validity/Reliability: Moral Distress Scale has been previously validated, demonstrating good reliability (Cronbach's $\alpha \geq 0.80$). Intent to Stay: often considered adequate for studies of this nature, though it does not have the same formal psychometric properties as multi-item scales.</p>	<p>Statistical Tests Used:</p> <p>Descriptive statistics</p> <p>Correlation Analysis</p> <p>Multiple Regression Analysis</p>	<p>Negative relationship: Higher moral distress linked to lower intent to stay.</p> <p>Moral distress: A significant predictor of nurses' intent to stay..</p> <p>Greater distress: Nurses with higher distress more likely to leave.</p> <p>Interventions needed: Reducing moral distress could enhance nurse retention.</p> <p>Supports previous studies: Links moral distress with nurse turnover and retention</p>	<p>Level of Evidence: 4</p> <p>Strengths: Large sample size enhances generalizability, validated instruments, clear focus</p> <p>Weakness: Cross-sectional design limits causal inferences, low response rate, limited demographics</p> <p>Feasibility: The study used an online survey, making data collection practical and cost-effective, though generalizability is limited to the UK region.</p> <p>Application: Findings suggest interventions to reduce moral distress could improve nurse retention and job satisfaction in critical care settings.</p>

Appendix B

Evaluation Table for Qualitative Studies

Citation	Theory/ Conceptual Framework	Design/ Method/ Sampling	Sample/ Setting	Major Themes Studied/ Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Themes	Level/ Quality of Evidence; Decision for/ Application to practice; Generalization
<p>Amos & Epstein (2022)</p> <p>Examines moral distress interventions through integrative literature review.</p> <p>Country: USA</p> <p>Funding: none</p> <p>Bias: Potential publication bias due to literature selection</p>	Comfort theory	<p>Design: Integrative literature review</p> <p>Method: This study involved synthesizing existing literature on moral distress interventions, identifying various strategies used to address moral distress among nurses</p> <p>Purpose: The purpose was to evaluate and summarize the effectiveness of different interventions aimed at reducing moral distress in nursing practice.</p>	<p>Sample: (n=22)</p> <p>Demographics: Four studies were RCTs, two were qualitative, and seven were mixed methods, the remainder were quasi experimental</p> <p>Setting: The review encompasses a range of healthcare settings from various studies that examined moral distress interventions in nursing.</p> <p>Attrition: none</p>	<p>RQ1: What interventions are effective in mitigating moral distress among nurses?</p> <p>RQ2: How do different healthcare settings influence moral distress and its management?</p> <p>RQ3: What are the common sources of moral distress in nursing practice?</p> <p>RQ4: How do personal and professional characteristics affect nurses' experiences of moral distress?</p> <p>RQ5: What strategies do nurses use to cope with moral distress</p>	<p>Data Collection:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Semi-structured interviews <input type="checkbox"/> Focus groups <input type="checkbox"/> Thematic analysis <p>Data Dependability:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Semi-structured interviews: Valid for exploring experiences but subject to interviewer bias; consistency enhances reliability. <input type="checkbox"/> Focus groups: High validity if facilitated properly; dynamics can influence responses, affecting reliability. <input type="checkbox"/> Thematic analysis: Valid method for qualitative data analysis; inter-rater reliability checks enhance reliability. 	Thematic analysis. This method involved identifying, analyzing, and reporting themes within the qualitative data collected from interviews and focus groups.	<p>Moral distress affects nurses' emotional well-being.</p> <p>Ethical dilemmas arise in patient care</p> <p>Support systems are crucial for resilience.</p> <p>Institutional policies impact moral distress levels.</p> <p>Need for training on ethical issues.</p>	<p>Level of Evidence: 4</p> <p>Strengths: In-depth exploration of nurses' experiences and perspectives, Provides rich qualitative data that informs practice.</p> <p>Weakness: Limited generalizability due to small sample size, Potential for researcher bias in interpretation.</p> <p>Feasibility: Easily implementable in similar settings for exploring moral distress</p> <p>Application: Findings relevant for developing interventions to support nurses' well-being.</p>

<p>De Brasi et al. (2020)</p> <p>Explores nurses' moral distress in end-of-life care.</p> <p>Country: Italy</p> <p>Funding: none</p> <p>Bias: Potential for bias due to subjective interpretations of qualitative data.</p>	<p>Moral distress theory</p>	<p>Design: qualitative study</p> <p>Method: semi-structured interviews to explore nurses' experiences of moral distress in end-of-life care.</p> <p>Purpose: To understand the sources and implications of moral distress faced by nurses in providing care for patients at the end of life.</p>	<p>Sample: ($n=28$)</p> <p>Demographics: Women=23 Italian=21 BSN=19</p> <p>Setting: medical oncology unit in Italy</p> <p>Attrition: 12%,</p>	<p>RQ1: How do nurses experience moral distress in end-of-life care?</p> <p>RQ2: What are the factors contributing to moral distress in nurses?</p> <p>RQ3: How does moral distress impact nurses' well-being and job performance?</p> <p>RQ4: What coping mechanisms do nurses use to manage moral distress?</p>	<p>Data Collection:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Semi-structured interviews <input type="checkbox"/> Field notes <p>Data Dependability:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reliability ensured through consistent interview protocol <input type="checkbox"/> Validity established by using participant quotes to support findings and peer debriefing for accuracy 	<p>Thematic analysis, where the researchers identified, analyzed, and reported patterns (themes) within the qualitative data collected from interviews and field notes. This involved coding the data, developing themes, and interpreting these themes in relation to the research questions.</p>	<p>Nurses experience emotional burden in EOL care</p> <p>Moral distress arises from ethical dilemmas</p> <p>Lack of resources worsens moral distress</p> <p>Emotional support is crucial for nurses</p> <p>Communication challenges increase distress in EOL care</p> <p>Organizational policies impact nurses' ethical decision</p>	<p>Level of Evidence: 6</p> <p>Strengths: In-depth exploration of nurses' experiences Provides valuable insights into moral distress in end-of-life care</p> <p>Weakness: In-depth exploration of nurses' experiences Provides valuable insights into moral distress in end-of-life care</p> <p>Feasibility: Moderately feasible, though replicating qualitative methods may vary across different settings</p> <p>Application: Highly applicable to healthcare settings dealing with end-of-life care, specifically in enhancing support structures for nurses</p>
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Citation	Theory/ Conceptual Framework	Design/ Method/ Sampling	Sample/ Setting	Major Themes Studied/ Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Themes	Level/ Quality of Evidence; Decision for/ Application to practice; Generalization
<p>Lee et al. (2024)</p> <p>The study explores nurses' experiences of moral distress in end-of-life care and its impacts.</p> <p>Country: South Korea</p> <p>Funding: none</p> <p>Bias: none</p>	<p>Comfort theory</p>	<p>Design: qualitative, using a phenomenological approach</p> <p>Method: in-depth interviews with nurses who have cared for patients at the end of life to explore their lived experiences of moral distress.</p> <p>Purpose: to unveil the impacts of moral distress on nurses' emotional and professional lives while providing end-of-life care.</p>	<p>Sample:(n=30)</p> <p>Demographics:</p> <p>Female= 29/30 Age=30-39 16/30 Yrs Exp= 8 (mean)</p> <p>Setting: various healthcare settings in South Korea</p> <p>Attrition: none</p>	<p>RQ1: What are nurses' experiences of moral distress?</p> <p>RQ2: How do personal and professional factors influence moral distress?</p> <p>RQ3: What strategies do nurses use to cope with moral distress?</p>	<p>Data Collection:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Semi-structured interviews <input type="checkbox"/> Focus Groups <p>Data Dependability:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The study utilized a combination of interviews and focus groups, which enhances the depth of data and promotes reliability through triangulation of perspectives. The interview guide was developed based on existing literature, ensuring content validity. The reliability of the findings was supported by member checking, where participants reviewed the results to confirm accuracy and resonance with their experiences. 	<p>Thematic analysis to identify, analyze, and report patterns (themes) within the qualitative data collected from interviews and focus groups. This method allowed the researchers to interpret the participants' experiences and perspectives on moral distress in end-of-life care.</p>	<p>Moral distress affects emotional well-being of nurses</p> <p>Communication barriers increase moral distress experiences</p> <p>Nurses feel unsupported in ethical dilemmas</p> <p>Patient family dynamics influence moral distress</p> <p>Need for organizational support and resources</p>	<p>Level of Evidence: 6</p> <p>Strengths: In-depth insights into nurses' emotional experiences, Contextually relevant findings for targeted interventions.</p> <p>Weakness: Small sample size limits generalizability of results, Subjectivity may influence reliability of data.</p> <p>Feasibility: Study design is manageable within typical clinical settings.</p> <p>Application: Findings can inform tailored support strategies for nursing practice.</p>

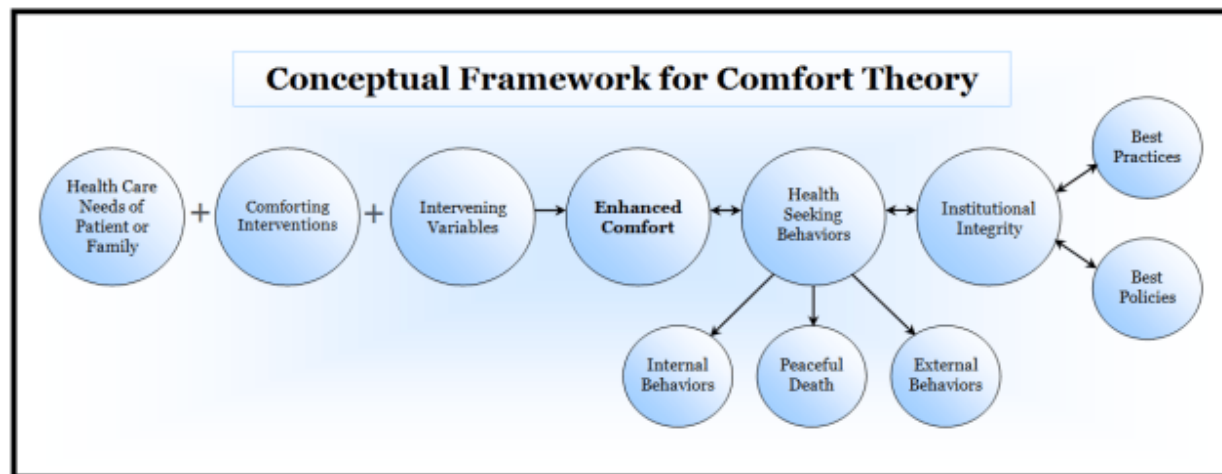
Citation	Theory/ Conceptual Framework	Design/ Method/ Sampling	Sample/ Setting	Major Themes Studied/ Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Themes	Level/ Quality of Evidence; Decision for/ Application to practice; Generalization
<p>Zeydi et al. (2022)</p> <p>The study systematic review evaluating interventions to reduce moral distress in nurses.</p> <p>Country: Iran</p> <p>Funding: none</p> <p>Bias: none</p>	<p>Comfort theory</p>	<p>Design: systematic review</p> <p>Method: involves evaluating and summarizing findings from studies that have implemented various interventions to address moral distress.</p> <p>Purpose: involves evaluating and summarizing findings from studies that have implemented various interventions to address moral distress.</p>	<p>Sample:(n=48)</p> <p>Demographics:</p> <p>Critical care nurses in critical care settings</p> <p>Setting: various healthcare settings, particularly critical care units</p> <p>Attrition: none</p>	<p>RQ1: Interventions for moral distress</p> <p>RQ2: Effectiveness of interventions</p> <p>RQ3: Impact of organizational support</p> <p>RQ4: Psychological and emotional support</p> <p>RQ5: Work environment factors</p>	<p>Data Collection:</p> <p>□ systematically searching and reviewing published studies from databases including PubMed, Scopus, and Web of Science</p> <p>Data Dependability:</p> <p>□ The dependability of the data was supported by using the Joanna Briggs Institute (JBI) critical appraisal checklist to assess the quality of the included studies. This quality appraisal ensured that only studies with acceptable methodological rigor were included, enhancing the reliability and trustworthiness of the review findings.</p>	<p>The study used narrative synthesis to summarize and describe patterns across included studies since a meta-analysis was not feasible.</p>	<p>Educational workshops help reduce moral distress.</p> <p>Ethics consultation services provide valuable support.</p> <p>Mindfulness and stress management improve coping.</p> <p>Peer support groups enhance emotional resilience.</p> <p>Organizational changes reduce ethical conflicts.</p> <p>Improved communication lowers moral distress levels.</p> <p>Leadership support increases nurse job satisfaction.</p> <p>Ethical climate improvements decrease distress incidents.</p>	<p>Level of Evidence: 1</p> <p>Strengths: comprehensive search strategy, quality appraisal of included studies, and synthesis of diverse interventions.</p> <p>Weakness: heterogeneity of study designs and inability to perform meta-analysis.</p> <p>Feasibility: moderate, as some interventions require institutional support and resources</p> <p>Application: can guide healthcare leaders in selecting evidence-based interventions to reduce moral distress in critical care nurses.</p>

Appendix D

Models and Frameworks

Figure D1

Kolcaba's comfort theory



Adapted from Katharine Kolcaba's Comfort Theory by PM Health, (n.d.) (<https://pmhealthnp.com/katharine-kolcabas-comfort-theory/>). In the public domain.

Appendix E

IRB Approval



APPROVAL: EXPEDITED REVIEW

[Tammy Tyree](#)
EDSON: DNP
-
Tammy.Tyree@asu.edu

Dear [Tammy Tyree](#):

On 10/24/2024 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Empowering Nurses: Reducing Moral Distress in End-of-Life Care Through Innovative Interventions
Investigator:	Tammy Tyree
IRB ID:	STUDY00021106
Category of review:	7
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Atwell_Aja ASU IRB Proposal.docx, Category: IRB Protocol; • consent form, Category: Consent Form; • COPSQ III Post Questionnaire, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • COPSQ III questionnaire, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Letter of Support [REDACTED], Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Recruitment email, Category: Recruitment Materials; • Recruitment flyer, Category: Recruitment Materials; • Workshops Outline, Category: Technical materials/diagrams;

The IRB approved the protocol effective 10/24/2024. Continuing Review is not required for this study.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

It is the research team's responsibility to notify the IRB of 'reportable new information,' (an RNI) During a research study, any adverse events, unanticipated problems involving risk, and non-compliance must be reported to the IRB as an RNI. Please see the following link for details: <https://researchintegrity.asu.edu/human-subjects/reportable-events>. This does not include risks previously identified and listed in the IRB protocol and consent. Any serious events must be reported within 24 hours. Non-serious adverse events must be reported within 5 business days.

Sincerely,

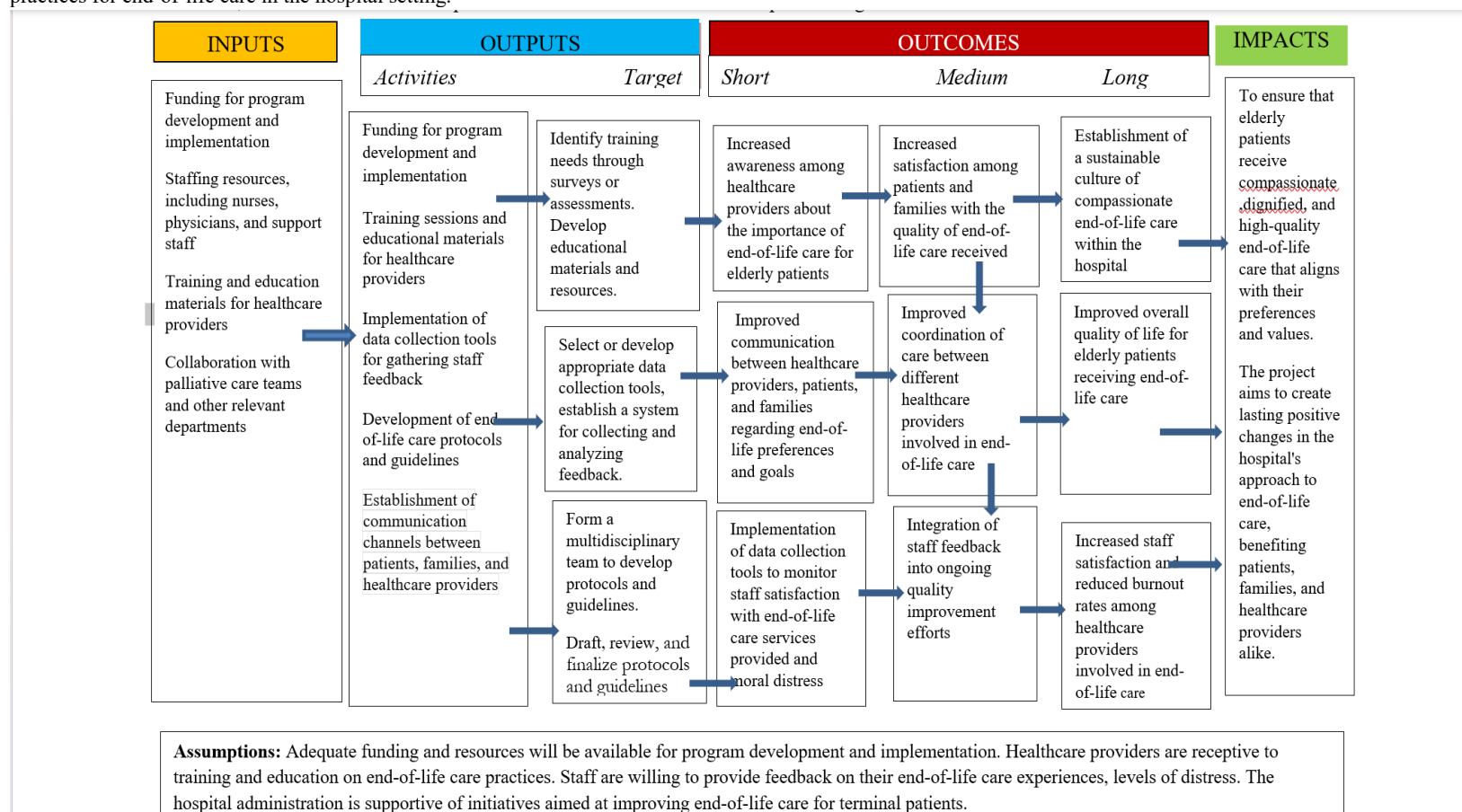
IRB Administrator

cc: Aja Atwell

Appendix F

Logic Model

Goals: The goals of the project are to improve communication and coordination of care, enhance comfort care, increase patient and family satisfaction, and establish sustainable practices for end-of-life care in the hospital setting.



Appendix G

COPSOQ III Questionnaire Pre-Survey

COPSOQ III Questionnaire Pre Workshop Survey v1.0 11.5.2024

The purpose of this project is to reduce moral distress among nurses caring for end-of-life patients through structured interventions. Moral distress, often triggered by institutional constraints or resource limitations, can lead to emotional exhaustion, decreased job satisfaction and increased turnover rates. Through targeted workshops, this project seeks to foster resilience, strengthen communication, and support ethical decision making, ultimately improving patient care and the healthcare environment. Thank you for your participation.

As you complete the survey, please use the following 1-5 scale to answer each question, think about how often you feel or experience the situations described in the questions. 1: Never, 2: Seldom, 3: Sometimes, 4: Often, 5: Always

* Required

1. For your please use your mother's initials birth month and day, (i.e. MJ1225). This allows for your survey responses to remain anonymous. *

2. How often do you not have time to complete all your work tasks?

- Never/Hardly ever
- Seldom
- Sometime
- Often
- Always

3. Do you get behind with your work?

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

4. Do you have to work very fast? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

5. Do you work at a high pace throughout the day? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always
-

<p>6. Does your work put you in emotionally disturbing situations? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>	<p>9. Does your work require that you hide your feelings? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>
<p>7. Do you have to deal with other people's personal problems as part of your work? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>	<p>10. Do you have a large degree of influence on the decisions concerning your work? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>
<p>8. Is your work emotionally demanding? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>	<p>11. Do you feel that your work drains so much of your energy that it has a negative effect on your private life? *</p> <p><input type="radio"/> Never/Hardly Ever</p> <p><input type="radio"/> Seldom</p> <p><input type="radio"/> Sometimes</p> <p><input type="radio"/> Often</p> <p><input type="radio"/> Always</p>

12. Do you feel that your work takes so much of your time that it has a negative effect on your private life? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

13. Does the management trust the employees to do their work well? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

14. Is the work distributed fairly? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

15. Do you have the possibility of learning new things through your work? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

16. Can you use your skills or expertise in your work? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

17. Is your work meaningful? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

18. Do you feel that the work you do is important? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

19. At your place of work, are you informed well in advance concerning for example, important decisions, changes, plans for the future? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

20. Do you receive all the information you need in order to do your work? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

21. Is your work recognized and appreciated by management? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

22. Are contradictory demands placed on you at work? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

23. Do you often have to do things which ought to be done in a different way? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

24. How often do you get help from your immediate supervisor, if needed? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

25. How often do you get help and support from your colleagues, if needed? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

26. Is there a good atmosphere between you and your colleagues? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

27. Are you worried about becoming unemployed? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

28. Are you worried about it being difficult for you to find another job if you become unemployed? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

29. Are you worried about it being transferred to another job against your will? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

30. How often have you felt worn out? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

31. How often have you been physically exhausted? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

32. How often have you been emotionally exhausted? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

33. How often have you felt tired? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

34. How often have you had problems relaxing? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

35. How often have you been irritable? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

36. How often have you been tense? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

37. How often have you had problems concentrating? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

38. How often have you found it difficult to think clearly? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

39. How often have you had difficulty in making decisions? *

- Never/Hardly Ever
- Seldom
- Sometimes
- Often
- Always

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Appendix H

Permission to Use COPSQ III Questionnaire



Aja Atwell <abatwell@asu.edu>

Re: Request for Permission to Utilize the COPSQ III Questionnaire in DNP Research Project

1 message

Nicola Häberle <haeberle@ffaw.de>
To: Aja Atwell <abatwell@asu.edu>

Thu, Aug 8, 2024 at 3:14 AM

Dear Aja Atwell,

thank you for your message and your interest in COPSQ.

The COPSQ questionnaire is free to use under the creative commons CC BY-NC-ND 4.0 on the following conditions: can be found under <https://www.copsoq-network.org/licence-guidelines-and-questionnaire/>

Please, pay attention to the guidelines for use, which can be downloaded from the homepage for the international group of researchers and practitioners using the instrument: <https://www.copsoq-network.org/assets/Uploads/COPSQ-network-guidelines-an-questionnaire-COPSQ-III-131119-signed.pdf>

There you can also find a List of all items of COPSQ 3.

Regarding more knowledge of the scales and the instrument I suggest you check up on the special issue of Scandinavian Journal of Public Health from 2010: https://journals.sagepub.com/toc/sjpc/38/3_suppl

And also our international validation study: The Third Version of the Copenhagen Psychosocial Questionnaire. (<https://doi.org/10.1016/j.shaw.2019.10.002>)

An overview on some publications where COPSQ was used can be found here: <https://www.copsoq-network.org/publications-on-copsoq/>

Depending on from which country you are contacting us, please consider that each country has its own version on COPSQ in use and that the versions differ more or less slightly from each other. But all version do include the core items without which it wouldn't be COPSQ. Further validation studies can be found at the international homepage: <https://www.copsoq-network.org/validation-studies/>

Before starting your own COPSQ activity (translation, adaption, etc.) please have a look at the network's website, if there is already a COPSQ-network-member from your country or a validated version of the questionnaire for your country or language. If yes, please contact this person(s) before you start in order to avoid different versions for one country / language: <https://www.copsoq-network.org/network-members/>.

Good luck for your project and feel free to contact us with any further questions.

Best wishes,
Nicola Häberle, on behalf of the COPSQ international network

Appendix I

Budget Table

ITEM	DESCRIPTION	COSTS
DIRECT COSTS		
Interventions		
	Food and Beverage for workshops	\$150
	Educational Handouts for workshops (copy paper)	\$10
INDIRECT COSTS		
Administrative Costs	Project management (time spent by project coordinator, administration, stakeholders, site champion)	\$9600
Overhead	Utilities, office supplies, and other operational costs	\$1500
POTENTIAL FUNDING SOURCES		
	Donation of time associated with administrative costs (stakeholder salaries, etc)	\$9600
COST VS. REVENUE/SAVINGS		
Reduced Staff Turnover	Savings from reduced recruitment and training costs due to lower staff turnover	\$5000
Improved Staff Well-being	Potential long-term savings from reduced absenteeism and higher staff productivity	\$2000
	Subtotal	\$11,260
	Minus potential funding sources	\$9600
	Total potential project costs	\$1,660
	Cost vs Revenue Potential	\$7,000
	Total Project Cost vs Potential Savings	\$5,340