Evaluating an Intervention to Reduce

Moral Distress in the Intensive Care Unit

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Abstract

Experiencing situations that contribute to feelings of moral distress in is higher for healthcare providers in the intensive care unit (ICU). Moral distress is associated with burnout, intention to leave a position, and disempowerment. The purpose of the study was to evaluate the effectiveness of moral distress consultations on reducing moral distress and improving empowerment for healthcare providers in the ICU.

A convenience sample of twenty-four thoracic cardiovascular ICU staff members attended the three moral distress consultations conducted August-November 2017. The moral distress consultation participants were nurses, respiratory therapist, and unit manager with an average of 3.5 years in their current position.

The pretest-posttest comparison study design utilized the Moral Distress Thermometer and Global Empowerment Scale to evaluate the effectiveness of the moral distress consultations. The moral distress and global empowerment data were analyzed using the Wilcoxon rank signed paired t-test and Pearson correlation test.

The moral distress consultations significantly reduced moral distress; however, global empowerment did not increase significantly. The mean pre-moral distress score was 3.54 (1.95) and the median post-moral distress score is 2.79 (1.67), p=.007; the global empowerment means prior to and after the moral distress consultations were medium 6.89 (1.34) and 6.79 (1.37), p=0.36. The themes identified during the consultations that contributed to feelings of moral distress were, healthcare providers giving “false hope” to patient and families regarding patient prognosis, continuing to provide care not in the best interest of the patient, resistance to consult palliative care, insufficient team communication, and patient code status and advance medical directives.

Moral distress consultations provide a safe environment for healthcare providers to communicate, and identify and develop strategies to mitigate moral distress in the ICU.

Keywords: “moral distress” “education” “educational interventions” “education or prevention or treatment”

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Section I-Introduction and Background

Introduction

Moral distress is recognized as a phenomenon affecting healthcare providers in the intensive care unit (ICU) and non-ICU healthcare settings; however, healthcare providers in the ICU experience higher levels of moral distress than non-ICU providers (Allen, et al., 2013; Hilliard, et al., 2007; Hamric & Blackhall, 2009; Whitehead, Herbertson, Hamric, Epstein, & Fisher, 2015). Moral distress occurs when healthcare providers are unable to carry out the action they believe to be morally appropriate due to internal and/or external constraints (Jameton, 1993). Moral distress is associated with burnout, intention to leave a position, decreased job satisfaction, and staff turnover (Meltzer & Huckabay, 2004; McAndrew, Leske, & Garcia, 2011; Moss, Good, Gozal, Kleinpell, & Sessler, 2016; Whitehead, et al., 2015). Between 33-46% of healthcare providers have experienced burnout and 16-31% of healthcare providers have had intentions to leave or left a previous position in the ICU (Embracio, et al., 2007; Poncet, M., et al., 2006). Identifying and understanding the causes of moral distress can facilitate the development of interventions to mitigate moral distress and enhance patient care. Currently there is a gap in the literature identifying interventions to mitigate moral distress for healthcare providers.

Background

Moral Distress

Jameton first identified moral distress in 1984 as a phenomenon that occurs in the context of nursing. Jameton explained that moral distress occurs when one knows the right thing to do; however, institutional constraints make it difficult to follow the right course of action (Jameton, 1984). Jameton described two stages of moral distress: initial distress and reactive distress-now termed moral residue. Initial distress is characterized by feelings of anger, frustration, guilt, withdrawal, self-blame, and anxiety; moral residue is characterized by the lingering unresolved feelings a person has in response to the initial distress (Jameton, 1993). Moral distress is different from a moral dilemma or psychological distress. In a moral dilemma, more than one action can be taken; however, to act on one action is to ignore another (Beauchamp & Childress, 2009). Moral distress also differs from psychological distress, which is an emotional response to a distressing situation without violation of the individual's professional core values (Epstein & Hamric, 2009). A current definition of moral distress developed by Varcoe (2012), explains that moral distress is experienced when an individual is not able to practice in accordance with accepted professional values and standards. This definition shifts the focus of moral distress away from a personal violation of one's personal core beliefs and values to address the relational and contextual (organizational) factors that impede one's ability to provide care in a manner that is congruent with professional values and standards. Although the focus of the definition of moral distress has evolved, the impact of experiencing repeated morally distressing events continues to lead to the development of moral residue.

In 2009, Epstein and Hamric introduced the concept of the crescendo effect, a model that, describes the interaction of moral distress and moral residue over time (Epstein & Hamric, 2009). A moral distress crescendo occurs in the moment as healthcare providers are encountering a morally distressing situation. After the morally distressing situation ends,

unresolved feelings of frustration, disempowerment, and guilt linger. These unresolved feelings are termed 'moral residue.' This moral residue establishes a new baseline for moral distress and increases gradually. The gradual increase in moral residue results in a moral residue crescendo due to the healthcare provider experiencing additional morally distressing situations (Epstein & Hamric, 2009). This suggests the best time to conduct an intervention to mitigate moral distress is during the acutely distressing event to ameliorate moral residue.

Common causes of moral distress have been identified and studied in the literature. The common causes of moral distress: families wish to continue care that is not in the best interest of the patient, pain and suffering, futile care, treatments and tests for terminally ill patients, fear of litigation, lack of teamwork, and poor communication (Elpern, Covert, & Kleinpell, 2005; Whitehead, et al., 2015). Moral distress is associated with burnout, intention to leave a position, decreased job satisfaction, leaving the healthcare profession, end-of-life training, (McAndrew, Leske, & Garcia, 2011; Whitehead, et al., 2015) and disempowerment (Browning, 2013; Ganz, et al, 2012).

Organizations that empower healthcare providers to have an active voice in patient and family care, can influence patient outcomes and has been associated with decreased moral distress (Browning, 2013. Ganz, et al., 2012). There are two types of empowerment: structural and psychological. Structural empowerment is the ability to access sources of power in an organization. Structures in an organization that support the healthcare providers' development of empowerment are: access to information, support from the organization, availability of resources to perform work, and opportunities to learn and grow (Laschinger, Finegan, Shamian, & Wilk, 2001). Psychological empowerment has four components: meaning, competence, self-determination, and impact (Laschinger, Finegan, Shamian, & Wilk, 2001; Browning, 2013).

Meaning is determined by the alignment of job requirements with ones beliefs, values, and behaviors. Competence is the believing one can do their job. Self-determination refers to the idea that one has control over their work. Impact is the idea of being able to influence outcomes in an organization (Browning, 2013). Ganz et al. (2012) showed a correlation between moral distress frequency and structural empowerment and Browning (2013) showed a correlation between moral distress frequency and psychological empowerment.

Jameton originally defined moral distress in the context of nursing; however, other healthcare professionals are affected by this phenomenon. Moral distress has two phases: initial distress and moral residue. The crescendo effect describes the relationship between the two phases and the development of a moral distress crescendo and a moral residue crescendo. Advances in medical technology have improved the delivery of health care and people with chronic illness are living longer; however, healthcare professionals are at risk for continued exposure to morally distressing situations. The moral distress consultation service (MDCS) is a unique intervention that has the potential to mitigate moral distress and support empowering healthcare providers in the ICU.

The MDCS provides a method for healthcare providers to address ethical dilemmas and morally distressing situations encountered in the clinical setting, in a safe, respectful environment. The facilitators of the MDCS are trained in both moral distress and ethics consultation utilizing the American Society of Bioethics and Humanities, *Core Competencies for Healthcare Ethics Consultation.* The consultations are initiated by the healthcare provider, and a date and time to conduct the multidisciplinary one-hour session is identified by both parties. The goal, purpose, and intent of the consultation is discussed prior to beginning the session. The healthcare providers identify the morally distressing situation to discuss and the facilitator assists

them in identifying strategies to address the perceived or real barriers to pursing action in accordance with professional values and standards and preserving moral integrity (Hamric & Epstein, 2017).

Theoretical Framework

Figure 1. Moral Distress Theoretical Framework

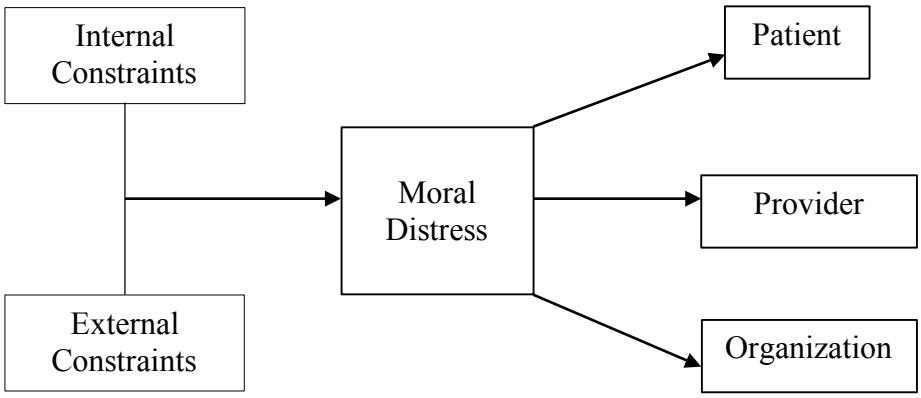

Figure 2. Corleys Moral Distress Framework. This figure shows that the interaction of both internal and external constraints contributes to the development experiencing moral distress. Moral distress impacts the patient, provider, and organization. Adapted from "Nurse Moral Distress: A Proposed Theory and Research Agenda," by M. Corley, 2002, *Nursing Ethics,9*, 644.

Corley's (2002) moral distress framework addresses both the internal and external constraints experienced by healthcare providers and the interaction of these constraints on the development of moral distress. When a healthcare provider experiences a morally distressing situation, there is an impact on the patient, healthcare provider and the organization. Patient care may suffer or patient avoidance may occur due to the healthcare provider being overwhelmed or feeling disempowered to perform the morally appropriate action (Raines, 2000). The healthcare

provider can experience burnout, decreased job satisfaction, and a desire to leave the profession due to experiencing morally distressing situations. The organization can be impacted due to healthcare providers experiencing moral distress. The organization can experience high staff turnover which can lead to challenges recruiting additional healthcare providers. In addition, decreased delivery of quality care and patient satisfaction scores can impact the organizations reputation and accreditation. Healthcare providers inherently want to provide care for patients and families and as such, are at risk for experiencing morally distressing situations. Although the framework addresses the impact of moral distress on the patient and provider separately, they may be viewed as a bi-directional process. The healthcare provider experiences moral distress because they are not able practice according to accepted standards of practice or/and the issues identified with patient care cause moral distress, or both.

The MDCS is a platform to assist healthcare providers to identify and develop strategies to address the internal and external constraints that contribute to feelings of moral distress. Conducting the MDCS during the acutely distressing event, has the potential to ameliorate the impact of moral distress on the provider, patient, organization, empower providers to practice in accordance with accepted professional values and standards, and maintain their moral integrity.

Section II-Review of Literature

Given that much is now known about the circumstances that contribute to the development of moral distress, the providers who experience it, and the potential impact on healthcare providers, a review of the literature was conducted to identify interventions to mitigate moral distress for healthcare providers in the intensive care unit.

The CINAHL, OVID Medline, PubMed, Web of Science, Educational Resources Information Center (ERIC), Joanna Briggs Institute (JBI), and Cochrane databases were

individually searched using the keywords, *"moral distress", "education", "educational interventions,"* and *"prevention or education or treatment."* The inclusion criteria were (1) no date restriction; (2) moral distress as a central concept; (3) educational interventions, debriefings, or ethics training targeting moral distress (4) intensive care unit or (5) critical care unit. Exclusion criteria (1) non-English language; (2) case studies, case series, commentaries, and editorials.

In total, 466 articles were retrieved from all databases. After eliminating duplicates (N=350), 75 were eliminated using title, abstract, or the full text review. Thirty-seven articles did not meet the inclusion criteria. Two articles were added from an outside resource. A diagram of the process is presented in Figure 2.

Summary of Data

Six studies met the criteria for final inclusion in this review of the literature. Table 1 provides a summary of the major findings of these studies. The studies evaluated educational and ethics based interventions to mitigate moral distress for healthcare providers. The six studies included, two mixed methods studies (Legget, Wasson, Sinacore, & Gamelli, 2013; Robinson, Lee, Zollfrank, Jurchak, Frost, & Grace, 2014), one nonrandomized comparison study (Beumer, 2008), two quantitative studies (Brandon, Ryan, Sloane, & Docherty, 2014; Molazem, Tavakol, Sharif, Keshavari, & Ghadakpour, 2013) and one qualitative study (Wocial, Hancock, Bledsoe, Chamness, & Helft 2010). Five studies were conducted in the United States and one was conducted in Iran.

4 *A's* Model

Two studies, Beumer (2008) and Molazem, et al., (2013), utilized the framework developed by the American Association of Critical Care Nurses, *4A's to Rise Above Moral*

Distress for nurses, to identify and mitigate moral distress (AACN, 2004). The components of the 4*A's* model are ask, affirm, assess, and act. Molazem, et al., (2013) conducted the study in a cardiac care unit and evaluated moral distress utilizing the Moral Distress Scale at 1- and 2-months after the intervention. Beumer (2008) conducted the study in a medical-surgical intensive care unit and utilized the Moral Distress Scale to identify themes related to moral distress and to evaluate the effectiveness of the 4 *A's* intervention. The perception of empowerment was also addressed by Beumer (2008). Overall, the 4*As* was shown to mitigate moral distress for nurses in two different critical care settings. Utilizing the 4*A's* intervention, Beumer (2008) identified that there was no change in the nurses' perception of empowerment to discuss patient care perceived to be futile, being listened to or respected when discussing ethical issues and empowerment to discuss patient care perceived to be futile. However, the nurses believed they had adequate resources to address moral distress, decreased cynicism, and distancing themselves from critically ill patients.

Pediatric Palliative Care

Next, Brandon, Ryan, Sloane, and Docherty (2014) examined the impact a multidisciplinary pediatric quality of life (QoL) program on moral distress. The program was developed based on the principles of palliative care in addition to providing consultation service. The consultations focused on discussions unit-level discussions with the healthcare team, coordinating family conferences, and debriefing providers after distressing events. Moral Distress Scale was revised by the author for the pediatric population. After the intervention, the intensity and frequency of healthcare providers experiencing moral distress related to "individual responsibility" and "not in the best interest of the patient" did not significantly change; however, the frequency of encountering morally distressing situations considered "not in the best interest

of the patient" decreased significantly.

Broad Education Intervention

Leggett, Wasson, Sinacore, and Gamelli (2013) implemented an education program for nurses in a burn intensive care unit. The educational sessions utilized case studies to define and identify the signs and symptoms, contributing factors, ethical issues, barriers to addressing, and strategies to mitigate moral distress. The Moral Distress Scale-Revised was used to evaluate moral distress after the intervention. Unique to this study is the finding that moral distress significantly increased 4 weeks after the intervention. The authors suggest this may be attributed to the participants being provided the language they needed to identify and therefore label the morally distressing events they had been experiencing.

Ethics Based Interventions

Two other studies focused on the development of clinical ethics programs to mitigate moral distress. Robinson, et al., (2014) developed clinical ethics residency for nurses (CERN) program. The CERN is a 10-month program consisting of online ethics based teaching, classroom lectures, simulation training, role-play, and a mentor program. The CERN evaluated moral distress using the Moral Distress Scale-Revised and it was significantly reduced after the intervention.

Wocial, et al., (2010) developed a unit based ethics conversations (UBECs) program for nursing staff. The UBECs facilitates conversations with staff regarding ethically challenging situations encountered in the clinical setting that contribute to feelings of moral distress and the facilitators have ethics training. The author developed UBEC Attendee Survey was used to evaluate the program; however, moral distress was not directly measured. Wocial, et al., (2010)

suggested, based on comments provided during the focus group session, that the UBECs assisted the staff to address moral distress.

Although the programs have different structures, both reduced moral distress by enhancing communication skills using ethics language, improved moral courage and agency to handle ethically challenging situations encountered during clinical practice, and the ability to have conversations at the bedside about ethical issues.

Discussion

Morally distressing situations are created by a combination of patient, unit, and system issues encountered by the healthcare provider. Brandon, et al., (2014) and Molazem, et al., (2013) identified several items that contributed to moral distress, following the family's wishes when the provider does not agree, family request to not discuss death with a dying patient, continuing life-saving or life-sustaining procedures when it prolongs suffering or death, and only providing medication during a code with no compressions or intubation. Other items related to the competency of the nurse or physician and inadequate staff to provide appropriate, safe care. While these studies utilized established educational programs to identify and mitigate moral distress, new innovative methods were also tested.

Healthcare providers encounter ethically distressing situations routinely, which can contribute to feelings of moral distress. Richardson, et al., (2014) and Wocial, et al., (2010) drew on ethics to develop and guide discussions to improve individual moral agency and moral integrity. In these studies, and Legett, et al. (2013), providing healthcare workers the language to articulate what they are experiencing and the ability to communicate with other members of the healthcare team using ethical concepts and principles can promote ethical practice and improve moral agency. Improving moral agency enhances the nurse's ability to confidently communicate

and engage in behaviors to advocate for patients and families and mitigate moral distress.

Some of the limitations of the studies were investigator developed measurements or measurements modified for a specific patient population. Although moral distress is a phenomenon experienced by all healthcare providers, only one study had a multidisciplinary approach. In addition, to self-report and self-selection bias, most were single center studies and not generalizable.

Conclusion and Research Question

The literature recommended the use of the *4A's to Rise Above Moral Distress* model, workshops, ethics conversations, debriefing sessions, and multidisciplinary meetings, and moral distress consultation to address morally distressing events. The purpose of this study was to evaluate the effectiveness of moral distress consultations in mitigating moral distress for healthcare providers.

Section III-Methods

A pretest-posttest design was used to address the hypothesis that healthcare providers who attend moral distress consultations will report a decrease in moral distress after the consultations.

Setting

The University of Virginia Health System (UVAHS) is a 584-bed level 1 trauma center and academic facility located in rural central Virginia. The facility offers emergency and surgical services, long-term acute health care, and home health. The UVHS employees more than 2000 nurses, 760 medical faculty, and 760 residents and fellows and other support staff (respiratory therapy, pharmacists, case managers, social workers, etc.,).

This sub-study was conducted as part of a hospital-wide study. The primary investigators

(PIs) Drs. Elizabeth Epstein and Mary Faith Marshall are conducting a 2-year health system-wide moral distress consultation service (MDCS) on moral distress and empowerment, and to evaluate whether the MDCS contributes to a healthy work environment. In addition, the PIs conducted individual semi-structured interviews to identify themes related to the perception of the consultation, changes in moral distress and empowerment, and the work environment.

The sub-study was conducted for three months, August to November 2016, in the thoracic cardiovascular intensive care unit at UVAHS. This combined 20-bed unit has 90-100 nursing staff members and other support staff (e.g., respiratory therapists, social work, case managers). Postoperative care services are provided for the following patient procedures: coronary artery bypass graph, extracorporeal membrane oxygenation (ECMO) support, ventricular assist device placement (VAD), total artificial heart placement, and heart and lung transplant. Approval to conduct the study in this unit was obtained. Appendix A

Description of Sample

The study utilized a convenience sample of unit staff (e.g., nurses, physicians, respiratory therapists) who attended a moral distress consult and consented to participate in the study. To be included in the study the participants had to attend a moral distress consultation and be permanent staff. Participants were excluded if they were students (nursing, medical) or travel staff due to rotating to various locations in the hospital. Five-ten healthcare providers attended each consultation. There were three moral distress consultations, one per month from August to November 2016. The dates and times of the consultations were discussed with the clinical nurse specialist, staff, and unit manager.

Procedures

The moral distress consultation service (MDCS) has been established at this organization

for ten years and has been integrated into the Ethics Consult Service. The purpose of the consultation is to reduce moral distress levels by providing a safe and respectful environment for healthcare providers to be able to discuss patient, unit, or system barriers that contribute to feelings of moral distress. The MDCS addresses issues such as communication and collaboration, unit procedures, and institutional protocols but, does not provide ethical guidance. The consultations were facilitated by two members of the ethics consult service; one served as the facilitator and the other as a scribe. Prior to each session the facilitator outlined, the goal, intent, and purpose of the consultations. The scribe took notes, created a formal summary of the topics and strategies identified by the healthcare providers to address moral distress. The facilitators were trained in both moral distress and ethics consultations utilizing the *Core Competencies for Healthcare Ethics Consultation* developed by the American Society of Bioethics and Humanities.

The healthcare providers selected a current or past morally distressing situation to discuss during each 60-minute session. The healthcare providers, with the assistance of the facilitator, identified and developed strategies to address the real or perceived barriers to providing high-quality patient care.

Three moral distress consultations were conducted once a month and facilitated by Drs. Elizabeth Epstein or Mary Faith Marshall. Fliers were posted in the unit lounge, restrooms, providers work areas, and on communication boards informing the staff of the date, time, and location of the consultations. The consultations were conducted in the staff lounge. Attendees were introduced to the purpose, intent, and structure of the consultation and those interested completed the moral distress thermometer (MDT), global empowerment survey, and demographic survey before the consultation.

Measures

Wocial and Weaver (2012) developed the moral distress thermometer (MDT) to measure moral distress in real time. The MDT is used to identify acute morally distressing events as they occur and can be used to facilitate the development of interventions to mitigate moral distress in healthcare providers. The MDT is a visual analog and verbal numeric rating scale with an 11-point scale from 0-10 (0=no moral distress and 10=highest level of moral distress). The reliability for the MDT was not evaluated however, convergent and concurrent validity were evaluated (Wocial & Weaver, 2012). Dr. Lucia Wocial approved the use of the MDT for this study. See Appendix A for measure.

The Global Empowerment Scale (GES) is a 2-item measure to evaluate the perception of empowerment (structural, psychological) in the workplace. The GES is a validation index for the 19-item Conditions for Work Effectiveness Questionnaire-II (CWEQ-II). The CWEQ-II has good reliability (Cronbach alpha 0.81-0.90) with a 1-5 point rating scale (1=strongly disagree, 5= strongly agree). The scale has not been used as a pre/post measure (Laschinger/personal communication). See Appendix A for measure.

The demographic survey had 4-items developed by the primary investigators of the health system-wide study. The survey inquired about the attendee's role (nurse, social worker, etc.,), years in current position, current practice setting, and previous participation in the study. This data collected on the pretest survey only. See Appendix B for this measure.

Data Analysis

Data was analyzed using SPSS. Descriptive statistics were performed for the quantitative data (MDT, GES, and demographics), pre/post- MDT and empowerment survey data were analyzed using the paired t-test, and a correlation test was used to analyze the relationship between moral

distress and global empowerment. The participants self-selected numbers, letters, or an alphanumeric combination and placed this information on the bottom of the pre/posttest survey to be matched for data analysis.

Protection of Human Subjects

The hospital-wide survey was IRB approved. Appendix B Participants were informed of the intent and purpose of the study, risks, and benefits. The study participants were informed that they were under no obligation to participate in the study and could withdraw at any time. Completion of the survey indicated consent to participate and the risk associated with the study was minimal. The surveys did not have personal identifiers to maintain participant confidentiality. The completed surveys were maintained in a locked file cabinet when not in use and the spreadsheet was password-protected.

Strengths and Limitations

The study was conducted by the moral distress consult service that is organic to the UVA healthcare system therefore; the monthly consults can be sustained if requested by the healthcare providers or unit manager. This study contributes to the limited body of literature identifying interventions to mitigate moral distress in healthcare providers. The moral distress consultations are interdisciplinary and open to all healthcare providers (nurses, physicians, respiratory therapy etc.,) on the unit.

Information related to the structure and content of the moral distress meeting could be shared with other healthcare providers and influence the study participants' response. The data for the sub-study was collected on one inpatient unit of the UVA healthcare system thereby limiting generalizability. However, the data collected for this sub-study will contribute to the institution wide study and may be applicable to similar clinical settings. Selection and

investigator bias can occur. The staff on the unit knows the facilitators of the consult service therefore, participants may respond in a manner they believe is favorable for study results. A small sample size is expected.

Practice Implications

Conducting moral distress consultations has the potential for early identification of situations that contribute to morally distressing events. Identifying these situations allows for the development of interventions to mitigate moral distress and has the potential to influence burnout, intention to leave a position, decreased job satisfaction, and high staff turnover. Conducting moral distress consultations encourages healthcare providers to discuss ethical issues and promote ethical practice during challenging situations.

Section IV-Results

Sample Characteristics

A total of twenty-four healthcare providers attended the moral distress consultation. Most (87%,n=24) of the study participants were staff nurses. Other participants included two (8%) respiratory therapists, and the unit manager. The mean number of years in the current position was 3 (SD 3.5, 0.5-16). All study participants worked in the thoracic cardiovascular unit. Twenty-five percent of the participants had attended a moral distress consult previously.

Moral Distress and Empowerment

The MDT scores range from 0=no moral distress to 10=highest level of moral distress. Prior to and after the moral distress consultation the participants evaluated their level of moral distress as mild. The mean pre-moral distress score was 3.54 (1.95) and the median post-moral distress score is 2.79 (1.67), p=.007. The change in pre- and post-test scores on the MDT indicates that the MDCS mitigated, though other factors may have contributed.

The scores of the two GES questions were added for a range of scores from 2=strongly disagree to 10=strongly agree. The global empowerment means prior to and after the moral distress consultations were medium 6.89 (1.34) and 6.79 (1.37), p=0.36. This study showed no correlation between moral distress and empowerment; however, this may be attributed to the healthcare providers' knowledge of or utilization of other organizational resources to address morally distressing situations.

Section V-Discussion

Two members of the ethics and moral distress consult service facilitated the moral distress consultations. The intent of the consultation was to identify and discuss the situations the staff felt contributed to moral distress in a safe and supported environment. The study participants determined the content of the discussions based on current or previous situations perceived to be morally distressing.

The themes identified from the consultations were similar to those discussed in other studies related to moral distress. Major themes were false hope, resistance to consulting palliative care, team communication, code status and advance directives, and informed consent.

First, when healthcare providers gave "false hope" to patients and families regarding the patients' prognosis or status, this often placed the staff in a position to answer questions they were not comfortable answering or provide an answer that conflicted with the previous information the patient and family received (Allen, et al, 2013; Epstein, & Delgado, 2010).

Providing care that does not relieve patient suffering because a request for a palliative care consult is perceived by members of the healthcare team as a request for end-of-life care. This theme was a source of moral distress for clinicians with previous training or work experience with palliative care or hospice care (Browning, 2013; Elpren, et al, 2005; Whitehead,

et al, 2005).

Insufficient team communication (Whitehead, et al, 2015) would occur due to interdisciplinary or hierarchical issues (feelings of "intimidation" or "retribution" when advocating for patients and families) or complex patients being cared for by multiple specialty teams but no unified plan of care is established (Helft, et al, 2009).

A delay in or lack of discussions by the physician or family related to the patients' code status or advance medical directives, contributed to moral distress because it is felt the healthcare team is continuing to provide care not in the best interest of the patient (Allen, et al, 2013; Elpern, et al, 2005, Helft, et al 2009).

Finally, situations in which patients and families seemed to have not been given adequate information to ensure informed consent contributed to moral distress because comments made to the staff indicated that patients and families were not aware of the full implications of a procedure (Helft, et al 2009). Situations in which tests or treatments were deemed "emergent" and therefore obtaining informed content was not required was a source of distress because the staff believed consent for the tests and treatments could have been obtained prior to surgery (Elpren, et al, 2005). In addition to identifying themes, the participants developed strategies to address the morally distressing situations discussed during the sessions.

Two strategies at the unit level were identified to mitigate moral distress. To address "false hope", resistance to consulting palliative care, team communication, and code status and advance directives, the development complex care patient program was discussed. The participants believed this would promote early identification of patients with complex needs and support team and family conversations related realistic goals of care. To address informed consent, the participants collaborated with the cardiac surgery nurse navigator in the

cardiovascular clinic to develop a pre-operative teaching educational program for the current and new staff. The pre-operative educational program has been incorporated into the unit orientation.

In conjunction with identifying and developing strategies to mitigate moral distress, creating a safe, supportive environment during the consultations allowed participants to share their feelings without a hierarchy gradient, validated their feelings, and provided an opportunity to learn how their colleagues dealt with or tried to prevent moral distress (Leggett, et al., 2013 & Wocial, et al., 2010) which may have also contributed to mitigating moral distress.

Timing and length of the moral distress consultations were barriers to attendance. The unit clinical nurse specialist and staff members provided suggestions to address this issue. As a result, the consultations were coordinated to occur before or after a unit meeting because staff were already on the unit and they did not have to leave the patients' bedside to attend the meeting (Helft, et al 2009). By coordinating the consultations with other unit events, both day shift and night shift staff were able to attend the sessions. Despite changing the time and length of the consultations, physicians, APRNs, case managers, and social workers did not attend.

The study was limited by lack of generalizability to other institutions and nurses were the primary participants. The themes identified in this study were primarily representative of the nursing staff, of interest would be to know if the reasons and strategies to address moral distress would differ between disciplines.

Conclusion

Moral distress is a well-documented phenomenon among healthcare professionals. As advances in technology improve the healthcare of people with acute and chronic illnesses, the ethical and moral situations encountered by healthcare professionals will persist. The results of

the study indicate that moral distress consultations mitigate moral distress of healthcare providers in this clinical setting and provide an evidence-based intervention to address this issue.
In addition, the participants identified and developed strategies to address morally distressing events.

Moral distress consultations assist healthcare providers to identify the root cause of moral distress- patient, unit, system, or a combination (Hamric, & Epstein, 2017) and develop strategies to address these issues. Future studies could evaluate if scheduled or as needed moral distress consultations prevent health care professionals from experiencing higher levels of moral distress.

Products of the DNP Project

The moral distress consult service is organic to the UVAHS and is an established program therefore; TCV North and West will be able to continue using the moral distress consultation service after the completion of this project.

At the completion of the DNP project, a manuscript will be drafted for publication to the *Nursing Ethics* peer reviewed journal. See Appendix C for Author Guidelines.

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Table 1. *Studies of Interventions to Reduce Moral Distress in Healthcare Providers*

Author, Year	Aim of Study	Study Design	Subjects and Setting	Outcomes
Beumer (2008)	-Determine the effect workshops on moral distress	-Non-randomized comparison study - Five various content workshops conducted over 4 weeks in 2hr blocks -12 item pre/post investigator developed MD survey conducted at beginning of workshop and 7-10 weeks later	-16-bed Medical/Surgical ICU -34 participants: Intervention group: 21 ICU staff nurses Control group: 13 ICU float pool nurses	-Perception of resources to address moral distress increased after the intervention -Perception valued opinion, patient advocate increased after the intervention. -Perception of distancing self from patient care and cynicism decreased after the intervention
Brandon, et al. (2014)	-Determine effect of a pediatric palliative quality of life program (QoL)	-Cross-sectional survey -20-month pediatric QoL program -13 item Modified Corley MD Scale for pediatrics - Investigator survey: 4-itemWork QoL 7-item Work-Related Stress	-Tertiary level medical center -N=777 Pediatric providers(nurses, physicians, social workers, chaplains, dieticians, therapists, administrators): Pre: 413 participants Post: 364 participants	MD pre/post implementation: -Category "individual responsibility" moderate *intensity* (3.27(1.58), 3.21(1.69) - Category "not in the patients' best interest" moderate *intensity* (3.66(1.44),3.53 (1.63)) *frequency* of this encounter decreased significantly (1.43, (0.69), 1.29 (0.65), p=0.01) Work QoL pre/post: -Low *intensity* (1.99, (1.29), 1.63, (1.20) and decreased significantly for the unadjusted survey time (p=0.0003), discipline (p=0.0003), setting (p=0.006), and time at institution (p=0.0003) -Work Related-Distress pre/post: No impact on personal or professional life Leaving the work environment pre/post: -Providers were not considering leaving the job in past year or intending to resign in 6 months (1.8,1.06),1.7(1.03), p=0.04)

Author, Year	Aim of Study	Study Design	Subjects and Setting	Outcomes
Leggett, et al. (2013)	-Determine effect of a 4-week educational intervention on MD and SE	-Mixed-methods quasiexperimental design -One 60-minute educational session for 4 weeks -Quantitative 21-item Modified Corley MD Scale and 10-item SE. -Survey conducted pre/post and 6 weeks -Qualitative Interviews conducted at four different burn centers	-Burn ICU -N=13 nurses Group A: 6 Group B: 7 -Group A: pre-intervention MDS and SE -Group B: post-intervention MDS and SE	MD at 4 weeks: Group A: 40.5; Group B: 92.0 U=36, z=2.14, p=0.032 MD at 6 weeks: Group A: 60.5; Group B: 69. 0 U=23, z=0.268, p=0.775 SE at 4 weeks: Group A: 34.5; Group B: 34 U=24.5, z=0.50, p=0.616 SE at 6 weeks: Group A: 36.5; Group B: 33.0 U=32, z=1.58, p=0.114 Themes: Organized debriefing program, burn survivor program for staff to see patient after discharge
Molazem, et al. (2013)	-Determine effect of the 4A model educational workshop on the rate of MD among nurses in the cardiac care unit	-Randomized Control Trial -30 item Corley Modified Moral Distress Scale -MD survey conducted pre-intervention, 1 and 2 months post-intervention -AACN 4As model educational workshop; two-4 hour sessions in two consecutive weeks	-Cardiac Care Unit -Random assignment: Permutated blocks with length 4 -N=60 nurses: Intervention group: 30 nurses Control group: 30 nurses	-Control group moral distress mean(SD) score: 4.57 (1.03) -Intervention group mean (SD) score: Pre: 4.44 (1.24), 3.36(0.996), 3.048 (1.25) -Control group mean (SD) score: Pre: 4.71 (1.048), 5.27(0.946), 5.183 (1.15) -Moral distress mean scores between the groups (P= <0.001) -Moral distress mean scores within two groups (P=<0.001)
Robinson, et al. (2014)	-Evaluate the effectiveness of the CERN program on: MD,SE,and EK	-Mixed-methods quasiexperimental design -CERN: 10month, 98-hour clinical ethics residency program Quantitative -Pre/post-test: 21-item Moral Distress Scale-Revised, 21-item Ethics Knowledge Scale, and 12-item Self-Efficacy	-Conducted over 3 years at 2 Northeast Academic Medical Centers -N=67 (Three cohorts of participants over 3 years)	Moral distress: Pre: 72.04(33.59) Post:56.82(29.59) (t=[49]=4.23, p<0.000) Ethics Knowledge: Pre: 15.34(1.75) Post: 16.23,(1.92) (t[66]=-2.86, p<0.005) Self-Efficacy: Pre: 27.75(5.87), Post: 33.53(5.42) (t[64]=-8.7, p<0.000) Themes: moral courage, improved communication skills, moral agency, ethics language

Author, Year	Aim of Study	Study Design	Subjects and Setting	Outcomes
		Qualitative Narrative data		
Wocal, et al. (2010)	-Evaluate and describe the nurses' perception and experience of UBECs	-Descriptive, qualitative study design with a focus group -Sessions were conducted for one hour -UBEC Attendee Survey	-Conducted at 3 tertiary level hospitals on the adult, neurology, pediatric, neonatal critical care units and oncology units -N=149 survey respondents -N=8 focus group participants	UBEC Attendee Survey Responses: -Participants felt it is important to discuss ethical issues encountered in clinical practice: 68% very, 30% somewhat and 2% no -UBECs met objective: 88% and staff expectations: 71% -UBECs helped staff discuss ethical issues encountered in clinical practice: 86% and better manage ethical situations: 67% Focus group themes: - Unaware of ethics resources, neutral facilitator offered another view of events, appreciation of others perspectives, ethics conversations are conducted at the bedside and integrated into daily conversation, improved skills to address ethically challenging situations, better understanding of ethics concepts and principles, and identification of strategies to deal with moral distress.
MD=moral distress; SE=self-efficacy; UBECs=unit based ethics conversations; CERN=clinical ethics residency nurse; EK=ethics knowledge; QoL=quality of life; ICU=intensive care unit				

Figure 2. *Literature Search Process*

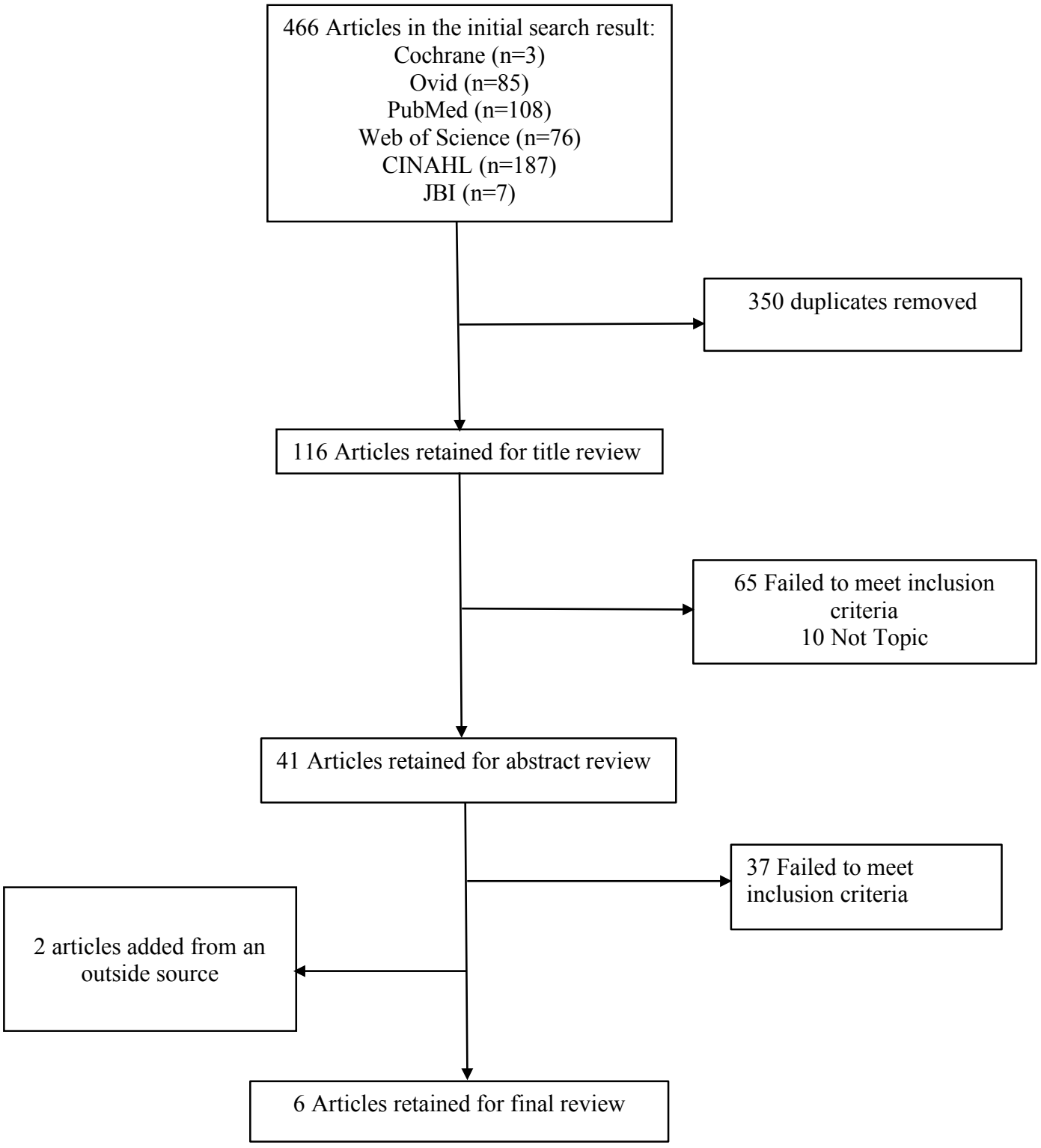
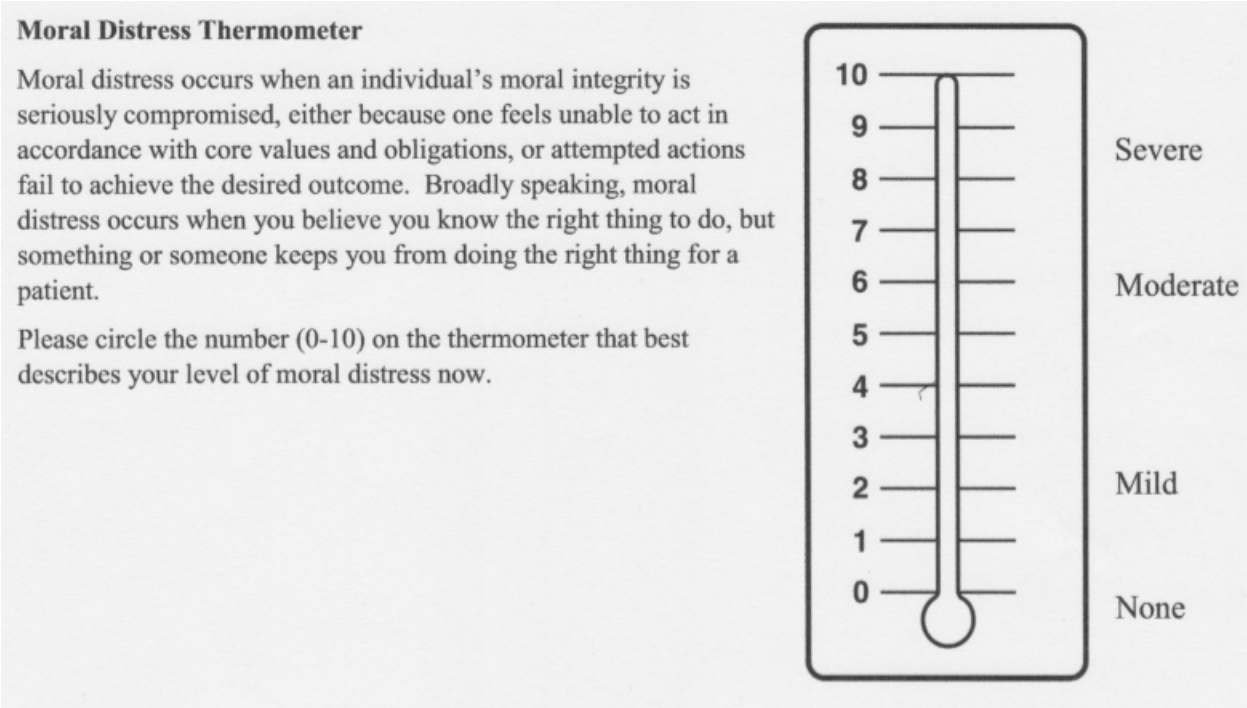
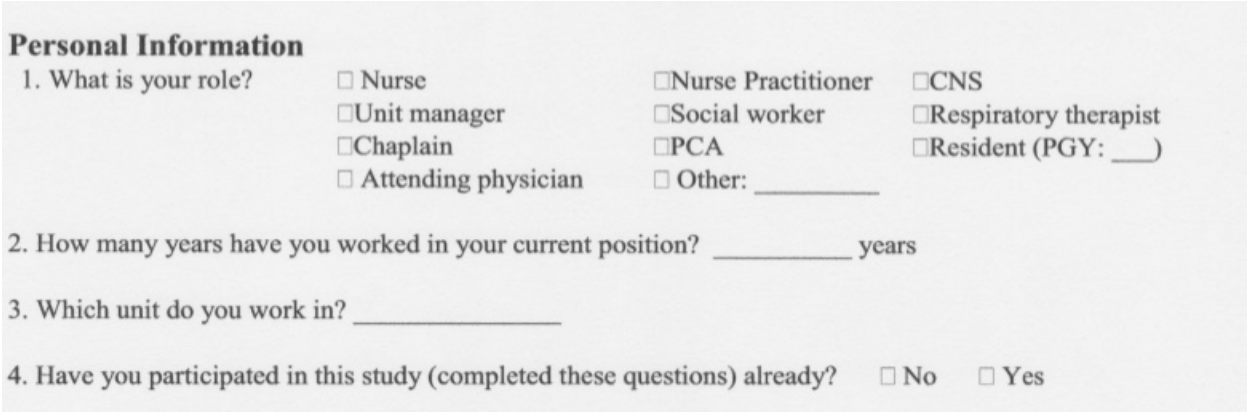


Figure 3. *Moral Distress Thermometer*



Note. Adapted from "Development and Psychometric Testing of a New Tool for Detecting Moral Distress: The Moral Distress Thermometer, " by L.D. Wocial and M.T. Weaver, 2012, *Journal of Advanced Nursing, 69*, p. 169.

Figure 4. *Demographic Information*



Personal Information

1. What is your role?
   - ☐ Nurse
   - ☐ Nurse Practitioner
   - ☐ CNS
   - ☐ Unit manager
   - ☐ Social worker
   - ☐ Respiratory therapist
   - ☐ Chaplain
   - ☐ PCA
   - ☐ Resident (PGY: ___)
   - ☐ Attending physician
   - ☐ Other: _____

2. How many years have you worked in your current position? _____ years

3. Which unit do you work in? _____

4. Have you participated in this study (completed these questions) already? ☐ No ☐ Yes

Note. The primary investigators Drs. Elizabeth Epstein and Mary Faith Marshall developed the personal information measure.

Appendix A

Dear Nicole:

Thank you for your interest in contributing to the ongoing discussions regarding moral distress in the Thoracic Cardiovascular ICU (TCV ICU). With this letter, I approve this setting for any surveys, discussions, data review, and other information that may contribute to your research.

I am sure the staff will appreciate the conversations and education regarding this topic, as we are working with patients during a time where heightened technology requires that we work with the most critically ill patients in an effort to increase length and quality of life. It can be quite challenging for those at the bedside who interact with patients and families, especially when the highest hopes turn into frustrations, hours and hours of waiting, and, often, disappointment.

We look forward to your work and the learning we will gain from it, as we work to improve understanding and practice in the subjects of ethics and moral distress.

Sincerely,

Marcia White, RN, MSN/MHA, MA, CCRN

Manager, TCVPO

University of Virginia Medical Center

Appendix B

University of Virginia
Institutional Review Board for Health Sciences

Research

Protection of Human Subjects Approval
Assurance
Identification/Certification/Declaration
(Common Federal Rule)

<table>
<tr><td colspan="3">HSR # 18813</td></tr>
<tr><td>Event:
Approval New Protocol - Expedited</td><td>Type:
Protocol</td><td>Sponsor(s):
UVA School of Nursing
Sponsor Protocol #:</td></tr>
<tr><td colspan="2"></td><td>Principal Investigator: Elizabeth Epstein, BSN, MS, RN</td></tr>
<tr><td colspan="3">Title: Evaluating a health system-wide intervention for moral distress</td></tr>
<tr><td colspan="3">Assurance: Federal Wide Assurance (FWA)#: 00006183</td></tr>
<tr><td colspan="3">Certification ofIRB Review: The IRB-HSR abides by 21CFR50, 21CFR56, 45CFR46, 45CFR160, 45CFR164, 32CFR219 and ICH guidelines. This activity has been reviewed by the IRB in accordance with these regulations.</td></tr>
<tr><td colspan="3">Event Date: 03/10/16
Protocol Expiration Date: 03/09/17
Number of Subjects: 120
HSR Protocol Version Date: 02/29/16</td></tr>
<tr><td colspan="3">Current Status: Open to enrollment</td></tr>
<tr><td colspan="3">Consent Version Dates:
Adult Consent -- 02129/2016</td></tr>
<tr><td colspan="3">Committee Members (did not vote):</td></tr>
</table>

comments: The IRB determined the protocol met the criteria for approval per the federal regulations and was approved.

It is open to enrollment.

The purpose of this study is to evaluate the effects of an institution-wide intervention for moral distress, specifically the UVA Health System Moral distress consult service (MDCS), on moral distress and elements of a healthy work environment. The study will 1) determine the impact of moral distress consultation on participants' moral distress and empowerment, compared to a non-equivalent control group, using the Moral Distress Thermometer and the Global Empowerment Scale, and 2) examine whether and how moral distress consultation contributes to a healthy work environment through interviews with MDCS participants and unit managers and content analysis of MDCS consultation reports.

Subjects will complete two surveys at two time points, along with demographic information. A subset of subjects will complete an audio interview.

There is no outside sponsor for this study.
N=l60 Ages= 18-80

The following documents were submitted with this protocol:
1. Moral Distress Consult Service evaluation study instruments

A verbal consent script was approved.

Vulnerable populations include Pregnant Females

ISPRO approval on file

Compensation via alternative route and tax information will not be collected.

REGULATORY INFORMATION:
The IRB determined this protocol met the criteria of minimal risk.

Enrollment of pregnant women/ fetuses approved under 45CFR46.204

Protocol Expedited by Category #6: Collection of data from voice, video, digital, or image recordings made for research purposes.

Protocol Expedited by Category #7: Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

This protocol has been granted a waiver of documentation of consent for pre-screening questions under 45CFR46.117(c). (Survey portion)

This protocol has been granted a waiver of documentation of consent under 45CFR46.117(c), identifiable health information will not be collected in this study.(Interview portion)

Written consent will be obtained for this study. The consent form signed will have a non-expired IRB-HSR approval stamp.

PLEASE REMEMBER:
* If an outside sponsor is providing funding or supplies, you must contact the SOM Grants and Contracts Office/ OSP regarding the need for a contract and letter of indemnification. If it is determined that either of these documents is required, participants cannot be enrolled until these documents are complete.
* You must notify the IRB of any new personnel working on the protocol PRIOR to them beginning work.
* You must obtain IRB approval prior to implementing any changes to the approved protocol or consent form except in an emergency, if necessary to safeguard the well-being of currently enrolled subjects.
* If you are obtaining consent from subjects, prisoners are not allowed to be enrolled in this study unless the IRB-HSR previously approved the enrollment of prisoners. If one of your subjects becomes a prisoner after they are enrolled in the protocol you must notify the IRB immediately.
* You must notify the IRB-HSR office within 30 days of the closure of this study.
* Continuation of this study past the expiration date requires re-approval by the IRB-HSR.

The official signing below certifies that the information provided above is correct and that, as required, future reviews will be performed and certification will be provided.

Name: Lynn R. Noland , RN PhD
Title: Vice Chair, Institutional Review Board for Health Sciences Research
Phone: 434-924-9634 Fax: 434-924-2932

Name and Address of Institution:
Institutional Review Board for Health Sciences Research
PO Box 800483
University of Virginia
Charlottesville, VA 22908

Signature: Lynn R. Noland Date: --S 10/16

Appendix C

1. Peer review policy

Nursing Ethics adheres to a rigorous double-blind reviewing policy in which the identity of reviewers and authors are concealed from both parties. Each manuscript is reviewed by at least two referees. Suitable manuscripts are reviewed as rapidly as possible, e.g. within 4-6 weeks of submission. Reviewers are directed to the COPE Ethical Guidelines for Peer Reviewers.

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2. Article types

Nursing Ethics features commissioned and non-commissioned research articles, case studies, opinion pieces, reports, book reviews, correspondence and notices of meetings, events and conferences.

Length: Articles should be between 2500 and 6000 words long (including abstract, text and references; excluding tables). Review articles may be up to 8000 words (including tables). Book reviews should be about 500 words. Case studies are normally 500 words (see guidancebelow). Letters are welcome.

Abstract: Please supply an article abstract of 100-150 words. Please supply up to six key words. See more detailed guidance below.

Authors whose first language is not English are requested to have their manuscripts checked carefully for linguistic correctness before submission.

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3. Authorship

Papers should only be submitted for consideration once the authorization of all contributing authors has been gathered. Those submitting papers should carefully check that all those whose work contributed to the paper are acknowledged as contributing authors.

The list of authors should include all those who can legitimately claim authorship. This is all those who:

1. have made a substantial contribution to the concept and design, acquisition of data or analysis and interpretation of data
2. drafted the article or revised it critically for important intellectual content
3. approved the version to be published.

Authors should meet the conditions of all of the points above. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

When a large, multicentre group has conducted the work, the group should identify the individuals who accept direct responsibility for the manuscript. These individuals should fully meet the criteria for authorship.

Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship, although all contributors who do not meet the criteria for authorship should be listed in the Acknowledgments section.
Please refer to the ICMJE Authorship guidelines at http://www.icmje.org/ethical_1author.html.

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4. How to submit your manuscript

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All papers must be submitted via the online system. If you would like to discuss your paper prior to submission, please refer to the contact details below.

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5. Publishing policies

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6. Statements and conventions

6.1. Acknowledgements

Please supply any personal acknowledgements separately to the main text to facilitate anonymous peer review.

All contributors who do not meet the criteria for authorship should be listed in an 'Acknowledgements' section. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Authors should disclose whether they had any writing assistance and identify the entity that paid for this assistance.

6.2 Declaration of conflicting interests

It is the policy of *Nursing Ethics* to require a declaration of conflicting interests from all authors enabling a statement to be carried within the paginated pages of all published articles.
Please ensure that a 'Declaration of Conflicting Interests' statement is included at the end of your manuscript, after any acknowledgements and prior to the references. If no conflict exists, please state that 'The Author(s) declare(s) that there is no conflict of interest'.

For guidance on conflict of interest statements, please see the ICMJE recommendations here

Please include any declaration at the end of your manuscript after any acknowledgements and prior to the references, under a heading 'Declaration of Conflicting Interests'. If no declaration is made the following will be printed under this heading in your article: 'None Declared'.

Alternatively, you may wish to state that 'The Author(s) declare(s) that there is no conflict of interest'.

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6.4.1 Research ethics
All papers reporting animal and human studies must include whether written consent was obtained from the local Ethics Committee or Institutional Review Board. **Please ensure that you have provided the full name and institution of the review committee and an Ethics Committee reference number.**

We accept manuscripts that report human and/or animal studies for publication only if it is made clear that investigations were carried out to a high ethical standard. Studies in humans which might be interpreted as experimental (e.g. controlled trials) should conform to the Declaration of Helsinki http://www.wma.net/en/30publications/10policies/b3/index.html and typescripts must include a statement that the research protocol was approved by the appropriate ethical committee. In line with the Declaration of Helsinki 1975, revised Hong Kong 1989, we encourage authors to register their clinical trials (at http://clinicaltrials.gov or other suitable databases identified by the ICMJE, http://www.icmje.org/publishing_10register.html). If your trial has been registered, please state this on the Title Page. When reporting experiments on animals, indicate on the Title Page which guideline/law on the care and use of laboratory animals was followed.

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Authors are required to ensure the following guidelines are followed, as recommended by the International Committee of Medical Journal Editors, Uniform Requirements for Manuscripts Submitted to Biomedical Journals. Patients have a right to privacy that should not be infringed

without informed consent. Identifying information, including patients' names, initials, or hospital numbers, should not be published in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) gives written informed consent for publication. Informed consent for this purpose requires that a patient who is identifiable be shown the manuscript to be published.

Identifying details should be omitted if they are not essential. Complete anonymity is difficult to achieve, however, and informed consent should be obtained if there is any doubt. For example, masking the eye region in photographs of patients is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic pedigrees, authors should provide assurance that alterations do not distort scientific meaning and editors should so note. When informed consent has been obtained it should be indicated in the submitted article.

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Abstract

Background: Experiencing situations that contribute to feelings of moral distress in is higher for healthcare providers in the intensive care unit (ICU). Moral distress is associated with burnout, intention to leave a position, and disempowerment.

Objective: The aim of the study was to evaluate the effect of monthly moral distress consultations for healthcare providers in

Method: The sample of the pretest-posttest design was comprised of 24 healthcare providers in cardiothoracic intensive care unit. The Moral Distress Thermometer and Global Empowerment Scale were used to evaluate the effectiveness of the moral distress consultations.

Ethical considerations: The study followed standard ethics guidelines concerning informed consent and confidentiality.

Results: The moral distress consultations significantly reduced moral distress; however, global empowerment did not increase significantly. The mean pre-moral distress score was 3.54 (1.95) and the median post-moral distress score is 2.79 (1.67), p=.007; the global empowerment means prior to and after the moral distress consultations were medium 6.89 (1.34) and 6.79 (1.37), p=0.36. The themes identified during the consultations that contributed to feelings of moral distress were, healthcare providers giving “false hope” to patient and families regarding patient prognosis, continuing to provide care not in the best interest of the patient, resistance to consult palliative care, insufficient team communication, and patient code status and advance medical directives.

Conclusion: The themes identified corresponded to themes identified in other studies. The healthcare providers identified and developed two strategies to mitigate moral distress: pre-operative teaching education program for current and new staff and the development of a program to identify complex care patients. Moral distress consultations provide a safe environment for healthcare providers to communicate, and identify and develop strategies to mitigate moral distress in the ICU.

Keywords

Moral distress, education, educational intervention, education or prevention or treatment

Introduction

Moral distress is recognized as a phenomenon affecting healthcare providers in the intensive care unit (ICU) and non-ICU healthcare settings; however, healthcare providers in the ICU experience higher levels of moral distress than non-ICU providers. [1-4] Moral distress occurs when healthcare providers are unable to carry out the action they believe to be morally appropriate due to internal and/or external constraints. [5]Moral distress is associated with burnout, intention to leave a position, decreased job satisfaction, and staff turnover. [6-9] Between 33-46% of healthcare providers have experienced burnout and 16-31% of healthcare providers have had intentions to leave or left a previous position in the ICU. [10,11] Identifying and understanding the causes of moral distress can facilitate the development of interventions to mitigate moral distress and enhance patient care. Currently there is a gap in the literature identifying interventions to mitigate moral distress for healthcare providers.

Background

Moral distress

Jameton first identified moral distress in 1984 as a phenomenon that occurs in the context of nursing. Jameton explained that moral distress occurs when one knows the right thing to do; however, institutional constraints make it difficult to follow the right course of action.[12] Jameton described two stages of moral distress: initial distress and reactive distress-now termed moral residue. Initial distress is characterized by feelings of anger, frustration, guilt, withdrawal, self-blame, and anxiety; moral residue is characterized by the lingering unresolved feelings a person has in response to the initial distress. [5] Moral distress is different from a moral dilemma or psychological distress. In an ethical dilemma, more than one action can be taken; however, to act on one action is to ignore another.[13]Moral distress also differs from psychological distress, which

is an emotional response to a distressing situation without violation of the individual's professional core values. [14]A current definition of moral distress explains that moral distress is experienced when an individual is not able to practice in accordance with accepted professional values and standards. [15] This definition shifts the focus of moral distress away from a personal violation of one's personal core beliefs and values to address the relational and contextual (organizational) factors that impede one's ability to provide care in a manner that is congruent with professional values and standards. Although the focus of the definition of moral distress has evolved, the impact of experiencing repeated morally distressing events continues to lead to the development of moral residue.

The crescendo effect is a model that, describes the interaction of moral distress and moral residue over time.[14] A moral distress crescendo occurs in the moment as healthcare providers are encountering a morally distressing situation. After the morally distressing situation ends, unresolved feelings of frustration, disempowerment, and guilt linger. These unresolved feelings are termed 'moral residue.' This moral residue establishes a new baseline for moral distress and increases gradually. The gradual increase in moral residue results in a moral residue crescendo due to the healthcare provider experiencing additional morally distressing situations. [14] This suggests the best time to conduct an intervention to mitigate moral distress is during the acutely distressing event to ameliorate moral residue.

Common causes of moral distress have been identified and studied in the literature. The common causes of moral distress: families wish to continue care that is not in the best interest of the patient, pain and suffering, futile care, treatments and tests for terminally ill patients, fear of litigation, lack of teamwork, and poor communication. [4,16] Moral distress is associated with burnout, intention to leave a position, decreased job satisfaction, leaving the healthcare

profession, end-of-life training, and disempowerment.[4,7,17,18]

Empowerment

Organizations that empower healthcare providers to have an active voice in patient and family care, can influence patient outcomes and has been associated with decreased moral distress. [17,18] There are two types of empowerment: structural and psychological. Structural empowerment is the ability to access sources of power in an organization. Structures in an organization that support the healthcare providers' development of empowerment are: access to information, support from the organization, availability of resources to perform work, and opportunities to learn and grow.[19] Psychological empowerment has four components: meaning, competence, self-determination, and impact. [17, 19] Meaning is determined by the alignment of job requirements with ones beliefs, values, and behaviors. Competence is the believing one can do their job. Self-determination refers to the idea that one has control over their work. Impact is the idea of being able to influence outcomes in an organization. [17] One study showed a correlation between moral distress frequency and structural empowerment and another showed a correlation between moral distress frequency and psychological empowerment. [17,18]

Jameton originally defined moral distress in the context of nursing; however, other healthcare professionals are affected by this phenomenon. Moral distress has two phases: initial distress and moral residue. The crescendo effect describes the relationship between the two phases and the development of a moral distress crescendo and a moral residue crescendo. Advances in medical technology have improved the delivery of health care and people with chronic illness are living longer; however, healthcare professionals are at risk for continued exposure to morally distressing situations. The moral distress consultation service (MDCS) is a unique intervention that has the potential to mitigate moral distress and support empowering

healthcare providers in the ICU.

The MDCS provides a method for healthcare providers to address ethical dilemmas and morally distressing situations encountered in the clinical setting, in a safe, respectful environment. The facilitators of the MDCS are trained in both moral distress and ethics consultation utilizing the American Society of Bioethics and Humanities, *Core Competencies for Healthcare Ethics Consultation.* The consultations are initiated by the healthcare provider, and a date and time to conduct the multidisciplinary one-hour session is identified by both parties. The goal, purpose, and intent of the consultation is discussed prior to beginning the session. The healthcare providers identify the morally distressing situation to discuss and the facilitator assists them in identifying strategies to address the perceived or real barriers to pursing action in accordance with professional values and standards and preserving moral integrity.[20]

Study aim

The study aim of the study was to evaluate the effectiveness of moral distress consultations on mitigating moral distress for healthcare providers in the intensive care unit.

Methods

Setting and sample

This sub-study was conducted as part of a health system-wide study of the moral distress consultation service (MDCS) on moral distress and empowerment, and to evaluate whether the MDCS contributes to a healthy work environment.

This pretest-posttest design study took place at trauma center and academic facility located in rural central Virginia from August to November 2016 utilizing a convenience sample of healthcare providers in the thoracic cardiovascular ICU.

To be included in the study the participants had to attend a moral distress consultation

and be permanent staff. Participants were excluded if they were students (nursing, medical) or travel staff due to rotating to various locations in the hospital.

Procedure

The moral distress consultation service (MDCS) has been established at this organization for ten years and has been integrated into the Ethics Consult Service. The purpose of the consultation is to reduce moral distress levels by providing a safe and respectful environment for healthcare providers to be able to discuss patient, unit, or system barriers that contribute to feelings of moral distress. The MDCS addresses issues such as communication and collaboration, unit procedures, and institutional protocols but, does not provide ethical guidance. The consultations were facilitated by two members of the ethics consult service; one served as the facilitator and the other as a scribe. Prior to each session the facilitator outlined, the goal, intent, and purpose of the consultations. The scribe took notes, created a formal summary of the topics and strategies identified by the healthcare providers to address moral distress. The facilitators were trained in both moral distress and ethics consultations utilizing the *Core Competencies for Healthcare Ethics Consultation* developed by the American Society of Bioethics and Humanities.

The healthcare providers selected a current or past morally distressing situation to discuss during each 60-minute session. The healthcare providers, with the assistance of facilitator, identified and developed strategies to address real or perceived barriers to providing high-quality patient care.

Three moral distress consultations were conducted once a month and facilitated by two members of the ethics consult service. Attendees were introduced to the purpose, intent, and structure of the consultation and those interested completed the moral distress thermometer (MDT), global empowerment survey, and demographic survey before the consultation.

Instruments

The moral distress thermometer (MDT) measures moral distress in real time.[21] The MDT is used to identify acute morally distressing events as they occur and can be used to facilitate the development of interventions to mitigate moral distress in healthcare providers. The MDT is a visual analog and verbal numeric rating scale with an 11-point scale from 0-10 (0=no moral distress and 10=highest level of moral distress). The reliability for the MDT was not evaluated however, convergent and concurrent validity were evaluated.

The Global Empowerment Scale (GES) is a 2-item measure to evaluate the perception of empowerment (structural, psychological) in the workplace. The GES is a validation index for the 19-item Conditions for Work Effectiveness Questionnaire-II (CWEQ-II). The CWEQ-II has good reliability (Cronbach alpha 0.81-0.90) with a 1-5 point rating scale (1=strongly disagree, 5= strongly agree).

The demographic survey had 4-items developed by the primary investigators of the health system-wide study. The survey inquired about the attendee's role (nurse, social worker, etc.,), years in current position, current practice setting, and previous participation in the study. This data collected on the pretest survey only.

Ethical Considerations

The health system-wide survey was IRB approved and permission to use the MDT and GES was obtained from Wocial and Laschinger. Participants were informed of the intent and purpose of the study, risks, and benefits. The study participants were informed they were under no obligation to participate in the study and could withdraw at any time. Completion of the survey indicated consent to participate and the risk associated with the study is minimal. The surveys did not have personal identifiers to maintain participant confidentiality. The completed surveys

were maintained in a locked file cabinet when not in use and the spreadsheet was password-protected.

Data Analysis

Analysis and evaluation of the data collected were performed with SPSS 24 computer software. Descriptive statistics were performed for quantitative data (MDT, GES, and demographics), pre/post- MDT and empowerment survey data were analyzed using the Wilcoxon Signed rank test, and the Pearson correlation test was used to analyze the relationship between moral distress and global empowerment. The participants self-selected numbers, letters, or an alphanumeric combination and placed this information on the bottom of the pre/posttest survey to be matched for data analysis.

Results

Sample Characteristics

A total of twenty-four healthcare providers attended the moral distress consultation. Most (87%,n=24) of the study participants were staff nurses. Other participants included two (8%) respiratory therapists, and the unit manager. The mean number of years in the current position was 3 (SD 3.5, 0.5-16). All study participants worked in the thoracic cardiovascular unit. Twenty-five percent of the participants had attended a moral distress consult previously.

Moral Distress and Empowerment

The MDT scores range from 0=no moral distress to 10=highest level of moral distress. Prior to and after the moral distress consultation the participants evaluated their level of moral distress as mild. The mean pre-moral distress score was 3.54 (1.95) and the median post-moral distress score is 2.79 (1.67), p=.007. The change in pre- and post-test scores on the MDT indicates that the MDCS mitigated, though other factors may have contributed.

The scores of the two GES questions were added for a range of scores from 2=strongly disagree to 10=strongly agree. The global empowerment means prior to and after the moral distress consultations were medium 6.89 (1.34) and 6.79 (1.37), p=0.36. This study showed no correlation between moral distress and empowerment; however, this may be attributed to the healthcare providers' knowledge of or utilization of other organizational resources to address morally distressing situations.

Discussion

Moral distress themes

The themes identified from the consultations were similar to those discussed in other studies related to moral distress. Major themes were false hope, resistance to consulting palliative care, team communication, code status and advance directives, and informed consent.

First, when healthcare providers gave "false hope" to patients and families regarding the patients' prognosis or status, this often placed the staff in a position to answer questions they were not comfortable answering or provide an answer that conflicted with the previous information the patient and family received.[1, 22]

Providing care that does not relieve patient suffering because a request for a palliative care consult is perceived by members of the healthcare team as a request for end-of-life care. This theme was a source of moral distress for clinicians with previous training or work experience with palliative care or hospice care. [4,16,17]

Insufficient team communication would occur due to interdisciplinary or hierarchical issues (feelings of "intimidation" or "retribution" when advocating for patients and families) or complex patients being cared for by multiple specialty teams but no unified plan of care is established. [4, 24]

A delay in or lack of discussions by the physician or family related to the patients' code status or advance medical directives, contributed to moral distress because it is felt the healthcare team is continuing to provide care not in the best interest of the patient.[1,16,24]

Finally, situations in which patients and families seemed to have not been given adequate information to ensure informed consent contributed to moral distress because comments made to the staff indicated that patients and families were not aware of the full implications of a procedure.[24] Situations in which tests or treatments were deemed "emergent" and therefore obtaining informed content was not required was a source of distress because the staff believed consent for the tests and treatments could have been obtained prior to surgery.[16] In addition to identifying themes, the participants developed strategies to address the morally distressing situations discussed during the sessions.

Strategies

Two strategies at the unit level were identified to mitigate moral distress. To address "false hope", resistance to consulting palliative care, team communication, and code status and advance directives, the development complex care patient program was discussed. The participants believed this would promote early identification of patients with complex needs and support team and family conversations related realistic goals of care. To address informed consent, the participants collaborated with the cardiac surgery nurse navigator in the cardiovascular clinic to develop a pre-operative teaching educational program for the current and new staff. The pre-operative educational program has been incorporated into the unit orientation.

In conjunction with identifying and developing strategies to mitigate moral distress, creating a safe, supportive environment during the consultations allowed participants to share

their feelings without a hierarchy gradient, validated their feelings, and provided an opportunity to learn how their colleagues dealt with or tried to prevent moral distress may have contributed to mitigating moral distress. [25, 26]

Limitation

Timing and length of the moral distress consultations were barriers to attendance. The unit clinical nurse specialist and staff members provided suggestions to address this issue. As a result, the consultations were coordinated to occur before or after a unit meeting because staff were already on the unit and they did not have to leave the patients' bedside to attend the meeting. [24] By coordinating the consultations with other unit events, both day shift and night shift staff were able to attend the sessions. Despite changing the time and length of the consultations, physicians, APRNs, case managers, and social workers did not attend.

The study was limited by lack of generalizability to other institutions and nurses were the primary participants. The themes identified in this study were primarily representative of the nursing staff, of interest would be to know if the reasons for and strategies to address moral distress would differ between disciplines.

Conclusion

Moral distress is a well-documented phenomenon among healthcare professionals. As advances in technology improve the healthcare of people with acute and chronic illnesses, the ethical and moral situations encountered by healthcare professionals will persist. The results of the study indicate that moral distress consultations mitigate moral distress of healthcare providers in this clinical setting and provide an evidence-based intervention to address this issue.

In addition, the participants identified and developed strategies to address morally distressing events.

Moral distress consultations assist healthcare providers to identify the root cause of moral distress- patient, unit, system, or a combination and develop strategies to address these issues. [20] Future studies could evaluate if scheduled or as needed moral distress consultations prevent health care professionals from experiencing higher levels of moral distress.

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Conflict of interest

The president of the American Association of Critical Care Nurses is a faculty member of this academic institution.

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