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2018

Impact of End-of-Life Education on Nurses' Moral Distress

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Jenniffer L. Mullen

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Walden University
2018

Abstract

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by

Jenniffer L. Mullen

MSN, Walden University, 2013

BSN, Kaplan University, 2011

ASN, Tompkins Cortland Community College, 2007

Dissertation Submitted in Partial Fulfilment

of the Requirements for the Degree of

Doctor of Philosophy

Interdisciplinary Health in Nursing

Walden University

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Abstract

Moral distress is a state of concern or anxiety that occurs when there is a correct action to take but an individual's ability to take that action is constrained in some way. Nurses, especially those who work in intensive care units (ICUs), may struggle with moral distress due to feelings of futility when caring for end-of-life patients. The purpose of this 1-group pretest–posttest quasi-experimental study, guided by Lazarus's theory of stress, coping, and adaptation, was to determine whether End-of-Life Nursing Education Consortium (ELNEC) education reduces moral distress in ICU nurses caring for end-of-life patients. A revised Moral Distress Survey (MDS-R 2017) by Hamric was given before and after ELNEC education to determine whether ELNEC reduced ICU nurses' moral distress level in relation to providing end-of-life care. Participants were 56 ICU nurses recruited from several healthcare institutions in the northeastern United States. Dependent t-test results showed that there was a significant difference ($p = .002$) in the intensity and frequency of moral distress in ICU nurses before versus after participating in an ELNEC education program. Recommendations for future study include investigating the potential long-term effects of ELNEC education on moral distress, using a larger sample size, and including nurses who work in areas other than ICU. This study may contribute to the development of interventions to reduce moral distress in nurses to make them less likely to leave their employers, subject to lower levels of moral distress, and able to achieve greater emotional and physical well-being. In showing that providing nurses with additional education can decrease their moral distress, this study may promote decreased job turnover and increased physical well-being for nurses, as well as improved nursing care at the end of life which may affect positive social change.

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Acknowledgments

I would like to thank Dr. Leslie Hussey and Dr. Cynthia Fletcher for their constant support and feedback throughout this process. They say it takes a village, and this could not be truer in my circumstance. Dr. Hussey has spent countless hours reviewing my work and offering me support and feedback in the classroom and during the dissertation process. Dr. Hussey is a role model for educators everywhere and truly shows dedication and excellence in and out of the classroom. Dr. Hussey, I cannot thank you enough.

Thank you to Dr. Milissa Volino for being my best friend, colleague, and director during this process. You have offered more support than I could put on this page. From countless phone calls, lunches, and feedback, you never think twice to bend an ear or review my work. You are the example of what a leader is, and more importantly, what a friend is. Thank you for always being there and giving me the extra push when I felt like giving up. You truly make the world a better place with your presence.

A special thank you to Dr. Diane Maluso. You barely knew me yet took time out of your summer and your busy life to help me perform my data analysis. You have spent hours helping me out of the kindness of your heart, and I have no way to repay you except to try and lead by your example. Your students love you, the faculty respects you, and I truly hope I can be half the educator you are some day. Thank you, my friend. I am blessed to have met you and have you in my life!

Finally, thank you to Elmira College for making this dream to complete my PhD possible. You have allotted me so much support and allowed me to grow as a Professor and Educator. Thank you, Dr. Charlie Mitchell and Dr. Charles Lindsey for your

continued support. I look forward to many more years at Elmira College.

Dedication

I would like to dedicate this dissertation to my father, Gerald Tuttle. I miss you every day and with every breath I take. You taught me to work hard and never give up on my dreams. You taught me not to take no for an answer, and that dedication has served me well through my lifetime. I know you have watched over me every day, and I appreciate the extra push when I don't think I can do any more. Thank you for showing me what love and selflessness look like. I love you.

In a journey also comes a person who stands by your side relentlessly. When things get hard, they sit with you, hold your hand, listen, and truly care. They don't give up on you or your potential but instead help you grow to higher levels. This is my husband, Michael Mullen. When things are hard, he is my rock. He is my shoulder to cry on but won't let me cry for too long. He reminds me to pick my head up and move forward. Michael—thank you. Thank you for loving me at my worst and helping me become my best. My life would not be the same without you in it.

To my children, Shawn, Collin, and Caroline. This has been a journey for all of us. You have supported me through countless papers and trips to make this dream come true. I hope that each of you follow your dreams and find your passion as I have mine. I hope that you climb the mountain and reach for the moon, as you all deserve the life you truly want to live. I love you with all of my heart and am so proud of the people you have grown to become. My life would never have been so meaningful if you weren't a part of it. Things may not always be easy, but they are always worth it. I love you my darlings and am blessed to by your Mom.

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Chapter 1: Introduction to the Study

Introduction

Moral distress is defined as state that an individual experiences when there is a

morally correct action to take but the individual is constrained in some way from taking

that action (Jameton, 1984). Moral distress has been reported in several studies for nurses

caring for end-of-life patients (Browning, 2013; Dzeng et al., 2016; Ferrell, n.d.; Hamric

& Blackhall, 2007). Moral distress affects nurses in both personal and professional areas

and may impact the quality of care received by patients and families. Nurses who develop

moral distress often change work areas earlier than reasonably anticipated; may

experience physical symptoms such as nausea, vomiting, headaches, and loss of sleep

(Whitehead, Herbertson, Hamric, Epstein, & Fisher, n.d.); and may suffer from

psychological issues such as anxiety and depression (Browning, 2013). Nurses with

increased moral distress may miss more days of work than others and feel less engaged

when providing care (American Association of Colleges of Nursing [AACN], 2017).

These symptoms may increase as exposure to end-of-life patients increases, and research

suggests that lack of end-of-life education may increase this complication (Henrich et al.,

2016). As nurses progressively encounter various patient and workplace situations, they

may also develop negative physical, psychological, emotional, and spiritual changes that

are associated with the two phenomena of compassion fatigue and work burnout (Austin,

Saylor, & Finley, 2017; Coetzee & Klopper, 2010; Hegney et al., 2014; Kaur,

Sambasivan, & Kumar, 2013; Neville & Cole, 2013). Minimal research exists on

interventions to help decrease moral distress in intensive care unit (ICU) nurses with the

use of specific end-of-life education. The current research suggests that there is a need to increase moral efficacy at the organization level and to give nurses a voice to decrease moral distress (Musto, Rodney, & Vanderheide, 2015; Rathert, May, & Chung, 2016; Wilson, Goettemoeller, Bevan, & McCord, 2013).

Discovering interventions that will reduce moral distress in ICU nurses caring for patients at the end of life may help to improve ICU nurses' emotional and physical well-being, as well as the care that their patients receive. Moral distress affects nurses' caring ability and skills, increases nurses' job turnover, and leads to poor-quality patient care (Van Bogaert et al., 2014). However, I found little available research on ways to decrease moral distress for nurses caring for the end-of-life population in ICUs. Little research is available on the effect of specialized end-of-life education in reducing moral distress.

Ethics education has been used to increase nurses' confidence in ethical decision making as a strategy to reduce nurses' moral distress and increase nurse retention (Grace, Robinson, Jurchak, Zollfrank, & Susan, 2014). Grace et al. (2014) determined that nurses who received ethics education were more confident and able to articulate ethical responsibilities and healthcare goals for their patients. The nurses were also more likely to remain in their positions due to their ability to contribute to the ethical areas of patient care. Although the Grace et al. study did not focus on end-of-life patients, it did show that the intervention of ethics education helped to relieve moral distress in a nursing population.

In another study, Browning (2013) determined that a nurse who feels psychologically empowered will report less moral distress. Attending end-of-life patient

conferences increased nurses' feelings of empowerment and led to nurses reporting less moral distress (Browning, 2013). Nurses with higher levels of education noted increased moral distress, as they understood the futility of care and knew when interventions were not in the patient's best interest (Browning, 2013; St. Ledger et al., n.d.).

The End-of-Life Nursing Education Consortium (ELNEC) found that lack of palliative-care education for both nurses and physicians is a major barrier against providing effective palliative and end-of-life care. For nurses and physicians, as well as patients and families who noted lack of education to make appropriate decisions as a barrier to their own best care (Dahlin et al., n.d.). Determining whether specific ELNEC education is effective in relieving moral distress in ICU nurses is important because minimal interventional studies exist. ELNEC education is specific education designed for nurses and healthcare providers on pain management, symptom management, and ethical and legal issues. It also addresses cultural and spiritual considerations on end-of-life care, communication, loss, grief, bereavement, preparation for death, and care at the time of death (Dahlin et al., n.d.). Finding a way to reduce moral distress among nurses may help to improve patient care at the end of life and improve nurses' quality of life. Reducing moral distress may work to create positive social change for nurses caring for the end-of-life population (Robinson, 2010).

In this introductory chapter, I describe the study background, research problem, purpose, and research question and hypothesis. I also outline a theoretical framework for the study. Finally, the chapter contains details on the nature, variable definitions, assumptions, scope and delimitations, limitations, and significance of this study.

Background

Moral distress was originally described as a conflict between an action and a nurse's values (Jameton, 1984). Jameton (1984) went on to describe moral distress as knowing the right thing to do but not being able to do it. Among nurses, moral distress has been associated with burnout. Burnout may lead to nurses considering leaving their institutions within 6 months (not just changing positions), as well as to increased depression, lack of sleep, and interference with personal relationships at work and home (Brandon, Ryan, Sloane, & Docherty, 2014).

There are nearly 2.5 million deaths annually in the United States, and more than one-third occur in hospitals (Robinson, 2010). Nurses are struggling with futile care, especially as technological advancement occurs at a rapid pace. Keeping people alive longer with fewer end-of-life guidelines on when it is appropriate to use technology to sustain life has become a source of frustration and distress for ICU nurses (Burston & Tuckett, 2013; Demir et al., 2017; Robinson, 2010).

Futility is defined as the state of being "incapable of producing any result; ineffective, useless" (Simon et al., 2017, p. 708). Nurses and providers often face futility of care when patients choose to stay alive even when their quality of life may suffer. Families may choose to continue care via mechanical ventilation, feeding tubes, and/or cardiopulmonary resuscitation even after a terminal illness has been diagnosed (Neville et al., 2015). Nurses and providers are known to struggle with providing futile care as they understand that the patient's condition will not improve and suffering is imminent (Prentice, Gillam, Davis, & Janvier, 2017). Nurses repeatedly state feelings of

helplessness and frustration when they see that prolongation of life is being provided with minimal quality expected (St. Ledger et al., n.d.; Taylor-Ford, 2013; Whitehead et al., n.d.; Young, Froggatt, & Brearley, 2017). With advancing technology and increasing access to Internet resources, patients and families may request options that would otherwise not be discussed due to futility (Burston & Tuckett, 2013).

Overall, moral distress among nurses is linked to negative physical, psychological, and psychosocial impacts, which ultimately can decrease nurses' well-being and the quality of patient care that nurses provide. Discovering interventions to reduce moral distress among nurses might decrease these complications and possibly improve patient care and nurses' well-being. Few interventional studies have addressed how to reduce the level of moral distress among nurses; those that have been conducted have indicated a need to increase moral efficacy at the organizational level and to give nurses a voice (Musto et al., 2015; Rathert et al., 2016; Wilson, et al., 2013). ELNEC education is specific education designed for nurses and healthcare providers on pain management, symptom management, ethical and legal issues, cultural and spiritual considerations for end-of-life care, communication, loss, grief, bereavement, preparation for death, and care at the time of death (Dahlin et al., n.d.). According to the Institute of Medicine (2008), the number of older adults in the United States will nearly double by 2030, leading to a need for nurses who are competent and comfortable in providing quality end-of-life care. Interventions that reduce moral distress for nurses can help to promote better care for patients and improved well-being for nurses.

Problem Statement

Nurses spend more time with patients at the end of life than any other members of healthcare teams. Two million, four hundred thousand people die annually each year, with one-third of deaths occurring in the hospital under the care of nurses (Centers for Disease Control and Prevention [CDC], 2018; Robinson, 2010). Patients with futile treatment assessments received 464 days of treatment perceived to be futile in ICU (range, 1-58 days), accounting for 6.7% of all assessed patient days in the five ICUs studied. Eighty-four of the 123 patients perceived as receiving futile treatment died before hospital discharge, and 20 died within 6 months of ICU care (6-month mortality rate of 85%), with survivors remaining in severely compromised health states. The cost of futile treatment in ICU was estimated at $2.6 million (Huynh, 2013). Futile treatment is described as a situation in which a patient has no possible lifespan-extending options but is receiving advanced life support and treatment measures (Cruz, Camalionte, & Caruso, 2015).

In some end-of-life cases, nurses participate in the care of patients receiving futile care but struggle to understand the absence of care focused on the terminal patient's comfort. Nurses have described struggling with futility and lack of care that is focused on the terminal patient's comfort, stating that these experiences produce feelings of moral distress and frustration (Ferrell, n.d.). Moral distress has been defined as occurring "when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action" (Brandon et al., 2014, p. 190). Nurses suffering from moral distress in delivering futile or nonbeneficial care to end-of-life patients become

more susceptible to burnout and emotional exhaustion (Meltzer & Huckabay, 2004).
Nursing education in schools and current practice settings focuses on patient intervention
but has limited focus on end-of-life care (Browning, 2013). The literature suggests that
new and experienced nurses feel unprepared to provide end-of-life care (Barrere &
Durkin, 2014). Nurses identify themselves as being centrally involved in conflicts
involving physicians, patients, and family members during end of life and times of futile
treatment. These conflicts increase nurses' feelings of moral distress (Ferrell, n.d.).

Although studies have addressed moral distress among nurses delivering futile
end-of-life care, ways to decrease the distress that nurses feel have not been a focus of
research. Interventions to decrease moral distress in nurses, especially in relation to end-
of-life care, have not been thoroughly examined. The End of Life Nursing Education
Consortium (ELNEC) was started in February 2000 to improve education in palliative
care and end of life for nurses (AACN, 2017). Such education has been shown to
improve nurses' level of confidence and education when providing care to patients at the
end of life (O'Shea et al., 2015). Research, however, is needed to address the gap in the
research literature concerning whether ELNEC education reduces moral distress among
nurses caring for the end-of-life population.

Purpose of the Study

The purpose of this study was to determine whether ELNEC education leads to a
reduction in the intensity and frequency of moral distress in nurses who work in an ICU
compared to the intensity and frequency of moral distress prior to ELNEC education. I
conducted a quasi-experimental study using the revised adult Moral Distress Survey

(MDS-R 2017) to determine if ELNEC education reduced moral distress. To address this gap, a one-group pretest–posttest quasi-experimental design was used. I administered the MDS-R 2017 before and after ELNEC education. This education was given to nurses in the ICU and helped in determining whether ELNEC is a resource to decrease feelings of moral distress for nurses.

Research Question and Hypotheses

The research study was guided by the following question: What effect does ELNEC education have on the intensity and frequency of moral distress on nurses who work in the intensive care unit compared to the intensity and frequency of moral distress prior to ELNEC education?

The null and alternative hypotheses were as follows:

H0: There will be no difference in the intensity and frequency of moral distress for nurses who work in the intensive care unit after ELNEC education compared to the intensity and frequency of moral distress prior to ELNEC education.

HA: There will be a difference in the intensity and frequency of moral distress in nurses who work in the intensive care unit after participating in an ELNEC education program compared to the intensity and frequency of moral distress prior to ELNEC education.

Theoretical Foundation for the Study

The theoretical base for this study was Lazarus's theory of stress, coping, and adaptation. Lazarus defined stress as a two-way process that involves the production of

stressors by the environment and the response of the individual to those stressors (Lazarus & Folkman, 1986). Stress for nurses caring for end-of-life patients remains a two-way process. Nurses are affected by the environment and individually respond to stressors. Coping was defined by Lazarus as constantly changing cognitive and behavioral efforts to manage specific internal and external demands that are taxing the individual's resources (Lazarus & Folkman, 1986). The nurse's ability to manage stress is dependent on the ability to cope with certain situations deemed difficult or stressful (McMeekin, 2017). Adaptation comes for the individual with the ability to change and adapt to surroundings (Lazarus & Folkman, 1986). Moral distress may occur when adaptation is not achieved and the nurse has a high level of stress with minimal coping skills.

Lazarus's theory focuses on a process-oriented approach that is directed toward what an individual thinks and does in specific encounters and includes the individual's thoughts and actions as the encounters unfold (Lazarus & Folkman, 1986). Nurses experience higher distress levels than physicians when caring for dying patients, especially in areas such as futility of care, patient pain and suffering, and conflict over decision making (Brandon et al., 2014). Lazurus's theory of stress, coping, and adaptation provided the theoretical framework for this study.

When nurses are presented with a stressor, it is the nurses' appraisal of the situation that may determine psychological harm and coping behaviors. These behaviors become integral elements influencing nurses' psychological well-being (McMeekin, 2017). Nurses who are able to cope with difficult situations such as end-of-life care have

improved adaptation to situations (Brandon et al., 2014). End-of-life care initiates processes for emotions such as coping behaviors. Moral distress may be present, and how a nurse copes with related feelings may indicate its severity. Not being able to cope may lead to reduced ability to adapt to difficult situations such as managing end-of-life care (Brandon et al., 2014). Moral distress is a stress that occurs when a nurse knows the right thing to do but the institution or other constraints make it difficult to pursue the correct course of action (Jameton, 1984). This makes moral distress a subcategory of the stress concept. It is important to understand whether ELNEC education serves to relieve or increase the severity of moral distress. ELNEC education teaches nurses how to manage end-of-life care, understand ethical situations, communicate end-of-life patients' needs, and know what to expect when caring for end-of-life patients (AACN, 2000; Appendix F).

Lazarus's theory of stress and coping focuses on an individual's reactions as a stressful situation unfolds. Moral distress is a stressful situation for ICU nurses caring for end-of-life patients (McAndrew, Leske, & Schroeter, 2016). Determining whether ELNEC education has an effect on the intensity and frequency of moral distress relates to Lazarus's factors of coping. Lazarus (1991) proposed that an individual's interpretation of a stressful event is more important than the event itself and offered a framework that integrates stress, appraisal, and coping theories as these relate to how individuals react to psychologically stressful situations and/or environments. ELNEC education offers ways to manage stressful situations when managing end-of-life patients and addresses specific areas of end of life such as symptom management, communication, and ethical issues

with the life of the end-of-life patient (AACN, 2000).

The ELNEC education modules provide nurses with information necessary to develop coping strategies to effectively manage the moral distress experienced when providing futile care to end-of-life patients. These strategies involve tools to manage ethical concerns and effectively communicate with providers and families regarding end-of-life situations. Knowing how to manage challenging situations when providing end-of-life patient care can effectively alleviate the level of moral distress experienced by nurses. Lazarus's theory of stress and coping proposes that developing effective coping strategies to manage challenging situations will decrease the level of stress experienced. (Lazarus & Folkman, 1986). A more detailed explanation of Lazarus's theory is presented in Chapter 2.

Nature of the Study

Based on the existing research, study background, study variables, and study hypothesis, I used a quantitative, quasi-experimental research method to determine whether there was a relationship between ELNEC education and reduced moral distress among ICU nurses. Quantitative research is an approach for testing objective theories by examining the relationship among variables (Creswell, 2016). This study identified the effect of ELNEC education on the moral distress experienced by ICU nurses. The MDS-R 2017 was administered before and after ELNEC education was delivered to assess any changes the education made. Moral distress was measured in intensity and frequency (Brandon et al., 2014).

A one-group pretest–posttest quasi-experimental design was used to study the

impact of ELNEC education on moral distress. Quasi-experimental studies examine groups of subjects at various stages in their development without any preselection (Grove, Burns, & Gray, 2013). The process of development was related to the educational intervention, and incidental findings of the nurses' age, education level, and years of experience were reviewed.

The research question was focused on moral distress. The MDS-R 2017 was used with permission from its creator, Dr. Ann Hamric. Moral distress was measured in both intensity and frequency. Frequency was defined as how often the nurse had an end-of-life encounter and moral distress situation. Intensity was measured by the moral distress experienced by the nurse when caring for adult end-of-life patients (Frankfort-Nachmias et al., 2015).

The MDS-R 2017 was given before and after ELNEC education to determine whether any difference was present. To accept or reject the null hypothesis, I used a dependent *t* test to analyze nurses' survey scores for relationships between nurses' moral distress and ELNEC education (Frankfort-Nachmias et al., 2015).

Definitions

Operationalization of the variables ELNEC education and moral distress is presented in this section. In addition to developing operational definitions, I have considered both variables' conceptual definitions.

End of life is defined as the support and medical care given during the time surrounding death. Such care does not happen only in the moments before breathing ceases and the heart stops beating (National Institutes of Health [NIH], 2018).

End-of-life care is defined as care provided to a dying or terminally ill patient (AACN, 2017). This care may include medications as well as physical, psychological, and family support provided by nurses, physicians, and health care providers. The goal of end-of-life care is to control pain and other symptoms so that the patient can be as comfortable as possible (NIH, 2018)

End-of-life patients are defined as patients receiving care who are near the end of their lives and have stopped receiving treatment to cure or control their disease (NIH, 2018).

End-of-Life Nursing Education Consortium (ELNEC) education is defined as education that focuses on nursing care at the end of life, including pain management, symptom management, ethical and legal issues, cultural and spiritual considerations in end-of-life care, communication, loss, grief, bereavement, preparation for death, and care at the time of death (Dahlin et al., n.d.). ELNEC education began in 2000 as an effort to educate nurses, providers, and healthcare workers on symptoms, expected treatment, and best care practice for patients and families at the end of life (AACN, 2000). The education is provided in a "train-the trainer" style and is offered several times per year at various locations nationwide. The education is completed over 2 days, and participants are given permission to train other individuals interested in the information (AACN, 2000).

Futile care is defined as care "incapable of producing any result; ineffective, useless" (Simon, 2017, p 708).

Intensive care unit (ICU) nurses are defined as nurses who work in critical care or

ICU nursing, which is a specialization of nursing that deals specifically with patients experiencing high-dependency, life-threatening conditions (Christensen & Hewitt-Taylor, 2006). ICU nurse specialties represent a range of areas of work, including surgical, trauma, coronary, medical, pediatric, burns, cardiothoracic, and high-risk nurseries (Christensen & Hewitt-Taylor, 2006).

Moral distress is defined as occurring when an individual knows the morally correct action to take but is constrained in some way from taking this action (Jameton, 1984). The definition of moral distress has been broadened to include morally challenging situations that give rise to distress but do not necessarily make the nurse feel constrained (Fourie, 2017).

Assumptions

The nature of this study involved several assumptions. One assumption was that the participant would complete the survey by answering honestly. Another assumption was that nurses who work in the ICU desire not to have feelings of futility and experience moral distress while caring for people at the end of life.

Scope and Delimitations

The scope of the study involved determining the effect of ELNEC education and reduction of moral distress among ICU registered nurses. I selected a quantitative one-group pretest–posttest quasi-experimental design to determine the effect of ELNEC education on moral distress in ICU nurses. Moral distress was measured in both intensity and frequency using the 29-item MDS-R 2017. A Likert scale measured the intensity and frequency with which nurses experienced moral distress. Future researchers could use

these data to determine if ELNEC education will help to reduce moral distress in other nursing areas or determine which parts of the ELNEC education program are most successful in reducing moral distress.

Moral distress is reported to be the highest among registered nurses in the ICU (Beckstrand & Kirchhoff, 2005). This study focused on ICU nurses who worked primarily in the ICU. Examining the effect of ELNEC education on the moral distress of ICU nurses may impact ICU nurses who are struggling with moral distress in the acute care setting. The scope of the study included the MDS-R 2017. Several surveys have been used in related research, but Hamric's MDS-R 2017 clearly included futile care and whether the nurse had considered leaving the hospital within the next year (Hamric & Blackhall, 2007).

The study started with a pretest using the MDS-R 2017. Implied consent was obtained when participants completed the survey. The participants were made aware that this survey was voluntary and were apprised of the risks and benefits of the study. Immediately after the pretest and demographic form were completed, ELNEC education was given to the participants. A posttest using the MDS-R 2017 was given immediately after ELNEC education. The study considered only ICU nurses working full or part time in the participating hospital in the northeastern United States. The nurses were all 18 years of age or older and actively licensed to work as registered nurses in their state.

The population for the study consisted of registered nurses of at least 18 years of age working in the ICU full or part time. The ICU was in a hospital that had granted permission for the research to be performed and had given Institutional Review Board

(IRB) approval. ICU registered nurses also traveled to a main college site where education was performed to allow for multiple nurses at several facilities to participate. The focus of this study remained on ICU nurses who were full- or part-time permanent employees of a hospital institution in the northeastern United States. Traveler or per-diem nurse surveys were discarded from the study.

The education was offered at the participating hospital several times, but nurses needed to complete all of the ELNEC module education to be considered for the study. The education was also offered in a classroom in a college setting, with participants traveling to receive the education and assist in the study process. Several hospitals from the northeastern United States sent full- or part-time ICU nurses to participate at the college location. Ensuring that the participants had received the full ELNEC education was necessary to ensure accurate survey results. Partial education might have skewed the survey answers, in that individuals would not have received the full education. Education was done in person in a classroom setting. Online or independent study education was not permitted to ensure that all participants received the same information. ELNEC also does not recommend online and independent study.

The population excluded acute care, medical-surgical, and hospice nurses because the nurses noted as experiencing the highest incidence of moral distress are ICU nurses (Beckstrand & Kirchhoff, 2005; Browning, 2013). Nurses working on medical-surgical and acute care floors also have limited reports of caring for end-of-life patients. Nurses in ICU have a higher incidence of providing end-of-life care than nurses in other areas of the hospital setting (Browning, 2013).

When determining the most appropriate foundation for this study, I also reviewed Benner's novice-to-expert theory. This theory suggests that with greater experience, nurses are able to perform higher level care (McEwen & Willis, 2014). Benner's theory introduced the notion that expert nurses develop skills and understanding of patient care over time. Benner posited that nurses need experience in nursing skills as a prerequisite to becoming experts (Current Nursing, 2018). Although Benner's theory is applicable to the use of needed skills, the focus of my study was the ELNEC education intervention. This study examined all levels of nurses, from novice to expert, to determine whether ELNEC education was effective in changing their moral distress level; therefore, Lazarus's stress theory was a more appropriate choice.

Limitations

There were limitations of my study based on the quasi-experimental research design, which limited the measurement of variables over time (Creswell, 2016). The primary objective of this study was to determine whether ELNEC education reduced moral distress in ICU nurses. I surveyed the participants prior to ELNEC education and immediately after the education. Surveying the nurses immediately after the education limited my ability to measure the effectiveness of the ELNEC education because I do not know if the nurses had enough time to use the ELNEC education, and the nurses did not care for any end-of-life patients within that time.

There was the potential for bias because I could have known some of the ICU nurses who participated in my study. My roles as a college instructor and previous supervisor at the hospital where the data were being collected could have created bias.

However, I no longer worked in any supervisory role at the institution and had not for 4 years. The data I collected will not be shared and will be kept confidential. Data were collected from several hospitals; therefore, results do not target one institution. The results of my study are not generalizable to all populations of ICU nurses, in that the study was limited to the northeastern United States. The IRBs for each participating hospital, the college where the study was completed, and Walden University were consulted regarding potential bias, and approval was granted.

Significance

The study findings are significant for nursing research, practice, and education. Understanding whether ELNEC education reduces moral distress among nurses in the ICU and finding interventions that help reduce to moral distress are beneficial because nurses who experience less moral distress may be less likely to leave their employers, have reduced levels of depression, and have improved emotional and physical well-being (Brandon et al., 2014; Ferrell, n.d.).

The study findings produced results that can be used to raise awareness of moral distress among ICU nurses caring for end-of-life patients and provide a way to improve or limit feelings of moral distress. ICU nurses may sometimes choose not to discuss feelings of moral distress because they are apprehensive about being questioned about their ability to care for patients. Nurses may be afraid of retaliation from managers who fear nurses leaving their current positions or providing less-than-adequate care due to the moral distress (Hamric & Blackhall, 2007). This study on moral distress and the impact of ELNEC education may help ICU nurses feel supported as well as more confident in

performing end-of-life care. ICU nurses who feel confident and have psychological empowerment have reduced moral distress (Browning, 2013).

Finally, the study findings may contribute to positive social change within the nursing profession. Moral distress in nurses has been associated with increased job turnover, decreased caring ability, increased stress, increased depression, and problems with emotional and physical well-being (Austin, et al., 2017; Coetzee & Klopper, 2010; Hegney et al., 2014; Kaur et al., 2013; Neville & Cole, 2013; Van Bogaert et al., 2014). Given that nearly 2.5 million deaths occur annually and more than one-third occur in hospitals (Robinson, 2010), support needs to be available for nurses, such as debriefing, counseling, and education on end-of-life care (Brandon et al., 2014). Ultimately, positive social change resulting from the research could contribute to improved patient care quality and improved job satisfaction for nurses.

Summary

Moral distress is known to occur in nurses caring for end-of-life patients and is seen most often in ICU nurses (McAndrew, Leske, & Schroeter, 2016). Moral distress may affect nurses physically, psychologically, and professionally in areas such as job turnover, caring ability, stress, depression, and emotional and physical well-being (Austin, et al., 2017; Coetzee & Klopper, 2010; Hegney et al., 2014; Kaur et al., 2013; Neville & Cole, 2013; Van Bogaert et al., 2014). Few interventional studies have been conducted to determine the effect of an intervention to reduce moral distress. Using a quasi-experimental study design, I determined the effect of ELNEC education on ICU nurses' level of moral distress. The study findings show significance and indicate that

ELNEC education may help to decrease moral distress for participants, improve confidence, contribute to improved patient care quality, and improve job satisfaction (Browning, 2013).

In Chapter 2, I review the literature, theoretical basis, and search strategy used for this study.

Chapter 2: Literature Review

Introduction

The purpose of my study was to determine if ELNEC education had an effect on the intensity and frequency of moral distress in nurses who work in the ICU compared to the intensity and frequency of moral distress prior to ELNEC education. Nurses struggle with moral distress when caring for patients at the end of life. Lack of education, poor communication between providers and family, and lack of follow through and consistency are several areas where increased distress is noted (Brandon et al., 2014). There is a gap in the literature on interventional studies on how to relieve moral distress for nurses caring for the end-of-life population. Nurses face a high level of moral distress when caring for end-of-life patients in an acute care setting and are inadequately trained for end-of-life care in this setting (Whitehead et al., n.d.). There is a gap in understanding whether ELNEC education provides relief from moral distress to nurses caring for end-of-life patients. Moral distress is an underrecognized and potentially detrimental experience for nurses (St. Ledger et al., n.d.).

Chapter 2 includes the literature search strategy, a review of literature related to the specific topic of this project, a review of literature, and a presentation of the theoretical framework of this project. The review includes evidence-based articles describing the experiences that nurses have with moral distress, how moral distress affects nurses, and barriers that nurses face in providing end-of-life care. A summary concludes this chapter.

Literature Search Strategy

Rudestam and Newton (2014) stated that a literature review clarifies the relationship between a proposed study and the previous work conducted on this topic. The review for this study was conducted mainly through the Walden Library. The literature search used the following databases: CINAHL, Medline, EBSCO, and Google Scholar. The following key words were used: *end of life, moral distress, acute care setting or hospital, futility*, and *palliative* care. The parameters were set from 2013-2018. Most of the articles included in the review were less than 5 years old. Helpful articles related to the history of nursing care theories were included even if they were over 5 years old.

The review included over 40 articles on the topic of end-of-life care and moral distress. My strategy when reviewing these articles was to focus on moral distress in an acute care setting. In my search, I looked at literature on providers and nurses providing end-of-life care, futility of care, and moral distress when providing end-of-life care or futile care. The search also included interventions for moral distress in nurses and providers as well as education and support. Most of the articles were peer reviewed and from professional journals. The results of the search are described in the following sections.

Theoretical Framework

Patients at the end of life may continue to be cared for in acute settings such as ICUs and medical-surgical floors. Nurses and providers struggle with moral distress when providing this care due to various issues, such as poor communication between

providers and patients, futile treatments causing increased patient suffering, and lack of education and support for nursing staff (Burston & Tuckett, 2013). Nurses are given end-of-life patients with the expectations that they understand how to provide care to these patients just as they care for every other patient on their unit. Physicians are expected to understand end-of-life pain and anxiety management in hospital settings, but this is not always the case (Dzeng et al., 2016). ELNEC education is specialized in teaching nurses, providers, and other healthcare workers what to expect in and how to manage end-of-life care in a professional manner. ELNEC education focuses on nursing and what to expect at a patient's end of life. It encompasses expectations such as patients' rights, medication management, ethics, and addressing what may be uncomfortable issues such as futile treatment, providers' lack of consistency, and family disagreements concerning care (AACN, 2017).

Moral distress is known to cause stress for nurses in their personal and professional lives. Nurses have reported trouble sleeping, not wanting to attend work, feeling stress at home, and considering other careers due to increased moral distress (Henrich et al., 2016). Moral distress may become increasingly present when futile care is noted by a nurse. Knowing that a patient is suffering due to ongoing interventions even though no increase in quality of life is noted may be especially difficult for nurses in this situation (Ferrell, n.d.).

The theory of stress, coping, and adaptation proposed by Richard Lazarus focuses on a process-oriented approach that is directed toward what an individual thinks and does in a specific encounter and includes the individual's thoughts and actions as the

encounter unfolds (McEwen & Wills, 2014). Nurses experience higher distress levels than physicians when caring for dying patients, especially in areas such as futility of care, patient pain and suffering, and conflict over decision making (Brandon et al., 2014). Lazarus proposed that the interpretation of a stressful event is more important than the event itself (Lazarus, 1991). Lazarus viewed stress as a relationship between the individual and the environment (Figure 1). As Lazarus and Folkman (1986) explained, "Psychological stress refers to a relationship with the environment that the person appraises as significant for his or her well-being and in which the demands tax or exceeded available coping resources" (p. 63).

Primary and Secondary Appraisal

Lazarus demonstrated how a person makes a primary appraisal of a situation and interprets the type of stress being faced. Primary appraisal is an assessment of how significant an event is for a person, including whether the event is a threat or opportunity for the individual (Lazarus & Folkman, 1986). Positive and irrelevant stress are generally well managed by individuals, whereas dangerous, challenging, threatening, or harmful stressors need secondary appraisal. Secondary appraisal occurs with the analysis of available resources (Figure 1). If the individual feels that there are insufficient resources, then stress may occur (Lazarus & Folkman, 1986).
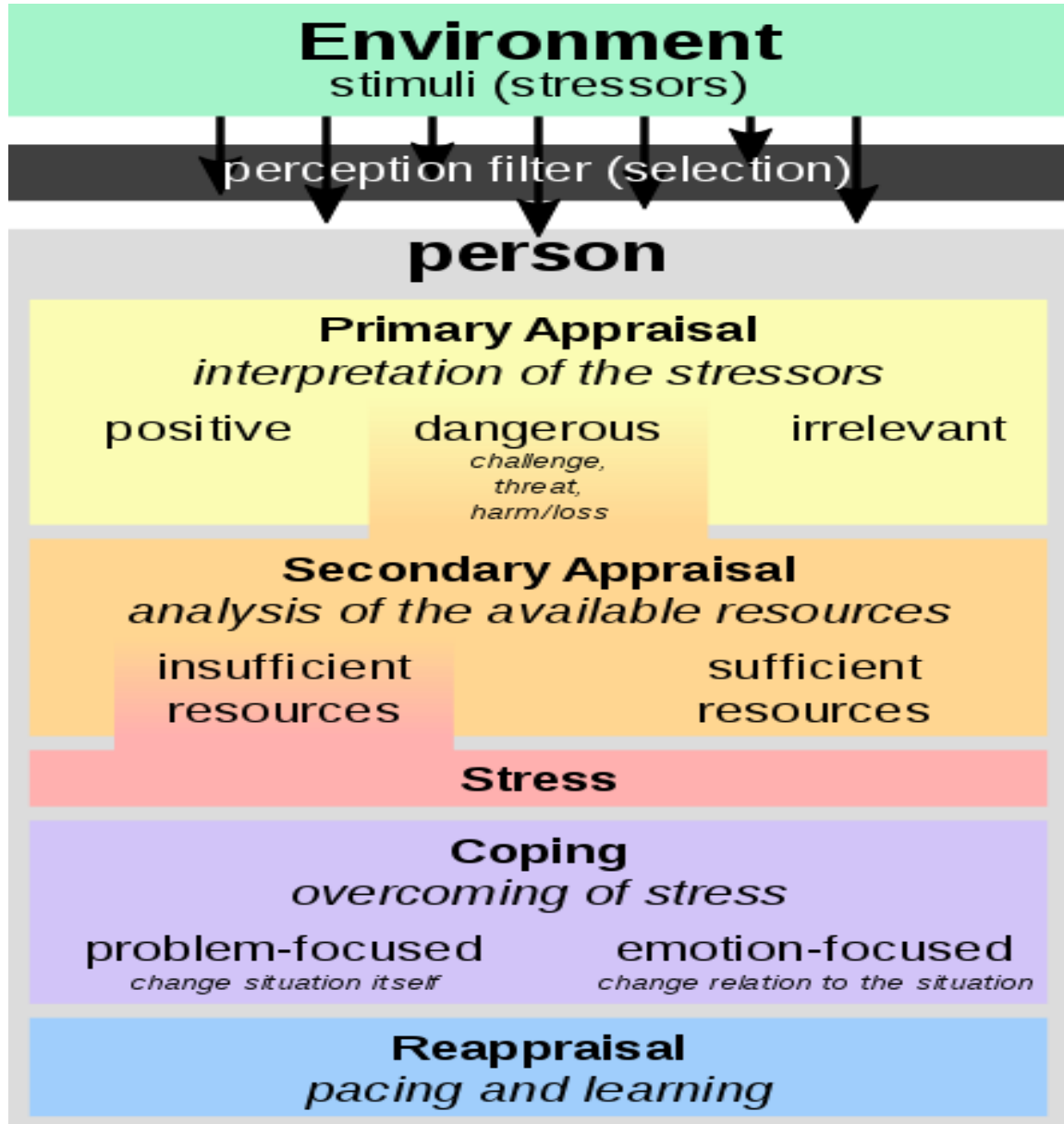
Figure 1. Graphical representation of Lazarus's theory. From "Illustration of the Transactional Model of Stress and Coping by Richard Lazarus," by P. Guttmann, 2016 (https://commons.wikimedia.org/wiki/File:Transactional_Model_of_Stress_and_Coping_-_Richard_Lazarus.svg). Copyright 2016 by Phillipp Guttmann. Reproduction permitted with source attribution.

When nurses are presented with a stressor, their appraisal of the situation may determine psychological harm and coping behaviors. These behaviors become integral elements influencing nurses' psychological well-being (McMeekin, 2017). End-of-life care initiates processes for emotions in individuals, such as how they cope, what feelings they have, and how they handle the stress of death. Moral distress may be present, and how a nurse copes with these feelings may indicate its severity.

Lazarus described two different models of life stress. The dominant approach to stress treats stressors as life events that create change and require adaptation. The alternate approach to stress is one that supplements the life events strategy. This approach focuses on daily hassles—areas that are irritating, frustrating, and distressing, as well as troubled relationships that plague the individual each day. These stressors can influence a person's life through difficulty with sleep, inability to focus, difficulty adapting, avoidance of outside functions and family events, and psychological, physical, and somatic illness (Lazarus & DeLongis, 1983).

Coping Variable

Nurses who suffer from moral distress when caring for end-of-life patients may have some or all of the symptoms noted in the previous section. Coping is a crucial variable that must be considered with managing stress and a person's struggle to live well (Lazarus & DeLongis, 1983). Coping is defined as the cognitive and behavioral efforts made to master, tolerate, and reduce external and internal demands and conflicts among them (Lazarus & Folkman, 1986). The knowledge that providing end-of-life care may cause nurses moral distress presents the problem of how to reduce the distress felt and

how to assist nurses with coping mechanisms. In primary coping appraisal, a person evaluates whether there is any challenge, threat, harm, or loss with respect to commitments, values, or goals in his or her interaction with the environment. In secondary appraisal, the person evaluates what can be done to overcome or prevent harm or to improve his or her prospects for a beneficial outcome (Lazarus & Folkman, 1986).

Lazarus and Folkman (1986) found that overcoming stress needs to be problem and emotion focused. The person needs to change the situation itself or his or her reaction to the situation. Coping consists of two distinct functions: internal emotion-focused coping, which serves to regulate emotions, and problem-focused coping, which serves to change the problematic person–environment situation (Figure 1). Problem-focused coping changes the relationship between the person and his or her environment, whereas emotion-focused coping induces internal changes in a person's attention or personal meanings (Folkman & Lazarus, 1988). Interventions to reduce moral distress may help nurses with problem-focused coping changes, in that they may work to change the relationship between the nurse and his or her working environment. Increasing education and support on how to manage end-of-life patients may help nurses find the right words, reduce stress for patients' families, and improve communication between nurses and providers (Barrere & Durkin, 2014). New nurses who received ELNEC education stated that they felt more prepared for working with end-of-life patients, more comfortable in supporting families, and more confident in asking providers questions regarding care (Barrere & Durkin, 2014). With the knowledge that ELNEC education has helped to improve nurses' confidence, it is important to determine whether ELNEC education

reduces moral distress.

Lazarus theorized that people who suffer from stressful circumstances have an increasingly depleted resource pool to combat further stress. Each time a person suffers from stressful circumstances, the individual becomes more depleted and impaired, resulting in a loss spiral (Folkman & Lazarus, 1988). As individuals become more exhausted and depleted, supplying tools on how to handle the situation may be helpful to avoid this spiral. Nurses have stated that minimal amounts of education received on caring for end-of-life patients, increased workload, increased acuity of patients, and lack of receptiveness by the administration are main causes for moral distress and dissatisfaction with their current positions (Oberle & Hughes, 2001). The acuity of patients is increasing nationwide as medical technology advances, people are living longer, and the nursing shortage worsens. Nurses are feeling overwhelmed while patients and families expect more, with satisfaction scores being a driving force in the United States for insurance reimbursement (McAndrew et al., 2016). Futile care is becoming an increasing concern as providers, with advances in medical technology, can order more tests and interventions to sustain patients' lives longer. This does not necessarily correlate with quality of life, and nurses have voiced increased moral distress due to witnessing futile care being provided for their patients (St. Ledger et al., n.d.). Witnessing futile care repeatedly may continue to deplete the resources of nurses and increase their moral distress, resulting in the loss spiral described above.

Lazarus (1991) noted that increased distress may be caused when people feel that their global environment (general orientation) is different or changed due to a particular

event that is threatening or uncontrollable. To reduce such distress, an individual must reduce the discrepancy through meaning making. This makes it possible for the individual to recover from the event. Meaning making may be done by avoiding recurrent thoughts about the event and avoiding repetition of the event, and, in some cases, reliving the event may lead to feelings of shame or guilt (Lazarus, 1991). Reappraisal of the situation is needed to help the individual learn from the situation and pace him- or herself before managing the stress and concerns again (Lazarus & Folkman, 1966). Figure 1 illustrates Lazarus's theory and how an individual may respond to various stressors and concerns.

Working to create positive feelings regarding the event may lead to more productive assimilation and may create positive change. Not discussing or avoiding the situation may make the feelings of shame or guilt stronger, thus increasing the moral distress felt by the individual. ELNEC education may work to create positive feelings and lead to a more productive assimilation for the nurse.

Previous Applications of Lazarus's Theory

My initial search of the literature indicated that Lazarus's theory had been used in over 1,700 studies, articles, and cases. My search was then narrowed and limited to Lazarus's theory and end of life from 2013 to the present. This search yielded zero articles for review. I then backdated the search from 2005 to the present and found four articles.

Lazarus's theory was used in a study by Mitchell (2015) to explore the relationship of five variables—primary appraisal, secondary appraisal, coping skills,

social support, and stigma—to bereavement among women whose military spouses had completed suicide. Four correlations to bereavement (primary appraisal, secondary appraisal, coping skills, and stigma) were significant. The study found that there was a statistically significant positive relationship between stigma and bereavement, suggesting that as a female survivor perceives increased stigma regarding the suicide of her spouse, she presents more symptoms of bereavement (Mitchell, 2015).

McMeekin (2017) used Lazarus's theory when interviewing 490 critical care nurses after an unsuccessful cardiopulmonary resuscitation. Critical care nurses showed moderate levels of postcode stress and PTSD symptoms when asked to recall an unsuccessful resuscitation and the coping behaviors used. Lazarus's theory was used for coping and identifying stressors in this study.

A classic study by Richards and Folkman (1997) was used for this literature review because of its baseline work. This study examined the spiritual aspects of loss at the time of a partner's death from AIDS. This study examined the experiences of patients dying from AIDS and their caregiving partners, including various existential issues such as death anxiety and fear regarding life after death. When examining the family, this study looked at grief, bereavement, and whether religion helped to reduce the level of mourning. This study applied Lazarus's theory on coping and the spiritual nature of a patient's death and identified areas of struggle and resilience (Richards & Folkman, 1997).

Davis et al. (2005) conducted a study on family stress and advanced directives that compared the stress levels of families of terminally ill patients who had advanced

directives with those of families of terminally ill patients without advanced directives.

Results revealed that advanced directives were beneficial to positive end-of-life decision

making and decreased stress to the patient's family when advanced directives were in

place. These results supported Lazarus's theory of stress and coping, in that death may be

interpreted as a primary stressor. Death may be looked at as a harm, loss, or threat.

Preparing advanced directives helps to minimize this stress and reduce the secondary

stressors of insufficient resources (Lazarus & Folkman, 1986).

<div align="center">**Literature Review Related to Key Variables and/or Concepts**</div>

Moral Distress

Moral distress was originally described as a conflict between an action and a

nurse's values (Jameton, 1984). Studies over the past decade have found that moral

distress is a significant problem experienced by all healthcare providers (Browning, 2013;

Dzeng et al., 2016; Ferrell, n.d.), but at least one study has shown that nurses experience

higher levels of moral distress than physicians when caring for dying patients (Hamric &

Blackhall, 2007). This was confirmed again in a 2014 study by Brandon et al. on the

impact of moral distress on providers.

Several studies have identified situations that increase the moral distress among

nurses (Burston & Tuckett, 2013; Ferrell, n.d.; Henrich et al., 2016; Klein 2009). The

sources of moral distress include futile continued care (Aghabarary, & Nayeri, n.d.),

patient pain and suffering (McAndrew, et al., 2016), conflicting orders by providers

(Klein, 2009) and lack of education on providing appropriate end of life care (AACN,

2017). Nurses who develop moral distress may change work areas earlier than reasonably

anticipated, have physical symptoms such as nausea, vomiting, headaches and loss of

sleep (Whitehead et al., n.d.), and may suffer from psychological issues such as anxiety

and depression (Browning, 2013).

The concept of futile care has increased moral distress among nurses. Futile care

is defined as the use of substantial resources without reasonable confidence that a patient

will recover to a state of relative independence or be capable of interacting with the

environment (Sibbald, Downar, & Hawryluck, 2007). Futile care may be provided

because of lack of communication between the patient and family, disagreements by the

family, and provider about what futile care may be, and lack of timely conversations with

the patient and family before interventions have been made (Taylor-Ford, 2013).

Technological advancements are occurring at a rapid pace allowing health care providers

the opportunity to keep patients alive longer. However, there are few guidelines regarding

the appropriate use of these technologies (Robinson, 2010).

Other areas that increased moral distress was the nurses' age, education level and

years of critical care experience. Nurses with greater education, specifically on end of

life, noted increased moral distress as the nurse understood the futility of care and knew

when interventions were not in the patient's best interest (Browning, 2013; St. Ledger et

al., n.d.). Browning's study also found positive correlation between psychological

empowerment and decreased moral distress. Nurses who worked more hours per week

were more empowered as well as nurses with active collaboration in the end of life

patient care conferences. The nurses' felt they had more of an impact on the care being

provided thus decreasing their moral distress (Browning, 2013). Browning's study helped

lead the question if specific end of life of education (ELNEC) will reduce a nurses' moral distress.

Not only the nurses suffer from moral distress, but providers and relatives also carry a burden in making decisions about the patient's end of life. Relatives have a strong personal, social commitment and oral obligation to ensure that their loved one has every option of treatment before providing end of life care (Ledger et al., 2012). Families state that religion played a part in their decision making as life is considered valuable and it is the family's duty to protect and preserve the patient's life in every way. Catholic tradition and many other religions make a distinction between using life sustaining medical interventions in end of life care. Proportionate versus disproportionate means are used for this purpose. Proportionated means are those that in the judgment of the patient or family offer reasonable hope of benefit. Disproportionate means are those that in the patient's or family's best judgment do not offer reasonable hope of benefit (Repenshek, 2009). Using the language proportionate and disproportionate has been a way to help providers discuss end of life options to patient and family members.

Providers have a guiding principle of "first, do no harm" (Plakovic, 2016, p. 384). This causes clinicians and nurses moral distress when procedures such as dialysis, feeding tubes or mechanical ventilation when requested by the patient or their decision makers. Things such as central lines and surgical insertion of G-tubes may cause harm or undue suffering with little if any benefit to the patient (Plakovic, 2016). Quality of life is highly subjective and clinicians often have the benefit of experience and professional distance that makes them objective. The patient and family are often without that

objectivity (Whitehead et al., n.d.).

End-of-Life Nursing Education Consortium (ELNEC)

The End of Life Nursing Education Consortium (ELNEC) education began in 2000 to improve palliative nurse education. This education focuses on nursing care at the end of life including: pain management, symptom management; ethical and legal Issues; cultural and spiritual considerations on end of life care, communication, loss, grief, bereavement; preparation for and care at the time of death (Dahlin et al., n.d.). Lack of palliative care education for both nurses and physicians is a major barrier in providing effective palliative and end of life care for nurses' and physicians as well as patients and families who noted lack of education to make appropriate decisions as a barrier to their own best care (Dahlin et al., n.d.).

According to the Institute of Medicine (2008), the number of older adults in the United States will nearly double by 2030, leading to a need for nurses who are competent and comfortable in providing quality EOL care. The AACN published competencies for EOL care for older adults in 2010. ELNEC offers modules on pain and symptom management, ethics, communication, and other key EOL issues (AACN, 2000). White and Coyne (2011) found that many students reported having only two hours or less of EOL education in the preceding two years. Graduate nurses were surveyed and asked to describe experiences with end of life during their first year. These nurses emphasized the importance of the nurse's role in easing a patient's death. They felt that maintaining a patient's comfort and dignity while offering emotional support was essential (Barrere & Durkin, 2014). Graduate nurse's express frustrations as they did not feel they had enough

end of life education and did not feel they had enough experience to truly advocate for the patient. They also stated that they did not know how to comfort the patient's family members once the patient had died. Especially challenging situations were when family members disagreed with care for their loved ones and teaching families how to deal with the aspect that the patient is dying (Barrere & Durkin, 2014).

Acute and critical care nurses need the skills to care both for patients for whom comfort is the primary goal and for patients who will die under their care. However, in two national surveys critical care nurses reported that one of the greatest barriers to providing end of life care was lack of knowledge (Beckstrand & Kirchoff, 2005; Beckstrand & Kirchhoff, jkji,m5k 2006). Nurses typically choose the critical care practice setting because they want to care for physiologically complex patients not necessarily dying patients. When practice expectations, knowledge, and skills do not align with the needs of patients and families, moral distress can occur. The purpose of ELNEC is to develop and implement a comprehensive national effort to improve palliative/EOL care by nurses across all practice specialties. Its train-the-trainer model has been successful in increasing palliative/EOL care knowledge for nurses working across multiple practice settings. After receiving ELNEC education nurses reported an improvement in the effectiveness of their work setting in teaching EOL content and increased comfort with the topic of EOL (Marian et al., 2013).

ELNEC also largely focuses on communication techniques and their potential impact on care. Communication involves how to discuss important information about illness, treatment and allow individuals to make informed decisions related to care. A

common area where nurses' feel more education is communication with patient's and family's regarding the disease process and end of life options (Matzo et al., 2003). ELNEC also focuses on the family as the unit of care; the important role of the critical care nurse as advocate, importance of culture as an influence at the end of life, the critical need for attention to special populations such as children, the elderly, the poor, and the uninsured; the relevance of EOL issues in all systems of care across all settings, the influence of critical financial issues in EOL care; and necessity of interdisciplinary care for quality care at the end of life (Ferrell et al., 2007).

The ELNEC Education Program consists of four hours of education and content (Matzo et al., 2003). This education format has remained the same throughout the course of ELNEC education and participants state feeling more confident in providing end of life after completing the program (Nelson, 2008). Although confidence and better preparation in delivering end of life care are discussed, moral distress was not addressed during these studies.

Futility of Care

Futility is defined as "incapable of producing any result; ineffective, useless" (Simon, 2017, p.708). Nurses and providers face futility of care often when patients choose to stay alive albeit their quality of life may suffer. Families may choose to continue care via mechanical ventilation, feeding tubes, and/or cardiopulmonary resuscitation even after a terminal illness is delivered (Neville et al., 2015). Nurses and providers are known to struggle with providing futile care as they understand the patient's condition will not improve and suffering is imminent (Prentice et al., 2017).

Halevy and Brody (1999) proposed four types of futility. *Physiologic futility* refers to treatments that simply cannot bring about the intended physiologic effect, for example defibrillation for asystole. *Imminent demise futility* refers to treatments that may have the desired effect, but will not prolong the life of a dying patient. *Lethal condition futility* applies to cases in which the patient will soon die of an underlying condition, regardless of the treatment's effect. Finally, *qualitative futility* refers to cases in which the treatment, even if successful, will not lead to an acceptable quality of life, such as performing CPR on a patient in a persistent vegetative state (Halevy & Brody, 1999).

Nurses have stated frustration with futile patient care in every nursing setting from acute care, to nursing homes to home care (Aghabarary & Nayeri, n.d.). Nurses repeatedly state the feelings of helplessness and frustration that prolongation of life is being provided with minimal quality expected (St. Ledger et al., n.d.; Taylor-Ford, 2013; Whitehead et al., n.d.; Young et al., 2017). With advancing technology and increasing access to internet resources, patient and families may request options that would otherwise not be discussed due to futility (Burston & Tuckett, 2013). Physicians feel obligated to offer and utilize technology to sustain life and nurses feel frustrated by providing this care as most nurses realize the outcome of death will remain the same (Neville et al., 2015).

Young et al., (2017) found that acute care nurses suffer more with moral distress when managing futile care at end of life than other areas in the profession. Nurses caring for patient's in a nursing home setting struggle with ethical issues and how to manage

end of life wishes at the patient's end of life. Quality of life remained a focus for both

settings (Young et al., 2017). Oncology nurses were also surveyed and results showed

they had similar feelings toward futile care. These nurses noted that even with increased

education to the patients and families, many opted for long term therapies that would not

benefit their quality of life (Demir et al., 2017). This feeling of diminished quality of life

remained present throughout several articles and feeling that life was being sustained

without a long-term benefit which increased moral distress and feelings of ethical

dilemmas for nursing staff (Aghabarary & Nayeri, n.d.; Demir et al., 2017; Hamric &

Blackhall, 2007; Hernandez-Marrero et al., n.d.).

Nurses have also stated that watching someone die with minimal quality of life is

like watching someone die in slow motion. These nurses feel it is almost torturous and

left nurses feeling overwhelmed and unsure of how to proceed with care (Pattison, Carr,

Turnock & Dolan, 2013). Nurses stated frustration as when providers would offer hospice

and palliative care consults to support the patient and family these consults were refused.

Patients and families felt that providers and staff were giving up on their loved ones and

struggled to accept that improved outcomes were not likely (Pattison et al., 2013). Areas

such as advanced technology and increased medication options have proven to be a

double edge sword. With the various advancements patients and families feel more can

and should be done for prolongation of life even if it reduces quality of life (Pavlish et al.,

2015).

Hospice and Palliative Care

According to the World Health Organization (WHO, 2018), palliative care is an

approach that can be adopted to improve the quality of life of patients facing terminal illnesses. The approach is not limited to the patient but also extends to families. It is aimed to prevent and curb the suffering of such patients by identifying and addressing their physical, social, and spiritual needs (Cameron & Johnston, 2015). Palliative care is aimed at assessing the needs of the patient and hence plan, implement, and evaluate interventions directed towards satisfying such needs (Cameron & Johnston, 2015).

Hospice by contrast, is a formal system of interdisciplinary care that provides palliative care services to the dying in the last months of life. It was first developed in 1967 by Dame Cicely Saunders to provide pain relief, spiritual and emotional support and bereavement to survivors. Eligibility criteria are defined by insurance benefits and federal programs (Medicare, Medicaid, and Veterans Affairs). Currently, patients qualify for hospice if they have a prognosis of survival of 6 months or less and are willing to forgo curative treatments (Kelley & Morrison, 2015).

Early palliative care consults have shown to be beneficial in patients to improve quality of life but has mixed reviews on reducing hospital length of stay (Reyes-Ortiz, Williams, & Westphal, 2015). The increase in the number of older adults in the United States coincides with an increase in the number of people living with chronic and progressive diseases; in fact, data tracking of non-communicable diseases in people over the age of 60 shows that between 1990 and 2010 dementia has increased 113% (Goldsborough & Matzo, n.d.). Hospice and Palliative Care nurses place a strong focus on discussing advanced directives, code status, and initiating end of life conversations and options (Miller et al., n.d.).

Palliative care education to nurses in critical care and acute care have also been offered and studied. Medicare and Medicaid guidelines have helped increase palliative care teams in hospitals with 300 or more beds (Center to Advance Palliative Care, 2011). When studied, with this increase it would stand to reason that respondents would report an increase in palliative care education; however, fewer than half of the respondents showed any palliative care continuing education in the proceeding 2 years (White et al., n.d.).

Health care quality is defined by the Institute of Medicine (IOM) as the extent to which health services enhance the likelihood of optimal outcomes and are consistent with current professional knowledge. When reviewing what created a strong palliative care team in area hospitals a nationwide survey noted that communication, collaboration and teamwork created a positive team environment. This helped to encourage learning and support from the palliative care team to not only patients but providers and nurses caring for the end of life population (Goebel, Guo, & Wood, 2016). Nurses, patients and families were more receptive to education when communication was clear and compassion was shown. Knowing that the person not only understood how to manage end of life care but cared about the patients they were discussing was essential in providing palliative care education (Hall, Thompson, & Davies, 2013).

Synthesis and Review of Studies

End of life care may occur at a patient's home, in the hospital or in a nursing home setting. These dependent variables may change the way end of life care is delivered. Moral distress has been studied among healthcare professionals in these

various settings (Prentice et al., 2017) with a strong focus on nurses suffering from moral

distress when providing end of life care (Beckstrant & Kirchoff, 2005; Burston &

Tuckett, 2013; Ferrell, n.d.). Moral distress is prominent is the intensive care unit and this

is strongly correlated with nurses providing end of life care to patients (Beckstrand &

Kirchhoff, 2005; Hamric & Blackhall, 2007; Henrich et al., 2016).

When determining why nurses are suffering from moral distress studies vary on

findings. Futile care remains a consistent finding when looking at factors (Aghabarary &

Nayeri, n.d.; Burston & Tuckett, 2013; Dzeng et al., 2016; McAndrew et al., 2016;

Meltzer & Huckabay, 2004)) as well as poor communication regarding the patient's

condition with the patient and families (Oblerle & Hughes, 2011; Robinson, 2010;

Whitehead et al., 2015). Nurses being educated on end of life care varies between studies.

Some studies note that nurses incur increased moral distress based on having end of life

education (Beckstrand & Kirchhoff, 2005; Browning, 2013; Ferrell, n.d.; Rushton,

Kaszniak, & Halifax, 2013) where others find that nurses show decreased moral distress

with end of life education on what to expect and how to treat patients at the end of life

(AACN, 2000; Dahlin et al., n.d.; Ferrell et al., 2007; Nelson, 2008; Parker, 2013).

Similar findings for moral distress among nurses may result from advanced

education (Beckstrand & Kirchhoff, 2005; Burston & Tuckett, 2013; Henrich et al., 2016)

while others note that not enough education on end of life care increases the nurses moral

distress (AACN, 2010, Browning; 2013; Dahlin et al., n.d.; Ferrell et al., 2007; Nelson,

2008; O'Shea et al., 2015). These results note that increased moral distress may occur

because the nurse understands the end result may not change. The patient may incur futile

suffering and quality of life will not improve (Burston & Tuckett, 2013). Other studies suggest that moral distress decreases when nurses understand what to expect at end of life and how to help the patient and family (Nelson, 2008).

End of life education is not education that is presented routinely in many nursing schools and hospital programs. Although recommended for nursing baccalaureate coursework, end of life education remains an optional course in many programs (AACN, 2010). Hospitals will often contact hospice and palliative care for consults instead of education and educating their nurses. This may increase moral distress among nurses as not having specific end of life education may decrease their ability to care for the patient and their family. Critical care nurses have a high level of moral distress when caring for end of life patients and helping to decrease that may improve the care the patient and family receive (Parker, 2013).

Summary

Researchers identified that end of life care creates moral distress for many nurses with an increased incidence rate in the acute and critical care field (Browning, 2013; Burston & Tuckett, 2013; Ferrell, n.d.; Meltzer & Huckabay, 2004). Moral distress does not just impact the nurse at work but also personally. Nurses have reported leaving jobs, struggling with sleep, poor eating habits and depression due to the distress. Common reported issues were not feeling supported by administration and not having enough education on how to manage the end of life care population (McAndrew et al., 2016). Reducing the moral distress may help with nurse retention in their positions, improve their ability to care for the end of life population and decrease their stress and depression

levels (Daly & Matzel, 2013).

Studies revealed a lack of education among nurses related to EOL care (Browning, 2013; Ledger et al., 2012, Whitehead et al., n.d.). Existing research shows that educational programs are helpful in increasing knowledge of EOL care among nurses (AACN, 2000, 2010, 2017). ELNEC education is a specific education for how to manage end of life care including pain management, anxiety, family support, communication and ethical situations. The education helps the nurse to not only understand end of life care but teaches the nurse how to improve patient and family communication and outcomes. ELNEC education helps the nurse to have end of life conversations that may include final wishes, resuscitation decisions and includes family involvement to ensure open communication (AACN, 2000). Teaching nurses to feel more comfortable with end of life care may help to increase their education and confidence with this population and possibly reduce moral distress due to the improved education (AACN, 2017).

Lazarus's theory of stress, coping and adaptation focuses on a process-oriented approach that is directed toward what an individual thinks and does with specific encounters (McEwen & Wills, 2014). These experiences may include thoughts and actions as the encounters unfolds and for nurses caring for end of life patients these encounters may include futility of care, patient pain and suffering and conflict over decision making (Brandon et al., 2014). Lazarus proposed that the interpretation of stressful events was more important than the event itself (Lazarus, 1991). Moral distress has been linked to nurses having complications with coping and increased stress. Nurses who develop moral distress may change work areas earlier than reasonably anticipated,

have physical symptoms such as nausea, vomiting, headaches and loss of sleep

(Whitehead et al., n.d.), and may suffer from psychological issues such as anxiety and

depression (Browning, 2013).

Knowing that providing end of life care may cause nurses moral distress presents

the problem of how to reduce the distress felt and how to assist the nurse with coping

mechanisms.

Lazarus and Folkman (1986) found that overcoming stress needed to be problem

and emotion focused. The person needed to change the situation itself or their reaction to

the situation. Creating interventions to reduce moral distress will help the nurse with

problem-focused coping changes as it will work to change the relationship between the

nurse and his or her working environment. Increasing education and support on how to

manage end of life patients may help nurses find the right words, reduce the stress for the

patient's and families as well as offer improved communication between nurses and

providers (Barrere & Durkin, 2014).

Existing literature covers many aspects of moral distress, end of life and end of

life education. However, few researchers have reviewed how to decrease moral distress

among nurses and healthcare providers caring for the end of life population. Interventions

such as hospice and palliative care intervening to assist in providing care has offered

support to acute care nurses (Hall et al., 2013).

The need for interventions to help decrease moral distress when caring for end of

life patients has been noted in the literature (Brandon et al., 2014; Demir et al., 2017;

Whitehead et al., n.d.). Conflicting information is present regarding if specific end of life

education will help reduce moral distress. Some studies note that nurses incur increased moral distress based on having end of life education (Beckstrand & Kirchhoff, 2005; Browning, 2013; Ferrell, n.d.; Rushton et al., 2013) where others find that nurses show decreased moral distress with end of life education on what to expect and how to treat patients at the end of life (AACN, 2000; Dahlin et al., n.d.; Ferrell et al., 2007; Nelson, 2008; Parker, 2013).

Other factors may be present in how a nurse manages end of life care and how each nurse experiences moral distress. The nurses' education level, age, and years of critical care experience. Nurses with greater education, specifically on end of life, noted increased moral distress as the nurse understood the futility of care and knew when interventions were not in the patient's best interest (Browning, 2013; St. Ledger et al., n.d.). Browning's study also found positive correlation between psychological empowerment and decreased moral distress. Nurses who worked more hours per week were more empowered as well as nurses with active collaboration in the end of life patient care conferences. The nurses felt they had more of an impact on the care being provided thus decreasing their moral distress (Browning, 2013). Browning's study helped lead the question if specific end of life of education (ELNEC) will reduce a nurses' moral distress.

Moral distress when managing care for the end of life patient has shown to decrease the quality of life for the nurse and cause more stress in the nurse's life (St Ledger et al., 2012). Finding interventions that may reduce the impact of moral distress on nurses' caring for end of life patients is limited. ELNEC education is specific end of

life education for nurses. The goal of this study is to determine if ELNEC education will reduce moral distress for nurses' caring for the end of life population. Knowing if specific education will reduce this stress may help improve the nurse's quality of life as well as the patient's. ELNEC education focuses on providing best care practices for the end of life patient and teaching the nurse what to expect during this time (AACN, 2000). ELNEC also focuses on improved communication between providers, patients and nurses, managing pain and anxiety for the patient as well as loss, grief and bereavement. All of these factors that increase a nurses' moral distress may reduce if they are educated on what to expect (AACN, 2010). The methodology is addressed in Chapter 3.

Chapter 3: Research Method

Introduction

Research is needed to find interventions to reduce moral distress in nurses caring for end-of-life patients. The purpose of this study was to determine whether ELNEC education had an effect on the intensity and frequency of moral distress in nurses who worked in the ICU. ICU nurses have the highest level of moral distress when caring for end-of-life patients (Beckstrand & Kirchhoff, 2005). Therefore, I conducted a one-group pretest–posttest quasi-experimental study using the MDS-R 2017 to determine whether ELNEC education reduces moral distress. To address this gap, the modified adult MDS-R 2017 was administered before and after ELNEC education.

In Chapter 3, I describe the research design, including the research variables, restraints of the design, and rationale for the design. In addition, the chapter contains information regarding the study methodology, specifically the population, sampling, recruitment procedures, participation procedures, data collection, instrumentation and operationalization of constructs, and data analysis plan. Finally, I address threats to validity as well as ethical procedures for this study.

Research Design and Rationale

This study was based on a quantitative one-group pretest–posttest quasi-experimental research study design. In selecting the research design, I considered the research problem, the questions and hypotheses generated from the problem, and the study variables. In this section on research design, I discuss the study variables, research design, design-related constraints, and the rationale for the quantitative research design

selected.

Variables

Moral distress was the dependent variable (DV), as it may change in response to the intervention of ELNEC education. Dependent variables respond to an independent variable (IV) and are measured during an experiment (Creswell, 2016). Moral distress was measured using the MDS-R 2017 created by Hamric (Hamric & Blackhall, 2007). The survey measured moral distress with various factors such as futility in care, lack of communication, nurses' feelings of wanting to find another job, and leaving the institution (McAndrew et al., 2016).

ELNEC education was the IV because the level of moral distress could influence change after this education was completed. ELNEC offers specific end-of-life education to healthcare professionals, with a focus on nurses (AACN, 2000). Independent variables can be manipulated or controlled during a study to test their effects on the dependent variable (Creswell, 2016). The MDS-R 2017 was given to ICU nurses at the start of the study. Following completion of the survey, ELNEC education was offered, and participants who completed this education were given the MDS-R- 2017 again, immediately after the education. This study focused on any impact that ELNEC education may have on the moral distress of ICU nurses.

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Research Design and Rationale

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This study had a one-group pretest–posttest quasi-experimental research design, which was reflected in the research question: What effect does ELNEC education have on the intensity and frequency of moral distress in nurses who work in the intensive care

unit (ICU)? The IV was ELNEC education, and the DV was moral distress. ICU nurses were recruited from ICUs at several hospitals in the northeastern United States through convenience sampling (Frankfort-Nachmias et al., 2015). The MDS-R 2017 was given using paper surveys administered to registered nurses practicing in ICUs in the northeastern United States in pencil-and-paper format. After each participant completed the initial survey, ELNEC education was offered. After the education was completed, the same MDS-R 2017 was distributed to each participant. Measuring moral distress helped to determine whether ELNEC education had any significant impact on moral distress among ICU nurses. The DV may be affected by the IV. This affect will help determine if there is a significant difference in the DV after exposure of the IV. This study was focused on interventional methods and understanding what would reduce moral distress among ICU nurses. Therefore, a pretest–posttest quasi-experimental quantitative research design was the most appropriate to address the research questions.

Design-Related Constraints

There are some limitations of quasi-experimental designs. Lack of random assignment into test groups may lead to nonequivalent test groups, which may lead to a lack of generalizability in results to a larger population (Frankfort-Nachmias et al., 2015). Working to determine if ELNEC education reduces moral distress, the posttest was delivered immediately after education. The MDS-R-2017 was given immediately after ELNEC education to indicate whether the education had an immediate impact on the nurses' feelings of moral distress. A limitation of completing the survey immediately after education was that the nurses did not have time to use the ELNEC education, so no

long-term effects were determined from this study. Despite this limitation, quasi-experimental study participants are more likely to be honest in their responses because the testing does not occur in an artificial research environment (Creswell, 2016). Quasi-experimental research often does not have the time and logistical constraints of other experimental designs and was thus appropriate for this study (Frankfort-Nachmias et al., 2015). Completing the pretest and posttest in the same day as ELNEC education aided the timeliness of submission and collection of needed data. I sought to determine whether ELNEC education had a direct impact on moral distress through the comparison of moral distress surveys administered before versus after the education.

Cost was another constraint. To encourage participants to complete the survey, a $10.00 gift card was issued upon completion of the study. Paper-and-pencil surveys were issued, and gift cards were distributed after completion of the final survey. Asking nurses to take time to complete the ELNEC education proved a challenge. Further, working with nursing schedules at several hospitals was challenging due to the existence of multiple shifts and the need to accommodate various schedules.

Completing ELNEC education required 4 hours of classroom time to fully cover the material. This was difficult for some participants due to their busy schedules. During the process of data collection, I focused my efforts on arranging as many educational sessions as possible to ensure that the research was completed in a timely manner. I administered surveys immediately after ELNEC education so that timing and data collection would be accurate (Frankfort-Nachmias et al., 2015).

Finally, the study occurred at several hospitals and a college. IRB approval was

needed within all of the systems involved. Some area hospitals took several days for approval while others took weeks. Planning ahead was essential, and starting the research as quickly as possible helped to keep me on track toward collecting data in a timely manner. Because I sought data from a relatively large population of nurses across Upstate and Central New York, it also took a substantial amount of time to analyze and determine outcomes.

A quantitative research design was the most appropriate design for this study. The research problems and questions established the need to clarify quantitative relationships between moral distress and ELNEC education. Examining variable relationships is a key function of quantitative research (Creswell, 2014). Moral distress was measured using the MDS-R 2017. This survey was given before and after ELNEC education, and results were analyzed for change.

A quasi-experimental design was used to study the impact of the independent variable (ELNEC education) on the dependent variable (moral distress). Quasi-experimental designs involve selecting groups upon which a variable will be tested, without any random preselection processes (Frankfort-Nachmias et al., 2015). Quasi-experimental designs are less expensive to conduct than longitudinal studies and are less time-consuming than other research designs (Frankfort-Nachmias et al., 2015).

A quasi-experimental design was most effective for this study because this design showed any change in moral distress after ELNEC education had occurred. Researchers can determine relationships between variables using quasi-experimental study designs (Creswell, 2014). The sample consisted only of ICU nurses working full or part time.

ICU nurses from various hospitals in the northeastern United States traveled to the college or attended in the hospitals where IRB approval was granted to provide the ELNEC education. The nurses were employed in northeastern United States hospitals approved for this study or traveled to the college location from local area hospitals. This circumstance rendered the quasi-experimental study design the most appropriate choice.

Finally, using a quantitative design partially minimized the effect of my personal bias and preconception. Because I have been employed as a registered nurse and have worked in hospice and palliative care and in the ICU, I have experienced many stressful situations while caring for end-of-life patients. Teaching about the end of life also gives me a significant personal bias to consider, in that I have interacted with numerous fellow nurses regarding moral distress and ways to improve end-of-life care. Quantitative research methods may involve research bias during subject selection, data collection, and data analysis. However, the selected study methods may have decreased the effect of my personal bias (Grove et al., 2013).

Interventional Study

Moral distress is noted to occur among all healthcare professionals, but the highest occurrences have been noted among ICU nurses caring for end-of-life patients (Robinson, 2010). Several studies have identified situations that increase moral distress among nurses (Burston & Tuckett, 2013; Ferrell, n.d.; Henrich et al., 2016; Klein, 2009). The sources of moral distress include futile continued care (Aghabarary & Nayeri, n.d.), patient pain and suffering (McAndrew et al., 2016), conflicting orders from providers (Klein, 2009), and lack of education on providing appropriate end-of-life care (AACN,

2017). Nurses who develop moral distress may change work areas earlier than reasonably anticipated; have physical symptoms such as nausea, vomiting, headaches, and loss of sleep (Whitehead et al., n.d.); and suffer from psychological issues such as anxiety and depression (Browning, 2013).

Existing literature covers many aspects of moral distress, end of life, and end-of-life education. However, few researchers have reviewed how to decrease moral distress among nurses and healthcare providers caring for the end-of-life population. The need for interventions to help decrease moral distress when caring for end-of-life patients has been noted (Brandon et al., 2014; Demir et al., 2017; Whitehead et al., n.d.). This study involved a pretest and posttest after ELNEC education had been delivered. Determining whether the intervention of ELNEC education has an impact on moral distress may help in finding a way to alleviate moral distress in ICU nurses. ICU nurses have the highest incidence of moral distress among all nursing populations (Browning, 2013). If ELNEC education has an impact on moral distress for ICU nurses, this education may help nurses in various fields of nursing reduce moral distress.

Research has shown conflicting information about the effect of end-of-life education on the level of moral distress. Some studies have revealed that end-of-life education increased moral distress (Beckstrand & Kirchhoff, 2005; Browning, 2013; Ferrell, n.d.; Rushton et al., 2013), whereas others have found that moral distress decreased with end-of-life education (AACN, 2000; Dahlin et al., n.d.; Ferrell et al., 2007; Nelson, 2008; Parker, 2013). The mixed results indicate that further study is needed to determine whether ELNEC education can help nurses reduce their levels of

moral distress. Determining whether specific ELNEC education helps to reduce moral distress among ICU nurses caring for end-of-life patients may help in identifying the reasons why nurses suffer from moral distress and in developing interventions that may help to reduce moral distress among nurses.

Methodology

The methodology used was pretest–posttest quasi-experimental quantitative survey-based methodology. The MDS-R 2017 survey was distributed to a sample of registered nurses practicing in ICUs in the northeastern United States. In this section on methodology, I describe the study methodology, population, sample and sampling procedures, procedures for subject recruitment and participation, data collection procedures, instrumentation, and data analysis plan. Finally, I discuss threats to study validity as well as ethical issues related to the study.

Population

Target population. The target population was registered nurses practicing in ICUs in several hospitals in the northeastern United States. I further defined the target population as nurses who were registered with active nursing licenses in the selected state and were over the age of 18 years. The population included registered nurses without limitations on gender, age if older than 18 years, ethnicity, highest earned academic degree, number of years of nursing experience, shift worked, or hours worked per week. Excluded from the study were nurses with any restrictions on their nursing license, such as probation, conditional status, or suspension. Also excluded were advanced practice nurses, licensed practical nurses, and registered nurses who were not primarily in the

intensive care setting. The WHO (2018) defines intensive care as specialized care for patients whose conditions are life-threatening and who require comprehensive care and constant monitoring.

      Target population size. The size of the population of registered nurses practicing in ICUs in the northeastern United States could not be exactly determined due to nurse turnover and changes within the hospital setting. The total reported number of registered nurses in the state as of February 2018 as reported by the National Council of State Boards of Nursing (NCSBN) was 323,721. NCSBN data do not indicate department, specialty, or location in New York.

Sampling and Sampling Procedures

      Sampling strategy. A convenience sampling strategy was used to select participants from a population of registered nurses who were employed in ICUs at northeastern U.S. hospitals so that general practice guidelines would be similar. Convenience sampling is a nonprobability sampling method wherein a sample is taken from a group of people who are easy to contact or reach (Frankfort-Nachmias et al., 2015). Convenience sampling is affordable and easy, and subjects are readily available (Etikan, Musa, & Alkassim, 2016). I recruited registered nurses who were employed in an ICU on a full- or part-time basis. In order to participate, registered nurses could not be per diem (not regularly scheduled on a full- or part-time basis) and needed to be at least 18 years of age. The surveys were distributed to all nurses who had not completed ELNEC education prior to the study. The survey was given in person in a paper format before and after ELNEC education to ensure return of the survey. A $10 gift card was

given to each participant who completed both surveys and the education. In the following

sections, I discuss the procedures that I used to select this sample.

Procedure for recruiting the sample. Working with the hospitals identified in

the northeastern United States, I identified registered nurses who worked full or part time

in the ICU (per diem nurses were excluded). I obtained IRB approval from each hospital

and the college where education was delivered before starting the pretest, ELNEC

education, and posttest. After IRB approval was obtained, I contacted each ICU manager

to determine the most appropriate staff meeting to attend to explain my study and

determine what dates and times were best to perform ELNEC education. Finding out the

best dates and times for education offered the best results in terms of having the most

ICU nurses present for education. I attended staff meetings approved by the ICU manager

and presented an explanation of my study to the ICU nurses who attended. I posted flyers

on the unit for any ICU nurse who was unable to attend the staff meetings. I provided a

sign-up sheet for interested participants to inform them of the study and education.

Participating ICU nurses were 18 years of age or older, had not completed ELNEC

education before this study, and worked in the ICU. I scheduled ELNEC classes for the

most appropriate dates and times provided by the nurses and the nurse manager. Some

nurses were paid their hourly rate while participating, whereas others were only allowed

to receive the gift card as compensation. No continuing education units (CEUs) were

granted.

Sampling frame. In drawing a sample, I used specific inclusion and exclusion

criteria. The inclusion criteria were the following:

- ICU nurses working full or part time only in the ICU in northeastern U.S. hospitals

- 18 years of age or older

Nurses were excluded who were not practicing registered nurses, were not practicing full or part time in northeastern U.S. hospitals, had a probationary or temporary license status, had previously received ELNEC education, or did not work in the ICU.

Sample size. To compute the sample size, I used G*Power software developed by Faul, Erdfelder, Buchner, and Lang (2009). Using the G*Power software, I performed an a priori power analysis with a dependent two-tailed t test. The conventional alpha (level of significance) value for the study was .05 (Frankfort-Nachmias et al., 2015). The power was set at .80, a standard power used in nursing research (Grove et al. 2013). Specifying an alpha of .05, a power of .80, and a medium effect (f2) of .4, the predicted sample size was 52.

To obtain an adequate sample size, I will recruit a sample of 100 participants using several hospitals in the Northeastern US. With an internal response rate of 30-40%, 100 participants would need to be obtained for a power of .80. Receiving a response rate of 30-40% should give the needed 52 participant sample size. According to Rea and Parker (2014), a response rate less than 50% potentially decreases the generalizability of research findings. Using various hospitals across the Northeastern US and offering education at convenient times for staff, I hope to find the response rate between 30-40% as anticipated.

Procedures for Recruitment, Participation, and Data Collection

Data on the study variables was collected from participating registered nurses

employed in intensive care units in the Northeastern US. I will use typed MDS-R-2017s

created and tested by Ann Hamric, PhD to measure the levels of moral distress before and

after ELNEC education. Permission was emailed from Ann Hamric authorizing

permission to use the MDS-R-2017 in return for a copy of the results (Appendix G). A

paper study was used so that data collected was obtained from the participants at the

beginning and end of ELNEC education. The data were obtained at the same time to

ensure faster and more effective completion as I will not have to wait for online

responses or send out reminders to complete the survey. This allowed me to enter the data

survey completion and avoid delays for data retrieval.

Subject recruitment and demographics. Participants were recruited by

requesting a meeting with the Unit Manager of each ICU. This meeting determined

potential participants for the study and also set me up with staff meetings to attend. The

registered nurses were then educated on the study. Flyers were posted and interested

participants signed up (Appendix E). Participants were informed that ELNEC education

would take approximately 4 hours and included what to expect with an end of life patient

and how to manage symptoms, pain and final hours of the patient. ELNEC education

includes bereavement and grief discussion for caregivers and family. Several breaks were

given throughout and participants were encouraged to ask questions regarding the

material. The pre-test MDS-R-2017 was given to the participants prior to ELNEC

education. ELNEC education was set up at time convenient for the most participants and

take place at the participating hospital or the college. The ELNEC education took approximately four hours. The institution was asked to allow nurses to attend during their work day or offered compensation for attending. This decision was institution-specific and some nurses were paid, while others were not. The IRB was informed of all compensation before approval was granted. I taught several sessions of the ELNEC course to accommodate various schedules of participating nurses. Immediately after ELNEC education had been completed, I distributed the post-MDS-R-2017 to each participant. Upon completion, each participant received a $10 gift card for their time and assistance. The effect of the independent variable on the dependent variable can be observed immediately or within a very short amount of time in interventional studies (Frankfort-Nachmias et al., 2015). Completing the surveys immediately after education helped reduce the risk of losing participants in the study (Creswell, 2016). A copy of the MDS-R-2017 and email from Ann Hamric, PhD is in Appendix A.

Implied consent. Implied consent was obtained when the participant was given the initial MDS-R-2017. Participants were informed of the risks and benefits of the study. Before the beginning of the study. I read the risks, benefits and purpose of the study to the participants. This was read directly from the approved proposal. Participants were informed that this study is voluntary and if they chose not to complete the survey, to submit the blank copy in the sealed container. Participants were encouraged to ask questions before completing the survey and instructed the survey was not mandatory. If a participant chose not to complete the survey, I requested that the participant submit the blank survey in the box.

Data collection. Paper surveys were the primary method for data collection. The survey was given to each participant after risks and benefits were discussed. Initial surveys and demographic forms were requested before the start of ELNEC education. Paper surveys, when given directly to the subject, are difficult to ignore and often more convenient for a person to answer (Frankfort-Nachmias et al., 2015). Surveys were collected and secured at the beginning and immediately after ELNEC education had been completed.

The time and date of the ELNEC educations was given during the staff meetings and posted in the ICU of the participating hospital. Reminder emails were sent out via email to participants by the ICU. I had no access to identifying data of the participants during this process. Participants were requested to sign up for the most convenient education and if a subject was unable to make any of the educational sessions, other times were offered to attempt to aide completion of the course. All participants were given a thank you card for their participation in the study, a $10 gift card and a USB drive with all the ELNEC education PowerPoint slides (AACN, 2000). Nurses could turn in blank surveys, so I was unable to identify who completed or did not complete the surveys. Due to this, all participants who remained for the survey collection at the end were given the $10 gift card, thank you card, and USB drive with all the ELENC education PowerPoint slides (AACN, 2000).

Demographic items. At the beginning of ELNEC education after the pre-test was completed, I distributed the demographic data form which was collected. The demographic form included practice setting and size of practice setting, highest

completed degree in nursing, number of years worked as a registered nurse, weekly hours worked in nursing, employment in single or multiple nursing positions, gender, age, marital status, education level, and ethnicity. The demographic data sheet is in Appendix C.

Participant exit procedure. Any participant who chose not to complete the pre- or post-test survey or the ELNEC education was removed from the study. Nurses choosing not to participate were allowed to remain in ELNEC education. The non-participating nurses were asked to return blank surveys. After ELNEC completion and survey collection, the nurses were given a thank you card, gift card, an ELNEC certificate and a USB with PowerPoint slides.

Instrumentation and Operationalization of Constructs

Developer and year of publication. The primary instrument that was used for this study was the MDS-R-2017-Revised 2017 (MDS-R 2017) (Appendix A) created by Hamric. The MDS-R 2017 measured frequency and level of distress using a 5-point Likert-scale format to calculate the participants appropriate level. The final two questions asked nurses if they were considering leaving their current position or had left a position. Answering yes to one or both of these questions indicates an elevated level of moral distress (Hamric, 2018, Appendix B). The survey was given before and after ELNEC education to determine if moral distress was impacted after education was completed. The following section details the MDS-R-2017 and the survey variables.

Appropriateness to current study. The MDS-R-2017 focuses on measuring moral distress among registered nurses. The MDS-R-2017 has been used in several studies on

moral distress in caring for end of life in ICU nurses (Brandon et al., 2014; Hamric & Blackhall, 2007; Hamric et al., 2012; Whitehead et al., n.d.). My study is focusing on moral distress before and after ELNEC education to determine any change in the moral distress of ICU nurses. Due to the previous use and success of these studies, the MDS-R-2017 will be appropriate for use.

Permission from developer. Ann Hamric, PhD, RN, FAAN was contacted on July 30, 2017 and permission was requested to utilize her MDS-R-2017 (MDS-R). Response was made by the Dr. Hamric stating that revisions were being made at that time and permission would be granted if I would like to utilize the new tool. On December 17, 2017, the MDS-R-2017 was emailed to me with permission for utilization of the survey. The permission letter is included in the Appendix G.

The MDS-R 2017 is based on frequency and level of distress measured on a 0 (never) to 4 (very) point Likert-scale. Both frequency and level of distress are graded in 2 separate columns. Preliminary analysis of the revised scale determined reliability and validity. Hamric (2018) completed a total of 706 surveys were received and 676 surveys were included in the final MMD-HP analysis. Other healthcare professionals not in direct care positions were excluded from the MMD-HP analysis. Six hundred fifty-three respondents gave full information. Cronbach's Alpha was 0.93 and individual professions were all greater than 0.90 (Hamric, 2018, Appendix D). The validity and reliability of the moral distress scale were tested. After instrument development and content validity testing, a survey methodology was used to assess reliability and construct validity of the MDS-R 2017. The MDS-R-2017 was validated during a 2-week period in January 2011

(Hamric et al., 2017). The MDS-R-2017 does not have subscales. Since the original work, Hamric has revised the survey and granted permission for use for this study (Appendix G).

ELNEC education was given to participants after the initial MDS-R-2017 was administered. ELNEC education focuses on nursing care at the end of life including: pain management, symptom management; ethical and legal Issues; cultural and spiritual considerations on end of life care, communication, loss, grief, bereavement; preparation for and care at the time of death (Dahlin et al., n.d.).

The ELNEC education was repeated several times over several weeks to different groups of participants to accommodate the varying schedules and availability. ELNEC education took four hours to complete and participants were given a certificate at the end of the course. ELNEC education according to ELNEC is four hours long (Matzo et al., 2003). This time varies based on breaks given during education, questions asked throughout and time allotment granted by each institution (AACN, 2010). The education was completed in 1 day and I taught the ELNEC class as I am a certified ELNEC trainer. Materials from the ELNEC course were offered on a USB drive and given to participants at the end of education with their certificate. Giving access to all slides and material was allowed in order that the subject has a way to review the materials after the education had been completed.

ELNEC development. The End of Life Nursing Education Consortium (ELNEC) education began in 2000 to improve palliative nurse education. The AACN published competencies for EOL care for older adults in 2000. ELNEC offers modules on pain and

symptom management, ethics, communication, and other key EOL issues (AACN, 2000). ELNEC also largely focuses on communication techniques and their potential impact on care. Communication involves how to discuss important information about illness, treatment and allow individuals to make informed decisions related to care. A common area where nurses' feel more education is communication with patient's and family's regarding the disease process and end of life options (Matzo et al., 2003). ELNEC also focuses on the family as the unit of care; the important role of the ICU nurse as advocate, importance of culture as an influence at the end of life, the critical need for attention to special populations such as children, the elderly, the poor, and the uninsured; the relevance of EOL issues in all systems of care across all settings, the influence of critical financial issues in EOL care; and necessity of interdisciplinary care for quality care at the end of life (Ferrell et al., 2007).

Approximately 18,000 nurses and other healthcare professionals from diverse clinical backgrounds have been trained in the ELNEC curriculum. ELNEC- Core is used to train staff nurses, advanced practice nurses, undergraduate and graduate nursing faculty, administrators, and researchers who work in acute care settings (i.e. intensive care, medical-surgical units), clinics, homecare, hospice, and palliative care settings (AACN, 2017). Several nationwide conferences are held each year to train the trainers to deliver the ELNEC education. Specific ELNEC education is offered in ICU, pediatrics, gerontology and for advanced practice registered nurses (AACN, 2017). It is suggested that nurses begin with ELNEC-Core and after completion take the advanced/specialized courses (AACN, 2017).

Researcher-developed material. ELNEC provides PowerPoint slides, case studies, videos (given and suggested) as well various publications to offer to ELNEC participants. These materials may to be given to anyone taking the course for their use after education. ELNEC allows the trainer to charge for the materials. The materials were given to the participants at no cost.

All materials were downloaded on a USB drive and distributed to the subject to take home after education. Notepads and pens were provided as well as light breakfast or lunch (depending on the time this education is offered) and bottled water. I gave my business card to all participants so they could contact me with any questions or concerns after the education.

Agency support. Upon reaching out to several local hospitals, I received interest and support from the managers of the ICU. After receiving permission to move forward with the study from Walden, I received IRB approval at several local hospitals and a local college to conduct the education and study at their facilities.

Operationalization.

Operational definition. The primary study variable of moral distress, ELNEC education, futility of care and hospice and palliative care was operationalized using the MDS-R-2017 revision-2017 (MDS-R-2017). I included demographic items in my analysis. The following sections contain a discussion of the study instrumentation and operationalization of the study variables.

MDS-R 2017. I operationalized the variable of moral distress, futility of care and hospice and palliative care by using the MDS-R-2017 survey. The MDS-R 2017 is a 29-

item instrument based on frequency and level of distress. The Likert-scale is used with a

point scale ranked from 0 (never) to 4 (very). Both frequency and level of distress are

graded in 2 separate columns. Preliminary analysis of the revised scale determined

reliability and validity. The validity and reliability of the moral distress scale were tested

by Hamric. After instrument development and content validity testing, a survey

methodology was used to assess reliability and construct validity of the MDS-R

2017. The MDS-R 2017's scoring procedure is designed to give a measure of current

level of moral distress. Conceptually, items that have never been experienced or are not

seen as distressing do not contribute to an individuals' level of moral distress. To

generate a composite score, the frequency score and distress scores for each item should

be multiplied; note that the results in eliminating items never experienced or not

distressing from the composite score (Hamric, 2018, Appendix B). Each item produces a

frequency and distress will range from 0 to 16. To obtain a composite score of moral

distress, these individual item products should be added together. Using the scoring

scheme allows all items marked as never experienced or note distressing to be eliminated

from the score, giving a more accurate reflection of actual moral distress. The resulting

score based on 27 items will have a range of 0-432 (Hamric, 2018, Appendix B).

The MDS-R-2017 was validated during a 2-week period in January 2011 (Hamric

et al., 2017). Since the original work, Hamric has revised the survey and granted

permission for use for this study. Four hypotheses were tested based on past literature and

theoretical understandings of moral distress. All hypotheses were significant in the

predicted directions.

1. Moral distress is negatively correlated with ethical climate ($r = 0.58$, $p < 0.001$).

2. MMD-HP scores for nurses are higher than those for physicians. Welch F (2, 200.4) = 3.54, p = .031 post hoc mean difference = 16.02, p = .023

3. MMD-HP scores are higher for respondents considering leaving their position (n = 128, mean MMD-HP 168.4 (75.8) due to moral distress compared to those not considering leaving now (n = 525, mean MMD-HP 94.3 [61.2]) t = 10.3, p < 0.001.

4. Exploratory factor analysis suggests a three-factor structure with all items retained. Factors correspond to the three levels of moral distress seen in the literature: patient/family; unit/team; and system/organization (Appendix D).

The survey questions are designed to elicit the level of moral distressed based on witnessing "false hope" to a patient or family, aggressive treatment at the end of life, not feeling qualified to provided end of life care and watching the patient suffer unnecessarily. Other survey questions were designed to elicit information about being required to work with team members who are less competent, being required to care for an unsafe number of patients, fear of retribution and participating in a team that gives inconsistent messages. The survey lists 29 questions that support moral distress findings.

ELNEC education. ELNEC education was administered after the initial MDS-R-2017 and demographic form was completed by the participant. Participants could return blank forms without knowledge of others. ELNEC education is specialized education that is offered to nurses and healthcare professionals (AACN, 2017). AACN published

competencies for EOL care for older adults in 2000. The ELNEC education contains

modules on pain and symptom management, ethics, communication, and other key EOL

issues (AACN, 2000). ELNEC education contains a focus on communication techniques

and their potential impact on care. Communication involves how to discuss important

information about illness, treatment and allow individuals to make informed decisions

related to care. A common area where nurses' feel more education is needed is in the area

of communication with patient's and family's regarding the disease process and end of

life options (Matzo et al., 2003). ELNEC also focuses on the family as the unit of care;

the important role of the ICU nurse as advocate, importance of culture as an influence at

the end of life, the critical need for attention to special populations such as children, the

elderly, the poor, and the uninsured, the relevance of EOL issues in all systems of care

across all settings, the influence of critical financial issues in EOL care, and necessity of

interdisciplinary care for quality care at the end of life (Ferrell et al., 2007).

The ELNEC education participants state feeling more confident in providing end

of life after completing the program (Nelson, 2008). Although confidence and better

preparation in delivering end of life care are discussed, moral distress was not addressed

during these studies.

Specific chapters covered during ELNEC education are: Nursing Care at the End

of Life, Pain Assessment and Management, Symptom Management, Ethical/Legal Issues,

Cultural Considerations in End of life Care, Communication, Loss, Grief, Bereavement,

Achieving Quality Care at the End of Life, and Preparation for and Care at the Time of

Death (Appendix F).

Data Analysis Plan

The Statistical Package for the Social Sciences (SPSS) software for Mac was used to calculate survey results. Data from the first survey were entered followed by survey data given after the ELNEC education intervention.

Survey data are stored in a locked cabinet inside my home. SPSS is on my password- and antivirus- protected personal computer. The data are stored on an Excel spreadsheet as well as a data file within the SPSS program. A copy of the data as a spreadsheet software file is also be stored on a secure external hard drive. After saving the data, I analyzed it using various SPSS software functions. Walden IRB permission was granted before data analysis was completed.

Data cleaning and screening procedures. I cleaned and screened the study data carefully prior to statistical analysis. De-identified data from the paper-based surveys obtained by direct collection at the research site were entered after Walden IRB approval to the SPSS program and Excel spreadsheet First, I examined to data to detect any obvious errors, such as results inconsistent with the potential range of response on the scales (Frankfort-Nachmias et al., 2015). I ensured results from each survey were included in the study data. Second, I analyzed the surveys and ensured that all the questions were answered and participants were given enough time to complete the survey. I ensured this survey was done when the subject has adequate time to complete the survey and was able to give honest feedback and data. Rushing a participant can result in skewed survey results which may affect the data (Frankfort-Nachmias, et al., 2015).

The research study was guided by the following question: What effect does ELNEC education have on the intensity and frequency of moral distress on nurses who work in the Intensive Care Unit (ICU)? This question was answered by participants who completed the MDS-R-2017 before and after ELNEC education.

Based on the research questions, the null hypothesis was the following:

H0:   There will be no difference on the intensity and frequency of moral distress on the ICU nurse after ELNEC education.

The alternative hypothesis was the following:

HA: There will be a significant difference on the intensity and frequency of moral distress on the ICU nurse after ELNEC education.

Analysis plan. A one group pre-test, post-test quasi-experimental design was used to determine the impact of ELNEC education on ICU nurses. Demographic data were collected and reported in the demographics section within the study. The MDS-R-2017 was given before and immediately after ELNEC education using a dependent *t*-test. The surveys were coded to match the pre- and post-test surveys for comparison.

The MDS-R-2017's scoring procedure is designed to give a measure of current level of moral distress. Conceptually, items that have never been experienced or are not seen as distressing do not contribute to an individual's level of moral distress. (Hamric, 2018, Appendix B)

To generate the composite score, the frequency score and distress scores for each item should be multiplied; note that this results in eliminating items never experienced or not distressing from the composite score. In addition, items rarely

experienced or minimally distressing have low scores and items experienced

frequently and as most distressing have higher scores. Each item product of

frequency and distress will range from 0 to 16. Using the scoring scheme allows

all items marked as never experienced or not distressing to be eliminated from the

score. The resulting score based on 27 items will range from 0-432. (Hamric,

2018, Appendix B, p. 1)

The MDS-R-2017 survey contains question on the topic of if leaving a position

due to moral distress. If answered yes, this is considered a high level of moral distress.

(Hamric, 2018, Appendix B). Using SPSS, I was able to determine whether to accept or

reject the null hypothesis and determine if there is an effect on ICU nurses' moral distress

after ELNEC education compared to ICU nurses' moral distress after ELNEC education.

The p-value was set at 0.5. I used SPSS software to analyze the data to determine if the

effect detected had a significant positive or negative correlation value corresponding with

each t- test. I examined the results of the data analysis in relation to the theoretical

framework and the results of previous studies on moral distress. Finally, I compiled the

demographics results.

<div align="center">**Threats to Validity**</div>

Threats to External Validity

This study had limitations that threatened external validity. Due to limiting the

study population to Intensive Care Unit (ICU) registered nurses primarily practicing in

the Northeastern US, the results were limited to only other similar groups of ICU nurses.

Another threat to external validity of this study was how well this sample

represented all registered nurses in an ICU setting within the state. I attempted to

decrease the threat to external validity by using several hospitals in the Northeastern US

area to collect data. I am unable to determine how well the survey respondents represent

the entire population due to limited availability on the population.

Finally, testing reactivity, which is the reaction of the participants to some aspect

of the experiment (Frankfort-Nachmias et al., 2015) may have threatened external

validity as the participants were exposed to the pre-test hours before the post-test is

administered.

Threats to Internal Validity

In addition to threats of external validity, the study had several factors that

threatened internal validity. Utilizing a quasi-experimental study as this is considered

weak for internal validity because random assignment is not possible. Therefore,

convenience sampling was used (Frankfort-Nachmias et al., 2015) which is a threat to the

selection validity. Although only ICU nurses were surveyed, the nurses were from several

different hospitals in various regions.

There is limited evidence of a threat to history. History refers to any external

event that may occur during the study which may be responsible for the effects instead of

the program itself (Frankfort-Nachmias, et al., 2015). If an ICU nurse provided end of life

care for a patient the nurse may have established a view of end of life care. This view

may have affected the nurses level of moral distress. However, administering the pre-test

determined what the participant's level of moral distress is prior to the intervention of

ELNEC education. Outside influences on end of life education and education are

generally not prevalent as end of life education is limited in may hospitals (Tan et al., 2014).

Threats to Construct and Statistical Conclusion Validity

Threats to statistical conclusion validity are the degree to which conclusions about the relationship among variables based on the data are correct (Frankfort-Nachmias et al., 2015). To decrease type I and type II errors, I set my sample size to an adequate power of .80. Instrument reliability was another threat to statistical conclusion validity. This survey has been tested for reliability and validity by the developer before use was granted for this study.

To improve statistical conclusion validity, I recruited participants from several hospitals in the Northeastern US area to avoid having a preselected sample although the sampling strategy is one of convenience. As I had limited data on the exact demographics and employment in the population, the sample may not represent an entirely equal demographic sample of the state. Further studies may need to be completed to give broader results.

<div align="center">

Ethical Procedures

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Access to Participants

I recruited participants at the participating hospitals in the Northeastern US. I worked with the ICU managers to determine dates to give an informational session regarding the survey, education and study and set up sign ups at that time. Whether the nurse was granted time during work hours or being paid for this education was determined by each hospital. Email reminders were sent by the ICU managers and flyers

were posted in the ICU to help remind nurses of the sessions. All information was kept confidential.

Treatment of Human Participants

Institutional Review Board review. Prior to data collection, I obtained approval for the study design and procedures from the Walden University Institutional Review Board and from the two Northeastern US Hospitals and the local college. The registered nurses recruited were from hospitals approved for this study The nurses' participation was voluntary and could have been withdrawn at any time during the study.

Ethical concerns related to recruitment. During the study recruitment process, I took steps to protect the confidentiality of the study participants. One ethical concern was the voluntary provision of contact information by the study participants. The ICU nurse managers sent the study participants emails to remind them of upcoming ELNEC educations and surveys. To protect the participants, I did not request or accept access to any email addresses or identifying information. Participation was voluntary and permission could have been withdrawn at any time during the study.

I clearly explained the study to all participants and gave the opportunity for future questions by giving participants my phone number and email address to raise concerns or ask questions about the subject at a later time. Giving clear study expectations and allowing participants to opt out of the study were measures I used to decreased ethical concerns related to study recruitment.

During the data collection process, I addressed several ethical concerns. First, the data obtained was voluntary. Therefore, I informed participants prior to survey collection

that this survey and study is voluntary. I thoroughly described the risks and benefits of the study, data management, and study procedures before collecting survey data to allow participants to make an informed decision about taking the survey. While taking the survey, participants were informed they could exit the study at will.

A second ethical concern related to data collection was the adequate protection of participants' confidentiality. When giving the participants' surveys, a code was assigned to each participant so that I could match the pre-test to the post-test. No surveys were administered online. All surveys are kept in a locked cabinet in my home.

A third ethical issue related to data collection was the potential harmful influences of the survey items on the study participants. The survey items could have stimulated sensitive topics related to personal attitudes and feelings. Reflecting on patient situations could contribute to anxiety and self-questioning as painful memories continue to resurface (Frankfort-Nachmias, et al., 2015). Moral distress has been related to stigma among other nurses and management (Hamric & Blackhall, 2007). To combat this, ELNEC education was scheduled immediately after the initial survey. I left my contact information as well to answer any questions the participant may have.

Data Treatment

I took steps to protect the confidentiality of the study data and consent forms. To increase participants' confidentiality, I did not request any participants' names, addresses or other personally identifiable information on their survey responses. While obtaining consent, data analysis and study dissemination, I used number identifiers for the participants to keep personal information confidential and their answers anonymous.

During and after the study, I protected the study data and written consents. I have all the surveys and demographic data locked up in a filing cabinet in my home which remains locked when I am not home. I also have a security system at my home to add extra protection. The data stored on my Mac is password protected in the security of my home or a locked laptop bag. I plan to keep study data and consents for up to five years after the study completion date.

Other Ethical Issues

I have worked as a nursing supervisor, instructor, and ICU nurse in many of the hospitals I am utilizing for this study. I am not employed in a supervisory position over registered nurses before or during data collection. Therefore, any potential coercion of subject is minimal and choosing not to participate had no effect on the nurses' position.

<div align="center">

Summary

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A quantitative, one group, pre-test, posttest quasi-experimental design was used to determine if ELNEC education has any impact on the moral distress of an ICU nurse. The moral distress revised survey- 2017 (MDS-R-2017) was utilized before and immediately after ELNEC education was completed. The survey was delivered in participant to obtain my desired sample size. The surveys were distributed to ICU registered nurses who are employed full or part time in the ICU.

I addressed threats to external, internal, construct, and statistical conclusion validity by using methods such as assigning numbers to each participant to avoid names and identifying information, as well as acknowledging the generalizability of the study. Throughout the study, I maintained procedures for ethically treating human participants

and study data, avoiding coercion, and mitigating the effects of sensitive survey items

with ELNEC education offered within eight weeks of the initial survey. In conclusion, I

implemented the research methods and design ethically when obtaining and analyzing

study data. Results will be presented in Chapter 4.

Chapter 4: Results

Introduction

Guided by Lazarus's theory of stress and coping (1984), the purpose of this one-group pretest–postttest quasi-experimental design was to determine whether ELNEC education reduces moral distress in nurses working in the ICU. Quantitative analysis was completed for the following research question: What effect does ELNEC education have on the intensity and frequency of moral distress in nurses who work in the intensive care unit compared to the intensity and frequency of moral distress prior to ELNEC education?

H_0: There will be no difference on the intensity and frequency of moral distress in nurses who work in the intensive care unit after ELNEC education compared to the intensity and frequency of moral distress prior to ELNEC education.

H_A: There will be a difference in the intensity and frequency of moral distress in nurses who work in the intensive care unit after participating in an ELNEC education program compared to the intensity and frequency of moral distress prior to ELNEC education.

In this chapter, I provide detail on the data collection and the results.

Data Collection

Data collection began on June 25, 2018 and concluded on July 20, 2018. Of the 56 participants, 100% completed and returned the surveys. Responses from returned surveys were entered into Mac SPSS Statistics. The data have been secured in my locked

filing cabinet, and the analysis has been secured on my password-protected computer in my home.

Participants were all ICU registered nurses, and 55% ($n = 31$) held nursing baccalaureate degrees and worked full time in the ICU. Ninety-two percent ($n = 52$) of the participants were White, 82% were female ($n = 46$), and 40% ($n = 34$) held a certification in critical care (CCRN). Seventy-six percent (n=43) stated that they had multiple sources for end-of-life resources, such as other colleagues, computer access, and written materials. Only 10% ($n = 6$) had other end-of-life education, such as continuing education courses on end of life or conferences. The Center for Health and Workforce Studies (CHWS, 2016) found that most RNs are White females who work primarily in hospitals, which correlated to the largest portion of this study. The participants' ages ranged from 31 to 62 in this study, with a mean age of 41. This sample was representative of the target population, as several institutions were used in the area and findings were consistent with CHWS ranges. Participant demographics are summarized in Table 1.

The a priori power analysis for a dependent two-tailed t test was conducted using G*Power with a power of 0.8, an alpha of .05, and a medium effect (f2) of .4, yielding a predicted sample size of 52. My sample size was 56 participants. G*Power was met with this sample size.

Table 1

Participant Demographics (N = 56)

Groups	Percentage
Bachelor of Nursing	55.4% (*n* = 31)
Associate of Nursing	35.7% (*n* = 20)
Full-time RN 0-5 years	26.8% (*n* = 15)
Full-time RN 6-10 years	25% (*n* = 14)
Full-time RN 11-16 years	20% (*n* = 11)
ICU RN 0-5 years	39% (*n* = 22)
ICU RN 6-10 years	21% (*n* = 12)
CCRN completed	39% (*n* = 22)
CCRN not completed	61% (*n* = 34)
Full-time ICU RN	95% (*n* = 53)
Part-time ICU RN	5% (*n* = 3)
White	93% (*n* = 52)
Black/Non-White	7% (*n* = 2)
Female	82% (*n* = 46)
Male	18% (*n* = 10)

Treatment and Intervention Fidelity

ELNEC education was delivered as planned to the participants. Surveys were administered after the explanation of the project and risks and benefits were reviewed. ELNEC education was delivered as anticipated to the participants over a 4-hour time frame. Surveys were administered after the ELNEC education with a generic thank you card, a $10 gift card, my contact information, and a USB with the ELNEC material. No adverse events were noted during this study. No concerns were reported, and the timeframe from start to completion of data collection was met.

Results

Descriptive Statistics

The sample consisted of 56 registered nurses who worked in the northeastern United States. The nurses are employed in five hospitals, ranging from small rural hospitals to larger teaching hospitals. The hospitals ranged in ICU size from a six-bed unit with minimal interventions to a Level II trauma center. Participants in the study came from five different hospitals. Classes were held at the two local hospitals and the local college. Class size ranged from two to over 10 participants, with a mean of six. To obtain the 56 participants, eight sessions were held.

Statistical Assumptions

This study used Hamric's MDS-R 2017. Hamric developed, tested, and confirmed reliability and validity of the tool. The original Cronbach's alpha was 0.93 (Hamric, 2018, Appendix D). The MDS-R 2017 had 27 questions that measured current intensity and frequency of moral distress. A composite score was generated for the survey

calculation. The frequency score and distress scores were multiplied for each item. Items rarely experienced or minimally distressing had low scores, and items experienced frequently had higher scores. After each item was calculated, the total scores were added together, giving a range of scores from 0-432. The higher the score, the higher the level of moral distress. The final questions on the survey asked if the participant was considering leaving the position due to moral distress or if the participant had left a position due to moral distress. Hamric (2018) stated that answering yes to either of these questions indicates moral distress in the participant (Appendix B). The nurses answered items concerning the intensity and frequency of moral distress using a Likert scale of 0-4 (0 = *none*, 4 = *highest*). In this study, Cronbach's α for the MDS-R 2017 was 0.96, which compared to what was reported by Hamric, (α = 0.93).

The assumptions for the *t*-test are that the data need to be normally distributed and are measured at least at the interval level (Warner, 2014). The *t*-test data results were normally distributed. The distribution sampling was normally distributed. The sample size was representative of the population as several institutions were represented. The collected data follow an ordinal scale as a Likert scale model was used on Hamric's survey. Data were measured on an interval level.

Table 2

Results of Items on MDS-R 2017

	Pretest score	Postest score	MDS change
Item 1	115	140	25
Item 2	148	148	0
Item 3	178	216	38
Item 4	112	150	38
Item 5	154	216	62
Item 6	201	196	-5
Item 7	106	94	-12
Item 8	170	120	-50
Item 9	148	170	22
Item 10	135	143	8
Item 11	245	204	-41
Item 12	116	78	-38
Item 13	263	208	-55
Item 14	232	207	-25
Item 15	143	129	-14
Item 16	65	65	0
Item 17	196	121	-75
Item 18	131	114	-17

(*table continues*)

	Pretest score	Postest score	MDS change
Item 19	122	112	-10
Item 20	295	275	-20
Item 21	97	104	7
Item 22	102	99	-3
Item 23	84	70	-14
Item 24	236	221	-15
Item 25	264	223	-41
Item 26	88	97	9
Item 27	155	130	-25
Item 28	166	137	-29
Item 29	131	142	11
Item 30	188	173	-15
Item 31	57	69	12
Item 32	78	124	46
Item 33	309	281	-28
Item 34	258	230	-28
Item 35	116	94	-22
Item 36	170	152	-18
Item 37	203	185	-18
Item 38	186	144	-42

(*table continues*)

	Pretest score	Postest score	MDS change
Item 39	92	89	-3
Item 40	335	328	-7
Item 41	122	100	-22
Item 42	173	181	8
Item 43	314	292	-22
Item 44	106	90	-16
Item 45	61	72	11
Item 46	139	101	-38
Item 47	347	294	-53
Item 48	154	140	-14
Item 49	81	75	-6
Item 50	101	97	-4
Item 51	314	292	-22
Item 52	189	167	-22
Item 53	210	210	0
Item 54	243	229	-14
Item 55	78	89	11
Item 56	266	245	-21

Analysis of the survey data collected was completed using Mac SPSS Statistics software. A dependent *t* test was conducted using a confidence interval percentage of 95%. Pre-MDS scores (*M* =169.43, *SD* = 76.52) were significantly higher than post-MDS scores (*M* =158.43, *SD* =68.371). (*t* =3.233, *df* 55, *p* = .002). Therefore, there was a significant difference (*p* = .002) between the pretest and the posttest moral distress survey (MDS-R 2017). Thus, the null hypothesis was rejected. Moral distress decreased in the ICU nurses after ELNEC education. There was a difference in the intensity and frequency of moral distress for the nurses who worked in the ICU and frequency of moral distress prior to ELNEC education. Thus, the null hypothesis was rejected.

Statistical Analysis Findings by Research Question

A dependent *t* test was conducted to evaluate how the pretest moral distress survey (MDS-R 2017) compared to the posttest moral distress survey (MDS-R 2017). Hamric (2018, Appendix D) completed Cronbach's alpha for reliability = 0.93, showing high-level reliability for this scale. Upon running Cronbach's alpha for this study, reliability was measured as 0.96.

The research question was as follows: What effect does ELNEC education have on the intensity and frequency of moral distress in nurses who work in the intensive care unit compared to intensity and frequency of moral distress prior to ELNEC education? The null and alternative hypotheses were as follows:

H_0:   There will be no difference in the intensity and frequency of moral distress in nurses who work in the intensive care unit after ELNEC education compared to the intensity and frequency of moral distress prior to ELNEC

education.

H_A: There will be a difference in the intensity and frequency of moral distress

in nurses who work in the intensive care unit after participating in an

ELNEC education program compared to the intensity and frequency of

moral distress prior to ELNEC education.

A dependent *t* test was conducted using a confidence interval percentage of 95%.

Pre-MDS scores (M =169.43, SD = 76.52) were significantly higher than post-MDS

scores (M =158.43, SD =68.371), (t =3.233, df = 55, p= .002). Therefore, there was a

significant difference (p = .002), and the null hypothesis was rejected. Moral distress

decreased in the ICU nurses after ELNEC education (see Table 3).

Table 3

Pre/Post Moral Distress

Pre-MDS-R 2017 Score—Post-MDS-R 2017 Score	Mean	Standard deviation	*df*	Sig (2-tailed)
	11.00	25.45	55	.002

Additional Statistical Tests of Hypotheses That Emerged From the Analysis of Main

Hypotheses

In addition to the main research question, other notable results emerged from my

analysis. The first research question was the following: What is the difference in the

level of moral distress nurses felt in caring for end-of-life patients between ICU nurses

with ADN education and nurses with a BSN level of education?

H₀: There is no difference between levels of moral distress felt by nurses

based on the nurses' education.

H₁: There is a difference between levels of moral distress felt by nurses based

on the nurses' education.

When examining the education levels of the nurses who participated, nurses with

greater education, specifically on end of life, noted increased moral distress. One possible

reason for this was that the nurse understood the futility of care and knew when

interventions were not in the patient's best interest (Browning, 2013; Ledger et al., 2012).

This was consistent with the findings (M= -775, SD 27.623) for ADN nurses and (M=-

11.94, SD 24.08) BSN nurses. This shows a reduction in moral distress after ELNEC

education was greater in BSN educated nurses than ADN nurses. The null hypothesis was

rejected.

When determining moral distress, participants who noted that they are

considering or have left a position or are considering leaving now are at high risk for

moral distress (Hamric, 2018). Therefore, the second additional research question was:

What effect does ELNEC education have on intent to stay in ICU nurses who care

for end of life patients?

Findings revealed that 46.4% (n=26) of participants noted they have considered

leaving a position, 39.3% (n=22) noted they did not want to leave, and 14.3% (n=8) have

left their position before. Participants did not change their answer on the question of

consideration of leaving a position between the pre- and post- survey. The pre-survey

showed 62.5% (n=35) of participants stated they were considering leaving the position

now. The post-survey showed a reduction from 62.5% (n=35) to 51.8% (n=29). A

statistically significant *p* value change was demonstrated as 10.7% (n=6) of participants

noted they no longer felt compelled to leave their job. Hamric (2018) noted that

answering the question of leaving a position shows significant moral distress. A 10.7%

(n=6) decrease in feelings of considering leaving their position shows a reduction in

moral distress based on the findings of Hamric's survey tool (Hamric, 2018). This is

documented in Table 4.

Table 4

Considered Leaving a Position

Left/considered leaving position		Frequency (*n* = 56)	Percent	Valid percent	Cumulative percent
Valid	Yes, did not leave	26	46.4	46.4	46.4
	No	22	39.3	39.3	85.7
	Yes, did leave	8	14.3	14.3	100.0
	Total	56	100.0	100.0	

Pre-considering leaving now		Frequency (*n* = 56)	Percent	Valid percent	Cumulative percent
Valid	No	35	62.5	62.5	62.5
	Yes	21	37.5	37.5	100.0
	Total	56	100.0	100.0	

Post-considering leaving now		Frequency (*n* = 56)	Percent	Valid percent	Cumulative percent
Valid	Yes	29	51.8	51.8	51.8
	No	27	48.2	48.2	100.0
	Total	56	100.0	100.0	

Summary

In summary, the dependent *t*-test was used to determine if ELNEC education reduces moral distress in nurses working in the Intensive Care Unit (ICU). With a *p* value of .002, significance was shown and the alternate hypothesis was accepted. There was a difference in the intensity and frequency of moral distress in nurses who work in the Intensive Care Unit after participating in an ELNEC education program compared to intensity and frequency of moral distress prior to ELNEC education (*p*= .002). Thus, the null hypothesis was rejected. This study shows a reduction in moral distress after ELNEC education was greater in BSN educated nurses than ADN nurses by 19.7% (n=11). Thus, the null hypothesis was rejected.

Finally, participants were questioned if they considered leaving a position pre- and post- survey. The pre-survey showed 62.5% (n=35) of participants stated they were considering leaving the position now. The post-survey showed a reduction from 62.5% (n=35) to 51.8% (n=29). A statistically significant change was noted as 10.7% (n=6) of participants noted they no longer felt compelled to leave their job. Hamric (2018) noted that answering the question of leaving a position shows significant moral distress. A 10.7% (n=6) decrease shows a reduction in moral distress based on the findings of Hamric's survey tool (Hamric, 2018).

In chapter 5, I will interpret the findings of the analysis, discuss the limitations of the study, the recommendations for further research, the potential impact of these findings, and the implications for social change.

Chapter 5: Summary, Conclusions, and Recommendations

Introduction

The purpose of this study was to determine whether ELNEC education had any effect on moral distress in ICU registered nurses. The study surveyed 56 nurses before and immediately after ELNEC education using a moral distress survey (MDS-R 2017). This study was conducted over approximately 6 weeks with nurses from the northeastern United States who worked full or part time in the ICU. Moral distress affects nurses in both personal and professional areas, which may impact the quality of care received by patients and families. Nurses who develop moral distress may change work areas earlier than reasonably anticipated; have physical symptoms such as nausea, vomiting, headaches, and loss of sleep (Whitehead et al., n.d.); and suffer from psychological issues such as anxiety and depression (Browning, 2013). Nurses with increased moral distress may miss more days of work than others and feel less engaged when providing care (AACN, 2017). This study fills a gap on interventions that may be used to help ICU nurses reduce their moral distress.

The results revealed several key findings. There was a statistically significant change ($p = .002$) in the level of moral distress after ELNEC education. Moral distress measured in intensity and frequency decreased in this sample population after ELNEC education. This is significant because few interventions are present, and the knowledge that ELNEC education helps to reduce moral distress in this population may help others nationwide. Second, most nurses in this survey were bachelor's prepared. In the literature, nurses with greater education, specifically on end of life, noted increased moral distress as nurses

understood the futility of care and knew when interventions were not in the patient's best

interest (Browning, 2013; Ledger et al., 2012). The knowledge that a population that may

suffer more had a significant moral distress reduction after ELNEC education may help

to promote positive change. Third, 95% ($n =$53) of the nurses in this study worked full

time in the ICU. Browning (2013) noted that nurses who worked more hours per week

felt that they had more active collaboration in end-of-life patient care conferences. The

nurses felt that they had more of an impact on the care being provided, thus decreasing

their moral distress (Browning, 2013). Having this education may have made them feel

more empowered and helped to reduce the level of moral distress.

Interpretation of the Findings

The results of this study showed that there was a decrease in the intensity and

frequency of moral distress in nurses who worked in ICUs after participating in an

ELNEC education program compared to the intensity and frequency of moral distress

prior to ELNEC education. The findings were supported by Hamric and Hamric (2012),

who found that lack of knowledge and inexperience in clinical situations increased moral

distress. Nurses found feelings of powerlessness when patients were involved in

aggressive treatment at the end of life and stated worsening of moral distress due to lack

of education on how to manage the situation (Hamric & Hamric, 2012).

Another area of significance was the final question, which asked whether

participants were currently considering leaving their positions. The presurvey showed

that 62.5% of participants stated that they were considering leaving their positions now.

The postsurvey showed a reduction from 62.5% to 51.8%, which indicated a significant

reduction in moral distress (Hamric, 2018, Appendix B). This was supported by Robaee et al. (2018), who determined that nurses felt an increase in moral distress when administrative support was not present.

The results from my study showed that nurses who worked more hours per week were found to feel more empowered, as were nurses with active collaboration in end-of-life patient care. This is consistent with Hamric and Hamric's study, which determined that nurses who had an active collaboration with the patient's plan of care had reduced moral distress (Hamric & Hamric, 2012). The nurses who were working more hours and had increased collaboration with the provider, patient, and family had reduced moral distress (Hiler, 2018).

Review of study findings lends support to Lazarus's theory of stress, coping, and adaptation. Lazarus's theory focuses on a process-oriented approach that is directed toward what an individual thinks and does with specific encounters and includes the individual's thoughts and actions as the encounters unfold (Lazarus & Folkman, 1986). Education from ELNEC may help to change nurses' thoughts and actions when managing end-of-life patients, thus reducing moral distress.

When nurses are presented with a stressor, their appraisal of the situation may determine psychological harm and coping behaviors. These behaviors become integral elements influencing nurses' psychological well-being (McMeekin, 2017). Nurses who are able to cope with difficult situations such as end-of-life care have improved adaptation to situations (Brandon et al., 2014). With ELNEC education, nurses' appraisal of the situation may change, and they may be able to cope in an improved manner, thus

reducing moral distress.

Lazarus's theory of stress and coping focuses on an individual's reactions as a stressful situation unfolds. Moral distress is a stressful situation for ICU nurses caring for end-of-life patients (McAndrew et al., 2016). Determining that ELNEC education had an effect on the intensity and frequency of moral distress relates to Lazarus's factors of coping. Lazarus (1991) proposed that the interpretation of a stressful event is more important than the event itself, offering a framework that integrates stress, appraisal, and coping theories as these relate to how individuals react to psychologically stressful situations and/or environments. ELNEC education offers ways to manage stressful situations when managing end-of-life patients and addresses specific areas of end-of-life care such as symptom management, communication, and ethical issues with the life of the end-of-life patient (AACN, 2000).

Limitations of the Study

Surveying the nurses immediately after ELNEC education limited my ability to measure the effectiveness of the education in a long-term manner because the nurses did not have enough time to use the education and did not care for any end-of-life patients within that time. Another study limitation was that some of the nurses were paid by their institution to participate while others were not. Although I did not have control over this, the participant base from nonpaying institutions may have been smaller than the participant base from paying institutions due to the incentive offered. This study was limited to ICU nurses in the northeastern United States and therefore is not generalizable to all populations of the United States. Further studies may be needed to determine if the

same effect would occur in other areas of the nation.

Recommendations

Further follow-up research is needed to determine the long-term effects of ELNEC education on moral distress. The MDS-R 2017 was given before and immediately after ELNEC education, so the long-term effects of ELNEC education on levels of moral distress in the ICU nurses are unknown at this time. Reviewing the long-term effects after 6 months or more might offer a better understanding of the effect that ELNEC has on moral distress. Using a larger population with participants from other geographic regions is necessary to determine what effect ELNEC education has on levels of moral distress. A larger sample might offer greater representation of the population. Sample sizes of 50 or more have been cited as sufficient to obtain stable means and standard deviations in normative test data. Sample sizes of greater than 85 have been found to generate stable means and standard deviations regardless of the level of skewness, with smaller samples required in skewed distributions (Piovesana & Senior, 2018). This study was also limited to the target population of ICU nurses due to the higher levels of moral distress for nurses practicing in this area. Follow-up studies may be beneficial in other areas of nursing such as hospice or nursing homes to determine whether moral distress is affected in these areas.

Implications

This study has the potential to provide positive social change at all levels of nursing. Discovering that ELNEC education can reduce the moral distress of ICU nurses who care for patients at the end of life offers a significant opportunity to help nurses

practicing in other areas of health care to reduce their moral distress when caring for end-of-life patients. Interventions that help to reduce moral distress are beneficial because they may render nurses less likely to leave their employers and more likely to achieve reduced levels of depression and improved emotional and physical well-being (Brandon et al., 2014; Ferrell, n.d.). With a growing nursing shortage, finding ways to alleviate stressors for nurses is imperative and would help to create positive social change.

The study findings may contribute to positive social change within the nursing profession. In nurses, moral distress has been associated with increased job turnover, decreased caring ability, and increased stress, depression, and issues of emotional and physical well-being (Austin et al., 2017; Coetzee & Klopper, 2010; Hegney et al., 2014; Kaur et al., 2013; Neville & Cole, 2013; Van Bogaert et al., 2014). Given that nearly 2.5 million deaths occur annually and more than one-third occur in hospitals (Robinson, 2010), support needs to be available for nurses, such as debriefing, counseling, and education on end-of-life care (Brandon et al., 2014). Ultimately, positive social change resulting from the research could contribute to improved patient care quality and improved job satisfaction for nurses.

Conclusion

Caring for end-of-life patients has been shown to be taxing to nurses and may lead to moral distress. Nurses who develop moral distress often change work areas earlier than reasonably anticipated; may have physical symptoms such as nausea, vomiting, headaches, and loss of sleep (Whitehead et al., n.d.); and may suffer from psychological issues such as anxiety and depression (Browning, 2013). Nurses with increased moral

distress may miss more days of work than others and feel less engaged when providing care (AACN, 2017a). Although studies have addressed moral distress among nurses delivering futile end-of-life care, ways to decrease the distress that nurses feel have not been a focus of research. The knowledge that ELNEC education leads to reduction in nurses' level of moral distress may help in finding interventions and solutions to problems in other areas of nursing and medical practice.

Repeating this study in other areas of the nation and with other populations of nurses may offer more insight on what can be done to help reduce moral distress nationwide. The effort to retain nurses and offer further education to the nursing profession is valuable in itself. Knowing that the education being provided offers the benefit of reduced moral distress and reduced feelings of leaving a position provides direction for future research. Supporting nurses with continued education, guidance, and tools is imperative in reducing moral distress and fostering a better work environment.

References

Aghabarary, M., & Nayeri, N. D. (n.d.). Reasons behind providing futile medical

treatments in Iran: A qualitative study. *Nursing Ethics, 24*(1), 33-45.

American Association of Colleges of Nursing. (2000). ELNEC-Core. Retrieved from

http://www.aacn.nche.edu/elnec/about/elnec-core

American Association of Colleges of Nursing. (2010). Recommended baccalaureate

competencies and curricular guidelines for the nursing care of older adults.

Retrieved from www.aacn.nche.edu/geriatric-nursing/AACN_

Gerocompetencies.pdf

American Association of College of Nursing. (2017a). ELNEC fact sheet. Retrieved from

http://www.aacn.nche.edu/elnec/ fact-sheet

American Association of Colleges of Nursing. (2017b). Resources for ethics/moral

distress. Retrieved from https://www.aacn.org/clinical-resources/ethics-moral-

distress#page/1?%7B75C75579-1BCC-4DD7-9044-A01AB54B2FAD%7D%5B

%5D=%7B09A81BC8-D5CC-4361-8290-2102B05E715F%7D

Austin, C. L., Saylor, R., & Finley, P. J. (2017). Moral distress in physicians and nurses:

Impact on professional quality of life and turnover. *Psychological Trauma:

Theory, Research, Practice and Policy*, *9*(4), 399-406. doi:10.1037/tra0000201

Barrere, C., & Durkin, A. (2014). Finding the right words: The experience of new nurses

after ELNEC education integration into a BSN curriculum. *MEDSURG Nursing,

23*(1), 35-53.

Beckstrand, R., Callister, L., & Kirchhoff, K. (2006). Providing a "good death": critical

care nurses' suggestions for improving end-of-life care. *American Journal of Critical Care*, *15*(1), 38-46.

Beckstrand, R. L., & Kirchhoff, K. T. (2005). Providing end of life care to patients: Critical care nurses' perceived obstacles and supportive behaviors. *American Journal of Critical Care*, 14(5), 395–403.

Brandon, D., Ryan, D., Sloane, R., & Docherty, S. (2014). Impact of a Pediatric Quality of Life Program on Providers' Moral Distress. *MCN—The American Journal of Maternal-Child Nursing*, *39*(3), 189-197.

Browning, A. M. (2013). Moral Distress and Psychological Empowerment in Critical Care Nurses Caring for Adults at End of Life. *American Journal of Critical Care*, *22*(2), 143-152. doi:10.4037/ajcc2013437

Burston, A. S., & Tuckett, A. G. (2013). Moral distress in nursing: Contributing factors, outcomes and interventions. *Nursing Ethics, 20*(3), 312-324. doi:10.1177/0969733012462049

Cameron, D., & Johnston, B. (2015). Development of a questionnaire to measure the key attributes of the community palliative care specialist nurse role. *International Journal of Palliative Nursing, 2*(21), 87–95. doi:10.12968/jipn.2015.21.2.87

Center for Health and Workforce Studies, (2016). *A profile of registered nurses in New York State*. Retrieved from http://nyachnyc.org/wp-content/uploads/2016/10/CHWS-RN-Profile-2016.pdf

Centers to Advance Palliative Care (2011). *Palliative care.* Retrieved from: https://www.capc.org/

Centers for Disease Control and Prevention. (2018). Trends in inpatient hospital deaths:

    National Hospital Discharge Survey, 2000-2010. Retrieved from

    https://www.cdc.gov/nchs/products/databriefs/db118.htm

Christensen, M., & Hewitt-Taylor, J. (2006). Defining the expert ICU nurse. *Intensive &*

    Critical Care Nursing, *22*(5), 301-307.

Coetzee, S., & Klopper, H. (2010). Compassion fatigue within nursing practice: A

    concept analysis. *Nursing & Health Sciences, 12*(2), 235-243. doi:10.1111/j.1442-

    2018.2010.00526.x

Creswell, J. W. (2016). *Research design: qualitative, quantitative, and mixed methods*

    approaches (5th ed.). Thousand Oaks, CA: SAGE.

Cruz, V. M., Camalionte, L., & Caruso, P. (2015). Factors associated with futile end of

    life intensive care in a cancer hospital. *The American Journal of Hospice &*

    Palliative Care, *32*(3), 329-334. doi:10.1177/1049909113518269

Current Nursing. (2018). Theories of nursing: Patricia Benner. Retrieved from

    http://currentnursing.com/nursing_theory/patricia_benner_from_novice_to_expert

    .html

Dahlin, C. M., Coyne, P. J., Paice, J., Malloy, P., Thaxton, C. A., & Haskamp, A. (n.d.).

    ELNEC-APRN: Meeting the needs of advanced practice nurses through

    education. *Journal of Hospice & Palliative Nursing*, *19*(3), 261-265.

Daly, D., & Matzel, S. C. (2013). Building a transdisciplinary approach to palliative care

    in an acute care setting. *Omega: Journal of Death and Dying*, *67*(1-2), 43-51.

    doi:10.2190/OM.67.1-2.e

Davis, B., Burns, J., Rezac, D., Dillard, B., Kieffner, E., Gargus, J., & ... Waters, J.
(2005). Family stress and advance directives: a comparative study. *Journal of
Hospice & Palliative Nursing*, *7*(4), 219-227.

Demir, A., Sancar, B., Yazgan, E. Ö., Özcan, S., & Duyan, V. (2017). Intensive Care and
Oncology Nurses' Perceptions and Experiences with Futile Medical Care and
Principles of Good Death. *Turkish Journal of Geriatrics / Türk Geriatri
Dergisi*, *20*(2), 116.

Dzeng, E., Colaianni, A., Roland, M., Levine, D., Kelly, M., Barclay, S., ... Smith, T. J.
(2016). Moral Distress Amongst American Physician Trainees Regarding Futile
Treatments at the End of Life: A Qualitative Study. *Journal of General Internal
Medicine, 31*(1), 93-99. doi:10.1007/s11606-015-3505-1

Etikan, I., Musa, S. A., Alkassim. R. S. (2016). Comparison of Convenience Sampling
and Purposive Sampling. *American Journal of Theoretical and Applied Statistics,*
5(1,) doi: 10.11648/j.ajtas.20160501.11

Faul, F., Erdfelder, E., Buchner, A. et al. Behavior Research Methods (2009) 41: 1149.
Retrieved from: https://doi.org/10.3758/BRM.41.4.1149

Ferrell, B. (n.d). Understanding the moral distress of nurses witnessing medically futile
care. *Oncology Nursing Forum*, *33*(5), 922-930.

Ferrell, B. R., Dahlin, C., Campbell, M. L., Paice, J. A., & Virani, R. (2007). End of life
Nursing Education Consortium (ELNEC) Education Program: improving
palliative care in critical care. *Critical Care Nursing Quarterly*, (3). 206.

Folkman, S. & Lazarus, R.S. (1988). The relationship between coping and emotion:

Implications for theory and research. *Social Science Medicine*, *26(3)*, 309-317

Fourie, C. (2017). Who Is Experiencing What Kind of Moral Distress? Distinctions for

Moving from a Narrow to a Broad Definition of Moral Distress. *AMA Journal Of*

Ethics, *19*(6), 578-584. doi:10.1001/journalofethics.2017.19.6.nlit1-1706

Frankfort-Nachmias, Nachmias & DeWaard (2015). *Research Methods in the Social*

Sciences, 8th ed. New York, NY.

Goebel, J. R., Guo, W., & Wood, K. A. (2016). Teamwork and Perceptions of Palliative

Care Quality. *Journal of Hospice & Palliative Nursing*, *18*(3), 242.

doi:10.1097/NJH.0000000000000239

Goldsborough, J. L., & Matzo, M. (n.d). Palliative Care in the Acute Care

Setting. *American Journal of Nursing*, *117*(9), 64-67.

Grace, P. J., Robinson, E. M., Jurchak, M., Zollfrank, A. A., & Susan M., L. (2014).

Clinical Ethics Residency for Nurses: An Education Model to Decrease Moral

Distress and Strengthen Nurse Retention in Acute Care. *Journal of Nursing*

Administration, *44*(12), 640-646. doi:10.1097/NNA.0000000000000141

Groves, S., Bruns, N., & Gray, J. (2013). *The Practice of Nursing Research*, 7th ed. St.

Louis, MO.

Halevy A, Brody BA. Medical Futility in End-of-Life Care. *JAMA.* 1999;282(14):1331–

1332. doi:10-1001/pubs.JAMA-ISSN-0098-7484-282-14-jbk1013

Hall, S., Thompson, J., & Davies, A. (2013). An evaluation of the activity of a 7-day,

nurse-led specialist palliative care service in an acute district general

hospital. *International Journal of Palliative Nursing*, *19*(3), 148.

Hamric, A., Blackhall, L. (2007). Nurse-physician perspectives on the care of dying

patients in intensive care units: Collaboration, moral distress, and ethical climate.

Critical Care Medicine, 35(2), 422-429.

doi:10.1097/01.CCM.0000254722.50608.2D

Hamric, A., Borchers, C., Epstein, E., (2012) Development and Testing of an Instrument

to Measure Moral Distress in Healthcare Professionals. *AJOB Primary*

Research 3:2, pages 1-9.

Hamric, A., & Hamric, A. B. (2012). Empirical research on moral distress: issues,

challenges, and opportunities. *HEC Forum*, *24*(1), 39-49. doi:10.1007/s10730-

012-9177-x

Halevy, A., & Brody, B. A. (1999). Medical Futility in End of life Care. *JAMA, The*

Journal of the American Medical Association, (14).

Hegney, D. G., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K.,

& Drury, V. (2014). Compassion satisfaction, compassion fatigue, anxiety,

depression and stress in registered nurses in Australia: Study 1 results. *Journal of*

*Nursing Management, 22(*4), 506-518. doi:10.1111/jonm.12160

Henrich, N. J., Dodek, P.M., Alden, L., Keenan, S. P., Reynolds, S., & Rodney, P.

(2016). Causes of moral distress in the intensive care unit: A qualitative study.

Journal of Critical Care, 3557(62). doi:10.1016/j.jcrc.2016.04.033

Hernandez-Marrero, P., Martins Pereira, S., Hernandez-Marrero, P., Pereira, S. M., &

Carvalho, A. S. (n.d.). Ethical Decisions in Palliative Care: Interprofessional

Relations as a Burnout Protective Factor? Results from a Mixed-Methods

Multicenter Study in Portugal. *American Journal of Hospice & Palliative Medicine, 33*(8), 723-732.

Hiler, C. A. (2018). Predictors of Moral Distress in a U.S. Sample of Critical Care Nurses. *American Journal of Critical Care*, *27*(1), 59-66. doi:10.4037/ajcc2018968

Huynh, T., Kleerup, E., Wiley J., Savitsky, T., Guse, D., Garber, B., Wenger, N.. (2013). The Frequency and Cost of Treatment Perceived to Be Futile in Critical Care. *JAMA Intern Med.* 2013;173(20):1887–1894. doi:10.1001/jamainternmed.2013.10261

Jameton, A. (1984). *Nursing practice*: The ethical issues. Englewood Cliffs: Prentice Hall.

Kaur, D., Sambasivan, M., & Kumar, N. (2013). Effect of spiritual intelligence, emotional intelligence, psychological ownership and burnout on caring behavior of nurses: A cross-sectional study. *Journal of Clinical Nursing, 22*(21/22), 3192-3202. doi:10.1111/jocn.12386

Kelley, A. S., & Morrison, R. S. (2015). Palliative care for the seriously ill. *The New England Journal of Medicine*, *373*(8), 747-755. doi:10.1056/NEJMra1404684

Klein, S. M. (2009). Ethical Issues in Palliative Care: Moral Distress in Pediatric Palliative Care: A Case Study. *Journal of Pain and Symptom Management, 38*, 157-160. doi: 10.1016/j.jpainsymman.2009.04.014

Lazarus, R. S. (1991). *Emotion and adaptation. [electronic resource]*. New York: Oxford University Press, 1991.

Lazarus, R. S., & DeLongis, A. (1983). Psychological stress and coping in

aging. *American Psychologist*, *38*245-254. doi:10.1037/0003-066X.38.3.245

Lazarus, R S and Folkman, S, (1986). Cognitive theories of stress and the issue of

circularity. In M H Appley and R Trumbull (Eds), (1986). Dynamics of Stress.

Physiological, Psychological, and Social Perspectives (pp. 63–80). New York:

Plenum.

Marian, G., Clareen, W., Rose, V., Gwen, U., Carla, M., Pam, M., & Betty, F. (2013).

End of life Care Education in Acute and Critical Care: The California ELNEC

Project. *AACN Advanced Critical Care*, (2), 121.

doi:10.1097/NCI.0b013e3182832a94

Matzo, M., Sherman, D., Sheehan, D., Ferrell, B., & Penn, B. (2003). Communication

skills for end of life nursing care: teaching strategies from the ELNEC

curriculum...End of Life Nursing Education Consortium. *Nursing Education

Perspectives (National League for Nursing)*, *24*(4), 176-183.

McAndrew, N. S., Leske, J., & Schroeter, K. (2016). Moral distress in critical care

nursing: The state of the science. *Nursing Ethics*.

McEwen, M., & Wills, E. (2014). *Theoretical Basis for Nursing*. 4th ed. Wolters Kluwer,

Philadelphia, PA.

McMeekin, D. E. (2017). Stress and Coping of Critical Care Nurses After Unsuccessful

Cardiopulmonary Resuscitation. *American Journal of Critical Care*, *26*(2), 128-

135. doi:10.4037/ajcc2017916

Meltzer, L. S., & Huckabay, L. M. (2004). Critical care nurses' perceptions of futile care

and its effect on burnout. *American Journal of Critical Care: An Official Publication, American Association of Critical-Care Nurses*, *13*(3), 202-208.

Miller, S. C., Lima, J. C., Dahal, R., Intrator, O., Martin, E., Bull, J., & Hanson, L. C. (n.d). Palliative Care Consultations in Nursing Homes and End of life Hospitalizations. *Journal of Pain and Symptom Management, 52*(6), 878-883.

Mitchell, L. l. (2015). Bereavement Experience of Female Military Spousal Suicide Survivors: Utilizing Lazarus' Cognitive Stress Theory. *Professional Counselor: Research & Practice*, *5*(4), 442-457. doi:10.15241/lm.5.4.442

Musto, L. C., Rodney, P. A., & Vanderheide, R. (2015). Toward interventions to address moral distress: navigating structure and agency. *Nursing Ethics*, *22*(1), 91-102. doi:10.1177/0969733014534879

National Institutes of Health (NIH), (2018). Definition of End of Life and End of Life Patients. Retrieved from: https://www.nia.nih.gov/health/what-end-life-care

Nelson, R. (2008). ELNEC: going strong after 10 years. Transforming end of life care. *The American Journal of Nursing*, *108*(6), 86-87. doi:10.1097/01.NAJ.0000324389.03813.23

Neville, K., & Cole, D. A. (2013). The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community medical center. *Journal of Nursing Administration, 43*(6), 348-354. doi:10.1097/NNA.0b013e3182942c23

Neville, T. H., Wiley, J. F., Yamamoto, M. C., Flitcraft, M., Anderson, B., Curtis, J. R., & Wenger, N. S. (2015). CE article: concordance of nurses and physicians on

whether critical care patients are receiving futile treatment. *American Journal of Critical Care*, (5), 403.

O'Shea, E. R., Campbell, S. H., Engler, A. J., Beauregard, R., Chamberlin, E. C., & Currie, L. M. (2015). Effectiveness of a perinatal and pediatric End of life Nursing Education Consortium (ELNEC) curricula integration. *Nurse Education Today*, *35*(6), 765-770. doi:10.1016/j.nedt.2015.02.015

Oberle, K., & Hughes, D. (2001). Doctors' and nurses' perceptions of ethical problems in end of life decisions. *Journal of Advanced Nursing*, *33*(6), 707-715.

Parker, A. (2013). Education may help decrease nurses' moral distress. *American Journal of Critical Care, 22*(4), 286-287. doi:10.4037/ajcc2013643

Pattison, N., Carr, S. M., Turnock, C., & Dolan, S. (2013). 'Viewing in slow motion': patients', families', nurses' and doctors' perspectives on end of life care in critical care. *Journal of Clinical Nursing*, *22*(9/10), 1442. doi:10.1111/jocn.12095

Piovesana, A., & Senior, G. (2018). How Small Is Big: Sample Size and Skewness. *Assessment*, *25*(6), 793-800. doi:10.1177/1073191116669784

Pavlish, C., Brown-Saltzman, K., Fine, A., & Jakel. (2015). Culture of Avoidance: Voices from Inside Ethically Difficult Clinical Situations. *Clinical Journal of Oncology Nursing, 19*(2), 159-165. doi:10.1188/15.CJON.19-02AP

Plakovic, K. (2016). Burdens Versus Benefits. *Journal Of Hospice & Palliative Nursing*, *18*(5), 382-389. doi:10.1097/NJH.0000000000000270

Prentice, T. M., Gillam, L., Davis, P. G., & Janvier, A. (2017). Always a burden? Healthcare providers' perspectives on moral distress. *Archives of Disease in*

Childhood. Fetal and Neonatal Edition. doi:10.1136/archdischild-2017-313539

Rathert, C., May, D. R., & Chung, H. S. (2016). Nurse moral distress: A survey identifying predictors and potential interventions. *International Journal of Nursing Studies*, *53*39-49. doi:10.1016/j.ijnurstu.2015.10.007

Rea, L. M., & Parker, R. A. (2014). *Designing and conducting survey research: A comprehensive guide*.

Repenshek, M. (2009). Moral distress: inability to act or discomfort with moral subjectivity?. *Nursing Ethics*, *16*(6), 734-742. doi:10.1177/0969733009342138

Reyes-Ortiz, C. A., Williams, C., & Westphal, C. (2015). Comparison of early versus late palliative care consultation in end of life care for the hospitalized frail elderly patients. *American Journal of Hospice & Palliative Medicine*, *32*(5), 516-520. doi:10.1177/1049909114530183

Richards, T., & Folkman, S. (1997). Spiritual aspects of loss at the time of a partner's death from AIDS. *Death Studies*, *21*(6), 527-552.

Robaee, N., Atashzadeh-Shoorideh, F., Ashktorab, T., Baghestani, A., & Barkhordari-Sharifabad, M. (2018). Perceived organizational support and moral distress among nurses. *BMC Nursing*, *17*1-7. doi:10.1186/s12912-017-0270-y

Robinson, R. (2010). Registered nurses and moral distress. *Dimensions of Critical Care Nursing*, *29*(5), 197-202. doi:10.1097/DCC.0b013e3181e6c344

Rudestam, K. E., & Newton, R. R. (2014). *Surviving your dissertation: A comprehensive guide to content and process* (4th ed.). Thousand Oaks, CA: Sage Publications.

Rushton, C., Kaszniak, A., & Halifax, J. (2013). Addressing Moral Distress: Application

of a Framework. *Journal of Palliative Medicine, September 2013*(16(9)), 1080-1088. doi:10.1089/jpm.2013.0105

Sibbald, R., Downar, J., & Hawryluck, L. (2007). Perceptions of "futile care" among caregivers in intensive care units. *CMAJ: Canadian Medical Association Journal = Journal De L'association Medicale Canadienne, 177*(10), 1201-1208.

Simon, J. R., Kraus, C., Rosenberg, M., Wang, D. H., Clayborne, E. P., & Derse, A. R. (2017). "Futile Care"-An Emergency Medicine Approach: Ethical and Legal Considerations. *Annals of Emergency Medicine, 70*(5), 707-713. doi:10.1016/j.annemergmed.2017.06.005

St. Ledger, U., Begley, A., Reid, J., Prior, L., McAuley, D., & Blackwood, B. (n.d.). Moral distress in end of life care in the intensive care unit. *Journal of Advanced Nursing, 69*(8), 1869-1880.

Tan, A., Seah, A., Chua, G., Lim, T. K., & Phua, J. (2014). Impact of a palliative care initiative on end of life care in the general wards: A before-and-after study. *Palliative Medicine, 28*(1), 34-41. doi:10.1177/0269216313484379

Taylor-Ford, R. L. (2013). Moral Distress in End of life Care: Promoting Ethical Standards of Executive Nursing Practice. *Nurse Leader, 11*51-54. doi:10.1016/j.mnl.2013.01.005

Van Bogaert, P., Timmermans, O., Weeks, S. M., van Heusden, D., Wouters, K., & Franck, E. (2014). Nursing unit teams matter: Impact of unit-level nurse practice environment, nurse work characteristics, and burnout on nurse reported job outcomes, and quality of care, and patient adverse events—A cross-sectional

survey. *International Journal of Nursing Studies, 51*(8), 1123-1134.

doi:10.1016/j.ijnurstu.2013.12.009

White, K. R., & Coyne, P. J. (2011). Nurses' perception of educational gaps in delivering

end of life care. *Oncology Nurse Forum, 38*(6), 711-717.

White, K. R., Coyne, P. J., Wiencek, C., & Roczen, M. L. (n.d). Acute and Critical Care

Nurses' Perceptions of Palliative Care Competencies: A Pilot Study. *Journal of*

Continuing Education in Nursing, *45*(6), 265-277.

Whitehead, P. B., Herbertson, R. K., Hamric, A. B., Epstein, E. G., & Fisher, J. M. (n.d.).

Moral Distress Among Healthcare Professionals: Report of an Institution-Wide

Survey. *Journal of Nursing Scholarship, 47(2)* (117-125).

Wilson, M. A., Goettemoeller, D. M., Bevan, N. A., & McCord, J. M. (2013). Moral

distress: Levels, coping and preferred interventions in critical care and transitional

care nurses. *Journal of Clinical Nursing*, *22*(9/10), 1455-1466.

doi:10.1111/jocn.12128

Young, A., Froggatt, K., & Brearley, S. G. (2017). 'Powerlessness' or 'doing the right

thing' – Moral distress among nursing home staff caring for residents at the end of

life: An interpretive descriptive study. *Palliative Medicine*, *31*(9), 853.

doi:10.1177/0269216316682894

Appendix A: MDS-R 2017

MDS-R 2017

Moral distress occurs when professionals cannot carry out what they believe to be ethically

appropriate actions because of constraints or barriers. This survey lists situations that occur in

clinical practice. If you have experienced these situations they may or may not have been

morally distressing to you. Please indicate how frequently you have experienced each item.

Also, rank how distressing these situations are for you. If you have never experienced a

particular situation, select "0" (never) for frequency. Even if you have not experienced a

situation, please indicate how distressed you would be if it occurred in your practice. Note that

you will respond to each item by checking the appropriate column for two dimensions:

Frequency and Level of Distress.

	Frequency					Level of distress				
	Never			Very frequently		None			Very distressing	
	0	1	2	3	4	0	1	2	3	4
1. Witness healthcare providers giving "false hope" to a patient or family.										
2. Follow the family's insistence to continue aggressive treatment even though I believe it is not in the best interest of the patient.										
3. Feel pressured to order or carry out orders for what I consider to be unnecessary or inappropriate tests and treatments.										
4. Be unable to provide optimal care due to pressures from administrators or insurers to reduce costs.										
5. Continue to provide aggressive treatment for a person who is most likely to die regardless of this treatment when no one will make a decision to withdraw it.										
6. Be pressured to avoid taking action when I learn that a physician, nurse, or other team colleague has made a medical error and does not report it.										
7. Be required to care for patients whom I do not feel qualified to care for.										

8. Participate in care that causes unnecessary suffering or does not adequately relieve pain or symptoms.										
9. Watch patient care suffer because of a lack of provider continuity.										
10. Follow a physician's or family member's request not to discuss the patient's prognosis with the patient/family.										
11. Witness a violation of a standard of practice or a code of ethics and not feel sufficiently supported to report the violation.										
12. Participate in care that I do not agree with, but do so because of fears of litigation.										
13. Be required to work with other healthcare team members who are not as competent as patient care requires.										
14. Witness low quality of patient care due to poor team communication.										
15. Feel pressured to ignore situations in which patients have not been given adequate information to ensure informed consent.										
16. Be required to care for more patients than I can safely care for.										
17. Experience compromised patient care due to lack of resources/equipment/bed capacity.										
18. Experience lack of administrative action or support for a problem that is compromising patient care.										
19. Have excessive documentation requirements that compromise patient care.										
20. Fear retribution if I speak up.										
21. Feel unsafe/bullied amongst my own colleagues.										
22. Be required to work with abusive patients/family members who are compromising quality of care.										
23. Feel required to overemphasize tasks and productivity or quality measures at the expense of patient care.										
24. Be required to care for patients who have unclear or inconsistent treatment plans or who lack goals of care.										
25. Work within power hierarchies in teams, units, and my institution that compromise patient care.										
26. Participate on a team that gives inconsistent messages to a patient/family.										

27. Work with team members who do not treat vulnerable or stigmatized patients with dignity and respect.										
If there are other situations in which you have felt moral distress, please write and score them here:										

Have you ever left or considered leaving a clinical position due to moral distress?

€   No, I have never considered leaving or left a position.

€   Yes, I considered leaving but did not leave.

€   Yes, I left a position.

Are you considering leaving your position now?

€   Yes

€   No

Appendix B: Permission from Author

Dear Jenniffer,

We have completed preliminary analysis on the new Moral Distress Scale-Revised 2017

(MDS-R 2017) and it shows initial evidence of reliability and validity. While we are still

working with the data set, the numbers are strong enough that I'm willing to share the

new scale. I am writing to give you formal permission to use the MDS-R 2017 for your

project. There is only one version of this scale, which is attached. Please treat this as a

pre-publication copyrighted instrument -- you do not have permission to share this new

instrument outside the context of your research study or project.

The MDS-R 2017's scoring procedure is designed to give a measure of current level of

moral distress. Conceptually, items that have never been experienced or are not seen

as6distressing do not contribute to an individual's level of moral distress. To generate a

composite score, the frequency score and distress scores for each item should be

multiplied; note that this results in eliminating items never experienced or not distressing

from the composite score. In addition, items rarely experienced or minimally distressing

have low scores and items experienced frequently and as most distressing have higher

scores.   Each item product of frequency and distress will range from 0 to 16. To obtain a

composite score of moral distress, these individual item products should be added

together. Using this scoring scheme allows all items marked as never experienced or not

distressing to be eliminated from the score, giving a more accurate reflection of actual

moral distress. The resulting score based on 27 items will have a range of 0 – 432.

In terms of interpreting the overall score, here is some additional guidance that may be

helpful:

Since this is a new instrument, we cannot say what scores constitute high versus low moral distress. However, I think you can conclude that individuals who are thinking about leaving a position due to moral distress have a high level; those who are not thinking about leaving clearly have lower levels. We do see significant differences in MDS-R 2017 scores in this direction. A second approach involves creating "cut scores". In my own early work, I divided the sample scores into three categories or "cut scores" (high, medium, and low groups; 1/3 of the sample in each category). Then I compared the high and low scorers against selected other variables -- see Hamric & Blackhall (2007) for an earlier description of the differences between high and low scoring groups. If you are not familiar with cut scores, please consult a statistician.

So I think the best approach to score interpretation is to say that in your study or project, scores associated with intentions to leave or stay in a position are indicative of high versus low moral distress in your study population. If your data do not support this approach, you could try the cut score approach.

I do request that you share your findings with me, as well as your experience with using the MDS-R 2017.

Best wishes and let me know if you have further questions,

Ann Hamric

****

Ann B. Hamric, PhD, RN, FAAN

Professor Emeritus, School of Nursing

Virginia Commonwealth University

Richmond, VA

****

Appendix C: Nurse Demographic Sheet

Date_____

ID # _____

1. What is your highest level of education?

    a. Diploma in nursing

    b. Associate's Degree in nursing

    c. Associate's Degree (indicate type)

    d. Bachelor's Degree in nursing

    e. Bachelor's Degree (indicate type)

    f. Master's Degree in nursing

    g. Master's Degree (indicate type)

    h. Doctoral Degree in nursing

    i. Doctoral Degree (indicate type)

2. How many years of full-time experience as a registered nurse do you have?

    (Please round up for half year of experience and down if less than a half of a year

    of experience)

    a. 0-5 years

    b. 6-10 years

    c. 11-16 years

    d. 17-20 years

e. 21-25 years

f. 26-30 years

g. 31-35 years

h. 36-40 years

i. > 40 years

3. How many years of experience do you have as a registered nurse working in the Intensive Care Unit (ICU)? (Please round up for half year of experience and down if less than a half of a year of experience)

a. 0-5 years

b. 6-10 years

c. 11-16 years

d. 17-20 years

e. 21-25 years

f. 26-30 years

g. 31-35 years

h. 36-40 years

i. > 40 years

4. Are you a Certified Critical Care Registered Nurse (CCRN)?

a. Yes

b. No

5. When working in the Intensive Care Unit, how do you classify your status?

    a. Full Time

    b. Part Time

    c. Per Diem

    d. Other (please specify)

6. What resources are available for you to retrieve information for education on end of life while working in the Intensive Care Unit?

    a. Written materials

    b. Computer access to electronic information

    c. Textbooks

    d. Other colleagues

    e. Continuing education course at hospital

    f. Other (describe)

    g. No resources available on end of life

7. What is your age in years? _____

8. What is your race/ethnicity?

    a) White, non-Hispanic

    b) Black/African American, non-Hispanic

c) Asian, non-Hispanic

d) Hispanic/Latino, any race

e) Other or two or more races, non-Hispanic*

   *Other races include American Indian and Pacific Islander.

9. What is your gender?

   a. Male

   b. Female

10. State any other end of life education you have received and approximately how

   long ago this education was completed.

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Appendix G.

Appendix D: Updating and Refining a Measure for Moral Distress

Updating and Refining a Measure for Moral Distress: Introducing the Measure of Moral Distress for Healthcare Professionals (MMD-HP)

Ann Hamric, PhD, RN, FAAN,[1] Phyllis Whitehead,PhD,APRN,ACHPN,RN-BC,[2] Chuleeporn Prompahakul, MNSc, RN,[3] Beth Epstein, PhD, RN, FAAN[3]   1 Virginia Commonwealth University, Richmond, VA   2 Carilion Clinic, Roanoke, VA   3 University of Virginia, Charlottesville, VA

Introduction

Moral distress is a serious problem for healthcare professionals. For bedside clinicians, moral distress can have negative consequences such as burnout and intent to leave a position. As exploration of moral distress' impact on clinicians, patients, and organizations continues, updated instruments are required.

The Moral Distress Scale-Revised (MDS-R), revised from Corley's MDS in 2012, has demonstrated good reliability and validity and is widely used. However, recent studies have indicated additional root causes not captured by the MDS-R. The purpose of this project was to substantively revise the MDS-R and to psychometrically test a new version, the Measure of Moral Distress for Healthcare Professionals (MMD-HP).

Methods

- MDS-R datasets from 22 principal investigators were combined, yielding over 4,300 responses. Exploratory factor analysis on these data identified items that could be deleted or combined.
- Potential new root causes from 15 recently published studies of moral distress in various professions were identified and compared to existing MDS-R items.
- Write-in items on the MDS-R from 8 studies were also analyzed for new root causes.
- These activities resulted in elimination of 5 items and addition of 11 new items.
- IRB approval was obtained to test the MMD-HP with nurses, physicians, and other healthcare clinicians at two academic medical centers.
- The final 27-item MMD-HP was distributed electronically via Qualtrics, along with a demographic survey and the Hospital Ethical Climate Survey (HECS) short version.

Statistical Analyses

In addition to descriptive analyses, we conducted correlational analysis, ANOVA for comparison of means, and exploratory factor analysis.

Results

A total of 706 surveys were received and 676 surveys were included in the final MMD-HP analysis; other healthcare professionals not in direct care positions were excluded from the MMD-HP analysis. Six hundred fifty-three (653) respondents gave full information (Table 1).

Reliability: Cronbach's Alpha was 0.93 and individual professions were all greater than 0.90.

Validity: Four hypotheses were tested, based on past literature and theoretical understandings of moral distress. All hypotheses were significant in the predicted directions.
1) Moral distress is negatively correlated with ethical climate ($r = -0.58$, $p < 0.001$).
2) MMD-HP scores for nurses are higher than those for physicians. Welch $F_{(2, 200.4)} = 3.54$, $p = .031$ post hoc mean difference = 16.02, $p = .023$
3) MMD-HP scores are higher for respondents considering leaving their position (n = 128, mean MMD-HP 168.4 [75.8]) due to moral distress compared to those not considering leaving now (n = 525, mean MMD-HP 94.3 [61.2]) $t = 10.3$, $p < 0.001$.
4) Exploratory factor analysis suggests a three factor structure with all items retained. Factors correspond to the three levels of moral distress seen in the literature: patient/family; unit/team; and system/organization.

Table 1 Participant characteristics and MMD-HP scores

Profession group	n (%)	Mean score (SD)	range
All	653	108.85 (70.66)	0 - 359
RN***	440 (67)	112.28* (73.17)	0 - 359
MD****	123 (19)	96.26* (54.69)	7 - 284
Other	90 (14)	109.28 (76.16)	1 - 346
Years in profession		14.07 (11.94)	0 - 53
Years in current position		7.83 (8.46)	0 - 39
Setting			
Non-ICU		102.26** (69.01)	0 - 359
ICU		124.32** (72.24)	0 - 354
Adult		110.91 (72.00)	0 - 359
Pediatric		95.91 (60.41)	0 - 295

* $p < .05$ ** $p < .001$
*** RN includes RNs, CNSs, Case Managers, CWONs, Nursing Supervisors, NPs, CRNAs, CNMs
**** MD incudes attendings, fellows, and residents

Table 2 Root Causes of Moral Distress

	RN (n = 440)		MD (n =123)		Other-direct care (n = 90)	
	MDS mean (SD)	Rank	MDS mean (SD)	Rank	MDS mean (SD)	Rank
Follow the family's insistence to continue aggressive treatment even though I believe it is not in the best interest of the patient.	7.46 (4.97)	1	6.37 (3.80)	2	8.27 (5.15)	1
Continue to provide aggressive treatment for a person who is most likely to die regardless of this treatment when no one will make a decision to withdraw it.	6.45 (5.42)	2	5.80 (4.47)	3	6.18 (5.35)	2
Be required to care for more patients than I can safely care for.	6.20 (5.64)	3	3.69 (4.31)	13	5.8 (5.81)	4
Have excessive documentation requirements that compromise patient care.	6.17 (5.39)	4	7.72 (5.66)	1	4.19 (5.09)	14
Experience compromised patient care due to lack of resources/equipment/bed capacity.	6.11 (5.43)	5	4.93 (4.86)	4	5.22 (5.08)	8
Watch patient care suffer because of a lack of provider continuity.	5.70 (5.20)	6	4.39 (3.93)	8	5.89 (5.42)	3
Witness low quality of patient care due to poor team communication.	5.27 (4.67)	7	4.07 (3.56)	11	5.67 (5.10)	6

Conclusions

The MMD-HP is an updated measure of moral distress in healthcare clinicians with promising evidence of reliability and validity. The exploratory factor analysis supports a three-factor structure that corresponds to the growing body of literature indicating the root causes of moral distress occur at the patient/family level, the unit/team level, and/or the system/organization level.

Implications for Research and Practice

- The MMD-HP allows for expanded research into unit/team and system/organization root causes of moral distress, and will enhance the study of targeted interventions for specific root causes.
- The MMD-HP can be used to support research evaluating moral distress in association with patient outcomes and patient care quality measures.
- The MMD-HP should replace the MDS-R as a measure for moral distress among healthcare clinicians.

Literature cited

Corley. J Adv Nsg, 2001, 33(2): 250-256.
Aultman & Wurzel. J Grad Med Ed, Sept 2014, 457-462
Whitehead et al. 2015, J Nsg Schol 47(2): 117-125

Bruce et al. Crit Care Med, 2015, 43:823-831.
Penny et al. Am J Occup Ther, 2016, 70.
Hamric & Blackhall. Crit Care Med, 2007, 35(2):422-429.

Hamric et al. 2012, AJOB Prim Rsch, 3(2): 1-9.
Schwenzer & Wang. 2006, Crit Care Med, 34(12): 2967-2973.

Permission Granted by Author Ann Hamric to utilize survey. Copyright in process. See Appendix G.

Appendix E: Copy of Flyer Used in Hospital

END-OF-LIFE EDUCATION (ELNEC)
FOR RN's who work in the ICU

You are invited to participate in a research study focused on determining if ELNEC education effects the intensity and frequency of moral distress in nurses who work in the Intensive Care Unit.

You are eligible if you are an:

- **RN working full or part time in the ICU, are over the age of 18 and licensed in the state where education is being given**
- **Willing to participate in the ELNEC education modules**

The results of this study will be used to increase nurses' understanding of how to better support you in managing end-of-life in the ICU

DATES AND TIMES:

LOCATION:

Participants will be asked to complete a survey before and after the ELNEC education about moral

Appendix F: Specific ELNEC Module Chapters

ELNEC Core Module 1: Introduction to Palliative Care Nursing

ELNEC Core Module 2: Pain Management in Palliative Care

ELNEC Core Module 3: Symptom Management in Palliative Care

ELNEC Core Module 4: Ethical Issues in Palliative Cares

ELNEC Core Module 5: Cultural Considerations in Palliative Care

ELNEC Core Module 6: Communication in Palliative Care

ELNEC Core Module 7: Loss, Grief and Bereavement

ELNEC Core Module 8: Final Hours of Life

Appendix G: Permission from Survey Author to Use Publication in Dissertation

October 16, 2018

Dear Ms. Mullen,

I am pleased to give you formal permission to use the Measure of Moral Distress for Healthcare Professionals (MMD-HP) in your research, and to use it in your published dissertation. We have renamed this instrument; formerly, our draft title was "MDS-R 2017".

PLEASE NOTE that you must indicate that you are using pre-publication information protected by copyright -- individuals do not have permission to reprint the full scale, and I would prefer that you not publish the full instrument in your dissertation. We have an article in review describing the MMD-HP, and expect a decision soon. The full instrument will be published with the article; after that publication, it will be available to anyone, but that is not the case at present.

Let me know if you have any questions.

Best wishes,

Ann Hamric

****
Ann B. Hamric, PhD, RN, FAAN
Professor Emeritus, School of Nursing
Virginia Commonwealth University
Richmond, VA
****