MORAL DISTRESS AMONG HEALTHCARE PROVIDERS

IN THE ICU ENVIRONMENT

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DEDICATION

I would like to dedicate this work to my two precious grandsons, Rylan Archer Abbott and Hunter James Kimball. You both were born and celebrated your first birthdays during the course of this project. Rylan and Hunter, you are both my greatest motivation and my most joyful reprieve. Boys, always seek to understand all you can, apply good judgment in all you do, and you will gain wisdom which is worth far more than gold! I love you tons!!
The stirrings of morality emerge early in childhood. Toddlers spontaneously offer toys and help to others and try to comfort people they see in distress.

- Steven Pinker
ABSTRACT OF THE THESIS

Moral Distress Among Healthcare Providers in the ICU Environment
by
Mary C. Abbott
Master of Science in Nursing with a Concentration in Nursing Education
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Introduction: Moral distress is a problem in the healthcare environment that threatens the workforce and provision of quality patient care. The aim of this study was to evaluate the presence of moral distress and crescendo effect among providers practicing in intensive care units. Methods: The goal of the study was to describe the frequency and intensity of moral distress, overall moral distress, the crescendo effect and to identify situations antecedent to moral distress, and whether moral distress is a predictor of intention leave. A cross-sectional survey was used to gather data from a convenience sample of nurses, physicians and other healthcare providers in the ICU environment. Results: Other healthcare providers, as a group, had higher overall moral distress scores than both nurses and physicians. The correlation ($R^2 = 0.071$) between overall moral distress scores and ICU years showed quadratic effect significance. In this sample, moral distress scores did not predict intention to leave. Qualitative statements describing providers’ morally distressing situations were primarily related to patient families (55%) and futile care (40%). An exploratory factor analysis showed support for some moral distress antecedents to be categorized by the terms “un-optimized care” and “futile care.” Conclusion: The only significant finding was the correlative quadratic effect between overall moral distress and years of ICU experience showing some support for the crescendo effect. This study revealed that there are three primary areas that contribute to moral distress among healthcare providers in the ICU’s at this hospital: futile care, un-optimized care, and family-centered care.
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CHAPTER 1

INTRODUCTION TO THE STUDY

The phenomenon of moral distress manifests when a professional experiences agonizing psychological disequilibrium when faced with ethically challenging situations coupled with intrinsic (personal/professional moral identity and integrity) and extrinsic (actual or perceived organizational moral climate) constraints (Corley, Minick, Elswick, & Jacobs, 2005; Epstein & Hamric, 2009; Hamric, 2000; Hamric, Borchers, & Epstein, 2012; Rushton, Kaszniak, & Halifax, 2013; Vanderheide, Moss, & Lee, 2013). The issue of moral distress is well-documented in the nursing literature and is a priority workplace issue for the American Association of Critical Care Nurses (AACN, n.d.). Moral distress is a problem in the healthcare environment that threatens the workforce and provision of quality patient care (AACN, 2008).

The experience of moral distress is documented among physicians (Austin, Kagan, Rankel, & Bergum, 2008; Chen, 2009; Forde & Aasland, 2008), advanced practice nurses (Beavis, 2013; Nivens & Buelow, 2013) and other healthcare professionals (Austin, 2012; Ulrich, Hamric, & Grady, 2010), such as respiratory care practitioners (Schwenzer & Wang, 2006), pharmacists (Sporrong, Hoglund, Hansson, Westerholm, & Arnetz, 2005), and social workers (Openshaw, 2011). Emotional exhaustion, frustration, and disempowerment related to morally distressing workplace situations undermine the professional’s identity and ethical practice (Chen, 2009; Hamric & Blackhall, 2007; Ulrich et al., 2010).

Evidence that moral distress is a widespread occurrence is clear by the increasing amount of literature addressing its manifestation among healthcare professionals, not just nurses. Epstein and Hamric (2009), leaders in moral distress research, noted that the 400% increase in MEDLINE articles in recent years demonstrates growing awareness of moral distress among healthcare professionals and a PubMed keyword search for the term gave more than 400 references (Hamric, 2012).
Awareness of moral distress is growing worldwide (Pauly, Varcoe, & Storch, 2012). Out of the 185 recent articles on moral distress, 86 are from the United States, 52 from Europe, 34 from the United Kingdom and Ireland, 20 from Australia and New Zealand, eight from Canada, five from Mexico, Central America, and South America, three from the Middle East, and two are from Asia.

**BACKGROUND**

Thirty years ago, Andrew Jameton, PhD, professor at University of Nebraska Medical Center, defined moral distress in his book, *Nursing Practice: The Ethical Issues*, as “occurring when one believes one knows an ethical dilemma is at stake and also the morally right thing to do, but institutional constraints make it impossible to pursue the desired course of action” (Jameton, 1984, p. 6). The distinction between psychological distress and moral distress is that the first describes emotional reactions whereas the second involves the “violation of core values and duties” (Epstein & Hamric, 2009, p. 2). Researchers, primarily from the field of nursing, have explored the concept and the experience of moral distress and its sequelae.

Since the late 1980s researchers have addressed the issue of moral distress in nursing practice and among critical care nurses (Corley, 1995; Jameton, 1993; Wilkinson, 1988). However, a growing body of evidence suggests that moral distress and its sequelae are problematic for physicians and other healthcare providers as well as for nurses. Research into moral distress, taken cumulatively, shows that the experiences of moral distress among all healthcare providers points to problems within a healthcare system (Beavis, 2013; Kalvemark, Hoglund, Hansson, Westerholm, & Arnetz, 2004; Ulrich et al., 2010).

**STATEMENT OF THE PROBLEM**

Antecedents to moral distress have been identified in the literature and summarized as intrinsic constraints (perceived powerlessness, and lack of knowledge/not knowing the whole situation), extrinsic constraints (inadequate staffing, lack of administrative support, incompetent caregivers), and clinical ethical dilemmas (futile treatment, aggressive treatment inconsiderate of patient’s best interest, lack of adequately informed consent, partial truths/false hope) (Hamric, 2012). Jameton (1993) described initial moral distress in acute
terms, such as frustration, anxiety, and anger related to environmental/system barriers or professional interpersonal ethical conflicts as cited in Corley et al. (2005). Jameton posited that reactive moral distress, later renamed “moral residue” by Webster and Bayliss (2000), is the result of reoccurring incidences of moral distress without responsive actions (Hamric, 2012).

The crescendo effect is a model developed by Epstein and Hamric (2009) to show the interaction between moral distress and moral residue over time (Epstein & Delgado, 2010). The crescendo effect is the outcome of the build-up of moral residue resulting from chronic incidences of moral distress and is usually evidenced within the context of a particular system, unit, or team dynamic (Epstein & Hamric, 2009). Although the consequences of moral distress have common themes, the levels of frequency and intensity and resulting crescendo effect manifest uniquely within a particular healthcare system, hospital, or unit (Epstein & Delgado, 2010; Pauly et al., 2012).

![Figure 1. Model of the Crescendo Effect. Permission to use the figure was granted by the designers, Epstein and Hamric (2009) and the Journal of Clinical Ethics.](image_url)

Acute and chronic compromise of providers’ professional values, ethics and obligations may desensitize nurses, physicians, and other healthcare professionals to the moral dimensions of their work (Epstein & Hamric, 2009; Hamric, 2012). Moral distress and its sequelae create a crescendo effect, and are linked to poor job satisfaction, staff retention and patient outcomes (Corley et al., 2005; Epstein & Hamric, 2009; Hamric, 2012; Vanderheide et al., 2013).
PURPOSE OF THE STUDY

The aim of this study was to evaluate the presence of moral distress and crescendo effect among nurses, physicians, and other healthcare providers practicing in medical and surgical intensive care units at one large non-profit hospital and whether moral distress affects intention to leave. Moral distress and the crescendo effect are multidisciplinary issues that are systemic in nature (Epstein & Hamric, 2009). Moral distress needs to be addressed from three levels: the healthcare provider, the unit and the organization (Hamric, 2010).

THEORETICAL BASIS AND ORGANIZATION

The Moral Habitability framework presented by Vanderheide et al. (2013) supports the concept of moral distress as a function of the organization and the individual. The concept, “moral habitability” is built upon the expressive-collaborative model of moral theorist, Margaret Urban Walker, and is a term that was originally used by Peter, Macfarlane, and O’Brien-Pallas (2004) to describe work by Baumann et al. (2001) which offered qualitative descriptions of nurses’ experiences related to their work environments. The expressive-collaborative model offered by Walker (2007) suggested that moral agency and moral practice exist within the context of social roles and practices.

The Moral Habitability construct includes four first level domains: moral climate, moral agency, moral sensitivity, and moral distress, and three second level domains: moral community, moral identity and moral integrity. Outcomes are linked to various domains within the construct; they are job satisfaction, poor staff retention, poor patient care, and quality patient care. First and second level domains and their outcomes are connected by a web of evidence (Vanderheide et al., 2013). Each domain within the moral habitability construct is based upon the long-standing work of respected researchers.

LIMITATIONS OF THE STUDY

The study subjects will be limited to nurses, physicians, and other healthcare providers (nurse practitioners, physicians assistants, pharmacists, respiratory therapists, social workers, chaplains and health care associates (a.k.a. nurse assistants) who are either directly employed by the hospital or whose medical group contracts directly with the hospital. The study subjects’ areas of care provision are primarily the surgical and medical
intensive care units of one hospital. These fast-paced units provide care for high acuity patient populations whose lives are critically compromised and whose survival is jeopardized.

**DEFINITION OF THE TERMS**

Moral Habitability – The moral arrangement (understanding and negotiations) and social order (respective and mutual responsibilities) within an environment (Peter et al., 2004; Walker, 2007)

Moral Distress is the intrinsic response that “occurs when professionals cannot carry out what they believe to be ethically appropriate actions because of internal or external constraints” (Ann Baile Hamric, personal communication, March 15, 2014).

Moral Residue – The lingering psychological effects of decisions made through personal, interpersonal, or environmental constraints that compromise or violate one’s
personal or professional morals, ethics, values, and oaths (Epstein & Hamric, 2009; Webster & Bayliss, 2000).

Crescendo Effect – The product of heightened moral distress and heightened moral residue compounded over time (Epstein & Delgado, 2010). Steadily increasing the baseline level of moral residue creates greater crescendos inducing stronger reactions in the face of ongoing instances of moral distress (Epstein & Hamric, 2009).
CHAPTER 2

REVIEW OF THE LITERATURE

Years of research has identified moral distress within a nursing context. More recently, research has shown that moral distress may be problematic among other healthcare professionals, too. The objective of this literature search is to describe the presence of moral distress among nurses, physicians, and other healthcare providers who directly or indirectly participate in the care of critically ill patients.

LITERATURE SEARCH STRATEGY

Initial literature searches were conducted on CINAHL, PubMed, and Cochrane Review databases, using only the key term “moral distress.” Literature and other source material were also gathered through ancestry and descendancy approaches. Hundreds of entries were reviewed with an eye for relevance to population or environment of interest. Literature published within the last five years was preferred, but some older literature was included if it was rigorous and well-aligned with the proposed research population and environment.

Studies were selected for inclusion based primarily on the extent to which they mirrored the population and environment of the proposed research. Literature was selected for review based on conceptual congruence (moral distress), relevance to the population (nurses, physicians, and other healthcare providers), and environment (intensive care units). Given both the scarcity of literature related to moral distress among healthcare providers other than nurses and the expanding worldwide interest in the concept, some literature was selected from outside North America in order to more effectively capture the phenomenon of moral distress.
**Moral Distress Defined**

Dr. Andrew Jameton (1984) coined the term moral distress and wrote that it occurs when “one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action” (p. 6). Moral distress is distinguished from moral uncertainty and moral dilemmas. Moral uncertainty describes the inability to discern precisely what the moral problem is and what moral values then apply to the situation. A moral dilemma is uncertainty about which of two or more principles apply and the inability to make the right choice (Jameton, 1984). Moral distress, as presented by Jameton, results from a trifecta of forces that escalate to form a perfect storm: Patients are being put at risk, ethical principles are being violated, and changes to practice are being resisted. Moral distress develops in an individual when there is dissonance between what one knows to be right (moral/ethical certainty), one’s actions or inaction and the situational outcomes (Webster & Bayliss, 2000) within a social and environmental context (Hamric et al., 2012).

**Theoretical Foundations**

The expressive-collaborative model theorized by Margaret Urban Walker (2007) proposes that the concept of ethical and moral discourse occurs within a living, social, interpersonal channel where “mutual understanding and negotiation between people over their responsibility for things open to human care and response” occurs (p. 9). The expressive-collaborative model aims to describe moral interactions (what morality “is”), why humans rely on moral practices and how moral practices can change. Since morality is a product of interpersonal interactions, it is collaborative and is best understood by reflectively analyzing one’s own and others’ responsibilities as they relate to their “identities, relationships, and values” within the context of their shared environment (Walker, 2007, p. 11). Walker explained that morality, in the expressive-collaborative model, can be understood by superimposing the constant features of human social life, autonomy, interpersonal responsiveness, and shared accountability into the context of a normative environment.

Jameton (1984) also acknowledged that issues related to moral discourse and ethical considerations that arise within a healthcare environment need to be addressed by all relevant participants. Traditional medical bioethics aligns with a theoretical-juridical moral model that
is law-like in its application and explanation of moral behavior (Walker, 2007) and functions hierarchically, whereas the expressive-collaborative model allows for negotiation and consensus-building with the aim to harmonize moral and ethical judgments relating to individual and inter-professional practices.

Walker’s (2007) expressive-collaborative model and Jameton’s (1984) philosophical explanation of moral distress offer a theoretical foundation for the relationship between Moral Habitability and Moral Distress offered in the theoretical framework presented by Vanderheide et al. (2013). In addition, the concept of “reactive moral distress” identified by Jameton (1993) was later expanded on by Webster and Bayliss (2000) and renamed “moral residue.” Moral residue results from repeated incidences of morally distressing situations where one’s moral fortitude has been severely compromised (Hamric et al., 2012; Jameton, 1993; Webster & Bayliss, 2000).

**Expert Opinion**

Authorities on moral distress rightly credit Jameton and Webster and Bayliss for their respective philosophical and conceptual development of moral distress and moral residue. They validate that the accumulation of research in the field of nursing lends support to the original concept of moral distress and the emerging concern related to the potentially broad scope of the issue among other healthcare providers and within health systems and microsystems (Corley, 1995; Corley et al., 2005; Epstein & Delgado, 2010; Epstein & Hamric, 2009; Hamric, 2000, 2012; Hamric et al., 2012; Pauly et al., 2012).

**MORAL DISTRESS AMONG HEALTHCARE PROVIDERS**

Research has identified morally distressing situations that are common among healthcare providers. A recently published study found that registered nurses, nurse practitioners, physicians, social workers, case managers, and respiratory therapists had two situations in common that they identified as morally distressing: “Follow the family’s wishes to continue life support even though I believe it is not in the patient’s best interest”; and “Initiate extensive life-saving actions when I think they only prolong death” (Allen et al., 2013, p. 8). The same statements are ranked in the top five among registered nurses and physicians working in intensive care units in different regions of the United States and
abroad (Hamric & Blackhall, 2007; Karanikola et al., 2012; McClendon & Buckner, 2007; Mobley, Rady, Verheijde, Patel, & Larson, 2007). Although the overall rating of moral distress was low to moderate, it is interesting to note that the highest overall mean moral distress scores were reported by nurses, but with regard to moral distress intensity, physicians, social workers and chaplains had scores that were equivalent or the highest (Houston et al., 2013).

**Moral Distress Among Nurses**

Philosophers and researchers in the late 1970s and early 1980s began turning their attention to a newly recognized phenomenon occurring among nurses which was moral distress. Research on moral distress in nursing then gained momentum and is now recognized as existing among nurses in the U.S. and internationally.

Nurses report that situations related to futility of care rank as their highest sources of moral distress. Overall, the most morally distressing situations included initiating lifesaving treatments that prolong the process of dying, family insistence to continue life-sustaining treatment that is not in the patient’s best interest, and participating in futile care when no one will make a decision to withdraw life-sustaining treatment (Browning, 2013; De Villers & DeVon, 2012; Hamric & Blackhall, 2007; Karanikola et al., 2012; Mobley et al., 2007; Papathanassoglou et al., 2012). Other sources of moral distress among nurses included lack of perceived competence among colleagues, assisting with procedures without gaining adequate informed consent, and following the family’s request not to discuss terminal prognosis with the patient (Hamric & Blackhall, 2007; Mobley et al., 2007; Wilson, Goettemoeller, Bevan, & McCord, 2013).

Nurses rated the intensity of their moral distress higher than the frequency of morally distressing situations (Browning, 2013; De Villers & DeVon, 2012; Karanikola et al., 2013; Mobley et al., 2007). One study found that nurses with End-of-Life Nursing Education Consortium (ELNEC) training had moral distress frequency scores 21.5% higher than other nurses (Browning, 2013). However, given that ELNEC trained nurses are likely to work most frequently with palliative care patients, higher frequency scores are expected.

In a study by Mobley et al. (2007) nurses over thirty-three years of age with more than seven years nursing experience and more than four years critical care experience
reported a higher than average proportion of moral distress frequency in futile care encounters. However, other studies have not shown a significant relationship between ages, years of experience and overall levels of moral distress (Allen et al., 2013; De Villers & DeVon, 2012; Karanikola et al., 2013).

**Moral Distress Among Physicians**

In initial and follow-up studies among physicians in Norway, researchers learned that among the significant reasons reported for moral distress, perceptions that treatment modalities will be ineffective and violate one’s belief systems were similar in nature to sources of moral distress across healthcare professions (Forde & Aasland, 2008, 2013). The number one cause of moral distress among 62 physicians across a health system was “watching a patient suffer because of a lack of provider continuity.” Other top sources of moral distress were feeling pressured to order tests and procedures believed to be unnecessary and providing sub-optimal care because of pressure to reduce costs (Allen et al., 2013). A large study that surveyed 236 physicians on situations where moral distress may occur found that physicians ranked highest the scenarios where they treated patients based on the families’ wishes in spite of them feeling it was the wrong thing to do. They ranked second that despite their better judgment they initiated or continued life-sustaining treatments (Houston et al., 2013).

**Moral Distress Among Social Workers**

According to a study by Houston et al. (2013), the two highest ranked causes of moral distress among Social Workers (SWs) were feeling constrained by administration or insurance to reduce costs thereby leading to provision of less than optimal care, and lack of provider continuity lending to ongoing patient suffering. Mean moral distress scores among SWs were second only to RNs. Sources of social workers’ moral distress were closely aligned with scale items relating to social justice, such as discharging patients not perceived to be medically ready for discharge or into inadequate circumstances. They also experienced moral distress related to withholding information from patients due to family request (Houston et al., 2013). A primary source of moral distress among social workers was
“witnessing healthcare providers giving ‘false hope’ to the patient and family” (Allen et al., 2013).

Moral Distress Among Respiratory Therapists

Respiratory Therapists (RTs) agree that observing healthcare providers giving false hope is among their top five morally distressing situations (Allen et al., 2013). In the same study, Allen et al. (2013) reported that only the RTs ranked, “continue to participate in care for a hopelessly ill patient who is being sustained on a ventilator” (p. 4) as a cause of moral distress. In a pilot study evaluating moral distress among respiratory therapists, other researchers modified the Moral Distress Scale (MDS), developed by Corley, Elswick, Gorman, and Clor (2000). (At the time of this author’s research, no other research has been conducted to assess respiratory therapists’ perceptions of moral distress.) It was reported that moral distress among RTs is related to providing interventions that were not in the patient’s best interest, including futile care. Another source of moral distress was perceived deception when interacting with the patient or the patient’s surrogate decision-makers (Schwenzer & Wang, 2006).

Moral Distress Among Pharmacists

Moral distress in pharmacists has been measured by Houston et al. (2013). Although pharmacists had relatively low mean moral distress scores when compared to other healthcare providers, their range of scores was quite broad, indicating a wide variety of perceived moral distress within the profession. Pharmacists rated the scenario, “I participate in the discharge of patients into circumstances of inadequate social support” as their greatest morally distressing situation (Houston et al., 2013, p. 8). Some of the determinants of moral distress among pharmacists include (from highest rated to lowest): the more vocal and demonstrative customers (patients) get more and faster help, feeling constrained to act against one’s conscience, deficient care provision due to time constraints, and customers who cannot afford their prescriptions (Sporrong et al., 2005). Research has also shown that pharmacists experience moral distress related to perceived violations of patient confidentiality, as when an acute care provider calls out for someone to bring a certain medication to the patient’s room or when customers waiting in line overhear the pharmacist
discussing prescriptions with the customer at the counter (Kalvemark et al., 2004; Sporrong et al., 2005).

**CONSEQUENCES OF MORAL DISTRESS**

Moral distress is negatively associated with job satisfaction and intent to stay (Cowden & Cummings, 2011). High turnover rates have negative impacts in many ways and could be implicated as both a source and a consequence of moral distress, particularly in regard to perceived or actual lack of competence (Hamric & Blackhall, 2007; Karanikola et al., 2013; Mobley et al., 2007). Turnover yields less experienced staff that lacks knowledge about resources available to alleviate moral distress (availability of organizational or professional resources) (Hamric, 2000).

Moral residue is another consequence of moral distress (Epstein & Hamric, 2009; Webster & Bayliss, 2000). Three patterns have been identified as evidence of moral residue crescendo: decreased moral sensitivity, conscientious objection, and burnout. Decreased moral sensitivity is evidenced by passivity in the face of unethical situations; conscientious objection is evidenced by purposeful advocacy (most likely after inaction to several morally distressing incidences); and burnout is evidenced by emotional exhaustion and perceived or actual powerlessness (Epstein & Hamric, 2009). Moral distress may also lead to a crescendo effect.

**The Crescendo Effect**

Researchers have posited that the occurrence of moral distress and moral residue (repeated exposures to moral distress) culminate in crescendos. The intersection of peaked moral distress with elevated levels of moral residue over time creates a “crescendo effect” (Epstein & Hamric, 2009). Moral residue has been linked to number of years working in the critical care environment for two reasons: the frequency of morally distressing situations relative to the duration of clinical practice within the critical care environment, and the level of critical care practitioner expertise allows for earlier recognition of morally distressing situations (Mobley et al., 2007). Where moral distress occurs incidentally, moral residue is present continually and is evidence of unresolved incidences of moral distress that have continued to compound. Foundational to the development of the crescendo effect model,
Epstein and Hamric cite a study by Elpern, Covert, and Kleinpell (2005) where a significant and positive correlation was found between years of nursing experience and moral distress scores (Epstein & Hamric, 2009).

**Intention to Leave**

Intention to resign was positively associated with moral distress scores in two studies: \((r = 0.244, P < 0.0001)\) (Karanikila et al., 2013); and \((r = 0.299, P = .01)\) (Papathanassoglou et al., 2012). Moral distress was higher among healthcare providers who had previously considered leaving a position and had actually done so compared to those who had considered leaving and had not left \((F_2, 303 = 24.326, P < .001)\), and it was significantly higher among those considering resignation compared to those who were not considering resignation \((t_{303} = 4.410, P < .001)\) (Allen et al., 2013). In a two-site study, nurses were queried about their intent to leave. At one site 23% reported that they had considered leaving due to discomfort with how end-of-life care was handled; at the second site, among nurses with high reported levels of moral distress, 17% had left a position and 28% had considered leaving a position, compared to those with lower moral distress scores (Hamric & Blackhall, 2007). Another study reported that 18% of medical intensive care unit (MICU) nurses had left and 21% had considered leaving a position due to a distressing situation, and 6% of transitional care unit (TCU) nurses had left and 59% had considered leaving due to morally distressing situations (Wilson et al., 2013). In a study in Sweden (\(n = 249\)), nearly one-fifth of nurse respondents claimed to have considered leaving a position due to moral distress (Silen, Svantesson, Kjellstrom, Sidenvall, & Christensson, 2011).
CHAPTER 3

METHODOLOGY

This section describes the study methodology, research design, principal sample population characteristics, study instruments, data management, and procedures used for data analysis.

DESIGN OF THE INVESTIGATION

This was a descriptive study on moral distress among various healthcare providers in the intensive care units at one hospital. A cross-sectional survey was used to gather data from a convenience sample of nurses, physicians and other healthcare providers.

The goal of this study was to describe the frequency and intensity of moral distress, overall moral distress, the crescendo effect (the extent to which experience correlates to moral distress) and to identify situations antecedent to moral distress, and whether moral distress is a predictor of intention to leave.

POPULATION OR SAMPLE

The sample population included nurses, physicians, and other healthcare providers who participate directly or indirectly with the care of patients and families in intensive care units. “Nurses” referred to registered staff nurses who function in one or more roles in the clinical intensive care environment. “Physicians” referred to surgeons or physicians who regularly provide care to patients hospitalized in intensive care units. “Other Healthcare Providers” referred to care practitioners who provide direct or indirect care to patients and families and included: nurse practitioners, physician assistants, social workers, respiratory therapists, pharmacists, palliative care nurses, chaplains, and healthcare associates (a.k.a. nurse assistants). The environments from which the sample was gathered were medical and
surgical intensive care units (MICU & SICU) in a Magnet and Planetree designated 365-bed hospital in a metropolitan region of Southern California.

In addition to discrete categorical items, the demographic questionnaire (Appendix A) included three fill-in answers: years in profession, years practicing in the intensive care unit (ICU), and years at the healthcare organization. Responses that included a decimal were rounded down if < 0.5 and round up to the nearest one if >/= 0.5.

**INSTRUMENT DESCRIPTION**

Permission to use the Revised Moral Distress Scale (MDS-R) was granted by the developer (Hamric et al., 2012). Three versions of the MDS-R survey: Nurse Questionnaire (ADULT), Physician Questionnaire (ADULT), and Other Healthcare Provider (ADULT) were used to evaluate the presence of moral distress among the respective provider groups. With permission from the developer, the word “medical” was omitted from item eleven on each version. This item was specific to medical students and after removing the word “medical,” it then pertained to students in general. The hospital of interest does not train medical students but offers to precept nursing and respiratory therapy students.

The MDS-R (Hamric et al., 2012) was developed based on the Moral Distress Scale (MDS) (Corley et al., 2000). Corley was consulted and supported the revision (Hamric et al., 2012). The instrument consisted of twenty-one statements representing antecedents to moral distress ranked on Likert-type scales from zero (never) to 4 (very frequently or great extent) for frequency and intensity respectively. Moral distress was scored by multiplying the frequency and intensity scores for each item (fxi score) with a possible range from 0 – 16. Based on the range of mean scores for this sample, a decision was made that mean fxi scores were considered low if they were < 4.0, moderate from 4.0 – 7.0, and high if they were > 7.0. A composite score was calculated by summing the fxi item scores to measure overall moral distress. Overall moral distress scores can range from 0 – 336.

The instrument developers found that overall instrument reliability using Cronbach’s alpha was 0.88 for all participant groups combined (Hamric et al., 2012). They evaluated construct validity based on four hypotheses: more experienced nurses had higher levels of moral distress ($r = .22$, $p = .005$); physicians had significantly lower moral distress scores than nurses ($t = -5.786$, $p = < .0001$); a significant negative correlation was found between
moral distress and ethical climate \( r = -.402, p < .001 \) among nurse and physician groups; and moral distress scores were significantly higher among clinicians currently considering leaving (ANOVA \( F(1,197) = 48.392, p < .001 \)) (Hamric et al., 2012). The results of the instrument development study found that 16% of physicians and 30% of nurses had left or had considered leaving a position due to moral distress (Hamric et al., 2012). In a European study using the same instrument, which represented seventeen countries, 255 questionnaires were collected for analysis; internal consistency using Cronbach’s alpha was determined for moral distress frequency \( (\alpha = 0.87) \), moral distress intensity \( (\alpha = 0.87) \) and composite moral distress subscale \( (\alpha = 0.86) \) (Papathanassoglou et al., 2012).

The survey included two qualitative response items where respondents could write in examples of personally morally distressing situations and rank their statements based on frequency and level of disturbance (intensity) to yield a frequency times intensity \( (fxi) \) score. Due to the instrument scoring procedure, these items were not included in the statistical analyses, however, are presented simply to highlight how often and how intense providers experienced moral distress to particular situations within their practice environment.

**DATA COLLECTION**

Data were collected over approximately six weeks. Surveys were anonymous. They were distributed and collected using three methods. Letters of informed consent (Appendix B) were emailed, and a link to the survey instrument via an online survey tool was provided in the email message. Paper surveys with informed consent letters were distributed by hand and by post with stamped self-addressed return envelopes included. Potential subjects were instructed to complete the survey one time only.

Potential participants were offered an incentive. A separate electronic survey link was given where some, but not all, participants provided an address where a movie ticket valued at $8.50 was mailed. To maintain complete anonymity, respondents were instructed not to include their name, but only a mailing address.

**DATA ANALYSIS PROCEDURES**

Data were descriptively and inferentially analyzed using SPSS software. One-Way Analysis of Variance (ANOVA) was used to compare overall moral distress levels between
nurses, physicians and other healthcare providers. The Kruskal-Wallis test was done because homogeneity of variance of the sample was violated. A Chi-Square was conducted to determine group differences of overall moral distress. The correlation between years of provider experience and overall moral distress was conducted using Pearson’s r. Polynomial regression was done with and without terms centered and one outlier removed. Binary logistic regression was conducted to evaluate whether overall moral distress scores predict intention to leave.
CHAPTER 4

RESULTS AND DISCUSSION

PRESENTATION OF THE FINDINGS

Three hundred surveys were distributed and 66 (22%) were returned. The participants included 29 (43.9%) registered nurses, 14 (21.2%) physicians, and 23 (34.8%) other healthcare providers. Other healthcare providers included 4 nurse practitioners/physician assistants, 3 social workers, 5 respiratory therapists, 3 pharmacists, 3 healthcare associates (a.k.a. nurse assistants), 2 palliative care RNs and 3 chaplains. Among all provider types, 13 (19.7%) report working primarily in the medical intensive care unit (MICU), 31 (47.0 %) work primarily in the surgical intensive care unit (SICU), and 22 (33.3%) report working almost equally in both units. Results of the total demographic sample groups are noted in Table 1.

Table 1. Participant Group Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Registered Nurse Mean (SD)</th>
<th>Physician Mean (SD)</th>
<th>Other Healthcare Provider Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Years</td>
<td>9.10 (8.88)</td>
<td>19.00 (8.43)</td>
<td>17.13 (12.26)</td>
</tr>
<tr>
<td>ICU Years</td>
<td>6.84 (6.56)</td>
<td>18.36 (9.28)</td>
<td>11.83 (9.24)</td>
</tr>
<tr>
<td>Sharp Healthcare Years</td>
<td>5.69 (4.91)</td>
<td>12.21 (10.09)</td>
<td>11.39 (9.85)</td>
</tr>
</tbody>
</table>

Cronbach’s alpha results for instrument reliability had an overall score of 0.91 for the three instruments combined, with 0.87 for nurses, 0.78 for physicians, and 0.93 for other healthcare providers.

Out of 21 items, 5 items had mean scores ranging from 4.4 – 6.0 (moderate level of distress) and 3 items had scores ranging from 7.4 – 8.8 (high level of distress) (see Tables 6 & 7). Out of 66 surveys, the overall moral distress scores were low with just 7.6% over168.
The highest overall moral distress score was 238, and the highest mean overall moral distress score was 76.5 with a standard deviation of 48.8.

Nurses in this sample did not have higher overall moral distress scores (73.97) than physicians (56.71) or other healthcare providers (91.74). The results were not significant ($x^2 = 2.419, df=2, p = .298$). Other healthcare providers, as a group, had higher moral distress scores than both nurses and physicians.

| Table 2. Nurse, Physician and Other Healthcare Providers’ Overall Moral Distress Scores |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Nurse (n=29)                   | 73.97(40.03)    | 8.87            | 56.25           | 91.68           | 34.14           |
| Physician (n=14)               | 56.71(26.39)    | 12.76           | 31.21           | 82.22           | 26.79           |
| Other HC Provider (n=23)       | 91.74(63.86)    | 9.96            | 71.84           | 111.64          | 36.78           |

Overall moral distress scores were not significantly correlated to the following: Professional Years ($r = .216, p = 0.82$), ICU Years ($r = .103, p = .412$), or Organizational Years ($r = .113, p = .367$). Effect size for this analysis: small = .1 and medium = .3. Linear and quadratic correlations between overall moral distress scores and ICU years had a linear $R^2$ score of 0.011 and a quadratic $R^2$ score of 0.071 (see Figure 3). Polynomial regression with standardized data and one outlier removed showed quadratic effect significance.
Table 3. Overall Moral Distress and ICU Years of Experience without Outlier (n=1)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.151a</td>
<td>.023</td>
<td>.007</td>
<td>44.58731</td>
<td>R Square Change</td>
</tr>
<tr>
<td>2</td>
<td>.317b</td>
<td>.161</td>
<td>.072</td>
<td>43.11260</td>
<td>F Change</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ICU_yr
b. Predictors: (Constant), ICU_yr, ICU_quad
c. Dependent Variable: Overall_MoralDist Overall (summed) Moral Distress Score

Table 4. Overall Moral Distress and ICU Years – Quadratic Effect with Standardized Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>73.948</td>
<td>5.531</td>
<td>13.757</td>
<td>.000</td>
<td>62.896</td>
<td>83.600</td>
</tr>
<tr>
<td></td>
<td>ICU_yr</td>
<td>331</td>
<td>0.555</td>
<td>1.2987</td>
<td>.231</td>
<td>-.411</td>
<td>1.640</td>
</tr>
<tr>
<td></td>
<td>ICU_quad</td>
<td>-134</td>
<td>0.068</td>
<td>2.5255</td>
<td>.013</td>
<td>-.139</td>
<td>3.640</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>65.866</td>
<td>7.121</td>
<td>11.573</td>
<td>.000</td>
<td>71.051</td>
<td>100.720</td>
</tr>
<tr>
<td></td>
<td>ICU_yr</td>
<td>231</td>
<td>0.385</td>
<td>1.2987</td>
<td>.231</td>
<td>-.411</td>
<td>1.640</td>
</tr>
<tr>
<td></td>
<td>ICU_quad</td>
<td>-134</td>
<td>0.068</td>
<td>2.5255</td>
<td>.013</td>
<td>-.139</td>
<td>3.640</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Overall_MoralDist Overall (summed) Moral Distress Score

Overall moral distress scores did not predict intention to leave in this sample. Results indicated that 7 (11%) of the respondents intended to leave now. The results of the Hosmer-Lemeshow test lacked significance ($\chi^2 = 12.72, df = 8, p = .122$).

Table 5. Moral Distress and Intention to Leave

<table>
<thead>
<tr>
<th></th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Moral Distress</td>
<td>1.92</td>
<td>1</td>
<td>.166</td>
<td>1.010</td>
<td>.996 - 1.024</td>
</tr>
<tr>
<td>Constant</td>
<td>13.78</td>
<td>1</td>
<td>.000</td>
<td>.053</td>
<td></td>
</tr>
</tbody>
</table>

Qualitative Responses

All participants were provided two areas on the survey where they could submit a comment in response to the statement: If there are other situations in which you have felt moral distress, please write them and score them here, and provide a frequency and intensity score. Out of the twenty statements submitted, one respondent chose not to provide a frequency or intensity score. The frequency and intensity scores given for the qualitative statements were not used in the statistical analyses due to the scoring procedure of the instrument.
Twenty qualitative statements were written by various provider types. Out of these, 11 (55%) contain the word “family” or “families” as being a relevant factor in morally distressing situations. Eight of the twenty qualitative statements (40%) are related to end-of-life, withdrawal of care, or futile care. Frequency times intensity (fxi) scores range from 0 – 16 with zero indicating no moral distress and sixteen indicating extreme moral distress (Epstein & Hamric, 2009). For the qualitative statements part of this study, items with fxi scores from 0-7 represent low to moderate moral distress and scores from 8-16 represent high to extreme moral distress. Table 6 provides a synopsis of the qualitative results.

Table 6. Qualitative Responses with Frequency, Intensity, and Frequency Times Intensity (fxi) Scores

<table>
<thead>
<tr>
<th>Nurses’ Qualitative Statements</th>
<th>Frequency*</th>
<th>Intensity**</th>
<th>Fxi Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keeping dead people alive, routinely.</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Inability to take action to rude and mean families.</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>When families get in the way of providing care, and I have to physically work around them and reach awkwardly, and their stuff is all over the room.</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>When non-family members want information on a comatose patient, they get upset because you don’t give the info because you want them to talk to family whom you already updated.</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Withdrawing care.</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>When the family is rude and I have to be nice to them.</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Codes</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Family is going against the clear wishes of the consentable patient.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Withdrawal of a brain dead patient against the families’ wishes.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>When physicians ignore the concerns of the nursing staff about the critical nature of the patient, and the patient dies.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Family member dictated care when his wife was dying and refused to have pain meds given to her even though she wanted them. RNs that disagreed and gave the meds were fired from caring for the patient.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

(table continues)
Table 6. (Continued)

<table>
<thead>
<tr>
<th>Caring for a patient that I know has a longer estimated stay and who has a poorer prognosis than the provider has initially stated to the family.</th>
<th>1</th>
<th>3</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physicians’ Qualitative Statements</strong></td>
<td>Frequency</td>
<td>Intensity</td>
<td>FXI Score</td>
</tr>
<tr>
<td>There may be situations in which you believe that the patient could possibly survive, but are certain that he or she would succumb within the next several months or would leave the hospital with minimal quality of life with high risk of relapse.</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Angry, distrustful family members, but unable to withdraw from case due to legal and ethical constraints.</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Being On-Call</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Providing an inappropriate level of care for the terminally chronically ill patient, particularly when the physical, emotional, and financial costs of providing that care far outweigh any perceived/potential benefits either at the request of the patient, but more often their families.</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>All the time!</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Other Providers’ Qualitative Statements</strong></td>
<td>Frequency</td>
<td>Intensity</td>
<td>FXI Score</td>
</tr>
<tr>
<td>Not enough staffing to do my job – patients unseen or not followed up on.</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Patient sent over from cath lab or XXXXX dead.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Unable to set limits on family behaviors due to Nursing Administration (higher than Unit Manager) directing care, emphasizing “family satisfaction” over appropriate limit setting, which I believe is a distortion of the concept of patient/family centered care.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

*Ranked from 0 (never) to 4 (very frequently)
** Ranked from 0 (never) to 4 (great extent)
= Multiplicand of Frequency score and Intensity score (fxi)

**Underlying Dimensionality**

An exploratory factor analysis (EFA) was done on surveys with 100% items completed (n=56), which yielded 5 component solutions. Components 1 and 2 contain antecedent statements of moral distress that have moderate to high overall moral distress mean scores. Based on the nature of the statements, Component 1 is labeled “Un-optimized
Care” and Component 2 is labeled “Futile Care.” The remaining components were not labeled as their statements reflected very low overall mean moral distress scores.

The extraction and rotations methods used were Principal Component Analysis and Varimax with Kaiser Normalization. The rotation converged in 7 iterations. The highest component score for each item in the matrix is highlighted.

Table 7. Factor Analysis Rotated Component Matrix

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.495</td>
<td>.145</td>
<td>.241</td>
<td>.192</td>
<td>-.617</td>
</tr>
<tr>
<td>2</td>
<td>.323</td>
<td>.671</td>
<td>-.137</td>
<td>.093</td>
<td>-.098</td>
</tr>
<tr>
<td>3</td>
<td>.051</td>
<td>.931</td>
<td>.058</td>
<td>.005</td>
<td>.081</td>
</tr>
<tr>
<td>4</td>
<td>.062</td>
<td>.928</td>
<td>.098</td>
<td>.117</td>
<td>.019</td>
</tr>
<tr>
<td>5</td>
<td>.152</td>
<td>.363</td>
<td>.463</td>
<td>.107</td>
<td>.579</td>
</tr>
<tr>
<td>6</td>
<td>.463</td>
<td>.493</td>
<td>-.011</td>
<td>.375</td>
<td>.135</td>
</tr>
<tr>
<td>7</td>
<td>.205</td>
<td>.778</td>
<td>-.064</td>
<td>.137</td>
<td>.159</td>
</tr>
<tr>
<td>8</td>
<td>.272</td>
<td>-.201</td>
<td>.730</td>
<td>.151</td>
<td>-.087</td>
</tr>
<tr>
<td>9</td>
<td>.752</td>
<td>.083</td>
<td>.398</td>
<td>.049</td>
<td>-.075</td>
</tr>
<tr>
<td>10</td>
<td>.272</td>
<td>.086</td>
<td>.839</td>
<td>-.128</td>
<td>.178</td>
</tr>
<tr>
<td>11</td>
<td>.137</td>
<td>.051</td>
<td>.215</td>
<td>.484</td>
<td>.650</td>
</tr>
<tr>
<td>12</td>
<td>.657</td>
<td>.252</td>
<td>-.036</td>
<td>.006</td>
<td>.378</td>
</tr>
<tr>
<td>13</td>
<td>.444</td>
<td>.172</td>
<td>.362</td>
<td>.218</td>
<td>.519</td>
</tr>
<tr>
<td>14</td>
<td>.044</td>
<td>.017</td>
<td>.824</td>
<td>.334</td>
<td>.138</td>
</tr>
<tr>
<td>15</td>
<td>.130</td>
<td>.147</td>
<td>.273</td>
<td>.839</td>
<td>.029</td>
</tr>
<tr>
<td>16</td>
<td>.196</td>
<td>.534</td>
<td>.137</td>
<td>.527</td>
<td>.073</td>
</tr>
<tr>
<td>17</td>
<td>.793</td>
<td>.101</td>
<td>.068</td>
<td>.249</td>
<td>.068</td>
</tr>
<tr>
<td>18</td>
<td>.840</td>
<td>.064</td>
<td>.178</td>
<td>.022</td>
<td>.117</td>
</tr>
<tr>
<td>19</td>
<td>.507</td>
<td>.189</td>
<td>-.111</td>
<td>.596</td>
<td>.211</td>
</tr>
<tr>
<td>20</td>
<td>.760</td>
<td>.258</td>
<td>.151</td>
<td>.164</td>
<td>-.074</td>
</tr>
<tr>
<td>21</td>
<td>.780</td>
<td>.209</td>
<td>.346</td>
<td>.210</td>
<td>-.074</td>
</tr>
</tbody>
</table>
The following tables (8-10) show the survey items grouped by EFA components.

### Table 8. Survey Items Grouped by Component 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All: Provide less than optimal care due to pressures from administrators or insurers to reduce costs.</td>
<td>2.0 (2.8)</td>
</tr>
<tr>
<td>9</td>
<td>RN: Assist a physician who in my opinion is providing incompetent care.</td>
<td>3.0 (3.7)</td>
</tr>
<tr>
<td></td>
<td>MD: Assist another physician who in my opinion is providing incompetent care.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP: Assist a physician who in my opinion is providing incompetent care.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>RN: Provide care that does not relieve the patient’s suffering because the physician fears that increasing the dose of pain medication will cause death.</td>
<td>2.8 (3.9)</td>
</tr>
<tr>
<td></td>
<td>MD: Provide care that does not relieve the patient’s suffering because I fear that increasing the dose of pain medication will cause death.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP: Participate in care that does not relieve the patient’s suffering because the physician fears that increasing the dose of pain medication will cause death.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>All: Work with nurses or other healthcare providers who are not as competent as the patient care requires.</td>
<td>4.7 (4.8)</td>
</tr>
<tr>
<td>18</td>
<td>All: Witness diminished patient care quality due to poor team communication.</td>
<td>4.4 (4.4)</td>
</tr>
<tr>
<td>20</td>
<td>All: Watch patient care suffer because of a lack of provider continuity.</td>
<td>4.6 (4.6)</td>
</tr>
<tr>
<td>21</td>
<td>All: Work with levels of nurse or other care provider staffing that I consider unsafe.</td>
<td>3.6 (4.2)</td>
</tr>
</tbody>
</table>

### Table 9. Survey Items Grouped by Component 2

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>All: Witness healthcare providers giving “false hope” to a patient or family.</td>
<td>6.0 (5.0)</td>
</tr>
<tr>
<td>3</td>
<td>All: Follow the family’s wishes to continue life support even though I believe it is not in the best interest of the patient.</td>
<td>8.9 (5.4)</td>
</tr>
<tr>
<td>4</td>
<td>All: Initiate extensive life-saving actions when I think they only prolong death.</td>
<td>7.4 (5.5)</td>
</tr>
<tr>
<td>6</td>
<td>RN/OP: Carry out the physician’s orders for what I consider to be unnecessary tests and treatments.</td>
<td>2.9 (3.7)</td>
</tr>
<tr>
<td></td>
<td>MD: Feel pressure from others to order what I consider to be unnecessary tests and treatments.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>All: Continue to participate in care for a hopelessly ill person who is being sustained on a ventilator, when no one will make a decision to withdraw support.</td>
<td>8.2 (5.4)</td>
</tr>
<tr>
<td>16</td>
<td>All: Follow the family’s wishes for the patient’s care when I do not agree with them, but do so because of fears of a lawsuit.</td>
<td>4.8 (4.9)</td>
</tr>
</tbody>
</table>

### Table 10. Survey Items Grouped by Component 3

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>All: Avoid taking action when I learn that a physician or nurse colleague has made a medical error and does not report it.</td>
<td>1.5 (2.6)</td>
</tr>
<tr>
<td>10</td>
<td>All: Be required to care for patients I don’t feel qualified to care for.</td>
<td>1.4 (2.7)</td>
</tr>
<tr>
<td>14</td>
<td>RN/MD: Increase the dose of sedatives/opiates for an unconscious patient that I believe could hasten the patient’s death.</td>
<td>1.8 (3.3)</td>
</tr>
<tr>
<td></td>
<td>OP: Witness increasing doses of sedatives/opiates given to an unconscious patient that I believe could hasten the patient’s death.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 11. Survey Items Grouped by Component 4

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>All: Take no action about an observed ethical issue because the involved staff member or someone in a position of authority requested that I do nothing.</td>
<td>1.4 (3.0)</td>
</tr>
<tr>
<td>19</td>
<td>All: Ignore situations in which patients have not been given adequate information to insure informed consent.</td>
<td>2.0 (3.7)</td>
</tr>
</tbody>
</table>

### Table 12. Survey Items Grouped by Component 5

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>All: Follow the family’s request not to discuss death with a dying patient who asks about dying.</td>
<td>2.5 (3.1)</td>
</tr>
</tbody>
</table>
| 11   | RN/OP: Witness students perform painful procedures on patients solely to increase their skill.  
      MD: Let students perform painful procedures on patients solely to increase their skill. | 0.7 (1.9) |
| 13   | RN/OP: Follow the physician’s request not to discuss the patient’s prognosis with the patient or family.  
      MD: Request nurses or others not to discuss the patient’s prognosis with the patient or family. | 1.7 (2.8) |
CHAPTER 5

DISCUSSION OF THE FINDINGS

The only significant result found was the correlative quadratic effect between overall moral distress and years of ICU experience. Other statistical analyses were done based on the following statements: nurses have significantly higher overall moral distress scores than physicians or other healthcare providers, years of provider experience are associated with overall moral distress scores, and overall moral distress predicts intention to leave the results were not statistically significant.

A primary explanation for lack of significance was that the total sample size was too small, creating the risk of a Type II error and therefore indicate that the statistical analyses must be held circumspect. The lack of statistical significance between provider types may be due to the possibility that all healthcare providers experience somewhat equivocal moral distress related to workplace or practice situations.

Jameton (1984) posited that reactive moral distress, “moral residue” (Webster & Bayliss, 2000), is the result of reoccurring incidences of moral distress without responsive actions (Hamric, 2012). It is interesting to note that survey items with mean overall moral distress scores < 2.0 (very low) demonstrate that the providers surveyed did not experience moral distress due to intrinsic constraints such as to avoid taking action or ignoring difficult situations. This may point to a high level of empowerment among the nurses, physicians and other healthcare providers at this hospital. This study did not find evidence to fully support the Crescendo Effect model when correlating overall moral distress with professional years of experience or organizational years, but when overall moral distress was correlated with years of ICU experience there is evidence that moral distress may indeed wax and then decline over the course of a 40-year career with its peak at about 20 years. This decline, however, is likely reflective of a very high baseline build-up of moral residue crescendo that has resulted in decreased moral sensitivity and increased burnout due to emotional
exhaustion and a sense of powerlessness (Epstein & Hamric, 2009). Since those with longer careers may actually be considering transitioning into another role or even retiring, it would be difficult to parse out those who intend to leave due purely to moral distress.

**EXTERNAL VALIDITY**

Although the study results are not generalizable, based on a comparison of the results of similar studies, this study does reinforce the underlying antecedents to moral distress among various healthcare providers. Out of the 8 moderate to high overall mean moral distress scores related to antecedent statements of morally distress situations, 5 of them (3 high and 2 moderate) fall under Component 2, Futile Care, and the remaining 3 (moderate) fall under Component 1, Un-optimized Care. Morally distressing situations related to un-optimized care are also in line with literature related to moral distress among physicians (Allen et al., 2013) and relate to issues of competence, communication, and continuity of care. Statements relating to futile care are also reflective of antecedents to moral distress reported in the literature by nurses, physicians, social workers and respiratory therapists (Allen et al., 2013; Browning, 2013; De Villers & DeVon, 2012; Hamric & Blackhall, 2007; Karanikola et al., 2012; Mobley et al., 2007; Papathanassoglou et al., 2012; Schwenzer & Wang, 2006), which reflect end-of-life situations involving the intersect between providers and their patients and families.

**CONTRIBUTION OF RESEARCH**

The current study provides a baseline assessment of moral distress and crescendo effect among various healthcare providers who regularly interact in the intensive care environments at one hospital. The results contribute valuable insights into perceptions of morally distressing situations among healthcare providers related to the practice environment.

Three out of seven items from Component 1, which relate to un-optimized care, have moderate overall moral distress scores. They relate to deficient provider competence, poor team communication, and lack of provider continuity. It is interesting to note that some providers perceive that their colleagues may not be as competent as patient care requires while overall moral distress scores were very low among all providers in relation to being
required to care for patients they feel unqualified to care for. The mean overall moral distress score was 1.4 for Item 10 which states, “Be required to care for patients I don’t feel qualified to care for.” Conversely, Item 17, which states, “Work with nurses or other healthcare providers who are not as competent as the patient care requires,” had a moderate overall mean moral distress score of 4.7. This shows a clear discrepancy between provider perceptions related to competence. The antecedents to moral distress outlined in Component 2 relate to futile care and implicate families as contributing factors to the moderate to high overall mean moral distress scores in these survey results. Of the qualitative statements provided, 11 (55%) include the word “family” or “families” as primary factors in the morally distressing situations reported in this study. The qualitative responses are particularly notable as they directly reflect actual situations that have caused moral distress among the various healthcare providers in the intensive care units at this hospital.

**Recommendations**

This study revealed that there are three primary areas that contribute to moral distress among healthcare providers in the intensive care units at this hospital: futile care, un-optimized care, and family-centered care.

Although this hospital has some elements in place to address the issue of futile care, such as having a full time bioethicist, palliative care nurses, and a bioethics committee available to participate in these situations, a more focused and purposeful multidisciplinary committee could be formed to more effectively address these delicate and morally distressing situations.

It may be beneficial to address perceptions of competence versus actual competence, interprofessional and multidisciplinary communication, and provider continuity with the overarching goal of care optimization. Although there are projects underway at this hospital that address some components of un-optimized care provision, these have been undertaken as independent projects and are not clearly coordinated to one another.

It may also be valuable to further examine the impact of “patient and family-centered care” on nurses, physicians, and other healthcare providers. Addressing patient and family-centered care and its relationship to moral distress among healthcare providers may provide insights on how to reduce moral distress while improving staff and provider satisfaction.
Given the emphasis on patients’ families as a source of moral distress at this hospital, this is an area that is ripe for further study and education. This would be particularly in line with the hospital’s Planetree designation as well as an opportunity to explore and address reimbursement related to patient satisfaction.

**LIMITATIONS**

The study was conducted at one hospital among providers in two intensive care units. Due to project time constraints, data were collected over a period of time at the end of the calendar year over the holiday season and while the patient census was particularly low. This limited the number of providers available to participate. Moreover, the sensitive nature of the questionnaire may have dissuaded participation or completion of the survey. In addition, the primary investigator of the study is a colleague among the healthcare providers being surveyed and care was taken not to pressure participation. Potential participants might have opted out for fear of exposing information of a sensitive nature to a colleague despite the measures taken to ensure anonymity.

**CONCLUSION**

The intent of this study was to evaluate the presence of moral distress and crescendo effect among nurses, physicians, and other healthcare providers practicing in medical and surgical intensive care units at one large non-profit hospital and the extent to which moral distress affects intention to leave. Moral distress is a phenomenon that has been widely studied among nurses and more recently among other healthcare providers. Although most of the results were not statistically significant, the survey did uncover some antecedents to moral distress that are specific to this provider population within this particular environment. The results of this study indicate that addressing antecedents to moral distress among healthcare providers may help to optimize patient care, increase revenue, and improve staff, provider, and patient satisfaction.
REFERENCES


### APPENDIX A

**DEMOGRAPHIC QUESTIONNAIRE**

**Project Title:** Moral Distress among Healthcare Providers in the ICU Environment

Please describe yourself by marking the most appropriate choices and answering the questions below:

<table>
<thead>
<tr>
<th>I am a:</th>
<th>I work primarily in the:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ Registered Nurse</td>
<td>_____ Medical Intensive Care Unit (MICU)</td>
</tr>
<tr>
<td>_____ Physician/Surgeon</td>
<td>_____ Surgical Intensive Care Unit (SICU)</td>
</tr>
<tr>
<td>_____ Nurse Practitioner/Physician Assistant</td>
<td>_____ Almost equally in MICU &amp; SICU</td>
</tr>
<tr>
<td>_____ Social Worker</td>
<td>How many years have you been practicing in the intensive care? _______________</td>
</tr>
<tr>
<td>_____ Respiratory Therapist</td>
<td>How many years have you worked at Sharp XXXXX Hospital? _______________</td>
</tr>
<tr>
<td>_____ Pharmacist</td>
<td></td>
</tr>
<tr>
<td>_____ Health Care Associate / Nurse Assistant</td>
<td></td>
</tr>
<tr>
<td>_____ Palliative Care Nurse</td>
<td>How many years have you worked in your profession? _______________</td>
</tr>
<tr>
<td>_____ Chaplain</td>
<td></td>
</tr>
</tbody>
</table>

How many years have you worked in the intensive care environment? _______________
APPENDIX B

INFORMED CONSENT / RECRUITMENT E-MAIL

Project Title: Moral Distress among Healthcare Providers in the ICU

Dear Intensive Care Provider (RN, MD, NP, PA, SW, RCP, RPh, HCA, Palliative Care Nurse, Chaplain),

You are being asked to participate in a research study being conducted by Mary Abbott, BSN, RN, Noeleen O’Byrne, MSN, RN, Miriam Bender, PhD, Amanda Cole, MS, BSN, RN and Grant Tarrant, BSN, RN. The aim of this study is to evaluate the presence of moral distress among nurses, physicians, and other healthcare professionals practicing in medical and surgical intensive care units and the extent to which moral distress affects retention. Moral distress occurs when professionals cannot carry out what they believe to be ethically appropriate actions because of internal or external constraints.

Your participation in this project involves completion of a brief demographic questionnaire and a survey, the Revised Moral Distress Scale (MDS-R). Your participation is expected to last approximately fifteen minutes. Approximately 100 nurses, physicians, and other healthcare providers who care for intensive care patients and their families will take part in this study at Sharp XXXXX Hospital.

Risks associated with your participation are minimal. Your survey answers will be anonymous. You may feel uncomfortable when answering some of the questions on the survey. Should the survey cause an exceedingly high level of personal distress you are advised to contact a Sharp Employee Assistance Program counselor at (619) 681-0022. Your individual responses will not be shared with anyone at Sharp other than the investigators. Your individual responses will be aggregated with all other participants in the project. Representatives of the Sharp HealthCare Institutional Review Board (IRB) may
review the project at any time (including anonymous individual responses) to assure that the project is being carried out appropriately.

There may be no direct benefit to you from your participation in this project. Information learned from analysis of the data obtained during this project may benefit Sharp patients or Sharp employees in the future. Research results will contribute to the growing body of knowledge related to moral distress, crescendo effect (the extent to which experience correlates to moral distress), and intention to leave among healthcare providers. If you wish to participate, your completion of the survey will indicate that you have read this consent, have had a chance to ask questions, and that you consent to participate. Your participation in this project is voluntary, and if you do not wish to participate, you do not need to do anything further.

Upon completion of the survey, you can elect to provide your address so that the investigator can send you a small gift certificate to compensate you for your time. It is important that you do not include your name so that your anonymity can be maintained. If you have any questions, concerns, or problems at any time, please feel free to contact Mary Abbott, Principal Investigator, at mary.abbott@sharp.com or (858)722-5896. If you have any questions about your rights as a participant in research you may contact the Sharp HealthCare IRB at 858-499-4836.

Thank you for your consideration.