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Assessment of Moral Distress in Respiratory Therapists

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Assessment of Moral Distress in Respiratory Therapists

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An abstract of
A thesis submitted to the Faculty of the
James T. Laney School of Graduate Studies of Emory University
in partial fulfillment of the requirements for the degree of
Master of Arts
in
Bioethics
2014

Abstract

Assessment of Moral Distress in Respiratory Therapists

By Marjorie D. Timmer

Moral distress (Md) is the psychological disequilibrium experienced when one perceives the right moral action to take but is constrained from taking that action. Only one study has focused specifically on Md among respiratory therapists (RTs). Research demonstrates a correlation between Md and perception of workplace ethical climate (PEC). It is important to study this problem in all health care workers (HCWs) because, left unaddressed, Md may result in adverse emotional and physical symptoms, increased risk of burnout, and loss of HCWs from the workforce. Existing surveys may underestimate Md in non-nursing HCWs.

Five RT-specific survey items were designed for and administered to RTs along with a validated Md instrument (MDS-R) that has been utilized in nursing research. Survey reliability was assessed with calculation of Cronbach's alpha. Statistical analyses were performed on 1) moral distress index (MdI) measured with and without RT-specific survey items; 2) MdI in RTs who had left or considered leaving a clinical position because of Md versus RTs who had not done so; and 3) the relationship between Md and the PEC.

Cronbach's alpha was 0.898. Two of the five RT-specific Md survey items demonstrated construct validity with two recent studies in RTs. The MdI measured using the revised survey was significantly higher than that from the MDS-R alone ($r = .982$, $p < 0.001$). The MdI was significantly higher in RTs who had ever left or considered leaving a position because of their Md than in those who had never done so ($p < .021$); and among those currently planning versus not planning leave a position ($p < 0.001$). There was a negative correlation (-0.423) between Md and PEC.

The data supported the hypothesis that augmenting a generic survey with a limited number of discipline-specific items optimized Md assessment in RTs. Correlations reported elsewhere of job attrition and PEC with Md are replicated in this study.

Validation of new survey items should continue. Other HC disciplines are encouraged to develop discipline-specific Md survey items for their constituencies. End-of-life education for RTs and their colleagues is recommended.

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Acknowledgments

I am enormously grateful to a number of people without whom I could not have completed this work.

First, I thank my thesis advisor, Kathy Kinlaw, for her steadfast and enthusiastic support for this project and her belief in me as I worked my way through it; her support and faith sustained me in those moments when I doubted myself or the value of this work. I thank my wonderful committee members as well. John Banja's quiet good humor and astute wisdom kept me from straying too far from my research topic. George Cotsonis crunched numbers and helped me to understand the statistical analyses of them. Lynda Goodfellow agreed without hesitation to serve on this committee in addition to her existing workload at Georgia State University, and then proceeded to read every draft and provide me with thoughtful and thorough criticisms on each of them. I am in debt to her.

A special thanks goes to Ann Hamric, RN, PhD, FAAN as well, who generously shared her intellectual property to make this study possible and also served as an advisor and mentor at several steps along the way.

To my husband, soulmate, personal Help Desk, gourmet cook, and quarter master, Rick, thank you a million times over for running the weekend errands when I couldn't help, for cooking and cleaning, for fixing my computer, formatting drafts, answering my technical questions, and for loving me and making me laugh through it all. I really do know how lucky I am!

And finally, thanks to my colleagues at Emory Healthcare, in the Georgia Society for Respiratory Care, the American Association for Respiratory Care, and fellow classmates in the Emory University Bioethics program for their contributions and help with this project.

Epigraph

"The good and free conscience does not come from fulfilling one's earthly obligations as such. On that level, the unresolved conflict between multiple obligations will always remain an open wound for the conscience, and one can never manage more than a compromise with a semi-clear conscience." *Dietrich Bonhoeffer, Ethics*

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Chapter 1 – Study Description

Introduction

The focus of this study is moral distress in respiratory therapists (RTs), a group of health care workers (HCWs) about whom very little has been written on this topic. (Allen, et al. 2013; Caplan and Bernal 1995; Houston 2013; Schwenzer and Wang 2006) Of the four citations here, two (Allen 2013 and Houston 2013) are very recent studies of HCW groups including RTs; Caplan is an early commentary on an ethical dilemma faced by an RT; and only Schwenzer's study was specifically aimed at researching moral distress in the RT population. Schwenzer modified an existing nursing survey of moral distress (Corley, Elswick, et al. 2001), attempting to align more closely with the RT's frame of reference than the original survey.

Respiratory Therapists

For over 60 years, specialty health care workers dedicated to the care of patients with respiratory disorders have been a fixture in the hospitals of the USA. In the earliest days, the primary function of these workers was to transport and manage the large oxygen cylinders used at patient bedsides. Over time, the responsibilities of these "inhalation therapists" increased to administration of inhaled medications, using positive pressure breathing devices, and more. As health care technology became increasingly sophisticated, the duties of "inhalation therapists" evolved into greater complexity and responsibility, requiring more formal education and training, credentialing, a name change, and licensing.

Nearly three quarters of the RTs in the USA work in acute care hospitals

(Kacmarek, et al. 2009), where a significant majority of their workload takes place in critical care settings. At the academic medical center with which this researcher is affiliated, there were mechanical ventilator patients in 61% of the ICU beds occupied during 2013, i.e. one ventilator running in every 1.6 ICU beds. Examination of the respiratory therapy workloads at this hospital showed 58 – 75% of the work assigned to RTs was in critical care units. Since this is a tertiary care hospital with an extremely high acuity level, these ratios may be higher than they would be at a community hospital. However, this information and the high overall acuity of hospital patients (Jennings 2008) suggest that 50% or more of an RT's work will be in critical or emergency care.

The RT's scope of practice includes a variety of aggressive, life-saving interventions, including intubation, resuscitation, and mechanical ventilation of patients in all age groups from neonatal to the elderly. They administer inhaled medications to patients with chronic lung disease such as emphysema, asthma, and cystic fibrosis and with increasing frequency they administer inhaled medications to patients for treatment of non-respiratory diseases such as pulmonary hypertension. They perform diagnostic studies to measure lung volumes and flows to evaluate lung disease, and draw and analyze blood for acid-base and blood gas values. With the advent of rapid response teams as a major initiative of the Institute for Healthcare Improvement 100,000 Lives campaign (Institute for Healthcare Improvement n.d.), RTs were designated as one of two or three members of the team responding to evaluate and treat a deteriorating patient in order to circumvent cardiac arrest. RTs are among the first HCWs to be called when there is a medical emergency to be managed in any hospital. "Almost no patient dies in a hospital without being cared for by an RT." (Brown-Saltzman, et al. 2010)

Despite that, the public is largely unaware that there is such a thing as a "respiratory therapist". Patients and families tend to assume that the RT is one of the nurses, and that misconception is somewhat understandable. The RT's work is clinical, complex, intimate, and at the bedside much like that of the RN's work. It requires extensive patient assessment skills, communication skill, empathy, and critical thinking. Nursing practice has been in existence longer and RNs vastly outnumber RTs. There are 17 RNs practicing in the USA for every RT in practice; nurses are more visible. (Statistics, Occupational Employment Statistics (RN) 2012; Statistics, Occupational Employment Statistics (RRT) 2013; Statistics, Occupational Employment Statistics (CRT) 2013)

Moral Distress

Moral distress is the uncomfortable psychological state a clinician experiences when s/he perceived that s/he knew the right thing to do in a clinical situation but was unable to follow through on that moral conviction because of some constraint. The construct was first described in 1984 by Andrew Jameton as a problem observed in nurses (Jameton 1984), and the lion's share of research on the topic has been done by and among nurses. (Austin, et al. 2005; W. Austin 2012; Brazil, et al. 2010; Cavaliere, et al. 2010; Corley, et al. 2001; M. C. Corley 1995; M. C. Corley 2002; Elpern, Covert and Kleinpell 2005; Epstein and Hamric 2009; Epstein and Delgado 2010; Gutierrez 2005; Hamric and Blackhall 2007; A. B. Hamric 2012; Hamric, Borchers and Epstein 2012; Jameton 1993; LaRocca-Pitts 2004; Laabs 2005; Nalley 2013; B. Pauly, et al. 2009; Silén 2011; Wilkinson 1987/1988) Studies of moral distress in other health care disciplines frequently employ the measurement devices developed in nursing research.

(Carpenter 2010; Houston 2013; Schwenzer and Wang 2006; Ulrich, et al. 2007)

Moral uncertainty and moral dilemma vs. moral distress

Jameton's original conception of moral distress distinguished it from other common types of healthcare related ethical problems. Moral distress is not *moral uncertainty*, the uncomfortable intellectual state of being unable to clearly identify the values or ethical principles involved in a situation. When the values and principles at issue in a clinical situation are not clear to the HCW, s/he cannot be certain of his/her moral stand. To the HCW suffering from moral distress, those values and principles are clear, but the HCW perceives an impediment to acting upon them.

A *moral dilemma*, the conflict between two or more moral principles that support mutually inconsistent courses of action in a given situation, implies that the decision maker is aware of two or more "good" choices available in that situation. Since Jameton defined moral distress as the distress resulting from "knowing" the presumably single right thing to do in a clinical situation, his definition appears to exclude moral dilemma from that definition. Indeed, Jameton defines moral dilemma and moral uncertainty as distinctly different types of moral/ethical problems than moral distress. (Jameton, Nursing Practice: The ethical issues 1984, p. 6)

Root causes of moral distress

Differing opinions about and interpretations of the moral and ethical principles guiding clinical care give rise to conflicts among patients, families and providers; when a caregiver is unable to reconcile that dissonance, it may lead to moral distress. Policies, procedures and regulations may prohibit the clinician from taking the action s/he deems best for a patient, and the lack of control over such a situation can be morally distressing.

(M. C. Corley 1995; Corley, et al. 2001; A. B. Hamric 2012; Epstein and Hamric 2009; Jameton 1984) Moral distress tends to occur most frequently among providers of critical and end of life care, two segments of health care in which the services of respiratory therapy are particularly heavily concentrated. (M. C. Corley 1995; Gutierrez 2005; Hamric and Blackhall 2007)

The major root causes of moral distress have been classified into three categories: clinical situations, extrinsic constraints, and intrinsic constraints. Clinical situations refer broadly to such things as end of life situations, decisions about or the actions taken to terminate life sustaining technology, and competency or trustworthiness of coworkers. Extrinsic constraints are typically considered to be policies, procedures, and regulations that limit the HCW's authority to act on his/her moral / ethical convictions. Another frequently mentioned external constraint is the "medical hierarchy", which refers to the organizational structures that place some providers in positions of authority over others, effecting what may be perceived and/or used as power disparities in the workplace. Intrinsic constraints refer to individual characteristics of the HCW that inhibit him or her from acting. They include a lack of self-confidence to voice one's opinion or concern, fear of retribution for doing so, apathy, and lack of knowledge. (Hamric, Borchers and Epstein 2012)

The medical hierarchy

Nancy Berlinger says that there are two key features to moral distress. First, the HCW perceives that s/he is either being asked to do something immoral/unethical or is being prevented from taking a moral/ethical action, and secondly that s/he is powerless – or perceives that s/he is powerless – to do anything about it. (Berlinger 2009)

Healthcare is “notably hierarchical”. (Berlinger 2009; Brown 2013; Nancarrow and Borthwick 2005) The delivery of safe and effective patient care calls for a “captain of the ship”, i.e. a single individual who takes responsibility for making the final and major decisions regarding care and communicating with the patient and family regarding those decisions. Furthermore, in hospital care there needs to be someone who coordinates the patient’s care throughout the day to assure that prescribed orders are followed in such a manner that the patient’s needs are safely, effectively, and comfortably met. While the health care team needs a “point person” to be the primary decision maker and communicator, it remains essential to the team’s integrity and to the effectiveness of patient care that a culture of collaboration and respect among team members exists.

What appears to give an individual higher or lower status on “the hierarchy” is the relative degree of autonomy and decision making authority that individual has compared to others. That stratification of autonomy and decision making power is perceived as hierarchical (Berlinger 2009) in health care, and it can become a source of perceived tyranny to those with less decision making power. (Brown 2013) Those who are in positions with little authority to act independently may perceive themselves to be powerless, especially if the leader of the health care team is unwilling to engage them in decision making processes. (Hamric, Borchers and Epstein 2012) If the HCW’s attempt at involvement is met with an attitude of dismissal and disrespect from those who have decision making authority, it may result in anger, frustration, withdrawal of interest from the delivery of care, and moral distress. (Gutierrez 2005; Ulrich, et al. 2007)

The physician hierarchy is not always visible to patients, families, or even staff.

The attending MD is the "captain" of the ship at the bedside, but is accountable to the Department Chair, the Chief Medical Officer, regulators, and third party payers. Consulting physicians act as advisors to the attending; they make decisions for the patient only when the attending MD authorizes them to do so. House staff MDs learn from and report to the attending and consulting physicians. Physician "extenders", i.e. physician assistants (PAs) and nurse practitioners (NPs) have similar authority to that of the house staff, but their orders must be countersigned by the attending MD. The medical student is almost universally considered the lowest on this hierarchy, below nurses and all others, because s/he has not finished school and cannot give orders.

Some allied health care workers have a significant degree of autonomy although they may not have authority to write medical orders per se. The rehabilitation therapy groups – physical therapists (PTs), occupational therapists (OTs) and speech therapists (SLTs) – are examples of these disciplines. Rehabilitation therapists typically receive an MD order to "evaluate and treat" a patient for a specific diagnosis. The therapist has authority to use his / her expertise and skill to perform a full evaluation of the patient's injuries and functional status, and then to design a therapy program to meet the patient's needs.

RTs may have considerable influence on patient care decisions despite not having a high degree of autonomy or independent decision making. In healthy organizations, where mutual respect for the expert knowledge and skill of one's colleagues is the norm, the collaborative and cooperative nature of patient care creates a work atmosphere in which the hierarchical rules necessary to keep patients safe meet that goal without creating barriers to team communication. There is evidence that organizations function

more efficiently and effectively with a hierarchical structure in place (Diefenbach and Sillince 2011; Ronay, et al. 2012), but when the team atmosphere disintegrates, hierarchical relationships may become abusive and overpowering.

When the medical hierarchy is identified as an extrinsic cause of moral distress, it is in reference to situations in which those in positions of power over others abuse their positions. Theresa Brown, RN, an oncology nurse-author, and columnist for the New York Times, narrated such an incident, in which a physician chose to "[abuse] the legal, established hierarchy between doctors and nurses" by attempting to intimidate her when she expressed the need for caution before initiating a potentially dangerous procedure on a patient. (Brown 2013) In most cases, when a HCW identifies a cause for concern and notifies the MD, the MD is grateful for the "catch" and more than willing to stop, examine the issue, and take the appropriate action. Occasionally, as in Brown's example, an MD will be obstreperous, and consider it an affront to his/her authority for another to raise a question about a decision s/he made. When such a disagreement cannot be resolved, the HCW may have no other recourse than to refuse to follow the order, an act that places his/her employment in jeopardy.

Any member of the health care team who is expected to follow the directions of another may experience distress at the hands of one who chooses to abuse power, and any member of the health care team with authority over another may choose to exert that abusive power. Hierarchical relationships exist in many settings in health care: physician to non-physician, RN to non-RN, peer to peer, administrator to department manager, and many more. The spirit of collaboration and teamwork with which those relationships are conducted influence the HCW's work experiences as inclusive and fulfilling or as

belittling and disrespectful.

The medical hierarchy serves a useful purpose. It becomes a problem only when those in positions of authority over others fail to honor the value of cooperation and collegiality. When that happens, those with less autonomy may become averse to challenging the leader, even when they feel strongly that the leader is wrong. That failure in the hierarchy fosters moral distress.

End of life care

Issues surrounding care at the end of life (EOL) are among the most frequently occurring causes of moral distress in HCWs. (Hamric, Borchers and Epstein 2012) Caring for a dying patient is stressful under any circumstance. When the HCW believes that care merely prolongs the dying process – and the patient's suffering – it is a source of moral distress. If the HCW perceives that the prescribed therapy hastens the patient's demise that, too, may precipitate moral distress. (Corley, et al. 2001; Hamric, Borchers and Epstein 2012; Epstein and Delgado 2010) HCWs may have strong feelings and beliefs about the moral permissibility of terminating life support, whether or not the patient has a reasonable likelihood of survival. A key factor in any HCW's ability to cope with withdrawal of life support from a patient is involvement in the decision making process and appropriate communication with the family. (Brown-Saltzman, et al. 2010; Caplan and Bernal 1995; Willms and Brewer 2005)

Inappropriate use of resources

The inappropriate use of resources is a factor in moral distress that can be correlated with others, including end of life care and inadequate staffing. (Corley, et al. 2001; Hamric, Borchers and Epstein 2012) Wasting resources by providing unnecessary treatments or tests to patients was among the most common sources of moral distress reported in RNs (Corley, et al. 2001) and RTs. (Schwenzer and Wang 2006) Another of the highest scoring factors for each of these disciplines was inadequate staffing. (Corley, et al. 2001; Schwenzer and Wang 2006) For any HCW, staffing shortages result in higher patient workloads, making it more difficult to complete assignments, decreasing the time the HCW can spend with each patient, and increasing the likelihood of medical errors.

Conclusion

Moral distress, the psychological disequilibrium a HCW experiences when s/he perceives the right moral action to take in a clinical situation but is constrained from taking that action, has been studied extensively in the nursing profession. Nursing researchers have identified root causes and causative factors of the problem in their profession. (M. C. Corley 1995; Hamric, Borchers and Epstein 2012) The purpose of this study is to develop and validate five RT-specific moral distress survey items to be administered with a validated moral distress survey commonly used in nursing research, the Moral Distress Survey – Revised (MDS-R) (Hamric, Borchers and Epstein 2012) and a survey of perception of workplace ethical climate (PEC), the Hospital Ethical Climate Survey (HECS) (Olson 1998). Three research questions are to be answered with this study:

1. Do RTs experience moral distress with a comparable frequency and intensity to that reported in RNs by the author of the MDS-R?

2. Is there a significant difference in the level of moral distress measured in RTs using the MDS-R alone and using the MDS-R with RT-specific moral distress survey items?

3. Are the RT-specific moral distress survey items developed for this study reliable and valid?

Chapter 2 – Literature Review

Introduction

This chapter is a review of the literature on moral distress, workplace ethical climate, and their interrelationship; the history of assessment of moral distress and the perception of workplace ethical climate (PEC) in HCWs; and, finally, the literature on moral distress in RTs. [1]

Defining moral distress

Andrew Jameton, who introduced the concept of moral distress, defined it as the feeling nurses experience when they recognize the right thing to do in a clinical situation but are prevented from acting upon that moral conviction. (Jameton, Nursing Practice: The Ethical Issues 1984) In the decades following its introduction, the concept of moral distress was recognized by the nursing profession as a condition with significant impact on job satisfaction, on nursing attrition rates, and on the quality of patient care. (Brazil, et al. 2010; Epstein and Delgado 2010; Gutierrez 2005; Wilkinson 1987/1988) Moral distress is contextual, affective, and unique to the individual; it is "imbued with diverse meanings and definitions." (Lützèn and Kvist 2012)

Several authors have attempted to refine and clarify the definition of this abstract and rather elusive concept. Wilkinson modified the original definition to "the psychological disequilibrium and negative feeling state experienced when a person makes a moral decision but does not follow through by performing the moral behavior indicated

[1] Sources used to complete the review were PubMed Central, Medline EBSCO, and bibliography references from sources identified from those databases.

by that decision." (Wilkinson 1987/1988) Corley further described the feeling as "the painful psychological disequilibrium that results from recognizing the ethically appropriate action, yet not taking it…" (Corley, Elswick, et al. 2001) Gutierrez took a significant departure from Jameton's definition in 2005, defining moral distress as "the feelings and experiences which result from a moral conflict where one knows the correct action to take but constraints lead to either inability to implement this action or an attempt to carry out moral action which fails to resolve the conflict". (Gutierrez 2005) In Gutierrez' definition, not only does moral distress occur when the HCW is constrained from taking action, as stipulated in the original definition, but also when the HCW follows through on the moral decision but is unable to resolve the conflict. This is a marked change from the original.

The term "moral stress" has been used in place of or in preference to the term "moral distress" by some authors. Lützén et al distinguish the two by saying that moral *dis*tress emphasizes the (negative) psychological reactions to external constraints, while moral stress places the focus on the ethical components of clinical situations that cause stress. (Lützèn and Kvist 2012) However, the sources of "moral stress" are precisely those described in the literature for moral distress: inadequate staff (Corley, Minick, et al. 2005), heavy workloads and assignment to patients with a complexity of care for which one feels inadequately trained, and unclear and/or changing expectations from administration. (Lützèn, Cronqvist, et al. 2003) And both "moral distress" and "moral stress" as described by these authors have the potential to produce positive outcomes by "preventing moral blindness" (Lützèn and Kvist 2012) and by strengthening future practice in the health care organizations where these issues are recognized and addressed.

(Webster and Baylis 2000) It appears that the primary difference in the terms is the authors' preference to place a rhetorical emphasis on the ethical rather than the psychological components of the disturbing situations being discussed.

> "…removing the prefix 'dis' from moral distress may emphasize that moral stress can serve as a reminder of moral obligations and keep us alert when we begin to feel uncomfortable about deciding what is right or wrong. Another purpose of using the term moral stress may be an attempt to shift the focus from negative psychological reactions to a focus on exploring the ethical coomponent…" (Lützèn and Kvist 2012)

For the purposes of this paper, moral stress in the European literature and moral distress in other literature will be considered to be synonymous.

In a study of physicians, nursing and pharmacy personnel, Kälvemark found Jameton's definition of moral distress inadequate to describe the experience of the study population. Staff in all these categories reported having "a constantly bad conscience" because they felt that they had inadequate time to spend with patients. (Kälvemark 2004) The HCWs were in situations causing a resource driven moral dilemma, and they coped with the problems by breaking the rules. For nurses, the issue was a shortage of hospital beds at a clinic; they placed patient beds in hallways and lavatories. For pharmacists it was being unable to dispense necessary medications to patients who were unable to pay for it; when patients had a critical need, the staff dispensed their medications regardless of ability to pay. They were forced to choose between two "right" actions: "Meet the patient's needs?" or "Comply with legal regulations?" Their moral distress was a result not of inability or failure to do what was "right", but of having to choose which moral and "right" thing to do in this situation.

Jameton defined three distinct types of moral problems that occur in clinical settings: moral uncertainty, moral dilemma, and moral distress. (Jameton, Nursing

Practice: The Ethical Issues 1984, p. 6)

> "…*Moral uncertainty* arises when one is unsure what moral principles or values apply, or even what the moral problem is … *Moral dilemmas* arise when two (or more) clear moral principles apply, but they support mutually inconsistent courses of action. It seems terrible to give up either value, and yet the loss seems inescapable… *Moral distress* arises when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action." (Jameton, Nursing Practice: The Ethical Issues 1984, p. 6)

While this description does not specifically exclude the possibility of a moral dilemma causing moral distress, the language of the three definitions implies that they are mutually exclusive, and it has been interpreted in that sense by some authors. (Kälvemark 2004, p. 1082; Austin, et al. 2009, p.58) When a moral dilemma occurs, there are two clear, equally valid moral principles that apply and they support mutually inconsistent courses of action. If that is the case, the HCW cannot "know" the correct moral action to take; either action may be moral. If "knowing" the right thing to do is a defining condition of moral distress, the distress one feels as a result of choosing one option over another in a moral dilemma must be something other than moral distress.

Kälvemark's team observed the symptoms of moral distress among the staff in her study group. Based on these findings, they concluded that the definition of moral distress should be revised to:

> "Traditional negative stress symptoms that occur due to situations that involve ethical dimensions and where the health care provider feels she/he is not able to preserve all interests and values at stake." (Kälvemark 2004)

Root causes of moral distress

The major root causes of moral distress fall into three broad categories: 1) clinical situations, 2) intrinsic constraints, and 3) extrinsic constraints. (Jameton, Nursing Practice: The ethical issues 1984; Hamric, Borchers and Epstein 2012)

Clinical situations giving rise to moral distress include such things as providing treatments perceived to be unnecessary or futile; working with HCWs perceived to be incompetent; disagreeing with a patient's care plan; observing that patients' wishes are disregarded; or hastening the dying process. (Hamric, Borchers and Epstein 2012; Epstein and Delgado 2010; Elpern, Covert and Kleinpell 2005; Gutierrez 2005) Clinical factors most likely to cause moral distress are those associated with end of life care. (Hamric, Borchers and Epstein 2012) In Hamric's validation study of the MDS-R, the top four of the seven most common sources of moral distress were related to care at the end of life. Providing aggressive care when it is perceived to be futile has been recognized as a common source of moral distress from the time the concept was first introduced. (Jameton, Nursing Practice: The Ethical Issues 1984, pp. 225-228) Other frequently mentioned stressors are pain management, deceit of patients or families, working with others who are less competent than the patient care requires, inadequate communication within the health care team, (Austin 2012) and providing care that is not in the patient's best interest. (Hamric, Borchers and Epstein 2012; Corley, et al. 2001; Epstein and Delgado 2010; Schwenzer and Wang 2006)

External constraints are among the factors Jameton originally identified as causes of moral distress. (Jameton, Nursing Practice: The ethical issues 1984) These are conditions or structures in the HCW's external work environment that prevent him/her from following through on a course of moral action s/he deems correct. Policies and procedures, laws and regulations, the demands and wishes of patients and families, and the medical hierarchy are some of the external constraints acting upon providers at every level. Policies, regulations and laws may prevent HCWs from providing the resources

they believe the patient needs. Hierarchical structures may inhibit good communication, making it more difficult to resolve conflicting perspectives on the priorities of care. Decision makers may fail to include all affected clinicians in decision making. Patient or family wishes in conflict with the advice of the health care team may constrain the providers' ability to take the moral action they consider to be best for the patient.

Internal constraints that place a HCW at risk for moral distress are the individual's unique characteristics that cause him/her to hesitate or to avoid taking the action s/he feels is necessary in an ethically challenging situation. The HCW may feel intimidated by others and fear retribution or humiliation. Some workers, especially relatively inexperienced ones, may feel uncertain about their knowledge and lack the confidence to speak up. An experienced HCW who has tried and failed in the past to address moral or ethical issues may simply become apathetic or hopeless about doing so in any new cases. In these examples of internal constraints, the interpretation is that the individual rather than the system is the constraining force. (Corley, et al. 2001; Epstein and Delgado 2010; Gutierrez 2005; Hamric, Borchers and Epstein 2012; Wilkinson 1987/1988)

In some of these situations, the line between internal and external constraints may not be perfectly clear. If a HCW fails to speak out about an ethical issue because s/he feels intimidated and is afraid of retribution, is the HCW alone responsible for that behavior or does the system that fostered the intimidation share responsibility for it? If the HCW is inherently too meek and apathetic to risk stating an opinion, then perhaps this is truly an intrinsic constraint. But if the reason the HCW fears speaking up is that others have done so and have been berated for it, or indeed that s/he has been verbally attacked

for taking action, then the constraint may be external to the individual suffering the moral distress; it may be an example of a person in authority abusing the his/her power. The system that tolerates such intimidation and belittlement bears responsibility for the HCW's inability to act according to moral convictions.

Perception and powerlessness

There are two key common threads in all factors triggering moral distress. First of all, the individual perceives himself or herself to be in a relatively powerless position regarding the ethical situation at hand, and secondly the HCW perceives that s/he knows the ethically appropriate action to take. (Berlinger 2009)

As discussed in Chapter 1, what seems to best identify one's status in the medical hierarchy is the degree of autonomy and decision making authority one has. A HCW with little autonomy or decision making authority may perceive that s/he knows the ethically appropriate action to take in a particular circumstance, but may lack the authority to make the decision to take that action. Feeling powerless and the moral distress that accompanies that feeling may be expected to increase as the degree of autonomy a HCW has decreases. (Berlinger 2009; Epstein and Delgado 2010; Pauly, Varcoe and Storch 2012; Russell 2012)

The second part of Berliner's definition calls for the HCW to "know" the right thing to do in a clinical situation. Since ethical actions are necessarily contextual, it is important to recognize that what one person believes to be morally and ethically correct in a given situation may not be the same as what another believes. (Berlinger 2009) It is crucial to understand that the HCW experiences moral distress because s/he *perceives* that s/he knows the right thing to do and is powerless to do it. To perceive that one knows

a thing is not necessarily the same as to know it. Berlinger's insight on the definition of moral distress raises an important question about the extent to which HCWs may experience moral distress because they "know" the right thing for another (i.e., the patient), when it may be that there are important personal, spiritual, and/or cultural factors affecting the patient and family of which the HCW has been unaware.

While the broad categories of root causes of moral distress and many of the specific situations that trigger it are likely to be the same across many health care disciplines, it is also the case that each individual health care discipline is likely to have some unique triggers of moral distress. (Pauly, Varcoe and Storch 2012, p.6) In the highly technological environment of the modern hospital, MDs and RNs are not the only "bedside caregivers." The health care disciplines making rounds in today's ICU are likely to include nursing, medicine (of a few different specialties), pharmacy, social work, respiratory therapy, physician extenders (PAs and NPs), and an assortment of other specialities such as nutritionists and rehabilitation therapists. Each discipline experiences some common ethical and moral pressures while provding patient care, and each of them has a set of unique job characteristics that presents unique ethical challenges not faced by their colleagues in the other disciplines.

Table 2.2 on page 42 shows common root causes of moral distress sorted by category.

Initial and reactive moral distress

In 1993, Jameton refined his definition of moral distress to describe two phases: initial and reactive distress. Initial moral distress was described as that which occurred "in the moment", at the time and in the place where the precipitating event took place.

The common manifestations of initial moral distress were acutely inspired responses to the constraints preventing the HCW from acting according to his/her ethical standards: anger, frustration, and anxiety. (Jameton 1993)

After such an acute event, Jameton noticed that typically there was a period of recovery during which the HCW's negative reaction to the incident would dissipate, although the memory of the event and the psychological discomfort it caused would not completely disappear. With each new incident of initial moral distress, conscious or unconscious memory of past event(s) would exacerbate the intensity of the current one. Effectively, the memory of past incidents that caused moral distress created a new baseline of distress upon which the HCW's new experiences of moral distress were built.

Jameton referred to this second phase as reactive distress. Manifestations of reactive distress were headaches, insomnia, loss of appetite, feelings of powerlessness, guilt, and low self-esteem. Most seriously, these HCWs were more likely than their peers to become apathetic about patient care (Epstein and Hamric 2009), to experience burn-out, and to leave their jobs or even the health care professions entirely. (Hamric and Blackhall 2007; Corley 1995)

Webster and Bayliss (Webster and Baylis 2000) described the accumulation of moral distress experiences as moral residue. Experiences in which the individual feels his/her values to have been seriously compromised can be so painful, these authors said, that they "sear the heart". Time may soften the acute impact of such pain, but remnants of serious moral compromise would remain with individuals "for years, if not a lifetime". (Webster and Baylis 2000)

Measurement of moral distress

M L Raines (2000)

In 2000, Raines conducted a study of oncology nurses in whom moral distress was evaluated with the use of five different surveys (4 ethics or stress related and one demographic survey). While the results from this study were interesting, the survey procedure did not lend itself to widespread use. The most distressing situations ranked in this survey were:

1.) Pain management
2.) Cost containment
3.) Decisions in the best interest of the patient
4.) Quality of life decisions
5.) Patient-physician-nurse relationships
(Raines 2000)

These themes have recurred in subsequent publications, sometimes described in the same verbiage and sometimes not. "Pain management" and "best interest of the patient" are frequently used terms. "Cost containment" may be characterized as "resource utilization" in other publications; "quality of life" could be interpreted as "aggressive care" or "end of life care"; and "patient-physician-nurse relationships" could be related to issues of communication, informed consent, and following patient wishes.

M C Corley (2001)

Mary Corley developed the first survey used to measure moral distress in nursing research and reported her results with that tool, the Moral Distress Survey (MDS), in 2001. This early survey consisted of 32 items rated on a 7-point Likert scale. Scoring was in one dimension, level of moral distress. Factor analysis of the 32 items showed that they could be grouped into three broad categories of situations: individual responsibility, not in the patient's interest, and deception. Table 2.2 shows the three

situations with the highest moral distress scores for each factor in Corley's study. (Corley, Elswick, et al. 2001) Statistical tests of the MDS confirmed its reliability and validity.

Table 2.1. Corley's moral distress factors

Individual responsibility	Not in the patient's interest	Deception
Perform a procedure without patient consent	Follow family wishes with which I don't agree	Partial code
Medical students practicing on patients	MD orders for unnecessary tests	MD request not to discuss code status with a patient
MDs practicing on patients after CPR	Life-saving treatment that prolongs death	IV medication if patient refuses it orally

(Corley, Elswick, et al. 2001)

A B Hamric et al (2012)

Corley's survey was used for much of the nursing research until Hamric et al revised the MDS in 2012. (Hamric, Borchers and Epstein 2012) Hamric's group decreased the number of survey items to 21, changed the Likert scale to a 0 – 4 rating and asked respondents to score each item on the frequency with which they had experiened the situation and the level of disturbance it caused them. They also added an item inviting respondents to enter free text statements about situations that had caused them moral distress and were not shown on the survey. A moral distress index was calculated by multiplying the frequency rating by the rating for level of disturbance. Because the rating scales were 0 – 4, any item that was scored a "0" for frequency or for level of disturbance would result in a moral distress index score of "0", and the maximum moral distress index score was 16. (Hamric, Borchers and Epstein 2012)

The Moral Distress Survey – Revised (MDS-R) was confirmed as reliable and

valid using Cronbach's alpha and hypothesis testing. The Hospital Ethical Climate Survey (HECS) (Olson 1998) was administered with the MDS-R to RNs and MDs, whose moral distress and perceptions of ethical climate (PEC) scores were compared. The authors found a negative correlation between PEC and moral distress ($r = -0.402$), and a positive correlation between moral distress and intention to leave one's profession or job. (Hamric, Borchers and Epstein 2012)

Wocial and Weaver (2012)

In 2012, Wocial and Weaver described a new tool for assessing acute moral distress. (Wocial and Weaver 2012) The Moral Distress Thermometer (MDT) is an 11-point visual analog scale (VAS) from 0 – 10 on which the HCW is asked to indicate the level of moral distress felt within the past 2 weeks. The authors performed a study comparing the validity of this instrument to the 2009 version of Corley's MDS, a version utilizing the 2-dimension scale on the MDS-R but retaining the 32 original survey items. Although correlations were not high (adult scale $r = 0.404$, $p < 0.001$; pediatric scale $r = .368$, $p < 0.001$), they were considered to be adequate. The purpose of the MDT is to make real time assessments of moral distress and to monitor progess when it occurs, leaving detailed assessment of root causes to the more sophisticated instruments (MDS or MDS-R). (Wocial and Weaver 2012)

Tools used for evaluation of moral distress in other disciplines than nursing have included those designed for nurses and the use of semi-structured interview techniques. (Crnjanski, et al. 2012; Ulrich, et al. 2007; Lomis, Carpenter and Miller 2009)

The existing moral distress evaluation tools, developed by and for nurses, address the common sources of moral distress to which all disciplines are subject. They also

include some percentage of items that are more closely associated with nursing practice that that of other health care disciplines. A non-nursing health care discipline using a moral distress survey designed for nurses may risk undermeasurement of the problem in their constituency if the more nursing-specific survey situations, infrequently encountered by their discipline, are not counter-balanced with similarly discipline-specific situations unique to their practice. By either replacing or, more effectively, augmenting the MDS-R with evaluative moral distress items addressing the unique characteristics of each health care discipline, it may be hoped that more accurate estimates of the extent and degree of moral distress in each health care discipline may result. (Hamric, Borchers and Epstein 2012; Pauly, Varcoe and Storch 2012)

Workplace ethical climate

The literature consistently demonstrates a correlation between moral distress in HCWs and their PEC, defined by Victor and Cullen as "the prevailing perceptions of typical organizational practices and procedures that have ethical content." (Corley, Minick, et al. 2005; Hamric, Borchers and Epstein 2012; Hart 2005; McDaniel, et al. 2006; B. Pauly, et al. 2009; Silèn, et al. 2011; Ulrich, et al. 2007; Victor and Cullen 1988) In the context of health care, Hart defined ethical climate as:

> "The organizational conditions and practices that affect the way difficult patient care problems, with ethical implications, are discussed and decided. These conditions and practices are based on the presence of power, trust, inclusion, role flexibility, and inquiry." (Hart 2005)

An ethical work environment is one in which an employee feels valued and respected, where the employee feels well informed about and included in the activities that affect him / her in the workplace, and where that had caused them moral distress also feels free to speak openly about work issues to increase understanding and move toward

resolution of disagreements. Those elements in a workplace confer a sense of personal power, trust, and ethical competence. (Olson 1998)

Linda Olson used examples from business and industry (Victor and Cullen 1988), education (Schulte, Brown and Wise 1991), and service organizations (White and Wallace 1988) to develop the Hospital Ethical Climate Survey, the first such instrument designed to measure ethical climate in healthcare organizations. The models from these industries demonstrated that workplace ethical climate can be assessed by measuring employees' perceptions of 1) how ethical decisions are made; and 2) the presence of resources or structures that permit employees to be a part of ethical reflection; or both of these. (Olson 1998)

Relationship between moral distress and perception of workplace ethical climate

The nursing literature shows a negative correlation between the HCW's PEC and the degree of moral distress the employee experiences. HCWs who perceive their workplace to be ethical and to support ethical decision making are less likely to experience moral distress. (Corley, Minick, et al. 2005; Hamric, Borchers and Epstein 2012; Hart 2005; Olson 1998; B. Pauly, et al. 2009; Silèn, et al. 2011; Ulrich, et al. 2007) An ethical work climate is described as one in which there is an atmosphere of mutual respect among HCWs (Ulrich, et al. 2007), "that supports professional nursing practice" (Corley, Minick, et al. 2005), and in which there is ample opportunity for all of the health care team to be meaningfully engaged in discussions of and decisions about difficult ethical patient situations (Olson 1998).

Charlotte McDaniel defines ethical environment as "the ethos of the care setting and the opinions of employees regarding the manner in which it supports or impedes their

ability to do what they ought to do…" This statement underscores the importance of good communication among the members of the work team and between the work team and management. That foundation establishes the support for ethical deliberation about patient care decisions, policies and procedures. In an ethical environment, employees have the opportunity to participate in decisions about patient care and work-related ethical issues.

Although McDaniel's research does not directly address the issue of moral distress, it makes extensive comparisons of PEC to work effectiveness, work opinions, patient outcomes and attitudes, and HCWs' ability to manage workplace disagreements. (McDaniel, et al. 2006) The author seems careful not to overstate her conclusions, but suggests that since her data show correlations between ethical work environment and indicators such as work effectiveness, managing disagreements and patient satisfaction there is an implication that "where ethical environment is perceived to be stronger one will also find higher quality units, more productivity, and enhanced retention." (McDaniel, et al. 2006) Since higher quality of care, greater productivity and solid employee retention are indicators of low moral distress in a workplace, we might predict that McDaniel's data may also support a negative correlation between ethical climate and moral distress. (Austin, Lemermeyer, et al. 2005)

In a study of nurses and social workers in four states, Ulrich et al verified an inverse relationship between HCWs' PEC and job satisfaction and their intentions to leave their jobs. (Ulrich, et al. 2007) The study surveyed RNs and social workers in four US states and examined the relationships between ethics stress, job satisfaction, and intent to leave a job. They define ethics stress as "…an occupational stress that is the

emotional, physical and psychosocial consequences [sic] of moral distress (i.e., knowing the morally right course of action but [sic] constrained to carry out the action).” (Ulrich, et al. 2007)

The factors most heavily influencing job satisfaction in this study were 1) being respected and considered a valued member of the team; 2) scheduling; and 3) identification with the organization’s mission. Respect in the workplace was considered to be an indicator of justice and fairness within the organization. Workload, staffing patterns, and salary were not, as expected, the factors with the most influence on job satisfaction and intent to leave. Other unexpected findings were: 1) that black HCWs were more likely than their white colleagues to be dissatisfied with their positions and to consider leaving them, and 2) that the ethics stress scores of RNs and SWs with more education in ethics were higher than those without such education. It appeared that when HCWs had formal ethics education and skill but were not afforded the opportunity to use it, they actually experienced higher ethics stress than others. (Ulrich, et al. 2007)

Moral distress in RTs

There is a relative dearth of research and literature on moral distress in RTs, especially in comparison to that available in RNs. RTs warranted a brief mention of one sentence of Jameton’s book. (Jameton, Nursing Practice: The Ethical Issues 1984, p. 282) An excellent discussion of moral distress in RTs was published in 1995 as a literary round table with seven invited bioethicists who commented on a CPR incident involving an RT. (Caplan, et al. 1995) Schwenzer and Wang did the first study of moral distress specific to RTs in 2006. (Schwenzer and Wang 2006) In 2013 two studies of moral distress in multiple health care disciplines included RTs. (Allen, et al. 2013; Houston, et

al. 2013)

Caplan et al (1995)

Caplan and his colleagues commented on a case in which an RT faced a dilemma about CPR. (Caplan, et al. 1995) The therapist went with an RN to visit an elderly patient who was near the end of her life because of chronic lung disease and respiratory distress. The patient made it clear to the RN and the RT that she did not want to be resuscitated, and her husband supported her wishes. The RT and the RN tried to communicate the patient's wishes to the MD as she had to them, but he refused to enter a DNR order, insisting that if the patient arrested a full resuscitation effort must be employed. When the patient arrested, the RT was on the resuscitation team. She was torn between her conviction that she should honor the patient's request not to be resuscitated and her duty to comply with the physician's orders. Not only was she legally required to follow the order, but ethically she could not be certain of what other issues might exist about which the MD could be aware and she be unaware. She assisted in the unsuccessful resuscitation, but felt guilty and distressed about having done so.

Seven bioethicists commented on the case. There was broad consensus that the RT was not in a position to act unilaterally on her conscience, but that it would have been appropriate for her and the RN to insist that the MD or an appropriately qualified substitute come to see the patient. There was also consensus that early in this patient's hospital admission the attending MD should have convened a meeting with the patient, her spouse, the nurses, RTs, chaplains, and other relevant professionals to discuss and document decisions about the patient's wishes for her care at the end of her life.

Without that clarity, the RT's options were "somewhat limited by virtue of her

status within the medical hierarchy." (Caplan, et al. 1995, Giles Scofield comments) Had she chosen to refuse to participate in CPR, her refusal may have been interpreted as insubordination rather than conscientious objection. There seems to be no "via media" between refusal of and begrudging compliance with the physician's order.

One panel member identified the source of the problem in this case as the "pervasive ethical challenge" created by the disparity between HCWs' responsibility for carrying out critical and highly complex procedures and their level of authority for making decisions about the appropriateness of those procedures. To keep those two aspects of moral decision making isolated from each other over a long period of time is to risk damage to one's moral integrity, placing the individual at risk for moral distress. This ethicist recommended that the decision maker on the healthcare team invite every team member to participate in respectful, collegial dialog to try to form consensus about the best approaches to the patient's care, and, if that fails, to assure at least that each team member's perspective is given consideration. (Caplan, et al. 1995, R. Smith's comments)

In summary, the panel agreed that the RT took appropriate action given the constraints within which she was working. Early in the history of moral distress literature, when the problem was still considered to be one primarily affecting nurses, a group of seven highly respected ethicists examined an important source of moral distress in RTs. They recognized the ubiquity of RTs at the bedsides of dying patients. They made a bold and early declaration that HCWs who are responsible for critical actions in health care institutions should also be involved in the decision making processes about those actions. A case like this, the ethicists around the "table" said, should motivate the healthcare institution to initiate discussions about CPR and DNR orders; RTs should be

among the HCWs authorized to discuss this topic with patients and to document those communications in the medical record. (Caplan, et al. 1995)

Schwenzer and Wang (2006)

It was slightly more than a decade before the next publication on moral distress in RTs was released. Schwenzer and Wang modified Corley's MDS (Corley, Elswick, et al. 2001) "from a nurse's … to a respiratory care practitioner's frame of reference." (Schwenzer and Wang 2006) Their survey of 28 items covered three major categories: "individual responsibility," "not in the patient's best interest," and "deception." One hundred fifteen RTs from a university hospital system were contacted via email and invited to access the survey online. There were 57 responses, for a 49.6% response rate. The survey items with the highest moral distress scores are shown in Table 2.3 (page 43).

Three of the 6 top ranked survey items in Schwenzer's study are also found in another recent study. (Allen 2013, Table 2.4 on page 44). Two of these 3 situations are associated with care at the end of life, specifically with continuing life support when the HCW no longer considers it beneficial to the patient. The third situation in common is "[carrying] out physician's orders for unnecessary treatments". In the Schwenzer study the phrase goes on to say "for a terminally ill patient", but in the other there is no modifying circumstance added. (Allen et al used the MDS-R, in which the phrase was modified.) This situation could be construed to be a resource issue, an end of life issue, or both. (Allen, et al. 2013; Schwenzer and Wang 2006)

Also among the most common sources of moral distress was low staffing. The AARC stipulates that "The provision of safe respiratory care is largely dependent on staffing adequate numbers of competent respiratory therapists (RTs). Understaffing puts

at risk the welfare and safety of patients and may not allow care consistent with national guidelines and community practice." (AARC 2012) Their white paper on "Best Practices … [for] Productivity and Staffing" offers only broad guidelines calling for "adequate" numbers and warning that depending solely on the use of CPT codes for productivity measures for RTs grossly underestimates the volume of their workload. A 2006 paper in Critical Care Medicine made a recommendation that a safe RT to ICU bed ratio was between 1:9 and 1:11, but had no recommendation for how to staff RTs elsewhere in the hospital. (Matthews, et al. 2006) Netzer et al reinforced the 2006 recommendation in 2011, showing that a decrease in RT to patient ratio – again in the ICU – from 1:24 to 1:10 reduced mortality and increased utilization of RT services. (Netzer, et al. 2011)

A unique feature of the RT job that places further strain on limited human resources is what may be described as its "nomadic" nature. A respiratory therapist is likely to be at a patient bedside for a similar number of hours in a day as is a nurse. (Kramer, et al. 1995) A major difference between them is that an ICU nurse will probably care for 1 or 2 patients and on a routine ward several, but probably fewer than 6 – 8 patients, while the RT in the ICU may be assigned to as many as 7 – 8 (or more) patients (Sanders 2012) and may have patients to see on the regular wards as well. (AARC 2012; AARCConnect 2014; Parker, et al. 2013; United 2010-2014) There are no specific standards for RT to patient ratios despite the attempts of some groups to establish them.

Allen et al (2013)

Allen et al conducted their study among HCWs of five disciplines (RNs, MDs, Social workers [SW], NPs, and RTs) in a 7-hospital system in Florida using the MDS-R.

(Allen, et al. 2013) The study sample size was 323, of whom 20 were RTs. The study is flawed by the rather drastically disparate numbers of respondents in each discipline: RN (205); MD (62); SW (27); NP (7); RT (20). NPs had the highest mean moral distress index scores among the disciplines at 68.6, followed by RNs (51), MDs (48), RTs (47), and then SW (34). The extremely low number of NPs casts doubt on the reliability of that group's index, since a single outlier could raise the index disproportionately. The same is true of the SWs and RTs to a lesser extent, although the similarity of their indices suggests that the statistics may be reliable. Chart 2.1 (page 43) gives a graphic representation of the similarity of moral distress index among RN, MD, SW and RT groups and the large difference in both the size and the moral distress index of the NP group. The relative rankings of the moral distress items by each discipline are in Table 2.4 (page 43).

Houston et al (2013)

A recent paper (Houston, et al. 2013) reported on a survey of more than 2700 HCWs in seven disciplinary categories: attending MDs, resident MDs, Nurses, Pharmacists, Social Workers, Chaplains, and Therapists. While that study is among the most extensive comparisons of moral distress among health professions published to date, it is flawed for the purpose of extracting RT data. The authors state that the "Nurse" category includes "all direct-care employees in nursing department." RTs provide direct care and, although it is the exception, at some hospitals they may be employees of the nursing department. There are several types of therapists who practice in hospitals: RTs, physical, occupational, speech, and recreation therapists, psychotherapists, and more. It is unclear whether RTs are in the "Nurse" group or the "Therapist" group, and regardless of

that, the moral distress level in either group may not be representative of the typical RT. The acuity of patients treated by RTs and those treated by physical, occupational, speech, and recreation therapists is likely to be quite different, and consequently it may be expected that the moral distress levels of those therapists will also differ significantly. If so, grouping all therapists together for this measure would not result in a valid comparison for any of the groups. (Houston, et al. 2013).

Respiratory therapy, moral distress, and the Sentimentalist moral theory

For the duration of this researcher's tenure at the health care institution where she works, RTs have expressed frustration, anger, and the feeling of being devalued as members of the health care team when they found that a mechanical ventilator in use on a critically ill patient under their care had been adjusted without their knowledge. It was not immediately clear, nor was it an easy distinction to make, whether the distress RTs experience in these circumstances was moral distress. Dissecting the experience to try to understand that was delicate work.

There were no journal articles on PubMed Central, Medline EBSCO, or even on Google reporting the problem of non-RTs adjusting ventilators. AARCConnect is a social networking and professional discussion group supported by the American Association for Respiratory Care (AARC). There were several comments dating from 2012 and 2013 on AARCConnect regarding non-RTs adjusting ventilators. Of six hospitals commenting on MD interventions on ventilators, four indicated that they had problems with communication and safety issues. Two hospitals addressed the problem as a safety issue, establishing hospital policies permitting MDs to adjust ventilators on a limited basis providing they write orders and communicate with RTs about the changes. Five hospitals

commented on RNs adjusting ventilators. One hospital forbade RNs to adjust ventilators, two hospitals authorized them to adjust FiO2 only, and one routinely authorized RNs to adjusted ventilators for a limited time post-operatively on open heart surgery patients. One hospital reported that there had been "a problem" with RNs adjusting ventilators until The Joint Commission (TJC) standards on competency made it impossible for them to meet criteria for doing so. (AARCConnect 2013; AARCConnect 2012)

According to the sentimentalist theory, "To believe that something is morally wrong (right) is to have a sentiment of disapprobation (approbation) towards it." (Prinz 2006) Disapprobation includes emotions of blame, shame, guilt, anger, contempt, and disgust. The RT who found ventilator settings changed and who had not received any communication about the changes would be likely to experience a sentiment of disapprobation, specifically fear, anger, dismay, or guilt. The communication failure may threaten the RT's sense of team membership. If there is validity to the sentimentalist theory, then, at least to the RT, the experience described above may represent a moral wrong.

If the exclusionary experience an RT has when a ventilator is adjusted without his/her knowledge is, indeed, a moral wrong, and the RT is unable to right the wrong (i.e., change the other's behavior, guarantee the patient's safety), then the distress imposed by this experience is moral distress.

Flawed as it is, Prinz' theory of sentimentalism may have value as an indicator of situations and acts that are potential causes of moral distress just as moral distress itself has been observed to serve as a "canary in the coal mine" (Varcoe, et al. 2012), i.e. a signal that there is an issue to be addressed . We often refer to having a "gut feeling"

about a thing (Flora 2007), and perhaps it is that feeling that the sentimentalist theory attempts to capture. The "disapprobation" that one feels when exposed to wrongdoing may not be a reliable judge of right and wrong, but it may serve well as the "gut feeling" – a warning – that a problem exists.

Professional boundaries

As the number of caregivers at the bedside increases and as each discipline becomes more specialized, the boundaries between their various job functions and responsibilities become blurred. RNs and RTs each perform airway care, suction patients, and draw blood gases. RTs, PAs, NPs, and MDs may all perform endotracheal intubation and insert arterial lines. Any and all of these providers participate in cardio-pulmonary resuscitation in whatever capacity is necessary. MDs and their extenders write the orders, so they must be conversant with the theories and applications of all aspects of the patient's care including mechanical ventilation.

Striking a balance between practices that assure the timely, effective delivery of care and also respect professional boundaries requires thoughtful consideration of all by all of the affected parties. RTs, who may not be immediately available in an urgent or emergent situation (Gallo 2013; Johnston 2013) need to recognize that they need backup when urgent circumstances demand it, and they need to be part of training those who will provide that backup so that it can be done safely. Providers outside the discipline of respiratory care need to remain mindful that specialists are responsible for life support equipment for good reason: because patients' lives depend upon it. If their competency to do so has been documented and if it is actually urgent that an adjustment be made on life support equipment, then the non-routine provider is right to take the action the patient

needs. A major part of the responsibility for that action is to communicate it to the professional who has responsibility for that aspect of the patient's care.

For many HCWs, the boundaries of their scopes of practice are fuzzy, and the overlap may result either in helping each other out or in stepping on each other's toes. Historically, the various disciplines have sought to expand their scopes of practice by advancing their skills in new technologies, and, as their workloads grew, by delegating the less interesting "dirty work" to less skilled workers for whom those tasks became increased scope. (Nancarrow and Borthwick 2005) There is an assumption in this trade-off is that once a more powerful discipline has delegated a task, it will be difficult for them to reclaim it if for some reason, like a glutted market, their workload decreases. (Nancarrow and Borthwick 2005)

Adjustments to ventilators by caregivers other than RTs may be an example of what Nancarrow calls horizontal substitution. (Nancarrow and Borthwick 2005) When it occurs, the non-RT adjusting the ventilator is usually a physician or a physician extender, and less frequently a RN. Although the MD, PA, and NP are not on the same hierarchical level as the RT, their justification for the action is situational: the RT is not immediately available and they want the ventilator change immediately. They adjust the ventilator because they perceive a staffing problem. That they engage in this aspect of care imparts no change to their professional status or income. (Nancarrow and Borthwick 2005)

RTs may be assigned to multiple units (Gallo 2013; Johnston 2013), and even if they are in a single unit they will most likely be assigned to several patients (Sanders 2012), so they cannot be everywhere at the same time. The perception of the RT who returns to a patient bedside to find ventilator settings changed will probably be quite

different than that of the provider who made the change. (AARCConnect 2012; AARCConnect 2013; Berlinger 2009) The emotions they report may be described as anger, belittlement, frustration, and a feeling of devaluation and dismissal as a member of the health care team. (Brown-Saltzman, et al. 2010; Epstein and Delgado 2010; Ulrich, et al. 2007)

RTs and end-of-life care

"Almost no patient dies in a hospital without being cared for by an RT." (Brown-Saltzman, et al., 2010) A significant percentage of the RT's daily work takes place in critical care, so RTs are exposed to death and dying issues with very high frequency. However, RTs get little formal education on how to communicate with patients and families at the end of life or how to cope with the stresses of their care. (Brown-Saltzman, et al. 2010; Grandhige, et al. 2014;Willms and Brewer 2005)

In a recent survey of RTs about their attitudes regarding terminal extubation and end of life care, 47.5% of the RTs expressed a wish to be included in family meetings where the decisions were made to terminate mechanical ventilatory support, but only 6.6% were "Frequently" or "Always" included. Similarly, 43.1% expressed a wish to be included in discussions with the patient and/or family about end of life care. A slightly higher percentage of RTs (10.8%) were included in those discussions, perhaps because such care frequently entails arrangements for home oxygen or other respiratory therapy equipment. Most of the RTs (70.5% and 72.1% respectively) felt comfortable with the decision to terminally extubate and with performing the extubation. Most of the RTs, (60%) stated that they would like to have more formal education and support regarding the care of terminally ill patients. (Grandhige, et al. 2014)

In a 2005 survey of 119 RTs at six acute care hospitals, 95% of them had been involved in at least one terminal extubation, and the majority of them had experienced more than 11 terminal extubations. (Willms and Brewer, 2005) Nearly three quarters (73%) of the RTs thought that they should be included in the conferences at which terminal extubation is discussed, but 2.7% were "always" included, 2.7% were included "most of the time" and 22% "some of the time"; 72% were "rarely" or "never" included. (Willms and Brewer, 2005)

Withdrawal of care from patients without nurses' participation in the decision has been identified as a source of moral distress in nurses. (Corley, et al. 2005, p. 382; Epstein and Delgado 2010; Ulrich, et al. 2007) The data from the two RT studies above suggest that an examination of the link between moral distress and RT participation in these decisions is also advisable. Because approximately 75% of RTs work in acute care hospitals and the majority of the care they perform takes place in the ICU setting, RTs are frequent participants in EOL care. In adult ICUs, the RT is likely to be the clinician who physically disconnects the ventilator and removes the endotracheal tube (ETT) when the decision has been made to stop mechanical ventilator support; in a neonatal ICU, the opposite is true: the physician is more likely to perform the extubation and removal of the ventilator than is the RT. (Willms and Brewer, 2005) The majority of RTs express relative satisfaction with that state of affairs. The majority of them would also prefer to be a part of the decision making process, but they indicate that they are comfortable with termination of mechanical ventilation when the decision is appropriate. (Willms and Brewer, 2005; Grandhige, et al. 2014)

Two researchers have made poignant statements about the role of RTs in EOL

care. Brown-Saltzman established a training program on EOL care for RTs at the institution where she works.

> "Even before the program was conducted, RTs expressed gratitude for being recognized as a component of the team confronting difficult issues in caring for patients at the end of life. At the beginning of each program, feelings of isolation and of under-appreciation were apparent." (Brown-Saltzman, et al. 2010)

The author commented on the fact that RTs were grateful simply to have their educational and emotional needs in this domain recognized. In addition to their feelings of isolation and under-appreciation, the author reported that until they were given the opportunity to discuss their experiences, some participants were unaware of the extent to which they had been emotionally affected by them.

Another researcher commented on the positive impact that interacting with patients and families at the end of life has had on him, and stated his belief that RTs, too, could benefit from such exposure.

> "As a physician intensivist, I have found that my involvement in end-of-life care has been less a burden than it has been a life-affirming growth experience. My interactions with patients, family, and involved caregivers have broadened my emotional growth, connection, and capacity for compassion." (Willms, Finding Comfort in End-of-Life Care 2010)

This is a powerful statement that participating fully in the care of patients at the end of life offers professional and personal growth opportunities not likely to be found in other areas of practice.

In an editorial accompanying Brown-Saltzman's research, Willms made this statement:

> "…a need exists for education in end-of-life care for RTs…I would add that there is also a need for education of the critical care physician, nurse, and other services in the intensive care unit as to the valuable role of RTs in this final phase of a patient's critical care." (Willms, 2010)

Willms acknowledged the need for more and better education on EOL care for RTs both during their formal education and, once they are out in the work world, in continuing education. He also noted that other members of the critical care team need further education, specifically to remind them of the importance of the RT's role in EOL care. Willms became an advocate for seating the RT at the family meeting table.

The studies cited here suggested that RTs were comfortable with the technological aspects of caring for patients at the end of life, but that many of them would like to have more formal education about communicating with patients and families about death and dying. A significant number of RTs would also like to be included in the health care team discussions with patients and families about their decisions on end of life care, something that is not currently a common experience. Exploring the impact of these factors on moral distress in RTs was considered an essential component of the RT survey.

Conclusion

A wealth of literature on the topic of moral distress has been produced in the past three decades, the vast majority of it the result of nursing research. As knowledge and understanding of the sources and ramifications of moral distress grew, researchers became increasingly aware of the importance of studying the problem in health care disciplines other than nursing. (A. B. Hamric 2012) A number of studies have been published about moral distress in physicians, medical students, social workers, and pharmacists. To date, only one such study has been published about moral distress specifically in RTs and two recent studies have included data about RTs. (Allen, et al. 2013; Houston, et al. 2013; Schwenzer and Wang 2006)

Schwenzer's study awakened the critical care community to the importance of addressing moral distress in RTs, and identified many of the same concerns among RTs that have been observed in the other disciplines. The source of highest distress was administering care that is not in the patient's best interest. The single factor most predictive of plans to leave one's job was unsafe staffing. In the study by Allen et al, once again the top stressor for RTs was following orders for unnecessary tests or treatments, followed by four situations associated with the use of life sustaining technology after a point when the RT considered that care to be helpful to the patient. In that study, the RTs' sources of moral distress aligned closely with those of the RNs and MDs, at least for the top three stressors. (Allen, et al. 2013)

There is much to build upon in the moral distress literature to expand our knowledge about this issue in RTs and in other HCWs whose presence at the patients' bedside is crucial but easily overlooked. There appears to be similarity between the causes of moral distress in RTs and that in other bedside caregivers.

Table 2.2. Root causes of Moral Distress

Clinical Situations	Internal Constraints	External Constraints
Providing unnecessary or futile treatment	Perceived powerlessness	Inadequate HC team communication
Prolonging the death process with aggressive treatment	Inability to identify ethical issues	Differing inter- / intra-professional issues
Inadequate informed consent	Failing to fully understand the clinical or ethical situation	Low staffing and/or High turnover
Working with staff who are not as competent as necessary	Self-doubt	Lack of administrative support
Lack of consensus about treatment plan	Lack of knowledge about alternative treatment plans	Policies & priorities in conflict w/ patient needs
Lack of continuity of patient care	Increased moral sensitivity	Following family wishes re care of patient only b/c of litigation fears
Conflicting duties	Lack of assertiveness	Tolerance of abusive or disruptive behavior
Inappropriate use of resources	Socialization to follow others	Compromising care due to pressure to reduce costs
Providing care not in the patient's best interest		Hierarchies within the healthcare system
Providing inadequate pain relief		Lack of collegial relationships
Hastening the dying process		Nurses (HCWs) not involved in decision-making affecting their practice
Lack of truth telling		Compromised care due to insurance pressure or fear of litigation
Disregard for patient wishes		

Source: Data adapted from (Hamric, Borchers and Epstein 2012)

Table 2.3. Most common sources of moral distress – Schwenzer and Wang

Survey Question	N	Mean	SD
Continue to participate in care for a hopelessly injured person who is being sustained on a respirator, when no one will make a decision to "pull the plug."	50	3.78	0.97
Follow the physician's request not to discuss code status with the patient	53	3.77	1.40
Follow the family's wishes for patient care when I do not agree with them	55	3.76	1.02
Follow the family's wishes to continue life support even when it is not in the best interest of the patient	51	3.69	1.14
Carry out a physician's orders for unnecessary treatments for a terminally ill patient	53	3.4	0.91
Number of staff is so that low that the care is inadequate.	55	2.98	0.71

(Schwenzer and Wang 2006)

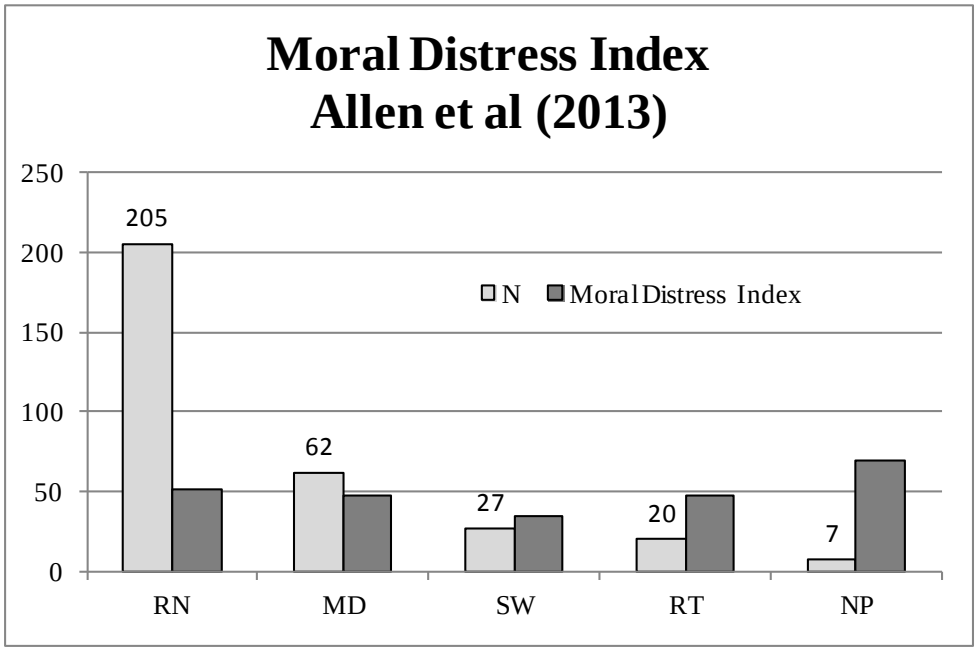

Chart 2.1. Moral distress index and number of respondents (Allen et al 2013)

Table 2.4. Most common causes of moral distress – Allen et al (2013)

SITUATION	RN	MD	SW	NP	RT
Carry out MD's orders for what I consider unnecessary tests & treatments	1	4	10	3	1
Follow the family's wishes to continue life support even though I believe it is not in the patient's best interest	2	2	3	2	2
Watch patient care suffer because of a lack of provider continuity	3	1	2	8	7
Initiate extensive life-saving actions when I think they only prolong death	5	3	5	1	3
Witness healthcare providers giving 'false hope' to the patient & family	8	10	4	7	5
Follow the family's request not to discuss death with a dying patient who asks about dying	9	12	8	4	13
Continue to participate in care for a hopelessly ill patient who is being sustained on a ventilator	11	9	9	6	4
Work with nurses & other healthcare providers that are not as competent as patient care requires	6	8	6	5	6

(Allen, et al. 2013)

Chapter 3 – Study Methods

Introduction

There were three interrelated working hypotheses that motivated this study. First, it was is assumed that because they are bedside caregivers whose job responsibilities entail frequent involvement with life support and end of life care (Brown-Saltzman, et al. 2010; Caplan and Bernal 1995; Grandhige, et al. 2014; Willms and Brewer 2005), RTs experience moral distress with similar frequency and intensity as that observed in RNs. Second, although there are similarities in the moral stressors experienced by RTs and other bedside caregivers, the job characteristics of respiratory therapy are unique and, consequently, RTs experience unique moral distress triggers. Finally, optimal assessment of moral distress in RTs requires that surveys assessing moral distress in this population include items addressing their unique moral distress triggers.

The first hypothesis has been studied on a limited basis by other researchers using the Moral Distress Survey (MDS) (Schwenzer and Wang 2006) or the Moral Distress Survey – Revised (MDS-R) (Allen, et al. 2013; Houston, et al. 2013) There remains much more work to be done on that topic, but the existing evidence appears to demonstrate that the first hypothesis is true. (Allen, et al. 2013; Houston, et al. 2013; Schwenzer and Wang 2006)

The purpose of this study is to answer the following research questions related to the above hypotheses.

1. Do RTs experience moral distress with a comparable frequency and intensity to that reported in RNs by the author of the MDS-R?

2. Is there a significant difference in the level of moral distress measured in RTs

using the MDS-R alone and using the MDS-R with RT-specific moral distress survey items designed to address RT job characteristics?

3. Are the RT-specific moral distress survey items developed for this study reliable and valid?

To establish the validity of hypotheses two and three will require answers to research questions two and three. The nature of the project makes it feasible to answer question 1, and a comparison of that data using the same survey tool is a valuable addition to the moral distress literature.

Study methods summary

The method chosen to answer the research questions of this project was to create RT-specific moral distress survey items to be appended to the MDS-R, an existing, validated moral distress survey (Hamric, Borchers and Epstein 2012), and to assess the reliability of those new survey items with statistical analysis. Because there is a demonstrated correlation between moral distress and employees' perception of workplace ethical climate, the Hospital Ethical Climate Survey (HECS) (Olson 1998) was also included in the survey.

The MDS-R is the recently validated revision of the original MDS developed by Corley. Corley's survey has been used among nurses and other professionals for evaluation of moral distress since its introduction in 2001 (Cavaliere, et al. 2010; Hamric and Blackhall 2007; Rice, et al. 2008; Silén 2011), and Hamric's since 2012. (Allen, et al. 2013; Corley, et al. 2001; Hamric, Borchers and Epstein 2012; Houston, et al. 2013) The MDS-R was comprised of descriptions of 21clinical situations that may cause moral distress. Respondents to the survey were instructed to rate each situation on a scale of 0 ("Never") to 4 ("Very Frequently") for the frequency with which they experienced the

situation and 0 (“None) to 4 (“Great extent”) for the level of disturbance the situation caused them. A moral distress index was then calculated as the rating for frequency multiplied by the rating of the level of disturbance. The moral distress index, then, was “0” for any situation that “Never” occurred or that had a level of disturbance of “None” and became progressively greater as the frequency and/or the level of disturbance experienced by the HCW increased. The highest possible moral distress index was 16.

The Hospital Ethical Climate Survey was developed by Linda Olson (Olson 1998) to evaluate of health care workers’ perception of workplace ethical climate (PEC). Respondents to the HECS rated each item on the survey on a Likert scale of 1 (“Almost never true” to 5 (“Almost always true”). Olson reported extensive reliability and validity statistics in her introductory research, with a Cronbach’s alpha of 0.91 for the entire 26-item scale and alphas ranging from 0.68 to 0.92 for the subscales. Validity was tested with item analysis, confirmatory factor analysis, and use of a known and purported measure (of ethical climate) to assess convergent validity. The reliability statistics of the HECS and the fact that it was the ethical climate survey used in 3 of the 4 above named studies (B. Pauly, et al. 2009; Silén 2011; Ulrich, et al. 2007) recommended it for use in this study.

Supplement vs. replace the MDS-R

Two potential solutions to the problem of validating a survey to measure moral distress in respiratory therapists were considered. The first option was to use Hamric’s and Olson’s surveys (Hamric, Borchers and Epstein 2012; Olson 1998) with language modified to accommodate the RT population and to supplement the moral distress survey with items addressing unique characteristics of the RT role that may cause moral distress.

An alternative option was to create an entirely new survey instrument using only those survey items that appear to be closely associated with respiratory therapy practice, and to validate the new instrument.

Advantages of the first option included the fact that the two existing surveys had been validated already and were broadly recognized and accepted in the moral distress literature. Thus, not only would it be unnecessary to revalidate existing survey items, but the data gathered in this study could be compared to other published data. With this option, the scope of this research project could be limited to tests of validation and reliability of the RT-specific survey items only.

The advantage of the second option was that the instrument created would be entirely new and unique to RTs. Since the survey would use only items that appeared to be directly associated with RTs' practice, the total length of the survey would be shorter than the above (20-25 questions vs. 42 items). Disadvantages were that: 1) as a completely new instrument, extensive validation would be necessary; 2) even though it was a "new" survey, many of the items included on it would be similar enough to those on either Hamric's or Olson's surveys to be at risk for violation of intellectual property rights; and 3) elimination of previously validated survey items that *appeared* to have low relevance to respiratory therapists risked overlooking information that could actually be significant.

The researcher determined that the advantages of the first option outweighed those of the second, particularly after discussion with the author of the MDS-R, who readily granted permission to use her instrument, assisted with contacting Olson for permission to use hers, and expressed a hope for collaboration on future research.

For both the MDS-R and the HECS, a need was identified to edit the survey language to change the word "nurse" to broader terms such as "health care worker", "provider", or (when a specific practitioner was required) "respiratory therapist". The authors of the MDS-R and the HECS each gave permission for the use of their respective survey instruments and for language modification for the purposes of this study.

Survey Development

Informal interviews of four registered (RRT) and two certified respiratory therapists (CRT) working at a 600-bed tertiary academic medical center were performed. One RRT was a shift supervisor; all others were staff therapists who were routinely assigned to ICU care, routine floor care, or both. The concept of moral distress was explained to each therapist. They were asked if they had experienced moral distress and, if they had, to describe situations in which it occurred. Subsequent analysis and discussion with the advisor for this thesis helped to identify four broad categories into which these situations could be sorted: 1) professional boundaries; 2) team membership and relationship issues; 3) work environment; and 4) clinical care. A list of the situations identified by the RTs and the category to which each was assigned is shown in Table 3.1.

Table 3.1. Situations causing moral distress to RTs

Situation	*Category*
Being required to follow orders for unnecessary therapy.	Clinical care
Finding that a ventilator change was made by a non-RT while I was in the unit, & no one communicated with me about the order.	Boundary issues
Continuing to care for a patient on a ventilator when there is no hope of the patient getting well.	Clinical Care
Heavy workloads	Work environment

Covering multiple work areas, especially when they are remote from each other.	Work environment
Being excluded from patient / family meetings where end of life care is discussed.	Team membership
Having a MD, PA, or NP refuse to consider my point of view on a matter of therapy for a patient.	Team membership

With those broad categories and specific situations in mind, 7 new survey items were drafted. After consultation and review with the thesis committee and the author of the MDS-R, the number of items was reduced to 5 and the language refined to a point deemed appropriate for a pilot study.

The five RT-specific moral distress survey items submitted on the pilot study were:

1. Question my judgment when the prioritization decision I made remotely while assigned to multiple units or patients resulted in unintended negative impact on the quality of care.

2. Be excluded from patient-family meetings at which end of life care is discussed.

3. Discover that a provider from another discipline has made an adjustment to life sustaining equipment for which I am responsible.

4. Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.

5. Be unsuccessful at negotiating an order change from a provider who dismisses my judgment about the patient's best interest.

The complete survey, consisting of the 21 MDS-R survey items, five supplemental research items, 14 HECS survey items, and 7 demographic questions, was distributed during a pilot phase to 18 respiratory therapy professionals of varying job descriptions including academicians, managers, and clinicians both within and outside of the researcher's health care institution. The participants in the pilot study are described

in Table 3.2.

Table 3.2. Characteristics of pilot participants

Practice area		Number sent	Number returned
Clinician	Acute care	7	6
	Geriatric care	2	1
Academic	Metro Atlanta	5	4
	Georgia	1	1
	Out of state	1	0
Manager	In system	3	3
	Out of system	1	1

Participants were asked to answer the following questions:

1. How long did it take you to complete the survey (excluding the evaluation time below)?

2. For each item on the survey, "Rate the following [i.e., the survey item] as "Yes" or "No", and comment as desired:

    a. Was the item understandable? …Clear and straightforward? …Did you get the meaning with one reading?
    b. Were the measurement scales appropriate? Were they clear?
    c. Was the item written in such a way that it could have been answered more than one way?
    d. Was the item written in such a way that there was only ONE way to answer the question? (Rogers 2010)

Of the 18 pilot surveys distributed, 13 (78%) were returned. The average length of time required to complete the survey was 20.6 minutes (range 13 to 30 minutes).

Although pilot respondents evaluated all survey items, only the 5 supplemental items

above were considered for modification, as they were the only ones under the researcher's control. Four of the 13 respondents found question 22 (number 1 above) difficult to interpret and 1 found the evaluation scale to be inappropriate for that item. One respondent each found items 25 and 26 (numbers 4 and 5 above) difficult to interpret. There were some negative ratings to other survey items, but no more than 1 per item.

Discussion with the thesis committee and with 2 respiratory therapy managers and 2 staff respiratory therapists who serve as orientation preceptors (i.e., who are informal leaders), all from the researcher's home hospital, resulted in the conclusion that items 24 and 25 (numbers 3 and 4 above) were written as clearly as possible. The intent of item number 22 (number 1 above) was to address a situation described as a source of moral distress by the original group of RTs interviewed, "Covering multiple work areas, especially when they are remote from each other." The distressing factor about that situation appeared to be related to the RT needing to make judgments 'in absentia' about how to prioritize the patients on his/her work list. When a therapist makes such a decision and it appears to contribute to a patient's suffering or clinical deterioration, the therapist may experience a sense of guilt or wrongdoing while also recognizing the impossibility of being present to more than one patient at a time.

Extensive discussions with a clinical instructor from a university affiliated with the researcher's, the clinical supervisors of Respiratory Care at the researcher's hospital, the thesis committee, and Ann Hamric, PhD, RN, FAAN, Professor, Virginia Commonwealth University, resulted in a number of revisions and reconsiderations of this item, including weighing the possibility of simply omitting it from the survey.

Ultimately, it was decided that the experience being evaluated was important and unique enough to RTs that the item should be included. Another pilot study was distributed to 15 staff therapists at the researcher's hospital, offering 5 choices for wording the item:

1. Question my judgment when the prioritization decision I made while assigned to multiple units or patients resulted in unintended negative impact on the quality of care.

2. Question my judgment when I prioritize among multiple units or patients and it results in unintended negative outcomes.

3. Question my ability to prioritize care appropriately when I'm assigned to multiple units or patients.

4. Feel compelled to prioritize care with inadequate information when I'm assigned to multiple units or patients.

5. Make decisions about the priority of patients' care with inadequate information when I'm assigned to multiple units.

The results of this pilot were inconclusive. The consensus was that this is a significant source of moral distress, but that the terminology in each of the statements above failed to capture the dynamics of the situation precipitating the distress. Therapists did not experience distress in these situations because they questioned their own judgment or ability to prioritize care, or even because they were compelled to make decisions about the priority of care at all, but rather because they found themselves inadvertently compromising the quality of care through circumstances outside their control. After extensive revision, it was decided to word the item thus:

> Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.

Rationale for survey items

This study was based on the hypothesis that optimal assessment of moral distress

in HCWs requires that survey instruments be developed that address the unique moral stressors of each discipline's practice. The broad categories of root causes for moral distress are alike across disciplines, but specific triggers for a given professional group are likely to vary with the types of responsibilities and stresses with which those workers cope on a daily basis. (Pauly, Varcoe and Storch 2012; McCarthy and Deady 2008) In the category of "bedside caregiver", the RN, the RT, the MD, the nurse tech, the physician's assistant, the nurse practitioner, and the physical, occupational or speech therapist all have a role. The roles may (and, in fact, do) overlap sometimes, but they are also distinct enough that each discipline is likely to have different triggers for moral distress.

> "In particular, specific situations that give rise to moral distress vary based on position and profession; and the extent and degree of moral distress experienced varies across disciplines. Clearly, there is a need to expand research on moral distress in disciplines other than nursing and/or approach research on moral distress from an interdisciplinary perspective." (Pauly, Varcoe and Storch 2012, p. 6)

The following explanations for the rationale used to draft each of the RT-specific moral distress items will elucidate some of the unique features of an RT's workday.

1. *<u>RT-specific moral distress survey item #1:</u> Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.*

As reported in Chapter 2, it is common for RTs to be assigned to more than one nursing unit during a given work shift. A Respiratory Therapy department has a responsibility to distribute the assigned therapy for the entire hospital among whatever RT staff is available. Since respiratory care work volume is likely to vary among nursing units, equitable and thorough division of the departmental workload may require assignment of RTs to multiple units. Because of those time and scheduling constraints, RTs covering multiple units make some decisions about the priority of therapy before

they are able to physically evaluate every patient. Misjudgment in such a situation is an example of a workplace environment issue that may cause RTs to feel that they have acted in opposition to their professional ethics and at the same time to feel conflicted because doing so was not something over which they had control.

The category of "work environment" identified by the RTs interviewed for this study is an example of an external constraint. In this situation, workload, work distribution, and staffing may all have influence. (Hamric, Borchers and Epstein 2012)

2. *<u>RT-specific moral distress survey item #2:</u> Be excluded from patient-family meetings at which end of life care is discussed. (team membership)*

Respiratory therapists are intimately involved in the care of the most critically ill patients in our ICUs. Physically as well as symbolically, nothing touches another human being more essentially than breathing. The relationship the RT has with the patient and family may involve treatment, teaching, caring, cajoling, rejoicing at the victories and grieving at the set-backs of the patient's clinical course. When a decision is made to discontinue mechanical ventilation, it is often the RT who actually disconnects the ventilator and removes the endotracheal tube. Despite that, it is not typical for the RT to be a participant in the meetings at which end of life decisions are discussed with families.

Exclusion of RTs from the decision making process is a team membership issue, and like any situation in which a HCW is given great responsibility without a role in the decision, it is a potential source of moral distress. (Brown-Saltzman, et al. 2010; Caplan and Bernal 1995; Willms and Brewer 2005)

3. *<u>RT-specific moral distress survey item #3:</u> Discover that a caregiver from another discipline has made an adjustment to life sustaining equipment for which I am responsible. (boundary)*

The question of whether or not to include this item in the survey was a difficult

one that required a great deal of discussion and analysis. There was a sense of outrage among the RTs who work at this researcher's workplace about their experience of returning to a mechanically ventilated patient whom they had recently assessed to find that the therapy parameters they left in place had been changed without their knowledge. It was not immediately clear, nor was it an easy distinction to make, whether such moral outrage also amounted to moral distress.

Over the past 25 years, this researcher observed that many RTs, particularly long-term employees, expressed anger and frustration when these situations occurred, but also adopted the belief that nothing could be done to change the situation. Even when encouraged to report events of non-RT adjustments of mechanical ventilators, many RTs refused or neglected to do so, instead expressing their frustration to each other in the departmental break room. The dynamic resembled the descriptions of initial to reactive moral distress and accumulation of moral residue described in the nursing literature. (Webster and Baylis 2000; Epstein and Hamric 2009; Gutierrez 2005) The situation appeared to be frequent enough and disturbing enough that it seemed an important situation to explore. (AARCConnect 2012; AARCConnect, 2013)

The factors considered in the decision to include this item were 1) the communication and teamwork failure involved; 2) the potential threat to patient safety for which the RT feels responsible; and 3) the RT's experience of being insulted, dismissed, and devalued in this circumstance. (Ulrich, et al. 2007)

4. *<u>RT-specific moral distress survey item #4:</u> Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.*

The MDS-R includes several items addressing end of life situations, and two that are specifically related to the termination of life sustaining technology. The above item

seeks information on the RT's response to actually performing the act of disconnecting the ventilator and/or extubating the patient. This is a slightly different question than "participating in the care" of a patient on life support. Some practitioners find it disturbing to discontinue life sustaining treatment on a patient regardless of the patient's prognosis. (Grandhige, et al. 2014; Willms and Brewer 2005)

In neonatal critical care, it is standard practice for physicians to be present for terminal extubations and, frequently, to perform the procedure themselves. In other settings, RTs are usually offered an option to refuse the task. (Willms and Brewer 2005) For those who support withdrawal of care and consider it an act that allows the patient a peaceful, dignified death, participating in removal of life support may be perceived as one of the more meaningful services provided to a dying patient and his family; to others it may be a source of distress. (Brown-Saltzman, et al. 2010; Willms 2010)

5. *RT-specific moral distress survey item #5: Be unsuccessful at securing an order change from a provider who dismisses my judgment about the patient's best interest. (Team, communication, professional respect)*

This item relates to the issues of team membership, communication, and professional respect. When the health care team functions well, differences in clinical opinion are discussed and used as learning opportunities. When the opportunity for discussion is cut off by a more powerful member of the hierarchy, the less powerful member suffers moral distress because his or her understanding of what serves the patient's best interest in that clinical situation is dismissed and refused consideration. (Epstein and Delgado 2010; Ulrich, et al. 2007) The less powerful team member is required to act upon orders that s/he believes to be less than ideal, and an opportunity for the more powerful team member to inform the other of treatment goals is missed. (Brown 2013)

Preparations for Initiating the Survey

The Emory University Investigational Review Board approved the study as exempt. (See Appendix B and C)

After the RT-specific moral distress survey items were finalized, the final format of the survey was assembled. (See Appendix A) The complete survey consisted of four elements:

1. The MDS-R
2. The five RT-specific moral distress survey items
3. The HECS
4. Demographic questions

The survey was entered into Survey Monkey as an on-line questionnaire. IP addresses and email addresses of survey respondents were de-identified to assure their anonymity. To prevent multiple responses from the same individual, once a survey had been submitted from an IP address, it could not be resubmitted.

Data Collection

A target of 170 survey responses was set for this study. The target was chosen in consultation with a statistician, and based on the sample sizes used in similar studies by other researchers. (Corley, et al. 2001; Hamric, Borchers and Epstein 2012)

The original study plan was to use a random sample of the licensed respiratory care practitioners (RCP) in the state of Georgia. Estimating that there would be a low response rate of 25%, 680 postcards were mailed to RTs randomly selected from the database of 8963 licensed RCPs in Georgia. The postcard text gave a brief description of the study and invited the addressee to access the URL at which the survey was located. Postcards were mailed 5/16/13. Between 5/29/2013 and 7/5/2013, 20 responses (2.9%

response rate) were received on Survey Monkey. By early July it was apparent that the attempt to collect a randomized sample of respondents was not going to be successful, so a strategy to collect a convenience sample of at least 170 responses was initiated.

The first step in that process was to distribute hard copies of the survey at the summer meeting of the Georgia Society for Respiratory Care (GSRC) in Savannah, GA from July 25 – 28, 2013. Twenty-seven surveys were collected at the meeting, and business cards with the URL for the survey were distributed to attendees with the request that they inform coworkers and invite them to take the survey. The same business cards were distributed to 76 RTs at the researcher's place of employment. Between 7/30/2013 and 9/5/2013, another 67 responses were collected on Survey Monkey and 4 hard copy responses were collected at Emory University Hospital. In late August, the American Association for Respiratory Care (AARC) approved a request to post a recruitment notice on AARCConnect, the social networking site on the AARC web page. The notice was posted on 9/11/2013, and within 5 days (by 9/16/2013) 127 responses had been collected from that effort. The survey site was closed and the AARC announcement was withdrawn.

The total number of surveys collected from all of the above methods was 245 of which 207 were usable. On the Survey Monkey version, consent was implied by the respondent's act of continuing to answer survey items after reading the informed consent. However, there was a "Yes/No" choice on the consent page to which 6 respondents answered "No" and then proceeded to answer the survey. Those responses were excluded from analysis. Another 32 responses on Survey Monkey were started (i.e., consent was answered "Yes") but there were no responses to any of the survey items. Those 32

responses were also excluded from analysis. Table 3.3 summarizes these events.

Table 3.3. Survey distribution

Recruitment postcards mailed to random selection of RTs	680
Survey Monkey responses from original and follow up mailing	20
Hard copy returns from GSRC Summer Meeting	27
Hard copy returns from Emory University Hospital (EUH) staff	4
Survey Monkey responses post GSRC & EUH recruitment	67
Survey Monkey responses to AARC Connect post	127
Sub-total – number of electronic responses	214
Sub-total – number of hard copy responses	31
Total number of survey responses	245
# Survey Monkey responses w/ "No" answer to consent	6
# Survey Monkey responses w/ "Yes" to consent, but no ratings	32
Total number of "usable" responses	207

Statistical Analysis

The final report from Survey Monkey was downloaded into Excel and descriptive statistics were calculated. A summarized Excel file with the study data was analyzed in SPSS using analysis of variance (ANOVA).

Cronbach's Alpha

The reliability, or internal consistency, of the survey was analyzed in SPSS with Cronbach's alpha. Alpha is calculated according to the following formula:

$$\alpha = \frac{N}{N-1}\left[1 - \frac{\sum \sigma_i^2}{\sum \sigma_i^2 + 2(\sum \sigma_{ii}^2)}\right]$$

Where:
α = alpha coefficient
N = the number of items

$\sum \sigma_1^2$ = sum of item variances
$2(\sum \sigma_{ii}^2)$ = twice the sum of the covariances below (or above) the diagonal (Dilorio, 2005)

"Internal consistency" refers to the degree to which test items are interrelated. If items were homogeneous it would be expected that they would also demonstrate a high degree of interrelatedness, i.e. a high alpha. A scale may, however, demonstrate interrelationships among items even when the items are not one-dimensional. In fact, some variability in the dimensions measured in a survey is a desirable quality; unidimensionality would represent redundancy. Alpha does not give a measure of dimensionality. (Dilorio, 2005)

Test length and correlation between test items both affect alpha. Thus, as the number of items in the survey increases or as the correlation among those items increases, alpha also increases. Note that there is an assumption that items added to a survey to increase alpha will be of similar quality to those of the originals. Addition of weaker items will also increase alpha, but to a lesser extent than what may be desired. (Dilorio, 2005) The consensus is that a favorable reliability score for a test is > 0.70.

Covariance and correlations

The correlation between moral distress and the perception of ethical climate (PEC) was evaluated using the Pearson product-moment correlation coefficient, and was visually demonstrated on a scatterplot. (Figure 4.2, p. 69)

The correlation between moral distress, PEC, and the current intention of the RT to resign his/her clinical position was evaluated using Levene's test for equality of variances and the t-test for equality of means.

The existence of a significant correlation of moral distress and PEC to RTs' history of resigning from a clinical position was determined using ANOVA. Tukey's Honest Significant Difference (HSD) test was used to specifically identify the correlation of moral distress and PEC with the RT's past history for having left a position, having considered doing so, or having never considered leaving a position due to moral distress.

All of these data are reported in Chapter 4.

Chapter 4 – Results

Introduction

This chapter will present and discuss the results of the study.

Description of Data and Statistical Tests

The methods used to recruit survey respondents were described in chapter 3. Because the survey was distributed through web-based professional social networks, a return rate may be estimated but cannot be accurately calculated. There were 245 surveys returned, 207 of which were usable. Consent was implied by the respondent's act of continuing to the survey itself after reading the introductory information, which stated that proceeding to answering survey items would constitute informed consent. However, there was a "Yes/No" choice on the consent page to which 6 respondents answered "No," and then proceeded to also answer survey items. Those data were excluded from analysis. Another 32 surveys were started (i.e., consent was answered "Yes") but no responses were entered.

The initial analysis of data was performed in Excel. The source data from Survey Monkey provided scores for "Frequency" (FR) and for "Level of Disturbance" (LD) on each survey item. The first step in the analysis in Excel was to calculate the moral distress index (FR-LD) by multiplying those two scores for each item in each respondent record. Following that, calculations of basic descriptive data were performed on the survey data, including mean, standard deviation, median, mode, and the number of times each score appeared on each survey item.

From the above descriptive data, the composite mean score for each survey item

was ranked to identify situations most likely to cause moral distress in the study population. The Excel file was loaded into SPSS, where additional statistical tests were performed.

Cronbach's Alpha

SPSS computes reliability only for cases in which all items on the scale have been answered. After elimination of incomplete responses, Cronbach's alpha was calculated with N = 170. There was relatively wide variation around the mean for each item, indicating an absence of either a "ceiling" or a "floor" effect, i.e. a tendency for respondents to choose responses at the extremes of the scale. The fact that such variability exists lends greater reliability to the survey items. Cronbach's alphas for the survey distributed in this project are in Table 4.1 on page 75.

Descriptive Data

Tables 4.2 through 4.5 show the demographic data of survey respondents and characteristics of the health care institutions at which they work. There were 118 females and 74 males among the respondents, the mean age was 38.6 years old and the average number of years respondents had been working in respiratory care was 24.4.

Table 4.2. Demographic data

		Age				
Female	Male	20 – 30	31 – 40	41 – 50	51 – 60	>60
		11 (5.7%)	33 (17.1%)	53 (27.5%)	74 (38.3%)	22 (11.4%)
118 (61.5%)	74 (38.5%)	**Years of Practice**				
		1 – 10	11 – 20	21 – 30	31 – 35	>35
		33 (16.9%)	52 (26.7%)	43 (22.1%)	34 (17.4%)	33 (16.9%)

In this study, there was no relationship ($p = 0.778$) between moral distress and the age of the RT (Figure 4.1). We did not correlate moral distress with the number of years a therapist had been working.

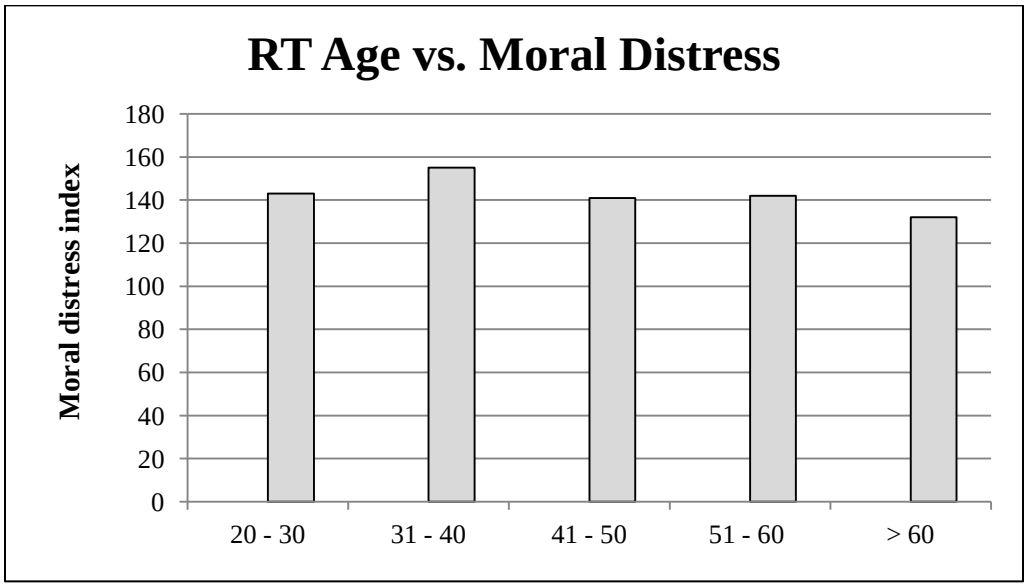

Figure 4.1. RT age vs. moral distress

Most of the respondents had either an associate's or a bachelor's degree (Table 4.3) and held the RRT credential (Table 4.4). The sums of the degrees and credentials in the tables exceed the number of respondents because many survey participants had multiple credentials. The percentages shown are calculated on an N of 194.

Nearly all respondents worked in acute care hospitals of a wide variety of sizes. Most respondents worked for not-for-profit community hospitals, academic medical centers and pediatric specialty hospitals.

Table 4.3. Respondents' education

Educational Level	# Respondents
1 – Year Certificate	7 (3.6%)
Associate's Degree	79 (40.7%)
Bachelor of Arts / Bachelor of Science	80 (41.2%)
Master of Arts / Master of Science	21 (10.8%)
PhD / EdD	4 (2.1%)
Other	5 (2.6%)

Table 4.4. Professional credentials

Educational Level	# Respondents
Certified Respiratory Therapist (CRT)	65 (33.5%)
Registered Respiratory Therapist (RRT)	180 (92.8%)
Adult Critical Care Specialist (ACCS)	7 (3.6%)
Neonatal-Pediatric Specialist (NPS)	59 (30.4%)
Certified Asthma Educator (AEC)	11 (5.7%)
Registered Cardiopulmonary Technologist (RCPT)	13 (6.7%)
Certified Pulmonary Function Technician (CPFT)	19 (9.8%)
Registered Nurse (RN)	3 (1.5%)
Other	9 (4.6%)

Table 4.5. Hospital type and size

Type of hospital	# Respondents	# Hospital beds	# Respondents
Not-for-profit	79 (42.0%)	< 100	19 (10.1%)
For-profit	21 (11.2%)	101 – 200	17 (9.0%)
Government owned	3 (1.6%)	201 – 300	36 (19.1%)
Academic med center	50 (26.6%)	301 – 400	28 (14.9%)
Pediatric specialty	28 (14.9%)	401 – 500	25 (13.3%)
Long term acute care	5 (2.7%)	501 – 600	28 (14.9%)
Rehabilitation	0 (0)	>600	35 (18.6%)

Table 4.6, beginning on page 78, lists all 26 survey items in three columns, sorted by the composite mean score for each one for the frequency, level of disturbance and the moral distress index. The RT-specific moral distress survey items are highlighted.

Comparisons of Moral Distress Index

A significant difference between the mean moral distress index score from MDS-R items alone and that from the RT-specific moral distress survey items was identified in this study. The mean index score on the MDS-R items alone was 5.21; on the RT-specific survey items alone it was 6.45 ($r = .712$, $p < 0.001$). A more meaningful evaluation of the usefulness of the RT-specific survey items comes from comparing the mean moral distress index when they are included in the MDS-R to the mean moral distress index on the MDS-R alone. The index score on the MDS-R with RT-specific items is also significantly higher than with the MDS-R alone, 5.45 and 5.21 respectively ($r = .982$, $p < 0.001$).

Table 4.7. Moral Distress Index

	Mean	N	Std. Dev.	Std. Error Mean
MDS-R only*‡	5.21	170	2.421	.186
MDS-R + RT-specific items*	5.45	170	2.465	.189
RT-specific survey items	6.45	170	3.405	.261

* $r = .982$, $p < 0.001$ ‡ $r = .712$, $p < 0.001$

Moral Distress vs. Intention to Leave a Position

Among the greatest concerns about moral distress in HCWs is that of losing highly skilled practitioners from the health care disciplines due to its effects. The correlation between moral distress and either leaving or intending to leave one's position has been reported consistently. (Corley, Elswick, Gorman, & Clor, 2001; Corley M. C.,

1995; Epstein & Hamric, 2009; Hamric, Borchers, & Epstein, 2012; Pauly, Varcoe, & Storch, 2012)

There was a significantly higher incidence of moral distress (p = 0.027) and a lower PEC (p = 0.05) in RTs who had ever resigned a position because of moral distress than among those who had never done so. For RTs who had considered leaving a position because of moral distress but decided against it, the differences in moral distress index and PEC were not significant compared to the other two groups. The difference was significant only between those who had or had not actually left a position. See Table 4.8.

Table 4.8. Moral distress and intent to leave a clinical position

"Have you left or considered leaving a clinical position because of your moral distress with the way patient care was handled at your institution?"				
	Moral Distress		Perception of Ethical Climate	
	Mean	Std. Deviation	Mean	Std. Deviation
No	128.92*	57.19	52.19†	10.58
Yes, but didn't leave	150.02	67.39	48.51	10.00
Yes, left a position	159.60*	66.63	47.60†	10.91
*p = 0.027 † p = 0.05				
"Are you considering leaving your position now?"				
No	136.81**	62.89	51.05††	10.18
Yes	179.56**	58.82	43.00††	11.45
**p = 0.001 †† p = < 0.001				

In RTs currently considering leaving their jobs because of moral distress, the differences between moral distress and PEC were more dramatic. The mean moral index scores for RTs planning versus not planning a resignation were 179.56 and 138.81 respectively (p = 0.001) and for PEC 43 and 51.05 respectively (p < 0.001). See Figures

4.3 and 4.4 on pages 76 and 77. These data were expected based upon data that has been reported in other disciplines. (Corley, Elswick, Gorman, & Clor, 2001; Corley M. C., 1995; Epstein & Hamric, 2009; Hamric, Borchers, & Epstein, 2012; Pauly, Varcoe, & Storch, 2012)

Correlation with Perception of Workplace Ethical Climate

A negative correlation between moral distress and perception of workplace ethical climate was observed, with r = -0.423, very close to the -0.402 reported by Hamric et al in 2012. (Hamric, Borchers, & Epstein, 2012) Chart 4.1 shows a scatterplot of moral distress versus PEC that demonstrates the weak but significant correlation between these two measures for the RTs who responded to this survey. As the HCW's perception of the ethical climate becomes less favorable, the individual becomes more likely to experience moral distress.

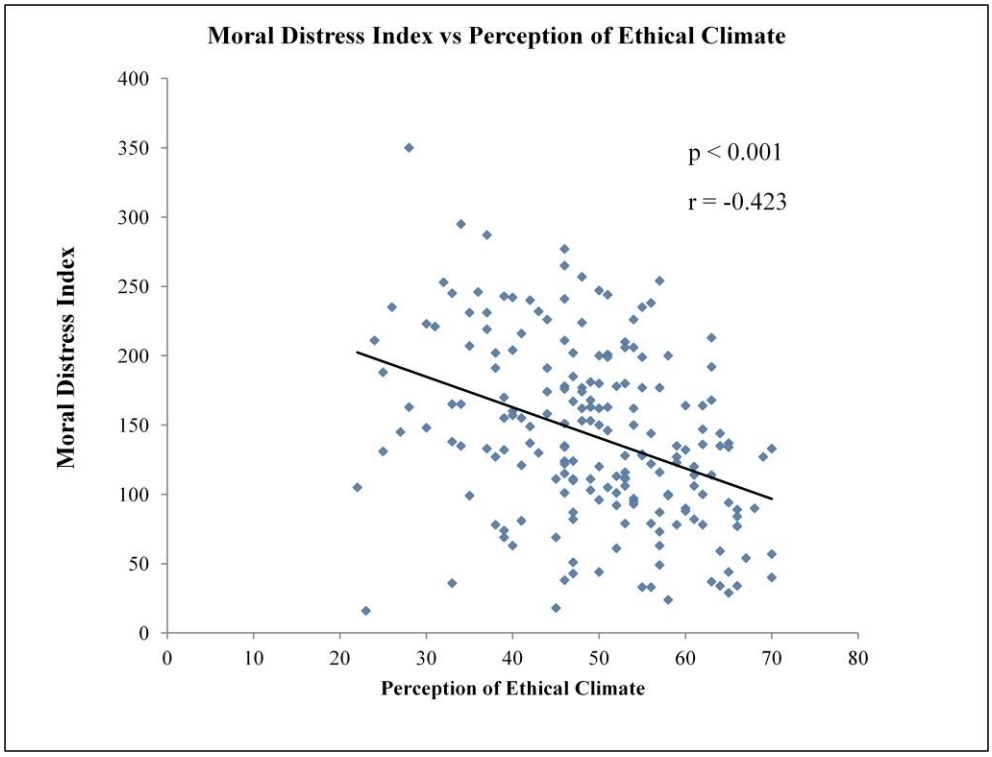

Figure 4.2. Scatterplot of moral distress vs. PEC scores

Answer to the research questions

1. *Do RTs experience moral distress with a comparable frequency and intensity to that reported in RNs by the author of the MDS-R?*

The items ranked most highly in this study for the moral distress index were the same as those reported for RNs by Hamric et al, (Hamric, Borchers, & Epstein 2012) although in different order, and 2 of the 3 most highly ranked items matched those from MDs in Hamric's study. (Table 4.9, page 84) The most morally distressing situation for RTs, ranked #3 by RNs and #6 by MDs, was "Continue to participate in care of a hopelessly ill person who is being sustained on a ventilator when no one will make a decision to withdraw support." The most distressful situation for RNs, ranked #2 by RTs and #3 by MDs, was "Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient." The most morally distressing situation Hamric reported for MDs, ranked #3 by RTs in this study and #2 in Hamric's, was "Initiate extensive lifesaving actions when I think they only prolong death." (Hamric, Borchers, & Epstein, 2012)

There was a great deal of similarity in the frequency, level of disturbance and the types of situations causing moral distress in RNs and in MDs as reported by Hamric and that observed in this study.

2. *Is there a significant difference in the level of moral distress measured in RTs using the MDS-R alone and using the MDS-R with RT-specific moral distress survey items?*

Three significantly different mean moral distress index scores were reported in the study population: with the MDS-R alone the score was 5.21; with the MDS-R + RT-specific moral distress survey items the score was 5.45; and with RT-specific items alone, the score was 6.45 (Table 4.7). The correlation between the MDS-R alone and the MDS-

R with RT-specific items was .982, and between the MDS-R and the RT-specific items alone was .712. The level of significance for both comparisons was < 0.001. The significant increase in moral distress scores with the use of RT-specific survey items supports the hypothesis that assessment of moral distress in RTs may be optimized by augmenting the MDS-R with a limited number of discipline specific survey items.

Table 4.6 (page 78) shows all 26 survey items ranked by the composite mean scores for moral distress index, frequency and level of disturbance. Eight items on the MDS-R had a composite mean frequency score < 1.5 on this survey, indicating that these are situations that RTs encounter relatively infrequently. Although that fact does not preclude any of those situations contributing to an individual RT's moral distress, the likelihood of its doing so is lower than that of those situations the RT faces more regularly. To survey RTs about these infrequent occurrences and accept as valid the lower moral distress scores they produce risks underestimating the problem in this population. The data from this study show that by supplementing a generic moral distress survey with discipline specific survey items, the frequency and the intensity of moral distress measured in RTs increased.

The RT-specific survey items appeared frequently in the top ranked situations experienced by RTs. Two items, the concern about compromising patient care when being assigned to multiple units and the experience of finding life support equipment adjusted without notice, are 6^{th} and 7^{th} in the rankings of the moral distress index. Those two items rank highly on the measure for level of disturbance, but relatively low for frequency. Another RT-specific item, regarding inability to negotiate an order change from a provider "who dismisses my judgment" is also ranked highly for level of

disturbance. One of the more frequently occurring situations, executing an order to withdraw life support from a patient, is ranked last for RTs' level of disturbance, placing it only in the mid-range as a trigger of moral distress in RTs. That the RT-specific items appear with relative frequency in the higher rankings of situations causing moral distress may be further evidence that they have value as part of the assessment of moral distress in this group.

Adding RT-specific moral distress survey items to the MDS-R increased the measured composite moral distress index by 4.6%, from 5.21 to 5.45 ($p < 0.001$). The research question is answered in the affirmative.

3. *Are the supplemental survey items developed for this study reliable and valid?*

Reliability

As with the comparisons of moral distress scores, the Cronbach's alpha was calculated on three data sets: with MDS-R responses only, with MDS-R and RT-specific moral distress items, and with only RT-specific moral distress survey items.
There was relatively wide variation around the mean for each item, indicating an absence of either a "ceiling" or a "floor" effect, i.e. a tendency for respondents to choose responses at the extremes of the scale. The fact that such variability exists lends greater reliability to the survey items.

All items indicate a high level of internal consistency. For the RT-specific items alone, the alphas are below the standard lower limit of .70, but they approximate that limit, and the very low number of items in that group (5) may account for the low alphas. The mean inter-item correlations of these items are as good as or better than those of the other 2 data sets. It is probable for these 2 reasons that the internal consistency of the

RT-specific items is acceptable. The alphas for the MDS-R and for the MDS-R with RT-specific moral distress survey items are high, indicating a high degree of internal consistency.

Validity

Tests for validity are less clear-cut than those for internal consistency. Assessment of the validity of a survey item entails evaluation of the item against other known similar measures. For many of the RT-specific survey items, those known measures do not currently exist, so establishing validity will require further study.

Two studies (Grandhige, Leipold, Binney, Timmer, & O'Neill, 2014; Willms & Brewer, 2005) reported data suitable for comparison to 2 of the RT-specific moral distress survey items, specifically #2, "Be excluded from patient-family meetings at which end of life care is discussed"; and #4, "Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support."

In the study by Grandhige et al (Grandhige, et al. 2014) about the attitudes of RTs regarding palliative care and terminal extubation, 72% of RTs "felt comfortable" performing terminal extubations. Nearly half (47.5%) of the RTs said they would like to be included in the meetings at which withdrawal of life support was discussed with the patient and family, but only 6.6% reported that they were involved in those discussions. Willms (Willms and Brewer 2005) reported that 95% of the RTs in his sample had performed terminal extubations, 73% of them thought RTs should attend family meetings where terminal extubation was discussed, and 5.4% did so "always" or "most of the time". Another 22% attended such meetings "some of the time". The data from our survey showed that RTs were frequently excluded from family meetings at which end of

life care was discussed, although not as frequently as in the 2 comparison studies. In response to this item, 48/169 (28%) RTs were never or rarely excluded (i.e., always or usually included) from such family meetings; and 98/169 (58%) were always or usually excluded (i.e., never or rarely included). Because each of these surveys (Grandhige, et al. 2014; Willms and Brewer 2005) was conducted with a convenience sample and since the wording on each one is slightly different, there is a degree of judgment involved in comparing the results. Nonetheless, there appear to be similarities suggesting that RT-specific survey items #2 and #4 have construct validity. Table 4.10 (page 86) summarizes the comparisons among these three studies.

Using the RT's "Level of Disturbance" from the moral distress survey as a proxy for a stated wish to be a part of end of life discussions, a relatively closer relationship between the Grandhige study and this one is observed while greater discrepancy is observed from Willms' data. The number of RTs who responded that their level of disturbance at being excluded from end of life meetings was 3 – 4 (to a "great extent") was 83 (48%), very close to the number of RTs in Grandhige's study who said they wanted to attend family meetings. If the 32 others whose level of distress was in the mid-range (2) are assumed to indicate some interest in attending these discussions as well, then 67% of this survey's RTs were express that wish. The upper percentage of 67% would be similar to that reported by Willms.

In answer to research question 3, the data show that the RT-specific moral distress survey items are reliable based upon Cronbach's alpha. A limited assessment of the validity of items number 2 and 4 compared to two other studies of RT attitudes toward end of life care suggests that those two items have acceptable construct validity.

Assessment of the other three RT-specific items will require further study.

Summary of results

The motivation for this study was that there is very little research published about moral distress in RTs, bedside caregivers whose daily work places them in critical care settings and in end of life care situations frequently. Before conducting such research, a determination of the optimal evaluation tools for measurement of moral distress in RTs was the first step. Researchers from nursing, where most of the moral distress research has been conducted, developed survey instruments with the intention of facilitating comparison across health care disciplines, but have also acknowledged a need for discipline-specific moral distress evaluation tools. (Hamric, Borchers, & Epstein, 2012; McCarthy & Deady, 2008; Pauly, Varcoe, & Storch, 2012)

Five RT-specific moral distress survey items were developed and studied in this project to assess their reliability, validity, and significance as an augmentation to the MDS-R, an existing moral distress survey. The results of that study answered research questions 1 and 2 affirmatively and answered question #3 in part: the RT-specific items are reliable based upon Cronbach's alpha, and 2 of the 5 appear to demonstrate construct validity.

Table 4.1. Reliability statistics

		Cronbach's alpha	Mean inter-item correlation	N of items
MDS-R only	Frequency	.868	.245	21
	Level of disturbance	.897	.298	21
	Moral distress index	.879	.253	21
Study items only	Frequency	.650	.275	5
	Level of disturbance	.610	.246	5
	Moral distress index	.691	.311	5
Combined survey	Frequency	.895	.245	26
	Level of disturbance	.907	.278	26
	Moral distress index	.900	.254	26
	Ethical climate	0.897	.387	14

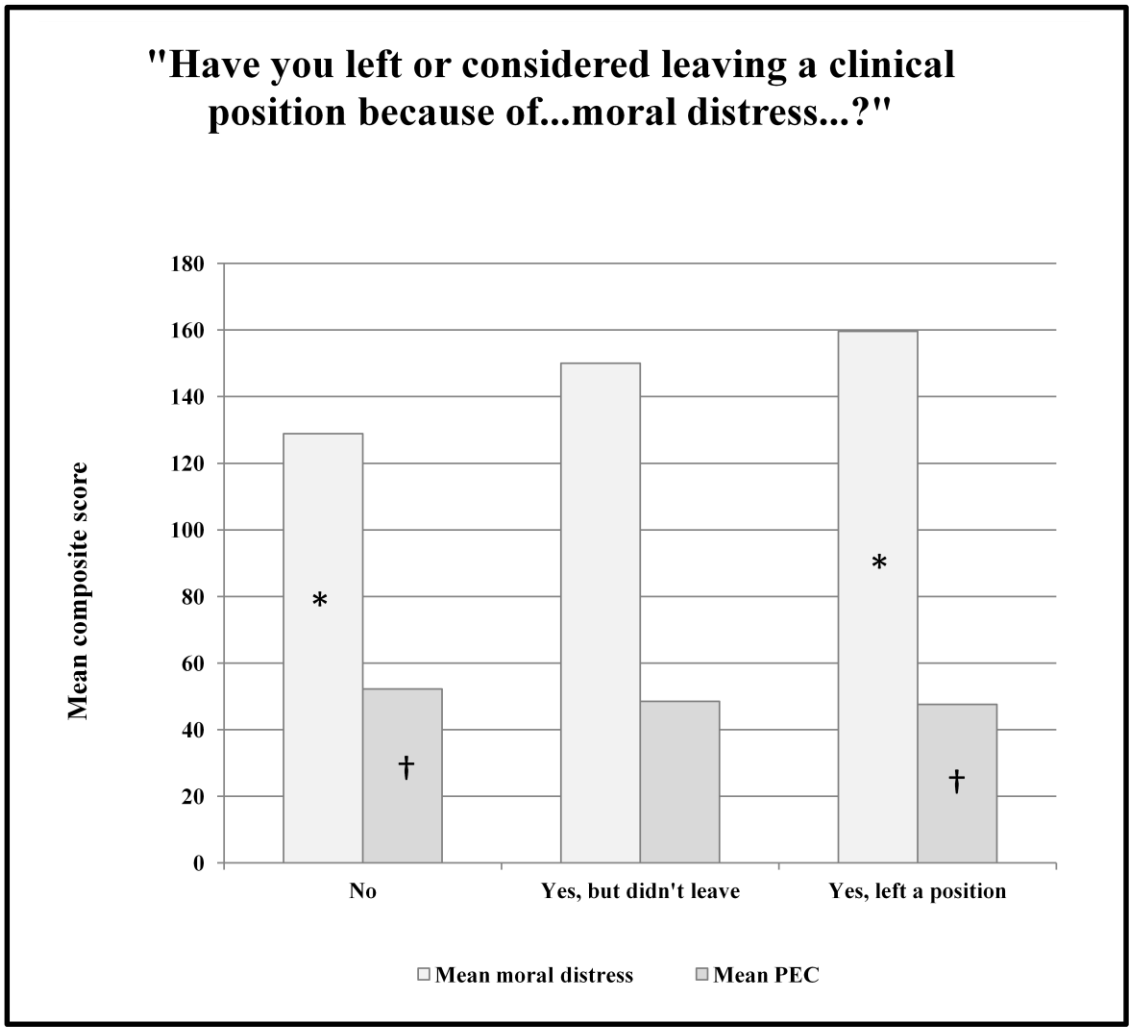

Figure 4.3. Moral distress, ethical climate and intent or actual decision to resign
*p = 0.027; †p = 0.05

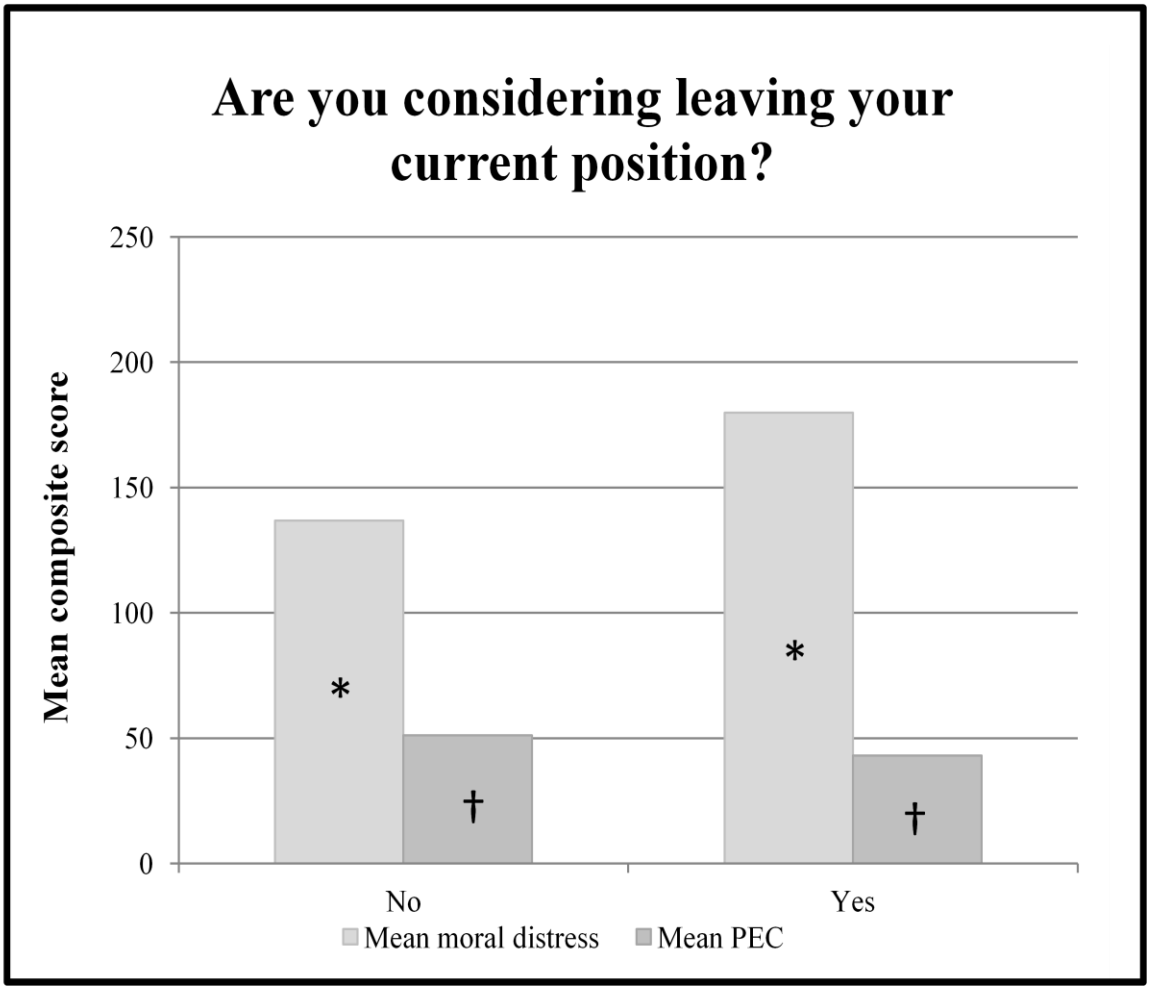

Figure 4.4. Moral distress, PEC vs. intention to leave
*p < 0.001; †p < 0.001

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
1	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.	8.89	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient	2.93	Discover that a caregiver from another discipline has made an adjustment to life sustaining equipment for which I am responsible.	3.34
2	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient	8.88	Initiate extensive life-saving actions when I think they only prolong death	2.81	Work with levels of health care provider staffing that I consider unsafe.	3.31
3	Initiate extensive life-saving actions when I think they only prolong death	8.60	Carry out the physician's orders for what I consider to be unnecessary tests and treatments	2.81	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.	3.15
4	Carry out the physician's orders for what I consider to be unnecessary tests and treatments	8.46	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.	2.76	Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.	3.15

[2] Survey items from MDS-R (Hamric 2012), used by permission. Highlighted survey items are RT-specific (study) items.

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
5	Work with levels of health care provider staffing that I consider unsafe.	7.88	Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.	2.62	Assist a physician who in my opinion is providing incompetent care.	3.12
6	Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.	7.78	Be excluded from patient-family meetings at which end of life care is discussed.	2.54	Witness diminished patient care quality due to poor team communication.	3.12
7	Discover that a caregiver from another discipline has made an adjustment to life sustaining equipment for which I am responsible.	7.28	Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.	2.47	Be unsuccessful at negotiating an order change from a provider who dismisses my judgment about the patient's best interest.	3.09
8	Witness diminished patient care quality due to poor team communication.	6.83	Work with levels of health care provider staffing that I consider unsafe.	2.38	Initiate extensive life-saving actions when I think they only prolong death	3.06
9	Witness HC Providers giving 'false hope' to patient or family	6.77	Witness HC Providers giving 'false hope' to patient or family	2.22	Witness HC Providers giving 'false hope' to patient or family	3.05

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
10	Watch patient care suffer because of a lack of provider continuity.	6.48	Watch patient care suffer because of a lack of provider continuity.	2.21	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient	3.03
11	Be unsuccessful at negotiating an order change from a provider who dismisses my judgment about the patient's best interest.	6.43	Witness diminished patient care quality due to poor team communication.	2.19	Carry out the physician's orders for what I consider to be unnecessary tests and treatments	3.01
12	Work with healthcare providers who are not as competent as the patient care requires	5.86	Discover that a caregiver from another discipline has made an adjustment to life sustaining equipment for which I am responsible.	2.18	Work with healthcare providers who are not as competent as the patient care requires	2.99
13	Be excluded from patient-family meetings at which end of life care is discussed.	5.54	Be unsuccessful at negotiating an order change from a provider who dismisses my judgment about the patient's best interest.	2.08	Watch patient care suffer because of a lack of provider continuity.	2.93
14	Witness medical students perform painful procedures on patients solely to increase their skill.	5.21	Work with healthcare providers who are not as competent as the patient care requires	1.96	Witness medical students perform painful procedures on patients solely to increase their skill.	2.74

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
15	Assist a physician who in my opinion is providing incompetent care.	5.02	Witness medical students perform painful procedures on patients solely to increase their skill.	1.66	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.	2.68
16	Provide less than optimal care due to pressures from administrators or insurers to reduce costs.	4.25	Provide less than optimal care due to pressures from administrators or insurers to reduce costs.	1.66	Provide less than optimal care due to pressures from administrators or insurers to reduce costs.	2.56
17	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.	4.15	Assist a physician who in my opinion is providing incompetent care.	1.61	Avoid taking action when I learn that a colleague has made a medical error and does not report it.	2.45
18	Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.	3.56	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.	1.55	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.	2.32

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
19	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.	2.96	Follow the physician's request not to discuss the patient's prognosis with the patient or family.	1.31	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.	2.36
20	Follow the family's request not to discuss death with a dying patient who asks about dying.	2.31	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.	1.10	Ignore situations in which patients have not been given adequate information to insure informed consent.	2.18
21	Follow the physician's request not to discuss the patient's prognosis with the patient or family.	2.31	Follow the family's request not to discuss death with a dying patient who asks about dying.	1.10	Be excluded from patient-family meetings at which end of life care is discussed.	2.18
22	Ignore situations in which patients have not been given adequate information to insure informed consent.	2.04	Witness increasing doses of sedative/opiates given to an unconscious patient that I believe could hasten the patient's death.	0.93	Follow the family's request not to discuss death with a dying patient who asks about dying.	1.97
23	Witness increasing doses of sedative/opiates given to an unconscious patient that I believe could hasten the patient's death.	1.91	Ignore situations in which patients have not been given adequate information to insure informed consent.	0.93	Be required to care for patient I don't feel qualified to care for.	1.87

Table 4.6. Moral distress score rankings[2]

Rank	*Moral distress index*	*Mean*	*Frequency*	*Mean*	*Level of disturbance*	*Mean*
24	Avoid taking action when I learn that a colleague has made a medical error and does not report it.	1.89	Avoid taking action when I learn that a colleague has made a medical error and does not report it.	0.77	Witness increasing doses of sedative/opiates given to an unconscious patient that I believe could hasten the patient's death.	1.82
25	Be required to care for patient I don't feel qualified to care for.	1.37	Be required to care for patient I don't feel qualified to care for.	0.73	Follow the physician's request not to discuss the patient's prognosis with the patient or family.	1.76
26	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.	1.04	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.	0.45	Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.	1.36

Table 4.9. RN, MD, and RT moral distress index comparisons

Situation	Nurse*		Physician*		Resp Ther†	
	Mean	**Rank**	**Mean**	**Rank**	**Mean**	**Rank**
Follow family's wishes to continue life support though I believe it isn't in patient's best interest	9.64	1	5.75	3	8.88	2
Initiate extensive lifesaving actions when I think they only prolong death	9.39	2	5.86	1	8.60	3
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	8.87	3	4.78	6	8.89	1
Witness healthcare providers giving 'false hope' to a patient or family	7.90	4	5.47	5	6.77	9
Witness diminished patient care quality due to poor team communication	6.45	5	5.81	2	6.83	8
Watch patient care suffer because of lack of provider continuity	4.69	7	5.56	4	6.48	10

* (Hamric, Borchers and Epstein 2012) † Current study data

Table 4.10. RT attitudes about terminal extubation: comparison of three studies

Situation	Willms (2005)	Grandhige (2014)	Timmer (2014)
Perform terminal extubation	Yes: 95%	Comfortable: 72.1%	Level of disturbance 0-1: 81%
Should RT be included in discussion with patients/family about terminal extubation?	RTs should attend: 73%	Would like to attend: 47.5%	48 – 67%
How often is RT included in meetings with patient/family discussing end of life care / terminal extubation?	5.4%	6.6%	Never/rarely excluded: 28%

Chapter Five – Conclusions and Next Steps

Introduction

The focus of this chapter will be to discuss the conclusions that may be drawn from the data as it relates to the research questions stated for this project. The hypotheses stated at the beginning of the project were supported.

Research question #1: Do RTs experience moral distress with a comparable frequency and intensity to that reported in RNs by the author of the MDS-R?

The data answered that question in the affirmative as shown in Table 4.9 on page 85. Comparison of this study data to that of Hamric et al (A. B. Hamric 2012) and to another recent study of muliple HCWs showed similarity between the top two (Allen, et al. 2013) to three causes (A. B. Hamric 2012) of moral distress in RTs and those in RNs and MDs.

There was similarity in the sources of moral distress ranked highest by moral distress index score on this survey and that reported by other nursing researchers as well (Cavaliere, et al. 2010; Gutierrez 2005). In Table 5.1 (p. 95), the 6 situations ranked as the most common sources of moral distress in this study were compared to those reported in 3 nursing studies. Hamric's study used the MDS-R and Cavaliere's used the Moral Distress Scale Neonatal-Pediatric (MDSNPV), developed by Mary Corley. Each of these used the same scoring rubric, i.e. one Likert scale each for frequency of occurrence and for the level of disturbance the respondent experienced in each situation. Gutierrez developed an interview method consisting of open-ended questions to nurses about their experiences of moral distress, which were then scored according to substantive and theoretical criteria the researcher established before initiating the project.

These 3 data samples demonstrated one of the challenges of comparing data on moral distress, which is that there is no single consistent method by which to measure the problem across populations. Hamric's and Cavaliere's populations responded to similar enough situations to make comparison feasible, but inclusion of Gutierrez' data required interpretation of the terms "overly aggressive treatment", "inappropriate use of healthcare resources", etc. The Gutierrez data was included here to demonstrate the difficulty of making clear comparisons about moral distress without the use of a common evaluation instrument. It appeared that "overly aggressive treatment" was a close match to the first 3 situations RTs ranked as common causes of moral distress, but because the definition and the method of determining it were completely different, it was not a fully reliable conclusion to make. The same was true for the other causes of moral distress Gutierrez lists.

This observation highlighted the importance of establishing a relationship with and commitment to a common evaluation instrument across disciplines for assessment of moral distress and augmenting the basic survey as needed with discipline specific situations for the various health care professions. (A. B. Hamric 2012; Pauly, Varcoe and Storch 2012)

The frequency and intensity of moral distress reported in this survey was comparable to that reported in recent reports from nursing studies. Because those studies were from disparate populations at diverse times and sometimes with different survey instruments, it is difficult to make direct comparisons of the current study data to any one report. The data was quite similar to that of Hamric et al (Hamric, Borchers and Epstein 2012) and Corley (Corley, et al. 2001), where the survey instruments used were the

original MDS (Corley) and the MDS-R (Hamric et al). The three most morally distressing situations were the same (but in different order) in the Hamric study and the current RT study, and raw moral distress index scores were similar in those two studies. Corley's study, conducted over a decade before either Hamric's or this one, included a larger number of survey items, scored with a single Likert scale of 1 – 7. The three situations found by the other two studies to be the most morally distressing were also ranked among the highest in this earlier study although they were not among the top five situations.

Table 5.2. Comparisons of moral distress index: Hamric & Corley vs study data

Item	RT (Timmer 2013)	RN (Hamric 2012)	RN (Corley 2001)
Continue to participate in care for a …person … on a ventilator, when no one will [decide] to withdraw support	8.89	8.87	5.03
Follow the family's wishes…even though I [think] it is not in the best interest of the patient	8.88	9.64	5.00
Initiate extensive life-saving actions when I think they only prolong death	8.60	9.39	5.28

Table 4.6 on pp. 78 – 83 gives further information on the study items in the context of the MDS-R, supporting their value for evaluating moral distress in RTs. Four of the 5 RT-specific survey items were ranked at numbers 6, 7, 11, and 13 out of 26 on moral distress index score, demonstrating that the majority (80%) of the RT-specific situations were ranked in the top 2 quartiles of situations causing moral distress in the study population. Three of the 5 RT-specific situations were among the 7 occurring most frequently in the study population and all five were within the top 13 occurring most frequently. Three other study situations were among the top 7 situations rated most

disturbing in the study population. The least disturbing situation, executing an order to decelerate care or discontinue life support, was also among the most frequent, placing it in the lower 50% of the index rankings. None of these situations alone was the greatest source of moral distress in the study group, but at least 4 of them were significant contributors to moral distress.

The answer to research question 1 is "Yes."

Research question #2: Is there a significant difference in the level of moral distress measured in RTs using the MDS-R alone and using the MDS-R with RT-specific moral distress survey items?

All 26 survey items were ranked by the composite mean scores for moral distress index, frequency and level of disturbance in Table 4.6, page 79. Five items from the MDS-R had a composite mean frequency score < 1 on this survey, indicating that these were situations that RTs encountered relatively infrequently. Although that fact did not preclude any of those situations contributing to an individual RT's moral distress, the likelihood of its doing so was lower than in situations the RT faced more regularly. Supplementing the standard MDS-R with RT-specific moral distress survey items to counterbalance those situations that RTs encountered infrequently increased the composite mean moral distress index score measured in the study population.

Three significantly different mean moral distress index scores were reported in the study population: with the MDS-R alone (5.21); with the MDS-R + RT-specific moral distress survey items (5.45); and with RT-specific items alone (6.45) (Table 4.7, p 67). The correlation between the MDS-R alone and the MDS-R with RT-specific items was .982, and between the MDS-R and the RT-specific items alone was .712. The level of significance for both comparisons was < 0.001. The fact that moral distress scores

were significantly increased with the use of the RT-specific items answers research question #2 in the affirmative. Using RT-specific moral distress survey items made a significant difference in the measurement of moral distress in the study population.

The answer to research question #2 is "Yes."

Research question #3: Are the RT-specific moral distress survey items developed for this study reliable and valid?

Reliability

The reliability of the RT-specific moral distress survey items was evaluated with Cronbach's alpha. The alpha for the MDS-R and for the MDS-R + RT-specific items ranged from .868 - .907. All alphas are shown in Table 4.1 on page 76. They are all quite high, indicating that the internal consistency between the items is high. Inter-item correlations were also fair, between .245 - .311.

Validity

Determining the validity of survey items is a separate and less straightforward matter. A test cannot be deemed valid unless it is reliable, but the fact that it is reliable does not necessarily make it valid. Assessment of the validity of these test items requires a determination of their success at measuring the construct they are intended to measure by comparing the results to others measuring the same constructs or by performing a "test-retest" scenario. (Dilorio 2005)

Comparisons of data from Grandhige (Grandhige, et al. 2014) and Willms (Willms and Brewer 2005) to this study data were similar enough to suggest that RT-specific study items #2 and #4, both of which concern end of life care or termination of life support, were valid. Validity testing of the other three RT-specific items was not feasible with currently available data, and the test-retest procedure was not performed.

Research question 3 was answered in part. The RT-specific survey items showed reliability based upon Cronbach's alpha. Items #2 and #4 demonstrated construct validity in comparison with 2 other recent studies. Validity testing on the 3 other items remains to be performed.

Other data

Moral Distress and Perception of Workplace Ethical Climate

A weak but significant negative correlation ($r = -0.423$) between moral distress and respondents' PEC was observed in this study. This relationship was expected, since the same observation has been reported in other disciplines. Among the frequently mentioned contributors to moral distress in HCWs are feelings of belittlement, devaluation, and being excluded from the "interdisciplinary" team, all of which are key factors in the perceptions HCWs form of the ethical climate of the workplace as well. (Ulrich, et al. 2007) HCWs who "feel devalued and unheard" experience a threat to their sense of "wholeness", self-worth, and moral integrity. (Epstein and Delgado 2010) When the HCW feels that the workplace fails as a source of moral and ethical support to the daily stresses posed by clinical care, increased moral distress is a natural outcome.

Moral Distress and the Intent to Leave a Clinical Position

The data from this study echoed the results of others who have reported a strong positive correlation between the intent of a HCW to resign from a clinical job or even from the health care field and the HCW's degree of moral distress. There was a significantly higher moral distress index ($p = 0.027$) and lower perception of workplace ethical climate ($p = 0.05$) in RTs who had resigned a position at some time because of moral distress than in those who had never considered doing so. Among RTs who had

considered leaving a position because of moral distress but had not actually done so, there was no significant difference in moral distress index or PEC compared to their peers who had or had not resigned a position due to moral distress.

The difference in moral distress was more dramatic in RTs who were currently considering leaving a clinical position compared to those who were not making such plans. In those groups, moral distress was significantly higher ($p = 0.001$) and PEC significantly lower ($p < 0.001$) in RTs actively considering resignations than in those not thinking of leaving their jobs.

Conclusion

This was a pilot study of five RT-specific moral distress survey items, designed to address a potential gap in the existing methods for assessment of moral distress. The long term goal for performing this project was to facilitate further meaningful research into the issue of moral distress in RTs and to collaborate with other researchers. It is hoped that using an instrument that is in common across disciplines will make such collaboration feasible and fruitful and that incorporating discipline-specific survey items into that instrument will optimize measurement of moral distress in each health care discipline.

Recommendations for future research

1. Repeat testing should be conducted to confirm these results.
2. Analyze the study data for correlations of moral distress and PEC with demographic factors: age, education, professional credentials, number of years as an RT, and gender.
3. Conduct further validation studies of the five RT-specific moral distress survey items found to have acceptable reliability in this study, especially numbers 22, 24, and 26.

4. Encourage other non-nursing health care disciplines (e.g. pharmacy, social work, the rehabilitation therapies, nutritionists) to analyze the unique circumstances that cause moral distress in their professions and to develop discipline-specific moral distress survey items to assess for those triggers.

5. Develop programs to educate RTs on end of life (EOL) care and issues surrounding termination of life-sustaining technology, with particular emphasis on the communication skills needed to interact with families and co-workers in those situations.

6. Develop education programs for physicians, nurses, and other caregivers involved in end of life planning to communicate the strategic role of the RT in EOL care and the importance of including RTs in team planning for EOL care.

7. Share data with other moral distress researchers and explore opportunities to collaborate and expand knowledge on this topic.

Table 5.1. Moral distress sources – comparison to RN studies

Cavaliere, et al. 2010	Hamric, Borchers and Epstein 2012	Gutierrez 2005	Timmer 2013
Follow the family's wishes to continue life support, even though it is not in the best interest of the child.	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient.	Overly aggressive treatment	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.
Participate in care of ventilator-dependent child when no one will decide to stop	Initiate extensive life-saving actions when I think they only prolong death.	Inappropriate use of healthcare resources	Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient.
Initiate extensive life-saving actions when I think it only prolongs dying	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.	Physician giving incomplete/inaccurate information to a patient and/or family	Initiate extensive life-saving actions when I think they only prolong death.
Work with physicians who are not as competent as the patient care requires	Witness caregivers giving "false hope" to a patient or family.	Patient wishes disregarded by physician	Carry out physician's orders for what I consider to be unnecessary tests & treatments.
Work with levels of nurse staffing that I consider unsafe	Witness diminished patient care quality due to poor team communication.	Disparate patient treatment goals among family members	Work with levels of health care provider staffing that I consider unsafe
Carry out physician's orders for unnecessary tests & treatments for a terminally ill child (Cavaliere, et al. 2010)	Watch patient care suffer because of a lack of provider continuity (Hamric, Borchers and Epstein 2012)	Disparate patient treatment goals between physician and family (Gutierrez 2005)	Compromise the quality of care when being assigned to multiple units prevents me from meeting my patients' needs

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Appendix A

Other Healthcare Provider (ADULT)

Moral distress occurs when professionals cannot carry out what they believe to be ethically appropriate actions because of internal or external constraints. The following situations 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 experience each item described and how disturbing the experience is 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 disturbed 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 Disturbance*.

	Frequency					Level of Disturbance				
	Never				Very frequently	None				Great extent
	0	1	2	3	4	0	1	2	3	4
1. Provide less than optimal care due to pressures from administrators or insurers to reduce costs.										
2. Witness healthcare providers giving "false hope" to a patient or family.										
3. Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient.										
4. Initiate extensive life-saving actions when I think they only prolong death.										
5. Follow the family's request not to discuss death with a dying patient who asks about dying.										
6. Carry out the physician's orders for what I consider to be unnecessary tests and treatments.										
7. 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.										
8. Avoid taking action when I learn that a colleague has made a medical error and does not report it.										
9. Assist a physician who in my opinion is providing incompetent care.										
10. Be required to care for patients I don't feel qualified to care for.										

11. Witness medical students perform painful procedures on patients solely to increase their skill.										
12. 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.										
13. Follow the physician's request not to discuss the patient's prognosis with the patient or family.										
14. Witness increasing doses of sedatives/opiates given to an unconscious patient that I believe could hasten the patient's death.										

	Frequency					Level of Disturbance				
	Never				Very frequently	None				Great extent
	0	1	2	3	4	0	1	2	3	4
15. 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.										
16. 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.										
17. Work with healthcare providers who are not as competent as the patient care requires.										
18. Witness diminished patient care quality due to poor team communication.										
19. Ignore situations in which patients have not been given adequate information to insure informed consent.										
20. Watch patient care suffer because of a lack of provider continuity.										
21. Work with levels of health care provider staffing that I consider unsafe.										
22. Compromise quality of care when being assigned to multiple units prevents me from meeting my patients' needs.										

23. Be excluded from patient-family meetings at which end of life care is discussed.										
24. Discover that a caregiver from another discipline has made an adjustment to life sustaining equipment for which I am responsible.										
25. Execute an order for deceleration of care or extubation after the family and team decides to discontinue life support.										
26. Be unsuccessful at negotiating an order change from a provider who dismisses my judgment about the patient's best interest.										
If there are other situations in which you have felt moral distress, please write them and score them here:										

Have you ever left or considered quitting a clinical position because of your moral distress with the way patient care was handled at your institution?

No, I've never considered quitting or left a position _____ Yes, I considered quitting but did not leave _____

Yes, I left a position _____ Are you considering leaving your position now? Yes No

Adult Health Care Worker Questionnaire

Part II

The following statements ask about your current work situation. As you read and respond to each statement, think of some difficult patient care issues you have faced. It is important that you respond in terms of how it really is at your workplace, not how you would prefer it to be. There are no right or wrong answers, so please respond honestly. Please check the column that most closely matches your response to the following statements:

	Frequency				
	Almost Never true				Almost Always true
	1	2	3	4	5
1. My peers listen to my concerns about patient care.					
2. When I'm unable to decide what's right or wrong in a patient care situation, my manager helps me.					
3. Hospital policies help me with difficult patient care issues/problems.					
4. Nurses, respiratory therapists, and physicians trust one another.					
5. A clear sense of the hospital's mission is shared with clinical staff.					
6. The feelings and values of all parties involved in a patient care issue/problem are taken into account when choosing a course of action.					
7. My manager is someone I can trust.					
8. Conflict is openly dealt with, not avoided.					
9. Nurses, respiratory therapists, and physicians here respect each others' opinions, even when they disagree about what is best for patients.					
10. I work with competent colleagues.					
11. The patient's wishes are respected.					

	Frequency				
	Almost Never true				Almost Always true
	1	2	3	4	5
12. When my peers are unable to decide what's right or wrong in a particular patient care situation, I have observed that my manager helps them.					
13. There is a sense of questioning, learning, and seeking creative responses to patient care problems.					
14. I am able to practice respiratory care in my department as I believe it should be practiced.					

This concludes the moral distress survey. Please answer just a few more questions, about yourself and where you work.

What is your age?

- 20 - 30 years old
- 31 - 40
- 41 - 50
- 51 - 60
- > 60 years old

Please indicate your highest level of education.

- 1 - year certificate
- AA / AS
- BA / BS
- MA / MS
- PhD / EdD

Other (please specify)

Please indicate your professional credentials (check all that apply)

- [ ] CRT
- [ ] RRT
- [ ] RN
- [ ] CPFT
- [ ] RPFT
- [ ] AE-C
- [ ] NPS
- [ ] ACCS

Other (please specify)

Please indicate your gender

- ○ Female
- ○ Male

For how many years have you worked in Respiratory Care?

- ○ For how many years have you worked in Respiratory Care? 1 - 5
- ○ 6 - 10
- ○ 11 - 15
- ○ 16 - 20
- ○ 21 - 25
- ○ 26 - 30
- ○ 31 - 35
- ○ > 35

Which of the following most closely describes your place of employment?

Which of the following most closely describes your place of employment? Non-profit community general hospital

For-profit community general hospital

Government owned general hospital

Academic medical center

Pediatric specialty hospital

Long term acute care hospital

Rehabilitation center

Home care

Other (please specify)

If you work in a hospital, for how many beds is it licensed?

If you work in a hospital, for how many beds is it licensed? < = 100

101 - 200

201 - 300

301 - 400

401 - 500

501 - 600

> = 600

THANK YOU!

The gifts of your time and your experiences are greatly appreciated!

Appendix B

EMORY UNIVERSITY | Institutional Review Board

July 26, 2013

Marjorie Timmer
Principal Investigator
Graduate A&S

RE: **Exemption of Human Subjects Research**
IRB00063926
Assessment of Moral Distress and Perception of Workplace Ethical Climate in Respiratory Therapists

Dear Principal Investigator:

Thank you for submitting an application to the Emory IRB for the above-referenced project. **This study was re-evaluated and given the following revised determination**. Based on the information you have provided, we have determined on July 24, 2013 that although it is human subjects research, it is exempt from further IRB review and approval.

This determination is good indefinitely unless substantive revisions to the study design (e.g., population or type of data to be obtained) occur which alter our analysis. Please consult the Emory IRB for clarification in case of such a change. Exempt projects do not require continuing renewal applications.

This project meets the criteria for exemption under 45 CFR 46.101(b)(2). Specifically, you will be requesting that the participants complete a online survey. The only identifier is that which SurveyMonkey may have but it won't be shared with the investigator (IP address). The written survey will have zero identifiers held by anyone. The questions do not put the subjects at risk legally, financially or in any personal way.

Please note that the Belmont Report principles apply to this research: respect for persons, beneficence, and justice. You should use the informed consent materials reviewed by the IRB unless a waiver of consent was granted. Similarly, if HIPAA applies to this project, you should use the HIPAA patient authorization and revocation materials reviewed by the IRB unless a waiver was granted. CITI certification is required of all personnel conducting this research.

Unanticipated problems involving risk to subjects or others or violations of the HIPAA Privacy Rule must be reported promptly to the Emory IRB and the sponsoring agency (if any).

In future correspondence about this matter, please refer to the study ID shown above. Thank you.

Sincerely,

Rebecca Rousselle, CIP
Interim Director

This letter has been digitally signed

CC:	Cotsonis	George	Biostatistics
	Kinlaw	Kathleen	Ethics Center

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An equal opportunity, affirmative action university

Appendix C

EMORY UNIVERSITY | Institutional Review Board

May 15, 2013

Marjorie Timmer
Graduate A&S

RE: Determination: No IRB Review Required
eIRB#: 00063926
Title: Assessment of Moral Distress and Perception of Workplace Ethical Climate in Respiratory Therapists
PI: Marjorie Timmer

Dear Marjorie:

Thank you for requesting a determination from our office about the above-referenced project. Based on our review of the materials you provided, we have determined that it does not require IRB review because it does not meet the definition(s) of "research" with "human subjects" or "clinical investigation" as set forth in Emory policies and procedures and federal rules, if applicable. Specifically, in this project, you will be conducting anonymous online employee surveys with no participant interaction. Consent will be obtained electronically through the survey in the form of the participants clicking yes or no to proceed with the survey. No identifying information will be recorded.

Please note that this determination does not mean that you cannot publish the results. If you have questions about this issue, please contact me.

This determination could be affected by substantive changes in the study design, subject populations, or identifiability of data. If the project changes in any substantive way, please contact our office for clarification.

Thank you for consulting the IRB.

Sincerely,

Brandy Covington, CIP
Senior Research Protocol Analyst

Appendix D

From: Ann B Hamric [mailto:abhamric@vcu.edu]
Sent: Thursday, November 15, 2012 11:23 AM
To: Timmer, Marjorie
Cc: Kinlaw, Kathy; Kathi Scearce
Subject: Re: Permission request

Dear Ms. Timmer,

First, I send my apologies for the delay in my response; this has been an unusually busy fall season.

I am attaching the full MDS-R for adult healthcare providers, as I encourage you to examine it before drafting a new instrument. We are completing testing of this instrument (in both pediatric and adult versions), and the reliabilities are strong. Use of parallel instruments for multiple providers allows for comparison of data in a way that unique instruments for individual professions does not. I also found the Shwenzer revision of Corley's instrument to be problematic, so encourage you not to rely on it.

I am also sending you a copy of the shortened "Hospital Ethical Climate Scale" of HECS, developed by Dr. Linda Olson. It is the measure of ethical climate that I have used in my studies, and using it would allow you to compare your findings with those previously reported. If you are interested, I can get you in touch with Dr. Olson to get formal permission to use this shortened form of her instrument.

I would be happy to discuss these considerations further with you, after the Thanksgiving holiday, if you are interested. Please give my best regards to Kathy Kinlaw!

Best wishes,

Ann Hamric

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Ann B. Hamric, PhD, RN, FAAN

Associate Dean of Academic Programs

Professor, School of Nursing

Virginia Commonwealth University

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abhamric@vcu.edu

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Appendix E

From: Ann B Hamric [mailto:abhamric@vcu.edu]
Sent: Tuesday, April 08, 2014 5:10 PM
To: Timmer, Marjorie
Subject: Re: MDS-R permission

Dear Marjorie,

I am pleased to affirm my formal permission for you to use the MDS-R and modify it for your study of respiratory therapists. You are correct that I gave you verbal permission before you began your study, but I believe that the written permission did not follow. So I am rectifying that omission with this email.

As you know, I have been most interested in your study and its results and am delighted that the MDS-R was of use to you in your research. I hope we will continue to collaborate as you expand your important work.

Best wishes,

Ann Hamric

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Ann B. Hamric, PhD, RN, FAAN
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Appendix F

From: Linda Olson [mailto:lolson@ncsbn.org]
Sent: Monday, December 10, 2012 3:17 PM
To: Timmer, Marjorie
Subject: RE: Permission request - HECS

Marjorie: I would be happy to support your research by giving permission to use and adjust the Hospital Ethical Climate Survey for use with respiratory therapists. Can you send me the revised form when you have done so. I would also be interested in your results when you have them.
Thanks. Please feel free to call me or email as necessary.

Linda L. Olson, PhD, MBA, RN, NEA-BC
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