THE EFFECT OF A WORK-PLACE BASED EDUCATION PROGRAM
ON MORAL DISTRESS
AMONG REGISTERED NURSES

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Dedication

This dissertation is dedicated to my family, all of whom have been an enormous source of encouragement. To my devoted husband Rick and my daughters Gillian and Holly, who have inspired and encouraged me to pursue my dreams and achieve my highest professional goal. To my loving mother and father, who worried I would not make it through second grade, let alone my PhD. As an adult, they have always believed in me and inspired me to become the person I am today. To my siblings Pat, Bill, and Donna, I thank you for encouraging me to always push forward. In addition, I dedicate this dissertation to Lynn Gallagher Ford, whose friendship and camaraderie made this journey so worthwhile. Our commutes produced great discussions and what I know will be a lifelong friendship. We have indeed been changed for the better. Lastly, I dedicate this dissertation to the nurses with whom I have shared my most treasured professional moments and who remind me how important it is that we perpetuate a passion for what we do, and to always 'do the right thing'.
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To my dear husband, Rick and my daughters, Gillian and Holly, who have sacrificed in order that I could achieve my dream, I can’t promise that I will cook more, but I can promise that I won’t be too busy, because of school work. Thank you for your love, patience, and encouragement. You have truly been my rock.

To my parents, thank you for inspiring me to succeed. Your support has been steadfast. I only wish my dad could have been here to witness my accomplishment. As I wrote my final chapters, my dad died. Dr. Patterson sent me a card with the words... "I believe your dad was very proud of you"...that was always important to me.
Abstract

The primary purpose of this study was to determine if registered nurses (RNs) who attended a workplace-based educational program would have decreased intensity, frequency, and total moral distress, compared to nurses who did not attend the program. This educational program was operationalized using a framework published by the American Association of Critical Care Nurses' program entitled *The 4A's to Rise Above Moral Distress* (2005).

Moral distress is an insidious problem affecting many registered nurses, directly and or indirectly, with potentially harmful consequences. A review of the literature revealed that the consequences of moral distress produce a significant negative effect on the physical, behavioral, spiritual, and psychological well-being of morally distressed nurses, their peers, patient care, the work environment, and the overall efficiency of healthcare institutions.

A quasi-experimental pretest-posttest control group design was selected for this study. Using *The 4A's to Rise Above Moral Distress* (2005) as the intervention, Bandura’s social cognitive theory and Corley’s theory of nurse moral distress served as the theoretical framework for this study. The 38 item, 7-point Likert scale, Moral Distress Scale was used to measure the subscales of intensity and frequency, as well as total moral distress.

Four mid-sized, New Jersey community hospitals were randomly assigned to either the treatment or the control group. Both the treatment and control groups completed the Moral Distress Scale as a pretest. The treatment group received the
education intervention, and both the treatment and control groups completed the Moral Distress Scale as a posttest. A demographic data sheet, developed by the researcher, was used to collect descriptive data about the subjects.

No statistical significance was found on independent t-tests comparing the treatment and control groups’ change scores for intensity, frequency, or total moral distress. However, when an analysis of covariance (ANCOVA) approach to data analysis was used to compare the treatment and control groups on change scores, using the pretest scores as the covariate, there was a statistically significant difference for the experimental group on intensity, frequency, and total moral distress. The independent t-test also revealed that nurses employed in Magnet designated hospitals reported decreased posttest total moral distress scores and decreased posttest frequency moral distress scores, compared to the non-Magnet designated hospitals.

Correlation statistics were used to analyze the demographic data as it related to the Moral Distress Scale scores. Negative correlations were observed with age, and the more years as an RN, correlated with lower frequency of moral distress.

Nursing care should be valued and respected. This study may benefit nurses to identify strategies in order to effectively prevent or minimize the experience of moral distress. The findings generated from this study may lead to further discussion among nurses and nurse leaders to further explore strategies to enhance the professional image of nurses among other members of the health care team.
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Chapter 1
Background

Moral distress is an insidious problem affecting many registered nurses (RNs), directly or indirectly. The consequences of moral distress produce a significant negative effect on the physical and psychological well-being of morally distressed nurses, their peers, patient care, the work environment, and the overall efficiency of the healthcare institution (Corley, 2002; Rushton, 2006; Wilkinson, 1987/1988a). In a survey of nurses, 33% reported they experienced moral distress when they perceived that institutional constraints impaired their ability to take the proper course of action (Redman & Fry, 2000). When morally distressed, nurses report frustration, outrage, burnout, withdrawal from the bedside, provision of substandard care, shielding of themselves from caring, and even departure from the nursing profession (Corley; Rushton; Wilkinson).

Jameton (1984) first described moral distress as:

> The experience of uncomfortable, painful emotions that arise when institutional constraints prevent the nurse from performing tasks that are deemed necessary and appropriate. These sentiments evolve from a perception of moral responsibility and from the degree to which nurses view themselves as individually responsible, but are restricted due to organizational constraints.

(p. 6)

Jameton’s definition of moral distress and related terms has evolved over time; however, this seminal piece remains an integral part of research and literary works involving the phenomenon.
Wilkinson (1987/88a), expounding on Jameton’s work defined ‘moral distress’ as 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 by that decision” (p.16). Wilkinson posited that moral distress included situational, cognitive, action, and feelings dimensions and that each situation has an experience and an effect. Wilkinson further differentiated moral outrage from moral distress. In cases of moral outrage, Wilkinson described the nurse as seeing others perform immoral acts, while perceiving themselves to be powerless to intercede. With a focus on the wrongdoing of others, morally outraged nurses do not recognize their complicity in the wrongdoing.

Additional definitions of moral distress were found in the literature. Hamric, Davis, and Childress (2006) described moral distress as occurring when the nurse knows the clinically and ethically correct course of action, but feels powerless to carry through because of organizational barriers or policies, hierarchical power structures, insufficient resources or support, or limitations established by law, as well as the lacking of essential information necessary to form sound ethical decisions. Moral distress also may occur when the nurse does not agree with a plan of care or intervention.

The American Association of Critical Care Nurses (AACN) (2006) defined moral distress as “when you know the ethically appropriate action to take, but are unable to act upon it, you act in a manner contrary to your personal and professional values, which undermines your integrity and authenticity” (p. 2). Pendry (2007) expanded the definition of moral distress to include “the physical or emotional suffering that is
experienced when constraints (intrinsic or extrinsic) prevent one from following the course of action that one believes is right” (p. 217). These evolving iterations of the definition fail to incorporate the potential for any or all of the aforementioned factors to result in moral distress. Synthesizing these definitions, Powell (2009) defined moral distress as the physical, psychological, or emotional suffering that is experienced when intrinsic or extrinsic constraints render the nurse unable to act in a manner the nurse perceives as ethically or morally appropriate.

Extrinsic and intrinsic stressors permeate through nursing resulting in moral distress for many nurses. Extrinsic stressors including physicians, healthcare administrations, healthcare reimbursement, peers, and the legal system have rendered a host of changes affecting patients and providers (Wilkinson, 1987/88a). These extrinsic stressors often filter down to the nurse and may result in moral distress. Intrinsic stressors also account for moral distress among nurses. Wilkinson identified intrinsic stressors to include fear of losing one’s job, perceived lack of support in the past, socialization of nurses to follow orders, self-doubt, and lack of courage. While some stressors may serve as positive motivation for change, moral distress is a negative response to problems in one’s workplace (Corley, Minick, Elswick, & Jacobs, 2005). This researcher assumes that these extrinsic and intrinsic stressors negatively influence the culture and climate of nursing and ultimately healthcare delivery.

Healthcare institutions are fraught with stressors that may contribute to moral distress including perceived powerlessness. Because of diminishing healthcare reimbursements and rising healthcare costs, one strategy that many hospitals use to
balance their budgets is downsizing RN staffing (Hirshbein, 2005; Oberle & Hughes, 2001). Inadequate staffing is a frequently cited source of moral distress by nurses. Hospital staff nurses often perceive themselves powerless to effect positive changes in staffing patterns. Tiedje (2000) posited this powerlessness may be real or perceived, but is detrimental either way.

Disruptive physician behavior has also been identified as a significant stressor and source of moral distress (Rosenstein, 2002). Oberle and Hughes (2001) found “nurses often perceived they were unable to act upon their own values due to the conflicting values of the physicians” (p. 218). Contrary to the Code of Ethics for Nurses (ANA, 2009), the nurse must often choose between the risks of speaking up or remaining silent in the face of a moral dilemma. Often, the nurse may choose silence in fear of retaliation, perceiving a lack of support or power to influence a situation. This inability to act and the resulting breach of ethical standard is frequently associated with moral distress.

The Health Resources and Services Administration (2009) predicted a one million nurse shortfall by 2025. Nathaniel (2006) reported, “moral distress is a major contributor to nurses leaving their work setting and even the profession” (p. 420). Conditions resulting in nurses leaving the profession because of moral distress combined with a severe nursing shortage have the potential to render many among the nursing profession paralyzed and faltering. Sumner and Townsend-Rocchiccioli (2003) posited that addressing strategies to mitigate moral distress must be included in efforts to prevent the anticipated nursing shortage.
The 4A's to Rise Above Moral Distress (2005) program was developed in conjunction with the American Association of Critical Care Nurses (AACN, 2005). This program aims to help nurses to recognize signs of moral distress, identify sources of moral distress, and learn strategies to decrease the incidences and consequences of moral distress. The 4A's: ask, affirm, assess, and act aim to foster optimal healthy work environments for nurses. According to the facilitators’ handbook, subject seating is usually arranged to allow for face-to-face discussion. The class begins with the concept of moral distress definitions, sources of moral distress, and consequences of unaddressed moral dilemmas. Subjects are introduced to the American Nurses Association (ANA) Code of Ethics, the AACN Standards for Establishing and Sustaining Healthy Work Environments (Appendix A), as well as virtue ethics. Early class discussion usually includes subjects sharing situations where they experienced moral distress and how they presently respond to it. The purpose of The 4A's to Rise Above Moral Distress framework is introduced and subjects are instructed on how to use the framework. The remainder of the class surrounds case studies and practice utilizing the framework of The 4A's to Rise Above Moral Distress. The class time provides ample opportunity for subjects to discuss and practice using the framework.

It is essential that nurse researchers explore interventions such as The 4A's to Rise Above Moral Distress (2005) in order to determine which strategies might reduce moral distress among nurses. Registered nurses, as owners of the profession, must learn to identify triggers of moral distress, develop prevention strategies, and empower
themselves to confront moral dilemmas, thus preserving their self-esteem, as well as a profession endangered by a looming shortage of nurses.

**Statement of the Problem**

Arising from a foundation of duty and obligation, nursing has historically been dominated by healthcare organizations and physicians, occasionally with competing expectations and little perceived control or voice in decisions affecting their work. This sense of voicelessness and lack of power frequently leaves the nurse feeling emotionally despaired, paralyzed, and unable to provide nursing care (Sumner & Townsend-Rocchiccioli, 2003). At a time when healthcare resources are scarce, the need for nurses to perform at their maximum potential is integral. The presence of a healthy work environment is critical to the nurse’s ability to perform effectively and efficiently (Sherman & Pross, 2010). Storch et al. (2009) suggested that positive ethical climates improve nursing care and in turn, patient outcomes. Healthcare organizations, nurses, and other healthcare team members need to work collaboratively to promote a positive ethical climate (Rice, Rady, Hamrick, Verheijde, & Pendergast, 2008). Ethics programs for nurses frequently focus on end of life issues; however, moral distress is not limited to end of life. The phenomenon of moral distress occurs on many nursing units, and may present in a host of scenarios. While there is a plethora of research and literature contributing to nurses’ understanding about the causes, signs, symptoms, and resultant effects of moral distress among nurses, there is a paucity of research and literature on effective strategies or interventions to minimize this problem.
Purpose of the Study

The primary purpose of this quasi-experimental, pretest-posttest control group design was to determine if there would be a decrease in moral distress among nurses who attended a workplace-based educational program as compared to nurses who did not attend the program. Based on a review of the literature, *The 4A's to Rise Above Moral Distress* (2005) was designed to help nurses recognize sources of moral distress, and develop strategies to decrease moral distress in the workplace. It was the goal of this researcher to provide nurses with the knowledge and skills necessary to establish and sustain a healthy work environment.

Research Questions

The research questions for this study were:

1. Do nurses who participate in the workplace-based 4A’s program have decreased total moral distress, compared to nurses who do not participate in the program?

1(a): Do nurses who participate in the workplace-based 4A’s program have decreased frequency of moral distress, compared to nurses who do not participate in the program?

1(b): Do nurses who participate in the workplace-based 4A’s program have decreased intensity of moral distress, compared to nurses who do not participate in the program?
Research Hypotheses

The implementation of a workplace-based program has the potential to help mitigate the harmful effects of moral distress among registered nurses. This research tested the following hypotheses:

H: Nurses who participate in the workplace based 4A’s program will have decreased total moral distress, compared to nurses who do not participate in the program.

H (a): Nurses who participate in the workplace-based 4A’s program will have decreased frequency of moral distress, compared to nurses who do not participate in the program.

H (b): Nurses who participate in the workplace-based 4A’s program will have decreased intensity of moral distress, compared to nurses who do not participate in the program.

Theoretical Framework

The theoretical works of Corley (2002) Nurse Moral Distress and Bandura’s (2001) Social Cognitive Theory were blended to provide a framework for this study. While moral distress is shared with other professions, Corley’s theory provided a nursing context and research agenda to further understand this phenomenon. Bandura’s theory provided context to the planned intervention.

Corley’s Nurse Moral Distress Theory

Corley’s (2002) theory, founded on the premise that nursing is a moral profession and as such, nurses are moral agents, posits a relationship between moral distress, the negative effects to the nurse, and the consequences of suffering, burn-out resignation, and
leaving the profession altogether. The theory was designed to explicate what occurs when a nurse experiences moral distress. Building on a review of the literature, Corley identified three major moral concepts: moral intent to act versus moral distress, moral suffering, and moral residue.

Moral sub-concepts were identified as: moral commitment, sensitivity, autonomy, sense making, judgment, conflict, competency, and certainty. Moral commitment as it relates to the nurse is the personal willingness of the nurse to take on or engage in a moral or ethical issue (Corley). Moral sensitivity is the ability to recognize a moral conflict and understand the consequences the situation may have on those involved (Lutzen, Johanssen, & Nordstrom, 2000). Moral autonomy is the individual’s right to freedom of choice (Scott, 1998). Rest (1986) described moral sense-making as the structuring of moral meaning. Corley characterized moral judgment as that which is considered when determining or planning a course of action (2002). Moral conflict is the clash of moral values that occurs when faced with a moral choice or plan of action for a given situation (Redman & Fry, 2000). Moral competency was defined by Rest as the ability to use good moral judgment and engage in morally appropriate behavior. Corley defined moral certainty as knowing and taking the right course of action.

There are several major relationships within the theory as defined by Corley (2002). Nurses with a high moral commitment develop moral competency and moral behavior, which results in less frequent or intense moral distress. Nurses, who maintain a high level of ethics, work satisfaction, and believe themselves to be employed in an empowered work culture, may have lower levels of moral distress (Figure 1). Corley
Moral Concepts
- Commitment
- Autonomy
- Judgment
- Competency
- Sensitivity
- Sense making
- Conflict
- Certainty

Nursing as a moral profession
Nurses as moral agents

Moral distress
- Moral suffering
- Moral residue

Impact on organization
- Low patient satisfaction
  - Reputation Accreditation Problems
- Decreased quality of care
- High nurse turnover
  - Difficulty recruiting

Impact on nurse
- Suffering
  - Burnout
  - Resignation
  - Leave nursing

Impact on patient
- Lack of advocacy
  - Avoids patient
- Patient discomfort and suffering

Moral intent to act

Moral courage
- Moral heroism illegal but ethical
- Moral comportment Whistle blowing

Moral comfort
theorizes that nurses who maintain a high moral commitment but lack moral competency are more likely to suffer from moral distress.

Corley affirmed that moral distress, moral suffering, and moral residue are by-products of one's failure to act as a moral agent (2002). These consequences may impact the patient, the nurse, or the organization. Impact on patients may result in lack of advocacy, patient avoidance, and increased patient suffering. Organizational consequences may include high nurse turnover, decreased quality of care, low patient satisfaction, and negative impacts on reputation. When the nurse experiences the consequences of moral distress, Corley posited that the nurse may experience suffering, burnout, and abandonment of the profession.

Corley's (2002) theory illuminated several propositions. Nurses who experience moral distress more frequently are more likely to become dissatisfied with work, and in turn leave the profession. Nurses who possess moral commitment and moral competence are "more likely to exercise appropriate moral judgment and experience less moral distress" (Corley, p. 646). As moral agents, nurses should acquire baseline knowledge and an understanding of ethics, learn a framework for ethical decision making, and be able to apply this knowledge in clinical scenarios.

Corley (2002) elucidated that more studies on interventions were necessary to reduce nurse moral distress. Building on Corley's theory may serve to further knowledge regarding the effectiveness of this specific education intervention on reducing nurse moral distress. The 4A's to Rise Above Moral Distress (2005) aimed to provide a
foundation of knowledge of ethics, a framework for ethical decision-making, and the tools necessary to help nurses apply this knowledge in clinical scenarios.

**Bandura’s Social Cognitive Theory**

Bandura’s (1986, 2001) social cognitive theory of the moral self, which uses an agentic conceptual framework of morality, helped guide this proposed study. Bandura described an agent as one “who intentionally makes things happen by one’s actions” (2001, p. 2), and agency as “acts done intentionally” (p. 6). Among agentic persons, actions do not ‘just happen’. Human beings are agents of their experiences, rather than on-lookers or victims. Social cognitive theory posits that cognitive processes influence consequences of agentive acts. Human beings have the ability to consider specific circumstances and different courses of action, and in turn, determine with intention which course of action to take. A second proposition within this framework is that humans function as socially interdependent subsystems.

The features of human agency include intentionality, forethought, self-reactiveness, and self-reflectiveness, none of which can effectively stand-alone. Bandura (2001) referred to intentionality as a "proactive commitment to bring about a future course of action" (p. 6). Forethought, according to Bandura, occurs when one looks to the future and considers goals, alternative routes to success, consequences, and anticipated outcomes. Forethought serves to provide direction and meaning to actions. Bandura speculated that consideration of future events serves as a powerful motivator, as well as a regulator of behavior; and when people regulate their behavior they are more likely to produce a positive outcome.
Self-reactiveness occurs when a person considers available choices and action options and is motivated to take deliberate action to move toward one's goal. Nebulous or ill-defined goals are difficult to achieve. Clear and specific goals often serve as motivators, resulting in goals more successfully achieved (Bandura, 2001). An important aspect of self-reactiveness is moral agency. Bandura described a moral agent as one who possesses moral knowledge, exhibits moral conduct, and adopts standards of right and wrong. Bandura posited that the ability to choose between right and wrong occurs via self-sanctions deliberated over a course of time. Knowing how one is going to self-react in a given situation may serve as a motivator. This motivation determines whether one stands up for what one considers 'right'. Bandura referred to moral disengagement, which occurs when one makes harmful conduct personally or socially acceptable by masking, rationalizing, or displacing responsibility for the ill or inhumane behavior. Such behaviors, Bandura believed, serve to preserve self-worth, while weakening self-sanctioning. Those who are high moral disengagers experience low levels of moral guilt.

Self-reflection is the ability to self-direct as well as reflect on the thoughts and actions of one's self (Bandura, 2001). It is in self-reflection that humans assess their motivations and core values. One's values and motivations drive decisions, also taking into consideration desired outcomes, effects on others, and extraneous socio-structural influences. Personal agency is the ability to exercise control over oneself and one's environment, which serves to provide a sense of satisfaction and self-worth (Bandura, 2002). This perceived self-control is fundamental to perceived self-efficacy, a critical element in the social cognitive theory. Bandura asserted that achieving goals leads to
self-satisfaction and self-efficacy, both central to motivation. When persons believe they are in a position to influence a situation, they are likely to be motivated to act. Likewise, when persons feel powerless to make change, they may be disinclined to challenge bad behavior. The significance of perceived self-control among nurses was supported in the research by Penticuff and Waldon (2000) who found that nurses are more likely to involve themselves in attempts to solve ethical and moral dilemmas when they believe that they have an influence over their practice environment and when they are concerned about the ethical issues, they encounter that affect patients.

Social cognitive theory ascribes to three forms of human agency: personal, proxy, and collective. Personal agency refers to the aforementioned cognitive, motivational, and affective choice methodologies available to an individual with perceived control over a situation. Not every person desires personal control (Bandura, 2001). Proxy agency is when a person chooses to defer to a more knowledgeable or powerful other to accomplish a goal. When deferring to a proxy agency, the individual maintains the opportunity to learn and self-develop from the proxy agent if they desire. When a situation requires a group to work together to achieve shared goals, this is referred to as collective agency. Bandura stated:

the stronger the perceived collected efficacy, the higher the groups' aspirations and motivational investment in their undertakings, the stronger their staying power in the face of impediments and setbacks, the higher their morale and resilience to stressors, and the greater their performance accomplishments.

(p. 110)
The complexity of delivering care and change in healthcare is constant. In order to achieve self-efficacy, it is critical that RNs develop and maintain personal and professional competence. When groups share self-efficacy and common goals, communities are characterized by cooperation, helpfulness, and vesting in one another (Bandura, 2001). As Bandura suggested, those who are competent and empowered move forward, while the disempowered fall behind. In order to grow and flourish, and experience personal and professional agentry in the workplace, RNs must possess agentic adaptability. Bandura (2002) described the social cognitive theory as a theory employing an interactionist perspective to morality with interplay between moral thought, action, cognitive, affective, and social influences.

Bandura (1986) proposed, “Virtually all behavioral, cognitive, and affective learning from direct experience can be achieved vicariously by observing people’s actions and its consequences for them” (p. 19). Learning, according to Bandura, transpires through observation, imitation, and modeling, either intentionally, such as class instruction or non-intentionally. The factors that influence successful modeling include attention, retention, reproduction, and motivation (Figure 2). Attention requires the instructor to gain the full attention of the observer; this best occurs when the learner is interested in the topic. Retention is said to occur when the learner is able to remember and act on what was previously learned. Reproduction occurs when the learner pays attention to what was taught, retains the information, and actually performs the behavior. Finally, motivation is required to imitate or take on the learned behavior. Several factors
affect motivation including past reinforcement, incentives, and vicarious reinforcement (Boeree, 2006).

![Diagram](image)

*Figure 2. Bandura’s Social Cognitive / Learning Theory.*

It was thought that building on the theory of Bandura would serve to promote self-efficacy, self-awareness, dialogue, and moral agency among registered nurses who participate and adopt new skills learned in *The 4A's to Rise Above Moral Distress* (2005) program. Through teaching strategies such as reflection, effective communication, empowerment, positive modeling, and moral dilemma case scenarios, this intervention aimed to promote behavior changes. As moral agents, nurses may perceive themselves as competent advocates and may take action as needed, thus reducing the incidence and frequency of moral distress.

Nurses need to believe in their ability to work in a collaborative and ethical environment. Perceived self-efficacy is central to whether a nurse chooses to view a moral dilemma feeling powerless or empowered. This program was rooted in the belief
that nurses have the power to communicate effectively and decrease their moral distress. Those who attended the class were taught strategies to communicate effectively and with a strong sense of self-efficacy. These learned behaviors were intended to enable subjects to realize the desired outcome of a healthy work environment.

**Application of Corley and Bandura’s Blended Theories**

Corley’s theory (2002) and Bandura’s theory (2001) were well suited as underpinnings for this research (Figure 3). Corley’s theory differentiates moral action from inaction and the resulting consequences to the nurse. Corley identified that continuing education and interventions in the workplace are needed in order to reduce or decrease moral distress among nurses. Bandura posited that learning transpires through observation, imitation, and modeling. This research was intended to explore the effects of a program aimed at helping nurses decrease the frequency and intensity of moral distress by developing skills to promote and sustain a healthy work environment.

![Figure 3. Collective Application of Bandura and Corley.](image-url)
Definition of Terms

To avoid ambiguity or misunderstanding of terms and their use throughout this research, the following definitions are made explicit.

*Healthy Work Environment:* A professional practice environment comprised of staff skilled in communication and “where face to face interactions are open, positive, and consistent with one’s professional and ethical mandates” (Kupperschmidt, Klentz, Ward & Reinholtz, 2010, p. 1).

*Moral Distress:* The individual response of physical, psychological, or emotional suffering experienced when intrinsic or extrinsic constraints render the nurse unable to act in a manner the nurse deems ethically or morally appropriate (Powell, 2009).

*Registered Nurse:* The sample of registered nurses was male or female, English speaking, licensed as a registered nurse, and employed in an acute care hospital. The level of education included diploma, associate, bachelor, or master’s degree.

*Workplace-Based Education Program:* A program with a curriculum inclusive of the American Nurses Association’s (2005) Code of Ethics with interpretive statements, virtue ethics, through discussion and shared learning. This educational program was operationalized using a framework published by the American Association of Critical Care Nurses’ program entitled *The 4A’s to Rise Above Moral Distress* (2005).

*The 4A’s to Rise Above Moral Distress:* A facilitated tool kit containing the facilitator handbook, a Power Point ® presentation, and a participant handbook. The 4A’s were: ask, affirm, assess, and act. The 4A’s model was intended to
provide a systematic process to examine sources and strategies to reduce moral
distress (Rushton, 2006).

Assumptions of the Study

This study was based on the following assumptions:

1. Moral distress is widespread across the nursing profession (Redmond & Fry
   2000).
2. Moral agency links moral knowledge with moral conduct (Bandura, 2001).
3. Registered nurses do not share a universal knowledge of ethics.
4. Nurses are an oppressed group (Freire, 1980; Roberts, 1983; Jameton, 1993).
5. Nurses will be truthful when completing the Moral Distress Scale (Appendix
   B).
6. Moral distress is a negative experience (Corley, 1995).
7. Extrinsic and intrinsic stressors negatively influence the culture and climate of
   nursing and ultimately healthcare delivery.

Implications for Nursing

There was a large body of knowledge regarding the sources and effects of moral
distress upon nurses. Recent literature suggested the need to develop and implement
interventions to reduce the incidence of moral distress and its consequences. Moral
distress may potentially jeopardize the physical, psychological, emotional, spiritual,
and/or behavioral well-being of the nurse. The findings and dissemination of this
interventional research may be significant for nurses, patients, providers, interdisciplinary
teams, and healthcare organizations. Previous studies have shown that when nurses
engage in dialogue with colleagues about ethical issues, their moral distress is decreased (Storch et al., 2009). This educational intervention aimed to provide a means for nurses to dialogue about ethical dilemmas and learn strategies to reduce the incidence and diminish the effects of moral distress.

**Nursing Science and Research**

The results of this study may contribute to nursing science by describing the intensity and frequency of moral distress and specifically nurses’ response to the workplace-based intervention intended to reduce moral distress. The outcomes of this study may provide more information on the effectiveness of a strategy intended to reduce the incidence and frequency of moral distress among nurses. In addition, this study may further future studies intending to identify triggers of moral distress and or develop prevention and retention strategies, as well as strategies to promote ethical work climates for nurses.

Psychometric support may be enhanced for the Moral Distress Scale (Corley, 2001) among various nursing specialties. Corley’s Moral Distress Scale was based on Jameton’s (1984) definition of moral distress, which he described as arising from a real or perceived inability to act due to institutional constraints. For many nurses, moral distress arises from interpersonal and intrapersonal constraints. This study may contribute to the further development of new measures of the Moral Distress Scale using empirical referents unique to other nursing specialties, specifically for those not routinely providing nursing care for terminally ill patients. Future research on strategies to reduce the incidence of moral distress may benefit from the findings of this study.
The theoretical foundation of Bandura’s social cognitive theory (1986) and Corley’s (2002) proposed theory of moral distress may be supported through this research as a framework for other studies. Such studies may explore a variety of strategies to reduce perceived ethical dilemmas among nurses.

**Nursing Education**

Promotion of healthy work environments among staff nurses and nursing leadership should be one of the overarching goals of clinical nurse educators. In order to achieve this, nurse educators must develop and mentor staff nurses and nursing leadership to develop the skills necessary to sustain the desired culture. Bandura (1986) posited that teaching these behaviors may be facilitated through observation, imitation, and modeling. Clinical educators are poised to teach and promote ethical behaviors and the other skills necessary to establish and sustain healthy work environments. This may take place either in a classroom environment or by example.

Moral distress has roots in nursing education, as well as the healthcare system. The values of the nursing education domain are those of knowledge, learning, and intellectualism, while the values of the healthcare institution are those of practice proficiency, technical capability, and efficiency (Hamilton, 2005). The nurse and the patient reside somewhere between these two domains. Not all registered nurses receive ethics education in their curriculum. Ethics education may bolster confidence in the nurse’s ability to make decisions and take action (Grady et al., 2007). It is incumbent upon nursing education to develop appropriate curriculum and andrologogical strategies that may ensure that student/novice nurse demonstrates specific theory, as well as
experiential outcome competencies that best meet the often-disparate goals of the nursing education system, the healthcare system, and the patient. This study may lend support to The 4A's to Rise Above Moral Distress (2005) curriculum and may be transferable to undergraduate nursing education curricula.

Nursing faculty, nurse educators, and nurse leaders should all have an investment in the ethical climate of healthcare organizations employing registered nurses. One goal for nursing education is to teach the principles of ethics education and prevention strategies rather than simply the management strategies of moral distress. The findings of this study may contribute to nursing faculty and clinical educators' abilities to develop strategies to embolden the foundation of nursing students to prepare them to be ever-diligent, empowered, and vociferous patient advocates, not affected by threatening behaviors of oppressors seeking to limit their efficacy. This study may provide empirical support for future continuing education, as well as the integration of the findings into practice. This study has the potential to influence future nursing education curricula, teaching methods, nursing students, and decisions regarding educational policy.

Nursing Practice

The results of this study are important to nursing research and ultimately clinical practice, as the findings have the potential to influence the culture of nursing. Chinn and Kramer (2008) ascribed to the importance of research leading to a desired future. A future in nursing without moral distress is something that educators, researchers, and clinicians should aspire to every day. This study may serve to help nurses recognize
situations that manifest moral distress, respond proactively and professionally, and in turn, diminish the associated consequences.

Registered nurses should be able to establish, practice, and enact their professional values within their work environment. Organizations that educate and employ nurses must develop and employ strategies to prepare nurses to recognize, effectively respond to, and prevent the development of moral distress. It is incumbent upon nurse administrators to create environments that promote ethical practice. Strategies, such as workplace-based education and continuing education, should be explored and implemented to attempt to reduce moral distress. The design of this nursing intervention aimed to provide proactive strategies, rather than reactive strategies and was intended to diminish the incidence, frequency, and the residual effects of moral distress. This study may serve to support the development of strategies to strengthen nurses’ moral fabric and enable them to ‘do the right thing’ regardless of intrinsic and or extrinsic pressures. It is important that both staff nurses and nurse leaders learn how to appropriately respond to unethical behaviors and advocate for patients without fear of retribution.

Nursing care should be valued and respected. This study is important for all nurses to identify strategies in order to effectively prevent or minimize the experience of moral distress. The findings generated from this study may lead to further discussion among nurses and nurse leaders to further explore strategies to enhance the professional image of nurses among other members of the health care team. Through the publication of the results of this study, nurses, as well as other healthcare professionals may learn
more about moral distress and strategies to reduce the incidence and consequences. Ultimately, the findings of this study may provide nurses with strategies that help them to find satisfaction in their work leading to improving retention of nurses in the workforce.

**Chapter Summary**

The purpose of this study was to explore the effects of a workplace-based education intervention on moral distress among nurses. Moral distress is the physical, psychological, emotional, spiritual, and/or behavioral suffering that is experienced when intrinsic, extrinsic, and organizational constraints render the nurse unable to act in a manner the nurse perceives ethically or morally appropriate (Powell, 2009). Moral distress is an omnipresent phenomenon among many in the nursing profession threatening patient care, the profession of nursing, and the organizations that employ nurses.

The theoretical framework of this study utilized application of the theories from Bandura (1977) and Corley (2002). Bandura and Corley proved a solid foundation upon which to justify an educational intervention. The use of a dynamic, pertinent, learner centered curriculum may foster subject engagement, learning, and ultimately adoption of strategies aimed to increase conscious decision-making and decrease moral distress. Bandura’s suggested approach of observation, imitation, and modeling was employed.

The findings of this study may have significance for nurses, patients, providers, interdisciplinary teams, and healthcare organizations. This work may contribute to nursing science by adding to the existing body of nursing knowledge and provide a means to further assess the Moral Distress Scale (Corley, 2002). This study has the
potential to impact future nursing education curricula and teaching methods and perhaps educational policy. Most importantly, the findings of this study have the potential to impact nursing practice by unveiling strategies that may help nurses proactively and professionally address situations that could potentially result in moral distress.
Chapter 2

Literature Review

The purpose of this pretest-posttest quasi-experimental study was to assess the effectiveness of a workplace-based educational program on reducing the intensity, frequency, and overall total moral distress among registered nurses. Moral distress first surfaced in the nursing literature in 1984 (Jameton, 1984), therefore, the literature review was confined to the years 1984 to 2009. Employing EBSCOhost®, a review of nursing, medical, social science, bioethics, pharmacy, business, and legal literature was performed to determine the breadth and depth of knowledge regarding moral distress. Computer searches of Public/Publisher MEDLINE (Pub Med), Cumulative Index to Nursing and Allied Health Literature (CINAHL), and the Nursing and Allied Health database used the key words 'moral distress' and 'nursing'.

While the phenomenon of moral distress among nurses is not confined to critical care nursing, the literature was dominated by case studies and research pertaining to critical care nursing and end-of-life issues, ethical concerns of over-treatment or under-treatment of patients, incompetence, dehumanizing care, and implications of moral distress. This search strategy yielded 203 manuscripts, 146 were from 2006 to 2011 suggesting an emerging trend with concentration on the issue. First, the titles of the 203 manuscripts were reviewed to determine relevance. Second, the abstracts of the manuscripts were reviewed to determine the most relevant of the major variables of this research resulting in 68 pertinent articles. Inclusion criteria included manuscripts pertaining to moral distress, moral responsibility, ethic's education, empowerment,
healthy work environments, and virtue ethics. The literature review is presented chronologically to provide a historical perspective of the phenomenon and then summarized.

**Moral Distress**

The earliest moral distress literature sought to define the concept of moral distress. The philosopher and ethicist, Jameton (1984) first described the concept of moral distress as “when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action” (p. 6). Jameton’s observation was a good start, however gaps in the definition were identified, including that constraints often extend beyond the institution, and may include those that arise within the individual and beyond the organization. Jameton’s definition has served as the source of several iterations intended to accurately and discretely define the concept of moral distress. Jameton also distinguished between morals and ethics; describing ethics as a theoretical concept and moral as a personal concept.

Building on Jameton’s work, Wilkinson, a nurse and scholar, (1987/88a) was among the first to study moral distress in nursing. Wilkinson shifted the origins of moral distress from institutional constraints to the individual by defining moral distress as 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 by that decision” (p. 16). Wilkinson posited that moral distress included situational, cognitive, action, and feeling dimensions and that each situation encompasses an experience and resultant effect. Wilkinson further differentiated moral distress from
moral outrage by describing moral outrage as when the nurse sees or is aware of others performing immoral acts, while perceiving themselves to be powerless to step forward and intercede. With a focus on the wrongdoing of others, the morally outraged nurse does not recognize one’s complicity in the wrongdoing. While moral outrage is an important aspect of moral distress, it is not the focus of this study.

In an attempt to generate a theory regarding the relationship between moral aspects of nursing practice and the quality of patient care, using a triangulated descriptive study, aimed at understanding “the relationship between moral aspects of nursing practice and the quality of patient care”, Wilkinson (1987/88 b, p. 17) interviewed hospital staff nurses ($N = 24$). Analysis of the transcripts provided a model case with defining attributes of the moral distress experience. Moral distress for these nurses occurred within the context of patient care, when situations arose that left the nurse perceiving barriers rendering him or her unable to carry out the care the nurse perceived the patient needed. The most frequently cited sources of moral distress included prolonging life, ordering or performing unnecessary tests and procedures, providing incomplete or inaccurate information to patients or families, incompetent or inadequate care providers, harming patients, and disrespectful treatment of humans. Reported effects of moral distress on the ‘wholeness’ of the nurse included: loss of self-worth, negative impact on personal relationships, psychological harm, sleep disorders, and a host of physical symptoms. Perceived and real extrinsic constraints were identified including physicians, threats of being sued, policies, and hospital and nursing administrators. Intrinsic
constraints real and perceived included fear of job loss, self-doubt, lack of courage, and conditioned to follow orders.

These nurses reported that moral distress had a significant negative impact to them personally and professionally, but many denied any impact on their patients. Wilkinson (1987/88 b) posited the degree that quality of care may have been impacted, hinged on the nurse’s ability to cope with the situation, the degree of ensuing negative feelings, and the subsequent psychological disequilibrium. The resulting Moral Distress Model clearly articulated the situations that may lead to varying degrees of moral distress, the resultant actions (effective or ineffective), and reflected the intactness of one's integrity and the ability to provide good nursing care, broken in spirit but remaining in the workforce, or abandoning the profession completely. Wilkinson intended to verify the effects of moral distress on the nurse, as well as the patient.

The findings of this study made a significant contribution to the moral distress research. Wilkinson’s (1987/88) definition served as the second iteration of the definition for moral distress for several years to follow. The need for inclusion of nursing ethics programs in nursing education and continuing education was reinforced as a conclusion of this research. Wilkinson posited that a sound background in nursing ethics is integral to foster resiliency to the intrinsic and extrinsic influences that may lead to moral distress.

Wilkinson’s (1987/88 b) study provided rich descriptions of morally distressing situations experienced by the subjects. The characteristics of the sample, as well as the methods and procedures were fully described rendering replication. The research
questions were clear and guided the data collection. A blending of the constant comparative method, phenomenological inquiry, and qualitative analysis produced converging stories elucidating the occurrence of moral distress experienced by nurses working in a hospital. These occurrences were consistent with this researchers' own experience.

In an attempt to expand on his own definition of moral distress, Jameton (1993) separated moral distress into two categories, initial and reactive distress. Initial distress, involves “the feelings of frustration, anger, and anxiety people experience when faced with institutional obstacles and conflict with others about values” (p. 544). Reactive distress is “distress that people feel when they do not act upon their initial distress” (p. 544).

Jameton (1993) further distinguished the terms moral dilemma and moral distress. According to Jameton, when a nurse experiences a moral dilemma, he or she recognizes differing and conflicting values, but is unable to act in a way that upholds both. This concept is consistent with Aristotelian Law of Non-Contradiction whereby one cannot do the right thing and the wrong thing at the same time. When a nurse experiences a moral dilemma, choosing one course of action precludes the nurse from choosing another. Jameton further expanded his definition of moral distress to include “when the nurse makes a moral judgment about a case in which he or she is involved and the institution or co-workers make it difficult or impossible for the nurse to act on that judgment” (p. 542). Jameton elucidated upon the negative effects of the hierarchical structures of the medical model upon the nurse, especially when it comes to the imbalance of power, relational
aspects, money, and perceived status. Jameton encouraged nurses to continue to tell their stories in order to talk about, learn about, and begin to develop strategies that may lead to successful and satisfying encounters.

Moral distress can occur when conflicts arise between the organization and the patient, or the doctor and the nurse (Corley, 1995). In one of the early-published research studies on moral distress, Corley developed an instrument aimed to measure the concept of moral distress of intensive care nurses, determine the level of moral distress experienced, and identify the concomitant issues surrounding the concept. Using a 32-item, seven point Likert scale, ranging from one to seven, based on Jameton's concept of moral distress, and Wilkinson's (1987/88 a) earlier findings, the first iteration of the Moral Distress Scale was established. Three nursing experts determined the scale to be content valid. Using identical forms, test-retest reliability performed three weeks apart was $r = .86$ ($p < .01$) and the internal reliability was $.93$ ($p < .01$). During the preliminary development of the scale and to validate the situational items on the scale, a treatment group of critical care nurses ($n = 25$) and a control group of occupational health nurses ($n = 25$) were selected. The rationale for the occupational health nurse selection was based on the perception that this group of nurses experienced less exposure to high levels of moral distress. The critical care nurses validated the situations, while the occupational nurses did not experience the situations. The occupational nurses did, however, report other factors that caused moral distress.

Corley (1995) used an exploratory design to assess the level of moral distress among critical care nurses ($N = 111$). The 32-item Moral Distress Scale was subjected to
factor analysis and varimax rotation. The factor analysis identified three meaningful factors: factor one - participating in care not agreed with or ignoring actions one should take (14 items); factor two - providing aggressive care for the hopelessly ill (9 items); and factor three - not addressing impending death honestly (8 items). One item did not load and was eliminated. While a scoring methodology was not presented, it appeared that the mean scores for the factors were computed. The mean scores were between 2.4 and 2.7 on the 7-point Likert scale, with aggressive care serving as the source of greatest distress. Conversely, the situations that occurred most frequently were not the same situations that caused the greatest distress. Of the 111 nurses, 12% had left a nursing position due to moral distress.

The demographic variables were divided into group and work related. Group variables included type of hospital, basic nursing education, highest educational degree in nursing, time since graduation, marital status, age, and gender. The work related variables included length of employment as a nurse, years under current supervisor, type of hospital, and type of clinical unit. Using one-way analysis of variance and the Scheffe’ test, the variables were examined in relation to the MDS scores on each of the three factors. Significantly, the private hospital group reported higher moral distress on factor two, aggressive care ($M = 5.88; F = 6.12; p = .05$), as compared with the academic medical center ($M = 6.12$). The demographic variables of education, age, and years of nursing experience did not predict higher levels of moral distress. Corley suggested continuing this research to include exploring the conditions that healthcare organizations need to provide in order to enable nurses to maintain their moral integrity, as well as,
strategies to prevent moral distress. While there are limitations to Corley’s research, including mean scores below the midpoint, this study was one of the first forays into developing an instrument to measure the concept of moral distress.

While developing a theory of moral distress and refining the instrument to measure the depth and breadth of moral distress, Corley, Elswick, Gorman, and Clor (2001) synthesized the concept of moral distress, role conflict (serving two masters, the organization for whom they work and the physician who directs the care and the values and value systems that drive patient care). While performing content validation of the Moral Distress Scale (MDS), Corley et al. consulted both Jameton and Wilkinson to confirm content validity. The instrument was pilot-tested with 214 critical care nurses in a mailed survey format. The scoring method of the instrument was not described. While the scoring methodology was not presented, it appeared that the mean scores of the intensity and frequency sub-concepts were computed. Corley reported moderate to moderately high levels of intensity of moral distress among this sample. With content validity established, factor analysis was performed which confirmed construct validity among this small sample. The scale reportedly, did not meet criteria for unidimensionality; therefore a total score was determined to not be meaningful for this instrument. The MDS is specific to nurses caring for adults in critical care units and or end-of-life situations. Corley et al. posited that while the MDS was not specific to other specialty settings, it could be modified to serve as a framework to measure moral distress among a variety of nursing specialties.
The concept of moral distress was further developed when Corley (2002) expanded on Jameton's definition and defined moral distress as "the psychological disequilibrium, negative feeling state, and suffering experienced when nurses makes (sic) a moral decision and then either do not or feel that they cannot follow through with the chosen action because of institutional constraints" (p. 643). Corley's Theory of Nurse Moral Distress (2002), derived from clinical experience and a review of the literature, sought to promote prevention and management strategies for nurses. The major concepts of Corley's theory are moral distress and moral intent to act. Corley identified interrelated moral sub-concepts, which are narrow in scope. The sub-concepts that represent characteristics potentially held by nurses include integrity, sensitivity, commitment, competency, imagination, sense making, autonomy, certainty, judgment, intention, heroism, courage, behavior, and comfort. The moral sub-concepts that may lead to moral distress include conflict, outrage, and residue. These sub-concepts are explicitly predictive and thus empiric. For example, nurses who possess a high level of moral commitment, moral imagination, moral competency, and moral sense making are more likely to exercise appropriate moral judgment and experience less moral distress.

There are several major relationships within the theory, as defined by Corley (2002). Nurses with a high moral commitment develop moral competency and moral behavior, which results in less frequent or intense moral distress. Nurses, who have high levels of ethics, work satisfaction, and believe they are in a more constructive work culture, may have lower levels of moral distress. These associational relationships are
integrated, dynamic, and linear. There is no hierarchy among the unidirectional relationships.

The structure of Corley's (2002) theory was that of differentiation, as the author divided the major concepts into sub-concepts. The most central relationships are those of moral intent to act and moral distress, suffering, and residue. Corley's theory was built on the assumption that moral distress is a negative experience. This assumption is both values based and factual.

While moral distress is a phenomenon occurring in many disciplines, and not unique to nursing, the scope of Corley's (2002) mid-range theory is specific to nursing and thus requires a nursing context. This theory, developed in response to a review of the literature and Corley's clinical experience, is inductive in nature. Corley's theory posited that when nurses are unable or perceive themselves to be unable to advocate for patients that in turn, the nurse experiences moral distress. The inability to take moral action when indicated may result in moral distress. Corley suggested the theory serve as an impetus for future research with a focus on the exploration of factors predictive of moral distress, as well as interventions, such as workplace based education programs aimed at reducing moral distress.

To further advance knowledge about the concept of moral distress and refinement of the MDS instrument, Corley, Minick, Elswick, and Jacobs (2005) employed a descriptive-correlational study using a convenience sample ($N = 106$) and a revised 38-item MDS. This study sought to explore how the frequency of moral distress among nurses differs from the intensity of the experience; and whether or not age, race,
education, and years in nursing impacted the intensity or frequency of moral distress.

Two instruments were employed: the Moral Distress Scale and the Ethical Work Environment Questionnaire (EEQ). Subjects completed the MDS and the EEQ. Data were collected and analyzed for descriptive and inferential statistics. The mean MDI item scores ranged from 2.61 to 4.79. The mean MDF item scores ranged from 0.08 to 3.05. The item with the highest degree of frequency and intensity was inadequate or unsafe staffing. The correlation between MDI and MDF was significant ($r = .42$, $p = .01$). Age was negatively correlated with MDI ($r = -.215$, $p = .05$); and race correlated with MDI (Kendall’s tau = .27, $p = .01$). In this sample, 25% had left a position due to moral distress. Factor analysis was not performed due to sample size. Neither the EEQ nor the total MDS score produced significant findings related to the demographics. The findings of this study indicated that while moral distress occurs moderately, most items causing moral distress do not occur frequently.

Building on the earlier work of Wilkinson (1987/88 a,b), Corley (1995), and the AACN (2004), Elpern, Covert, and Kleinpell (2005) sought to assess the levels of moral distress, identify precipitating factors, and explore associations of demographics with moral distress intensity (MDI) and frequency (MDF) scale mean scores, using Corley's 38- item instrument. Elpern et al. described a scoring method to render a total moral distress score. An item score was computed for each item by multiplying the intensity item score by the frequency item score. The range of possible scores was 0 to 36. A total moral distress score was described to be the sum of the item scores. The range of
possible scores was 0 - 1368. Cronbach’s alpha was not reported. Although the authors described how to compute the total score, none was reported.

In this study, 28 nurses anonymously completed the MDS scale and demographic survey. The mean for MDI (3.66) indicated moderate intensity of moral distress, while the mean MDF (1.73) revealed that situations associated with moral distress did not occur frequently. These scores were consistent with Corley’s 1995 findings. Also consistent was the factor ‘aggressive care believed not to be in the patient’s best interest’ was the greatest source of moral distress and corresponded to the highest intensity of moral distress. Contrary to Corley’s findings, this factor also corresponded to the highest frequency of moral distress. The descriptive aspect of this study illuminated the specific patients and scenarios associated with higher degrees of moral distress, specifically providing aggressive care in futile situations.

The sample for this study was small and involved nurses from the same unit; therefore the findings may not be transferrable to other settings. The authors posit that the MDS instrument does not reflect all clinical situations that may result in moral distress. This researcher questions the ability of any instrument to reflect all situations. Nurses in this study responded positively to the findings, as many perceived themselves to be alone in the experience of this phenomenon. The authors concluded with the caveat that moral distress deserves “urgent and extended attention,” with a focus on research on effective interventions. Despite describing the method to calculate the total moral distress score, individual item scores were reported, however total MDS scores were not reported.
Seeking to augment understanding of the causes of moral distress, perceived constraints, and effects on patient care among nurses, Gutierrez (2005) used a qualitative, descriptive methodology to interview colleagues ($N = 12$), known to the researcher. Using a guided interview format, Gutierrez addressed three moral concepts: conflict, judgment, and action. Moral conflict was described as: situations involving two or more incompatible or opposing moral values such as overly aggressive medical treatment, inappropriate utilization of healthcare dollars and resources, lack of respect for patients by physicians, and incomplete or inaccurate information given to patients and families by physicians. Moral judgment, described by Gutierrez (2005), is that which takes precedence when moral values are in conflict. The ability to implement action surrounding moral judgment is described as moral action. Constraints to moral action include conflicting goals among the healthcare team, patient, and or family, poorly established physician / family / nurse relationships, limited time, fear of physician retaliation, inexperienced medical staff, perceived hierarchies, and the culture of a teaching institution.

Consistent with Wilkinson’s (1987/88 b) findings, Gutierrez (2005) found one-third of the subjects reported withdrawing from the bedside in some capacity and the majority of these nurses did not perceive that as being significant toward patient care. Perceived absence of power and voice was a consistent finding in this study. A weakness of this study was the researcher’s pre-established relationship with the subjects. A strength of this study was an extensive list of recommendations for nursing practice including: improve communication and collaboration between patient, family and the
healthcare team; improve communication between staff nurses and nursing leadership; develop shared decision-making models; support families emotionally and psychologically; provide ethics education; promote interdisciplinary education between nursing and medical students; and strengthen palliative care guidelines (pp. 242-244).

Providing additional support for Gutierrez’s (2005) recommendation to improve communication and collaboration between the patient and the healthcare team, Hamric, Davis, and Childress (2006) espoused the value of interdisciplinary collaboration to ameliorate the devastating effects of moral distress among members of the healthcare team. Representing nursing, physical medicine, and medicine respectively, the dialogue reviewed the genesis of the concept of moral distress, perceived hierarchies, intrinsic and extrinsic factors, and the differing perspectives and value orientation of the different disciplines of the healthcare team. The transcript of the dialogue is an important contribution to the moral distress literature, for it brings to light that members of varying disciplines often do not recognize the moral distress of the other members of the team. Hamric et al. reinforced the importance of ‘naming’ the phenomenon. By identifying moral distress when it occurs, nurses are helped to recognize the phenomenon, its antecedents, as well as, the consequences. Suggested strategies to limit the occurrence of moral distress included members of the health care team learning how to give and receive feedback; engage in effective communication techniques; identify values that may cause conflict for the individual; and build teams based on mutual respect, shared responsibilities, successes, and failures.
Effective communication and values identification served as the foundation for the American Association of Critical Care Nurses (AACN) presentation of an evidence-based position statement on moral distress first issued in 2004 and revised in 2006, which identified moral distress as “a serious problem in nursing.” This position statement presented a definition, implications for nurses, patients, and organizations. The AACN position statement affirms that nurses and nurse employers are responsible to implement programs intended to limit the deleterious effects of moral distress. Significant to this position statement, was the provision of strategies specifically designed to create a healthy work environment including: recognizing and naming moral distress, the commitment to uphold one’s professional ethical and moral obligations, and to be knowledgeable and willing to use all available resources to address moral distress. Other recommended strategies included active participation in professional activities to improve understanding of the effects of moral distress, develop skills to minimize the detrimental effects of moral distress, and implement strategies to create a healthy culture for the delivery of nursing care.

In 2006, the AACN challenged every health care employer and individual nurse to create healthy workplace environments and reduce the harmful effects of moral distress. The AACN developed a systematic process entitled *The 4A’s to Rise Above Moral Distress* (2005) (4A’s). The goal of this educational program was to provide nurses with a framework aimed to identify moral distress, and suggested strategies to effectively respond to ethical or moral conflicts. The 4A's denote Ask, Affirm, Assess, and Act. The tool kit included a facilitator handbook, a participant handbook, and
PowerPoint© presentation. The first step required the nurse to ‘ask’ them self if the source of one's stress is moral distress. The second step required the nurse to acknowledge or ‘affirm’ the distress and commit to act on it. The third step required ‘assessment’ of the nurse's readiness to act. The fourth and final step required the nurse to take action. While no empiric references support the use of this program, Rushton (2006) presented the model, describing the 4A’s program. Program development and program delivery details were not provided.

Cohen and Erickson (2006), who explored the effects of frequently encountered ethical conflicts and moral dilemmas faced by registered nurses in the oncology specialty, further emphasized the professional obligation of the nurse to adhere to the ethical principles of the ANA Code of Ethics. A problem-solving process of assessing, identifying, and analyzing ethical problems was suggested including exploring options, implementing action, and evaluating the outcome as reflective of the nursing process. The authors espoused the value of ethics committees and formal ethics education for nurses in both schools of nursing and as continuing education after graduation. This article was an excellent review of the ramifications of moral distress among oncology nurses, basic strategies, and support for basic and continued education in the area of ethics.

In an effort to legitimize nurses voiced concerns, Zuzelo (2007) performed a quantitative, descriptive study exploring the types and frequencies of the moral distress sub-concepts of frequency and intensity. Corley's theory of moral distress served as the framework for this study. By means of a convenience sample recruited from a healthcare
network in a mid-Atlantic state, Zuzelo used the original seven point Corley Moral Distress Scale. Using multimedia methods, an informational letter was generated to all RNs within the network. The author did not disclose the total number of subjects targeted. After obtaining IRB approval, the researcher distributed the survey to those who responded and agreed to participate.

The respondents \((N = 100)\) were employed in a variety of patient care settings. Demographics were reported, however the questions on the collection instrument were not provided. Nurses reported a mean of 15.24 years \((SD = 9.05)\) in the profession. The majority \((59\%)\) had completed their baccalaureate degree. Of the remaining respondents, 17\% had a diploma, 23\% had an associate’s degree, and 1\% had a master’s degree. The majority \((75\%)\) had never initiated an ethics review or consultation; and 85\% had not received any ethics education credits or continuing education.

Zuzelo (2007) analyzed the frequency and intensity subscales by items, analyzing those that occurred with the most frequency or intensity. There was no discussion as to scoring methodology. Items were given a mean score and standard deviation and a mean frequency score and standard deviation. No mean scores were reported for frequency or intensity. A total score was not reported. Zuzelo reported that item number 13, ‘working with levels of nurse staffing that I consider unsafe’ to be the highest scoring mean item \((M = 4.14, SD = 1.93)\); however, it was on the lower end of frequency \((M = 2.84, SD = 1.88)\). While this item is a significant source of intensity, it does not occur frequently. The second highest scoring mean item was item 18: ‘assist a physician who in your opinion is providing incompetent care’. While this situation does not occur frequently, it
is a significant source of moral distress. Carrying out a physician’s order for unnecessary
tests and treatments (item 3) was the most frequently occurring item
\((M = 3.31, SD = 1.68)\); followed by ‘follow the family’s wishes to continue life support
even though it is not in the best interest of the patient’ \((M = 2.86 SD=1.86)\).

In addition to the quantitative data, narrative data were solicited by Zuzelo (2007).
Nurses expressed significant resentment directed at physicians for not preemptively
addressing death and dying issues, providing false hope and unrealistic outcome
expectations, and allowing patients to suffer. Respondents expressed frustration with
family members overruling the patient’s wishes. Inadequate staffing was also a source of
frustration and discontent.

Nurse respondents \((n = 46)\) provided suggestions to decrease the occurrence of
situations found to be sources of distress. Zuzelo (2007) presented these suggestions
which included: the provision of specific ethics education in undergraduate and graduate
nursing curricula, improving nurse access to ethics committee involvement and
accessibility, staff support with debriefings after incidents occur, change physician
behavior, and the development of guidelines to limit the incidence and exposure to
situations that may generate moral distress. While improving ethics education and access
to ethics committees is realistic, it may actually be unrealistic to think that changing
physician behavior will occur. Changing physician behavior was suggested by the
author, while enhancing interdisciplinary communication was not included.

The results of this study are consistent with the findings of Corley, confirming
that moral distress occurs across many specialties of nursing. The author discussed that
while access to an ethics committee is important; it is reactive rather than pre-emptive. The MDS instrument was reportedly difficult for some to comprehend, which Zuzelo (2007) posited may have resulted in unreliable results.

The study by Zuzelo (2007) was an important study as it contributed to nursing's existing body of knowledge of moral distress and the Moral Distress Scale. Zuzelo’s findings confirm that nurses, in many settings, experience moral distress. Nurses in this study had little to no ethics education to support their knowledge base or preparation to tackle issues that they are likely to face as nurses. These findings help to inform nursing faculty in the development of curricula and education policy, as well as nurse scientists, as they work to develop more refined instruments to measure moral distress.

Consistent with much of the moral distress literature, end of life care poses a great deal of moral distress among nurses, as well as physicians. Hamric and Blackhall (2007) conducted a descriptive pilot study, using a survey design to study registered nurses’ and physicians’ perceptions and perspectives of moral distress, and the perceptions of the ethical environment of the setting. While moral distress has been explored among nurses, few studies have explored the effects of moral distress upon residents, physicians, and fellows. Additionally, there has been little research on the ethical climates impact on moral distress.

Using focus groups to inform survey development, Hamric and Blackhall (2007) amassed variables relating to end of life care, moral distress, collaboration between disciplines, and satisfaction with care from eight registered nurses and twelve residents and attending physicians. Utilizing literature reviews, and clinical experiences, Hamric
and Blackhall adapted Corley’s Moral Distress Scale, using only the variables that related to end of life care and appropriate to both physician and registered nurses. The revised scale included 19 items with a Likert scale response of 0 to 4 for both intensity and frequency. For each of the 19 items, an item score was computed by multiplying the mean intensity (MDI) by the mean frequency (MDF). The range of the products was 0 to 16. A moral distress total score was then calculated by summing the item scores. The range of the item scores was 0 to 304.

Two hospitals were used to solicit survey subjects. The first hospital, a large community hospital in Virginia, had multiple intensive care units, but no palliative care services. Each person who returned a questionnaire was paid $25. Of the 393 surveys distributed to this hospital, there was a 50.4% return rate. The final sample was comprised of 106 registered nurses and 29 physicians. The second hospital was a large urban hospital in Virginia with multiple intensive care units and palliative care services. In this hospital, those surveyed were not paid, which may contribute to why only 94 of the 280 surveys were returned, for a response rate of 33%. Only four physicians responded. Since the physician response rate was so low, it was impossible to compare physician and nurse responses, therefore the physician variable from this hospital was eliminated from the study.

The study found that registered nurses experienced more moral distress than their physician counterparts ($p < .001$). Both registered nurses and physicians ranked the variable ‘follow the family’s wishes to continue life support even though not in patient’s best interest’, as the highest in intensity Hospital #1 RNs ($M = 10.24$, $SD = 4.70$);
Hospital #1 MD’s ($M = 6.01, SD = 3.48$); Hospital #2 RNs ($M = 9.33, SD = 4.39$). While there was not a significant difference between the site one registered nurses and physicians regarding the intensity of the experience ($p = .139$), there was a significant difference regarding the frequency of the experience ($p < .001$) between the registered nurses and their physician counterparts. The registered nurses at the first hospital had higher total moral distress scores than their peers at the second hospital, Hospital #1 RNs ($M = 80.38, SD = 33.74$); Hospital #2 RNs ($M = 70.21, SD = 33.22$). Overall mean intensity or mean frequency scores were not reported for either of the groups.

Several limitations were evident in this study. Hamric and Blackhall (2007) reported that the survey was modified during the study. Based on the findings from the first group, one question was reworded prior to distributing to the second group. Information regarding the instruments reliability and validity was not provided. The reported Cronbach’s alpha using the product score of each item was .83; however, the authors did not specify as to which version of their instrument it applied.

Many iterations of the definition of moral distress have evolved over the past 20 years with a focus on extrinsic constraints. In a review of the literature, Pendry (2007) further redefined moral distress as “the physical and or emotional suffering that is experienced when constraints (intrinsic or extrinsic) prevent one from following the course of action that one believes is right” (p. 217). Pendry cited the following sources of moral distress: dueling expectations, conflicting expectations between physicians and nurses, perceived powerlessness, end-of-life decision-making, futile care, and job dissatisfaction.
In an effort to facilitate nurses’ abilities to solve difficult ethical dilemmas, Lachman (2008) elucidated the concept of six virtues that apply to nursing and relate to moral and ethical behavior. The American Nurses Association (ANA) Code of Ethics (2005) served as a framework for this description. The Code of Ethics identified the four primary obligations the registered nurse has to the public including: respecting privacy and protecting confidentiality; communicating honestly; conducting the ethical process of informed consent; and advocating for patients. Lachman further clarified the concept by distinguishing virtues from obligations. Virtues were described as “the qualities a person possesses that motivate her to act in a moral or ethical way” (p. 45) or personal characteristics that influence people to do what is morally or ethically right. Lachman ascribed the following six virtues to nursing: professional competence; honesty and integrity; caring and compassion; fairness and justice; respect and self-respect; and courage. In this review of the moral distress literature, courage has rarely been mentioned. Using virtues as a foundation, Lachman described and provided excellent examples of how the nurse can meet his or her professional obligations while strengthening character with the introduction of the concept of courage.

Yet another important contribution in relation to the value of ethics education among nurses came from Grady et al. (2008). Grady et al. sought to isolate common ethical problems among experienced nurses and social workers. Using a questionnaire format, questions centered on the intensity of ethical stress and factors influencing ethical stress, perceptions of the ethical climate of their work place, self-described moral action, access to and use of ethical resources, satisfaction with their job, and demographics. In
the survey of nurses and social workers \( (N = 1,215) \), Grady et al. found that ethics training and education had a significant influence on the confidence, use of ethics resources, and moral action of nurses and social workers \( (p < .001) \). The strength of this study was the sample size and the effort to explore the relationship of ethics education and its influence on moral action among healthcare workers. Unfortunately, the suggested content for ethics curriculum training was not included in the authors’ description of the study.

While Corley’s Moral Distress Scale instrument was developed to measure moral distress among critical care nurses, Rice et al. (2008) sought to use Corley’s instrument to provide empirical support to measure the prevalence and frequency of moral distress among a convenience group of \( (N = 260) \) medical-surgical nurses. The results of this prospective, cross sectional, anonymous survey revealed that years of nursing experience positively correlated with frequency of moral distress.

Using Corley’s 38-item scale, Rice et al. (2008) analyzed the data differently than Corley. While Corley multiplied the mean intensity by the mean frequency to come up with a product, Rice et al. used the sum score of intensity and frequency and expressed the calculation as median scores for the group. No total MDS score was expressed. Using the categories previously reported by Corley (2001), the sum scores were calculated and expressed as median scores within each category.

The demographic findings revealed the respondents were 96% female with a median age of 34 years old, median nursing experience of six years, and median time employed in present position at three years. The level of education dispersion revealed
that a diploma was held by 5%, an associate degree was held by 29%, a baccalaureate
degree was held by 62%, and 4% held a master’s degree. The authors did not distinguish
present versus entry level of education.

Rice et al. (2008) categorized the 38-frequency and intensity responses into six
moral distress attributes and ranked them by the total moral distress score. The
categories included: physician practice, nursing practice, institutional factors, futile care,
deception, and euthanasia. Applying a univariate analysis, the study analyzed the
individual demographic variables and their relationship to the intensity and frequency of
moral distress in each of the six categories. The authors reported mean moral distress
scores as predictors of moral distress in relation to demographic findings and the six
categories of moral distress situations. In terms of MDI, there was a positive correlation
between nurses over 34 years of age and moral distress relating to futile care ($p = .04$)
and deception ($p = .06$). Nurses employed over three years were associated higher MDI
relating to physician practice ($p = .02$), futile care ($p = .05$), and deception ($p = .04$).
Nurses with more than six years of experience were associated with higher MDI relating
to physician practice ($p = .01$), nursing practice ($p = .04$), futile care ($p = .001$), and
deception ($p = .03$). As for MDF, nurses over 34 years of age were associated with
higher MDF in the physician practice ($p = .02$), and futile care ($p = .006$) categories;
current employment over three years related to higher MDF in the physician practice
($p = .003$) and futile care ($p = .07$) categories; and nursing experience greater than six
years related to higher MDF in all categories except deception ($p = .05$). Univariate
analysis was also performed by specialty with findings that oncology and transplant
nurses had significantly higher frequency scores than other registered nurses in this study \( p = .05 \).

The findings of the multiple regression analysis supported a relationship between and among the variables. The relationship of each of the six identified categories was analyzed in relation to age, duration of current employment, overall nursing years of experience, and types of patients (oncology/transplant versus surgical). Nursing experience greater than six years was a significant positive predictor for MDF for all six categories of moral distress \( p = .05 \).

Strategies were suggested by Rice et al. (2008) to decrease the intensity and frequency of moral distress. Communication among nurses, providers, and other members of the health care team is described as "key" to achieving the desired goals of medicine and nursing. The authors posit that interdisciplinary education and ethics rounds may serve to resolve and prevent ethical conflicts.

Several limitations were found in this study. The authors utilized a different scoring method than that of Corley et al. (2005). No indication of reliability testing was provided. Also, as this study was performed at only one site, the findings have limited external validity and were not generalizable.

The research findings of Pauly, Varcoe, Storch, and Newton (2009) reported that nurses “often found it difficult to enact their professional and ethical values in the current health care environment” (p. 561). Positing that focus on a positive ethical climate is integral to a healthy work environment; Pauly et al. conducted a survey of moral distress and nurse’s perceptions of the ethical climate of their work environment. Hypothesizing
a negative correlation between total moral distress scores and negative perceptions of ethical climate, the researchers conducted a cross sectional survey using Corley's Moral Distress Scale and Olson's Hospital Ethical Climate Survey (HECS). In consultation with Corley, the team revised Corley's 38-item MDS scale to align with the context of Canadian health care. Cronbach's alpha of the revised instrument was reportedly .98 for intensity and .90 for frequency. The HECS is a 26-item Likert scale, using a range of 1 to 5 for five factors: relationship with peers, patients, managers, hospital, and physicians. The higher the HECS score the more positive the ethical environment. The internal consistency reliability was reportedly .91.

Using a randomly generated list, 1700 of the 6,000 registered nurses who agreed to participate were selected to participate in the study. Only 22% (N = 374) responded to the survey. Mean HECS and mean MDI and MDF scores were calculated. The mean MDI score was 3.88. A total score was not calculated. The top two items with the highest intensity score were 'working with levels of staffing I consider unsafe' (M = 4.63) and 'be required to nurse patients I am not competent to care for' (M = 4.56). The mean MDF score was (M = 1.31). The top two items with the highest frequency score was 'working with levels of staffing I consider unsafe' (M = 2.78) and 'carry out physician's order for unnecessary tests and treatment (M = 2.55). The correlation of MDI and MDF was significant (r = 0.412, p < 0.01), and inferred that while moral distress occurred infrequently, it was intense. No demographic factors were found to correlate significantly with the mean MDS. The mean score for the HECS was M = 3.48. No demographic factors were found to correlate significantly with nurses' perceptions of the
ethical climate; however, all five factors in the HECS were found to correlate significantly with moral distress. The HECS score negatively correlated with MDI and MDF ($p < 0.001$). More positive ethical climates correlated with less MDI and MDF.

Pauly et al. (2009) recommend several strategies to be employed to improve ethical climates. One suggested strategy is that of relationship building among members of the health care team. Another suggestion was to utilize a triangulated approach to better understand the phenomenon of moral distress and the relationship of the ethical milieu encountered by nurses.

Limitations to this study include the low response rate and in turn the lack of generalizability to the general population. That being said, this was the largest study to date using Corley's MDS instrument. The findings of this study support the premise that moral distress is not one-dimensional and further research is in need to generate a better understanding of moral distress and the ethical environment.

**Moral Distress Intervention Strategies**

One strategy reinforced throughout the literature intended to reduce the incidence of moral distress, is the use of educational interventions. A review of the literature was conducted to explore the breadth and depth of educational interventions. The database EBSCOnhost using CINAHL and Health Source: Nursing Academic edition was employed using the delimiters: moral distress + ethics education + nursing. This search secured 49 results. The titles and abstracts were initially reviewed for pertinence. This search yielded 10 articles with the potential to contribute to this research.
Erlen's (2001) conversations with nurses served to highlight the perceived power imbalance, conflicting loyalties, and invisibility among many nurses who experience moral distress. Erlen reinforced the professional nurses' responsibility to adhere to the Code of Ethics, and keep the patient central to the nurse's work, by working to create and maintain ethical environments. Fostering effective, quality communication is an important ingredient to that end. Ethics education through participation in case conferences, shared governance, and formal education programs were posited to be effective strategies to creating and maintaining ethical environments. Erlen's conversations highlighted the power imbalance, perceived invisibility, and demonstrated the pervasiveness of moral distress among nurses.

In its 2006 position statement on moral distress, the American Association of Critical Care Nurses (AACN) suggested an action plan to address and alleviate moral distress among nurses. Some of the strategies include a concrete understanding of the American Nurses Association's Code of Ethics (2005), use of The 4A's to Rise Above Moral Distress (2005) education program; participation in professional activities, developing skills to decrease moral distress, and implementing strategies to change the work culture. The AACN placed the onus of responsibility to effect positive changes upon the culture of nursing work on organizations employing nurses, nursing organizations, and individual nurses. The AACN provided no reference as to the efficacy of The 4A's to Rise Above Moral Distress.

The nurse's responsibility to adhere to the American Nurses Association (ANA) fundamental values of the Code of Ethics (2005), as well as virtue ethics, was reinforced
by Cohen and Erickson's (2006) review of ethical principles and values in nursing practice. Cohen and Erickson included the virtue ethics of nonmaleficence, beneficence, autonomy, fidelity, veracity, and justice. While similar in nature, nonmaleficence was described as one's moral obligation to not cause harm, while beneficence is the moral obligation to take the correct course of action for others. The right of individuals to make their own decisions and choices is autonomy. Fidelity is the moral obligation to honor commitments; veracity is concerned with accuracy, truth, and honesty serving as the basis for conviction and action; and justice is the moral obligation to treat all people with fairness and equality.

When discordance occurs among these moral virtues either within the nurse, or between the nurse and the organization or other members of the healthcare team, patient, or family, the potential for moral distress arises. To respond appropriately in such situations, Cohen and Erickson (2006) reinforced the nurses need to recognize the potential for conflict and respond appropriately. The authors recommended a problem solving process similar to the nursing process: assess, identify the ethical problem, analyze, explore the options, implement, and evaluate the outcome. Ethics grand rounds and active engagement with hospital ethics committees were reinforced, as well as, journal clubs, and formal education courses. Unidentified and unresolved ethical dilemmas were triggers for moral distress. Formal education including how to develop awareness of ethical obligations, as well as, teaching nurses to articulate appropriate responses to such triggers may help nurses to uphold their ethical and professional responsibilities.
Moral distress is not unique to nursing. In a controlled prospective pretest-posttest ($N = 184$) study, Sporrong, Arnetz, Hansson, Westerholm, and Hoglund (2007) evaluated a structured interdisciplinary education and training program in ethics, and its effects on moral distress among pharmacy and hospital clinical staff. Several of the identified ethics competencies included understanding the Code of Ethics, recognition, and action in the face of moral dilemmas. The instrument, Quality Work Competence questionnaire, contained 11 sub-scales. The sub-scales included well-being of the employee, the climate of the work place, the pace of the work place, work related fatigue, performance reviews, participatory management, employeeship, the development of skills, clarity of goals, effectiveness, and leadership.

The course content included theoretical ethics knowledge, case studies, responsibilities, and reflection. While the respondents reported the course "interesting," when the treatment group was compared to the control group, using $t$-test analyses, the authors reported no statistically significant findings from the intervention on moral distress. Definitions of the various sub-scale themes were not provided.

The weaknesses of this study included poorly controlled internal validity such as maturation, history, lack of support by leadership, and a workplace dispute at the time of data collection. The interventions were held after work hours for the pharmacy group and during work hours for the hospital group resulting in attrition and missed classes.

Sporrong, Arnetz, Hansson, Westerholm, and Hoglund (2007) posited that the length and content of ethics education programs should be considered in order to effectively design, deliver, and evaluate programs on ethics. Sporrong et al. suggest that
small dose ethics education interventions may not provide learners competence to effectively address situations that may lead to moral distress

Further exploring the effectiveness of educational interventions, Bell and Breslin (2008), in a literature review, highlighted the relationship between the duty of nursing administrators to promote ethical climates and the subsequent benefits to recruitment and retention. The authors elucidated frequently encountered ethical dilemmas and provided suggestions and or interventions specific to the dilemma. The need for education in ethics and forums to discuss ethical dilemmas and the sharing of experiences was consistent throughout their recommendations.

Exploring the relationship between ethics education and the moral actions of nurses and social workers, Grady et al. (2008) reported on the findings of their large self-administered survey of 1,215 nurses and social workers. The researchers sought to identify frequently encountered ethical problems experienced by social workers and nurses, the intensity of ethical stress, factors influencing stress, the ethical climate in which they were employed, the likelihood of taking moral action in the face of an ethical dilemma, and one’s use of ethical resources. Social workers reported having received formal education or course work in ethics education compared to nurses (60.2% versus 51.2%, respectively; \( p = .003 \)). Consistently, more nurses than social workers reported having received no formal education or course work in ethics (22.7% versus 7.5%, respectively; \( p < .001 \)).

The magnitude of the Grady et al. (2008) survey sample size leant itself to missing data. Analysis of variance and multiple regressions were employed using SPSS
software. Findings of the research supported that “education and training in ethics had a significant influence on the confidence, use of ethical resources, and moral actions of nurses and social workers” (Grady et al. p. 9). Ethics education was found to bolster one’s confidence in ethical decision-making and initiating action (moral action) when indicated. The highest confidence and moral action scores were associated with those nurses and social workers that partook in continuing education programs, either formal or informal, centering on ethics. The authors suggested further study into this finding. They elucidated on the dilemma of what should be taught in such ethics education programs. Skills’ based training is argued to be more meaningful than abstract, theory-based training. No research has been reported that describes the content or context of such educational programs. A strength of this study was the large sample size. Of concern was the use of self-reporting of respondents, yet Grady and colleagues’ work is a significant contribution to the potential role of ethics continuing education for nurses.

In an attempt to further research interventions to reduce or limit moral distress, Beumer (2008) described the effects of a workshop designed for intensive care (ICU) nurses to identify and respond to ethical dilemmas. The workshop was designed and developed by an interdisciplinary team and was planned to be taught five times over a four week period. Each class was for two hours. It was unclear whether subjects attended all five offerings. Subjects were from a non-randomized, convenience sample of intensive care unit registered nurses ($N = 34$).

Based on the themes of Corley’s Moral Distress Scale, the author developed an 8-item questionnaire using a 5-point Likert scale format and four true or false questions.
Both didactic and interactive teaching strategies were employed. The treatment group 
\( n = 21 \) attended a workshop with content that included the AACN’s 4A’s program, case 
presentations, and reflection. The control group did not attend the workshop.

This study had significant shortcomings. The modified Corley’s Moral Distress 
Scale lacked a systematic modification. Instrument reliability and validity was not 
established. The author described that the first questionnaire was completed at the first 
class, but did not specify if prior to, or after the class, so the reader was unable to discern 
if a true pretest. Of particular concern is the test was completed prior to the concept of 
moral distress being defined. The control group was described to be comprised of 
supplemental staff working at the time the class was held and at the time of the posttest. 
Only the subjects' responses to the Likert scale were reported. While the author reported 
the moral distress workshop and education diminished the nurse's experience of moral 
distress, the control group in five of the seven questions, responded similar or better than 
the treatment group. One question asked whether staff felt they had adequate resources 
to cope with morally distressing situations. Of the group attending the class, before the 
workshop 12% agreed to adequate resources for coping with morally distressing 
situations, and 23% agreed after completing the workshop, however of the control group, 
46% strongly agreed to this question without the benefit of the workshop. Another 
question asked if the nurse perceives treatment to be futile, is the nurse empowered to 
speak up? Of the group attending the class before the workshop, 28% responded strongly 
agreed, and 33% agreed after attending the workshop, however of the control group, 38%
strongly agreed without the benefit of the workshop. The only strength of the study was the researcher’s foray to determine the effectiveness of the 4A’s education intervention.

This was a poorly developed study with many limitations including the limited sample size of the study, the instrument lacked validity and reliability, and the staff lacked an agreed upon definition for the concept of moral distress. Neither a scoring methodology nor data analysis was provided for the modified instrument. This study, as described should not be replicated.

Deuchsher and Myrick’s (2008) review of the literature relating to the socialization experiences of new graduates explored the role of oppression resulting in moral distress. Employing Critical Social Theory and Critical Feminist Theory, this was an excellent account of the hierarchically driven ideologies and their potential to result in moral distress. The authors recommended workplace-based continuing education to empower nurses and thus develop and maintain an ethical culture, in which to provide effective care.

Many authors have described the composition of moral distress, its antecedents, and consequences; however, few efforts have been documented aimed at minimizing its presence. Understanding the sources and resulting consequences may be integral in order to effectively develop strategies aimed at reducing the harmful effects of this problem. Deuchsher and Myrick’s (2008) review of the literature as presented explored definitions, sources of moral distress, and frameworks from which to explore moral distress. It contained the results of both quantitative and qualitative research methodologies. The majority of the literature provides theoretical and anecdotal suggestions for interventions.
to alleviate this phenomenon (Corley, 2002; Grady, 2008; Lachman, 2008; Rushton, 2006).

**Oppression**

A significant finding of this review of the moral distress literature was the prevalence of the concept of powerlessness and oppression as they relate to moral distress. The moral distress literature has been permeated with references to powerlessness (Austin, Lemermeyer, Goldberg, Bergum, & Johnson, 2008; Bell & Breslin, 2008; Cohen & Erickson, 2006; Corley et al., 2001; Elpern, Covert, & Kleinpell, 2009; Erlen, 2001; Jennings, 2004; Lutzen, Cronquist, Magnussen, & Andersson, 2003; Nathaniel, 2006; Storch & Kenny, 2007; Sumner & Townsend-Rocchiccioli, 2003; Sundin-Huard & Fahy, 1999; Ulrich, O'Donnell, Taylor, Farrar, Danis, & Grady, 2007; Wilkinson, 1987/88 a, 1989; Zuzelo, 2007). In the Grady et al. study, nearly 40% of the respondents (N = 1,215) reported feeling powerless. Oppression was another frequently cited source of moral distress (Deuchsher & Myrick, 2008; Jameton, 1993; McCarthy & Deady, 2008; Simmonds, 2008). The frequency and intensity of these perceived experiences underscored the importance of helping nurses to develop their moral agency or self.

Freire (1971) conjectured that if those children raised in an oppressive home environment, and potentiated by an inflexible school environment did not rebel against the oppression as teenagers, oppression would continue into adulthood. Freire established that in a culture of oppression, the subordinate group takes on the characteristics of the dominant group, and in turn begins to detest the characteristics of
one's own group, while longing to 'be like the boss'. When the subordinate is promoted
to a leadership role, the new leader takes on the characteristics of the dominant class, and
to demonstrate authority, is as tough, if not tougher, than the boss. This is significant to
nursing as nurse leaders frequently are hired from within the ranks. If the promoted nurse
adopts the characteristics of the dominant influences in the healthcare setting (physicians
and administrators) they in turn, may become dominators themselves, thus perpetuating
the oppression. According to Freire, coping mechanisms for the oppressed include not
thinking and not speaking one's mind (voiceless). Roberts (2000) argued that nursing
lacks power and authority in the hospital environment. When dominated by physicians
and administrators, nursing may lack control, which may result in oppressed group
behaviors. Oppressed persons are often marginalized and separate from the dominant
group (invisible), resulting in diminished self-esteem, diminished status, diminished
perceived power (powerless), and diminished autonomy.

Threads of oppression permeate the nursing and moral distress literature including
powerlessness, voicelessness, and invisibility. Kendall (1992) characterized oppression
as imbalanced relations in a social system where an inequity of power exists. This would
apply to nursing, as historically, nursing has experienced an imbalance of power in the
healthcare culture. McCall (1996) posited that “nurses, like other oppressed groups,
exhibit self-hatred and dislike for other nurses” (p. 28).

While the definition of moral distress has been evolving over the past 30 years,
the sources of moral distress among nurses are well known. The literature review
revealed personal, interpersonal, and organizational sources of moral distress. Personal
sources of moral distress included perceived powerlessness (Cohen & Erickson, 2006), knowing an action or inaction may cause harm, believing that action will not make a difference, and educational insecurity or lack of preparedness. Interpersonal sources of moral distress include lack of support systems (Corley et al. 2005; Hamric et al. 2006), treating patients like objects, unaddressed pain management, prolonging dying, and professional conflicts (Erlen, 2001). Organizational sources of moral distress include institutional constraints (Hamric et al., 2006; Jameton, 1993), inadequate staffing (Corley et al., 2006), cost containment, rules versus praxis (Rushton, 2006), definition of brain death (Erlen, 2001), non-supportive cultures, and the perceived value gap between physicians and nurses (Erlen, 2001).

Walker and Avant (2005) defined consequences as "those events or incidents that occur as a result of the concept" (p. 73). Moral distress has profound and potentially devastating consequences for a profession already facing a severe shortage. Over the past decade, nurse researchers have begun to explore the deleterious effects moral distress has on the patient, the nurse, and the healthcare subculture. There is limited research as to the effects of moral distress on patient outcomes.

Wilkinson (1987/88 b) determined the consequences of moral distress among nurses led to either avoidance of patients or overly solicitous care. Corley (2002) reported poorly managed pain and suffering, increased length of stay, inappropriate care, avoidance strategies, and lack of advocacy. The consequences of moral distress to the nurse include loss of ability to care, impaired self-esteem, compromised integrity,
frustration, burnout, health and psychological illness, and resignation (Corley; Rushton, 2006; Wilkinson 1987/88 b).

The consequences to healthcare organizations are increased length of stay, increased morbidity and mortality, nurse burnout, increased health care costs, resignations, and job turnover costs (Corley, Minick, Elswick, & Jacobs, 2005; Hamric et al., 2006; AACN, 2006; Rushton, 2006; Sumner & Townsend-Rocchiccioli, 2003; Severinsson, 2002; Pendry, 2007). When unaddressed, the lingering after-effects of moral distress have been referred to as moral residue (Corley et al., 2005; Hamric et al., 2006). In extreme cases, moral distress may escalate to moral outrage (Cohen & Erickson, 2006; Pike, 1991).

Recommendations were plentiful throughout the review of the literature. Suggestions included communication, organizational, educational, and personal improvement strategies. Communication strategies included improving communication and collaboration between nurses, physicians, patients, and their family members; as well as improving communication between staff nurses and nurse leaders (Erlen, 2001; Hamric, Davis, & Childress, 2006; Rice et al., 2008; Pauly et al., 2009)

Organizational strategies to decrease moral distress included creating healthy work environments, strengthening palliative care guidelines, and employ shared decision making models for nursing. Organizations were encouraged in the literature to support registered nurses to uphold their ethical obligations, improve the registered nurses' access to ethics committees, provide staff the support of debriefing after critical incidents'.
provide workplace-based continuing ethics education (Gutierrez et al., 2005; Zuzelo, 2007; Deuchsher & Myrick, 2008; Grady et al., 2008).

Several strategies in the education of nurses and physicians were included. The provision of ethics education in both undergraduate and graduate nursing education was found to increase the likelihood that a nurse would advocate for their patient, which would result in decreased moral distress (Grady et al., 2008). In an effort to minimize the hierarchies of healthcare, universities educating physicians and nurses were encouraged to implement interdisciplinary education programs aimed to perpetuate or influence a balance in physician-nurse relationships (Hamric, Davis, & Childress 2006; Sporrong et al., 2007).

Chapter Summary

This literature review provided insight into what was known about moral distress. The concept of moral distress has been defined and explored providing a tentative understanding of the attributes and characteristics that bring meaning to the term. Intrinsic and extrinsic stressors that may result in moral distress, as well as, consequences of the concept have been described. The amount of literature on moral distress was testimony that moral distress is not unique to nursing. Moral distress is shrouded in threads of oppression, voicelessness, insufficient ethics education, or knowledge, constraints to moral action, and perceived power imbalance). Although ethics education has been found to strengthen nurses’ moral agency, RNs frequently report no formal ethics education in their basic nursing education.
The review of the moral distress literature revealed that moral distress is pervasive among RNs with potentially devastating consequences. It was this researcher's observations that nurses do not speak about 'moral distress', they speak about what 'it' does physically and emotionally to the nurse. These consequences of moral distress reportedly may include sleeplessness, nausea, and headaches; and they speak about the feelings surrounding moral distress such as anger, isolation, frustration, desires to avoid patients, and ultimately, the need to leave the profession.

While moral distress is not unique to nursing, the majority of the research on moral distress has been conducted primarily on nurses. The literature was replete with descriptive findings representative of moral distress among nurses; however, there remains a dearth of strategies designed to reduce or eliminate this threat to the nursing profession. Prevention strategies such as undergraduate education and continuing education aimed to manage and or decrease moral distress in the healthcare work environment were well supported by the literature.

What is not known also became apparent with the literature review. While moral distress was frequently studied in relation to end of life issues, very little has been published regarding moral distress among non-critical care nurses. The literature provided many details as to the impact moral distress has among nurses, but missing from the literature was the impact that moral distress has upon patient outcomes. Several of the authors suggested the need to improve nurse communication strategies among the healthcare team, but few provided suggestions for effective interventions.
Chapter 3

Methodology

The purpose of this quasi-experimental pretest-posttest design was to assess the effectiveness of a workplace-based educational program on the intensity, frequency, and overall total moral distress among registered nurses. This chapter provides a description of the research design, sample and setting, instrumentation, data collection procedures, and the planned data analysis that enabled the researcher to answer the following research questions:

1. Do nurses who participate in the workplace-based *The 4A’s to Rise Above Moral Distress* (2005) program have decreased total moral distress, compared to nurses who do not participate in the program?

1(a): Do nurses who participate in the workplace-based *The 4A’s to Rise Above Moral Distress* program have decreased frequency of moral distress, compared to nurses who do not participate in the program?

1(b): Do nurses who participate in the workplace-based *The 4A’s to Rise Above Moral Distress* program have decreased intensity of moral distress, compared to nurses who do not participate in the program?

Research Hypotheses

Based on the literature review of moral distress this researcher conducted a quasi-experimental study to support the following hypotheses:
H: Nurses who participate in *The 4A's to Rise Above Moral Distress* (2005) program in the workplace will have decreased moral distress, compared to nurses who do not participate in the program.

H (a): Nurses who participate in *The 4A's to Rise Above Moral Distress* program in the workplace will have decreased frequency of moral distress, compared to nurses who do not participate in the program.

H (b): Nurses who participate in *The 4A's to Rise Above Moral Distress* program in the workplace will have decreased intensity of moral distress, compared to nurses who do not participate in the program.

**Research Design**

A pretest-posttest design was comprised of two groups, a treatment group and a control group. In the treatment group, the dependent variable was measured prior to and after the intervention. Without the benefits or influences of the intervention, the control group was measured at the beginning and the end of the experiment.

This quasi-experimental pretest-posttest design utilized randomized treatment and control sites, assigned via coin toss by the researcher. It was proposed that a total of six sites would be used; however, only four sites agreed to participate. From these four sites, two were randomly chosen to form the treatment group and two were chosen for the control group. A comparison of the pretest of the treatment group with the pretest of the control group served to determine the equivalency between the four sites. The more similar the treatment and control sites were in their recruitment and pretest findings, the more certain one can be that the treatment influenced the posttest findings.
(Campbell & Stanley, 1963). Other than primary shift, area of specialty, and employment by Magnet designated hospital, the treatment and control group were similar.

The design, shown in Figure 4, allowed the researcher to measure the effect of The 4A's to Rise Above Moral Distress (2005) (independent variable) on moral distress (dependent variable) using the Moral Distress Scale. A pretest was administered immediately prior to the workplace-based educational intervention and again eight weeks after the intervention to the treatment group, using the same Moral Distress Scale posttest.

Treatment Group

\[
\begin{array}{c}
\text{Register} \\
\rightarrow \hspace{2cm} \text{Week 1} \\
\text{Pretest + Class} \\
\rightarrow \hspace{2cm} \text{Week 8 Posttest}
\end{array}
\]

Control Group

\[
\begin{array}{c}
\text{Register} \\
\rightarrow \hspace{2cm} \text{Week 1} \\
\text{Pretest} \\
\rightarrow \hspace{2cm} \text{Week 8 Posttest}
\end{array}
\]

*Figure 4.* Timeline representing point of entry to completion of study.

The 4A’s educational intervention is illustrated in Figure 5 by an ‘X’, with moral distress scores indicated by ‘O’. Among the control group, measurement of moral distress intensity and frequency was elicited as a pretest within one week of the treatment group intervention and within one week of the treatment groups’ 8-week follow-up MDS posttest survey. Upon completion of the study, the researcher offered to provide the
control group with the intervention at a time and date mutually convenient for each organization.

\[
\begin{align*}
\text{O}_a, b & \times \text{O}_a, b \\
\text{O}_a, b & \text{O}_a, b
\end{align*}
\]

\(a = \text{intensity of moral distress}
\)

\(b = \text{frequency of moral distress}
\)

*Figure 5.* Pretest-posttest control group design.

**Threats to Validity**

**Threats to Internal Validity**

Internal validity determines if the independent variable indeed made a difference in the outcome. Internal validity provides consideration of whether any of the competing hypotheses explain the results rather than the effect of the intervention (Campbell & Stanley, 1963). In this study, history, maturation, testing, instrumentation, selection, and mortality had the potential to jeopardize internal validity.

History is an event that is not related to the study but occurs during the study (Burns & Grove, 2009). Events may have transpired during this research affecting the results of this study. Such events, unknown to this researcher, may have occurred between the pretest-posttest data collection (a morally distressing event or education experience). This threat was minimized by asking four additional questions to both the treatment group (Appendix C) and the control group (Appendix D), along with the Moral Distress Scale pertaining to newly gained knowledge and/or experience between the time of the pretest and the posttest for both the treatment and control groups.
During the eight weeks between the pretest and the posttest, maturation may have occurred. Burns and Grove (2009) described maturation as growing older, wiser, stronger, more tired, or more experienced. Such unplanned or unanticipated events between the pretest and posttest could potentially have transpired and influenced the findings of this study. The use of a control group minimized this risk.

The process of taking a test several times, is yet another confounding variable to internal validity. Effects of the pretest may have had an effect on the posttest (Gall, Gall, & Borg, 2007). Allowing for the 8-week period between the pretest and the posttest aimed to minimize this threat.

Instrumentation threats are those that occur due to the calibration of an instrument or how the subjects may answer the instrument (Burns & Grove, 2009). The Moral Distress Scale was an appropriately validated instrument with test-retest reliability of .86 (Corley, 2001). The same instrument was used for both the pretest and the posttest. The threat of instrumentation was also minimized by the eight-week period between the pretest and the posttest.

Selection is the process by which subjects are selected to participate in a study (Burns & Grove, 2009). Selection threats are common in this type of study. These threats included the natural selection of subjects resulting in mistaking the effect of the intervention when indeed it was the selection. To decrease these threats, an a priori power analysis was computed with a power of .80, and a valid and reliable instrument was used. The treatment and control groups were obtained from an available pool, and randomly assigned to their respective groups.
The longitudinal nature of this study rendered that the risk of mortality may have posed a problem. Mortality is the loss of subjects prior to the completion of the study (Burns & Grove, 2005). Both the control and treatment groups were inflated by 20% to account for potential mortality \( n = 51 \). Follow-up letters (Appendix E) were sent to subjects, who had not returned their survey by week 10, reminding them to complete the survey. To offer incentive for continued participation, contact hour certificates were not issued until the completed posttest was received.

**Threats to External Validity**

External validity is concerned with the extent to which study findings can be generalized beyond the sample used in the study (Burns & Grove, 2005). Threats to external validity included the interaction effect of testing and the interaction of history and treatment.

The interaction effect of testing, occurs when the pretest decreases the “respondent’s sensitivity or responsiveness to the experimental variable” (Campbell & Stanley, 1963, p. 6) and threaten attempts at generalizability. Both control and treatment group sensitization to moral distress may have occurred due to the pretest. This threat was minimized by the 8-week period between the pretest and the posttest.

The interaction of history and treatment involves the potential of an effect of nursing practice or a societal event occurring between the pretest and the posttest (Burns & Grove, 2005). The eight-week period between the pretest and the posttest, as well as by asking subjects’ additional questions on the Posttest Moral Distress Scale pertaining to
newly gained knowledge and/or experience between the time of the pretest and the posttest minimized this threat.

**Setting and Sample**

**Setting**

The researcher sought to partner with six Southern New Jersey community hospitals that were similar in size and that had representation on the New Jersey Organization of Nurse Executives (NJONE), Research Committee. The NJONE is a group of nurse leaders and aspiring nurse leaders who aim to provide professional development in various areas including research. This researcher posited that six hospitals would be sufficient to attain an adequate sample; however, only four hospitals expressed interest in participating. Based on the power analysis and the number of subjects who expressed an interest in the study, it was determined by the researcher that these four hospitals would be sufficient to obtain a satisfactory sample size. Once the four hospitals self-identified, each hospital was randomized by the flip of a coin, to determine the two treatment hospitals and the two control hospitals.

**Characteristics of the Sample**

A convenience sample for both the treatment and control group was recruited from four mid-sized, not-for-profit, non-religiously affiliated hospitals in the mid-Atlantic region of the United States. The target treatment and control samples for this study were male and female registered nurses, English speaking, and employed in one of the participating hospitals. The level of education included diploma, associate’s degree, bachelor’s degree, or master’s degree.
Exclusion criteria originally included agency, contract, per diem, or float nurses, and nurses working less than 24 hours per week, or less than two years of employment in an acute care setting. Upon consideration, the inclusion and exclusion criteria were revised and nurses working less than 24 hours per week were included. It was determined by the researcher that some nurses may work less than 24 hours per week to limit their work stressors. In addition, in the original proposal, the RN population was to have been employed in an acute care setting for at least two years; however, upon reflection of the new nurse's risk for moral distress, this stipulation was removed from the original proposal with institutional review board approval.

To assure that the combined groups were comparable, independent t-tests were conducted. Independent t-tests comparing the pretest scores of the treatment and control groups were computed to provide assurance that the individual groups were equivalent so they could be added together to form one control and one treatment group.

**Sample Size**

According to Faul, Erdfelder, Lang, and Buchner (2007), power is the ability to detect relationships or differences existing in the population or the probability of rejecting the null hypotheses. It is power that determines adequacy of the sample size. Power as described by Cohen (1988) consists of three factors: the reliability of the results, effect size, and the degree of significance. The sample size was calculated using a priori power analysis for a t-test with a one-tailed $p$ value due to directionality of the hypotheses. Performance of power analysis enabled the researcher to reduce the risk for a Type II error or acceptance of a false null hypothesis. Type I errors, or rejection of the null when
the null is true, were controlled by selection of level of significance of .05, whereby a true null was rejected 5 times out of 100. Effect size measured the “magnitude of the effect of an independent variable on the dependent variable” (Munro, 2005, p 100). Effect size controlled for the relationships among the independent and dependent variables.

A review of the literature did not generate relevant studies to calculate effect size for this quasi-experimental untreated control group design with pretest and posttest. Based on the strength of the theoretical framework of this study, a medium effect size of 0.5 was used deemed appropriate. A significance level of .05 was used to minimize the risk for a Type I error. To minimize the risk for a Type II error, power was set at .80 (Munro, 2005).

A power analysis using the tables of Machin, Campbell, Fayers, and Pinol (1997) was performed to determine the minimum sample size required to accept the outcome of the findings with confidence. Based on a formulation of the minimum accepted power of .80 (Burns & Grove, 2009), and Cohen’s (1988) conventions for critical effect size of .50 for the dependent variable, a one-tailed alpha significance level of .05, a minimal sample size of 102 subjects with 51 in each group was deemed sufficient to test the study hypotheses. To ensure an adequate sample size the study sample was inflated by 20% for a total of 122 with 61 in each group (Melnyk & Fineout-Overholt, 2005). The degrees of freedom were 121. The probability that the intervention had a significant result (significance) was measured at $p \leq .05$. 

Description of Program

Upon review of the literature, several nurse researchers (Beumer, 2008; Pendry, 2007; Rushton, 2006) posited the use of The 4A's to Rise Above Moral Distress, (2005), a facilitated, learner centered educational initiative developed by the American Association of Critical Care Nurses (AACN, 2005). This program was developed in an effort to help critical care nurses provide optimal care to patients and families and was proposed to be taught in one class. No training is necessary to facilitate this class. This researcher selected this course to be the workplace based educational program for this study. A practice class was taught and it was determined the course content would require a six hour period.

This researcher, with adequate knowledge and resources, facilitated this program in each of the treatment settings. According to the facilitator's manual, the stated objectives of this program were:

Upon completion of the class, participants will be able to use The 4A's to Rise Above Moral Distress (2005) framework to:

- recognize signs of suffering and moral distress; affirm and validate feelings and perceptions related to moral distress; identify and assess personal and work environment sources of moral distress; discuss possible strategies to decrease moral distress; and analyze a case study using the framework of The 4A's to Rise Above Moral Distress. (p. 3)

The American Nurses Association (ANA) Code of Ethics (2009) and The International Council of Nurses (ICN) Code of Ethics (2006) were incorporated in the
AACN curriculum, as published. The Code of Ethics for Nurses served as a guide for carrying out nursing responsibilities in a manner consistent with quality in nursing care and the ethical obligations of the profession. The elements of the ICN Code of Ethics served as a guide for nurses, reinforcing responsibility to self, the profession, one's personal practices, and co-workers. Reviewing these documents aimed to help nurses be knowledgeable about these essential documents.

**Instrumentation**

This section presents an overview of the instruments used in this study.

Demographic data were collected using the Demographic Data Questionnaire (DDQ) (Appendix F) developed by the researcher. The DDQ included attributes that served to describe the sample population.

The Moral Distress Scale (2001) measured both intensity and frequency.

Intensity ranged from 0 or none to 6 or great extent. Frequency ranged from 0 or none to 6 or very frequently. This instrument was used as both the pretest and the posttest. In addition to the posttest, subjects were asked four questions aimed to detect unrelated events occurring after the intervention that may have affected the results of the study. The instruments were written in English. The instruments were administered in a structured format and presented in the same order for all subjects to minimize instrumentation threats to internal validity.
Demographic Data Questionnaire

Description

Guided by the studies by Corley et al. (2005), Hamric and Blackhall (2007), and Zuzelo (2007) the Demographic Data Questionnaire was comprised of 19 questions which included: entry level of nursing education, highest level of education, previous attendance at a formal stand-alone ethics education program while enrolled in school of nursing, previous attendance at a workplace-based ethics education program, gender, race, ethnicity, age on date completing questionnaire, number of years worked as an RN, number of years have worked as an RN in current specialty, certification in specialty, English as first language, hours worked in a typical week, number of years worked for current organization, intent to leave present position, religious or spiritual beliefs, and employment in Magnet designated facility. The instrument took approximately five minutes to complete. For purposes of contact hour requirements, subjects were asked to provide a 6-digit code comprised of the first and last letter of their last name, followed by four digits representing the month and date of their birthday. Only the researcher and the three member dissertation committee maintained access to the raw data. While this study did not provide anonymity, confidentiality was maintained.

Corley's Moral Distress Scale

Instrument Development

Corley et al. (2001) reported that instrument testing was conducted using a three-step process of test-retest, known groups, and administration of the test to registered nurses. Using a convenience sample of staff nurses ($N = 35$), the test-retest reliability,
using identical forms, administered in person three weeks apart, was .86 \( (p < .01) \). Due to a lack of variability in subject responses, and feedback from an instrumentation expert the format was changed to a 7-option format, where little to almost none equaled 1 and great equaled 7. The instrument was then mailed to a separate group of critical care nurses \((n = 25)\) and occupational health nurses \((n = 25)\). The occupational health nurse respondents did not have experience with the situations and had low moral distress scores, in contrast to the critical care nurses who were very familiar with the situations and had high moral distress scores. Each item required a positive result from at least five subjects to remain on the scale.

The third step involved a convenience sample \((N = 214)\) comprised of five diverse groups of critical care nurses. The Moral Distress Scale was analyzed descriptively and factor analysis was completed. Three factors emerged, Factor 1: individual responsibility, 20 items \((\alpha = .97)\), Factor 2 not in the patient’s best interest, 7 items \((\alpha = .82)\), and Factor 3 deception, 3 items \((\alpha = .84)\). Total variance explained by these three factors was 19.38. Individual responsibility included: perform procedure without patient consent; medical students practicing on patients; physicians practicing after CPR; discontinuing care of uninsured patients, ignoring lack of consent; ignoring patient abuse; staff not respecting patients’ dignity; refusal to discontinue ventilator; incompetence among staff; assisting physician without consent; providing superior care for the insured or wealthy; ignoring medication errors; incompetent physicians; failing to tell patients the truth when they ask for it; inadequate nurse staffing; physicians request for nursing staff to not discuss death; inadequate staffing resulting in substandard care; physician request
for nursing staff to not discuss code status with family members; patient discharge based on Diagnostic Related Grouping; and family request that nursing not discuss death with patient.

The second factor, not in the patient's best interest, included the nurses acting in ways that did not benefit the patient including: inadequate nurse staffing, following the wishes of the family when not in agreement; physician orders for unnecessary tests; lifesaving treatment that prolongs death; surgery for terminally ill patients; unnecessary tests on terminally ill patients; preparing demented patients for gastrostomy tube insertion; and not agreeing with family wishes.

The third factor referred to behaviors of actions of deception or deception through failure to take action. Factor analysis revealed cross loading (inadequate nurse staffing) making it difficult to identify to which dimension the item belongs. Corley et al. (2001) reported that the high reliability for Factor 1 might be indicative of redundant questions, while the lower reliability for Factor 3 could be elevated with further testing in the future. Interestingly, Corley et al reported that none of the nurse characteristics screened for on the demographics tool, positively or negatively predicted moral distress.

While the MDS instrument was previously found to not meet the criteria for unidimensionality, Corley (personal communication, June 24, 2010) described that while not reported, a total score was calculated. Corley explained this was achieved by summing both the frequency and intensity variables, computing a mean for each, and then multiplying the mean frequency by the mean intensity, to compute a total moral
distress score. It was this communication that served as a premise for the main research question.

**Description**

Corley's theory (2002) and instrument development (2001) provided a foundation upon which to explore the efficacy of an educational intervention in an attempt to decrease the intensity and frequency of moral distress. Corley granted this researcher permission to use the instrument (Appendix G). Corley et al. (2001) Moral Distress Scale (MDS) was a valid and reliable interval level instrument designed to measure self-reporting of intensity, frequency, and overall moral distress. The Moral Distress Scale consisted of a 38-item questionnaire in a 7-point Likert scale, modified by Corley from the 1 to 7 scale to a new format ranging from 0 to 6. The 38 questions were rated for both intensity and frequency. Using the Flesch-Kincaid readability score, the MDS reads at the eleventh grade level. The instrument took approximately 15 minutes to complete.

**Validity**

Content validity of the Moral Distress Scale (2001) instrument was established using a two-step process (Corley et al., 2001). A review of the literature was conducted and qualitative interviews were performed to identify domains related to organizational barriers consistent with moral distress. Both the literature and the interviews were reviewed until saturation was achieved.

In the second step, two content experts, Jameton and Wilkinson reviewed the instrument. Subsequently, three doctorally prepared, ethical expert nurses reviewed the
instrument for content validity. All concurred that the items were relevant to the construct.

Construct validity was established through factor analysis. The factor analysis identified three factors: individual responsibility ($\alpha = .97$), not in the patient’s best interest ($\alpha = .82$), and deception ($\alpha = .84$) respectively. Factor to factor findings revealed only Factor 1 to Factor 2 met the goal with a correlation of .64. Factor 1 to Factor 3 correlation was .36; and Factor 2 to Factor 3 correlation was .17. All met levels for internal consistency ($\alpha = .97$ to .82). Test-retest reliability was $r = .86$ ($p < .01$) and the internal reliability of the Moral Distress Scale was .93 ($p < .01$).

**Reliability**

Inter-item (goal: $r = .30$ to .70), item-factor (goal: $r > .40$), and factor-to-factor (goal: $r = .55$ to .70) correlations were used to perform reliability estimation (Corley, Elswick, Gorman, & Clor, 2001). All items but one ($r = .91$) were found to moderately correlate with other items ($r = .31$ to .70). All item factors exceeded the goal.

Corley’s Moral Distress Scale (2001) using a larger sample of nurses from diverse clinical settings was suggested to further enhance the reliability and validity of the instrument. Corley et al. (2001) also suggested modification of the MDS with adaptability to other specialties.

**Scoring**

Intensity and frequency are subscales of moral distress. The 38 intensity items range from 0 to 6 with 0 corresponding to no moral distress experienced and 6 corresponding to a great extent of moral distress occurring. The 38 frequency items
range from 0 to 6 with 0 corresponding to never and 6 corresponding to very frequently occurring.

According to Corley et al. (2001) scoring instructions, mean intensity scores were calculated on both the pretest and posttest by summing all of the intensity item scores and dividing the sum by the number of items with a response. The range of possible MDI scores was 0 to 228. Mean frequency scores were calculated on both the pretest and posttest by adding all of the frequency item scores and dividing the sum by the number of items with a response. The range of possible MDF scores was 0 to 228. A total moral distress score was calculated by multiplying the subjects’ MDI times MDF scores. The range of possible values for the total moral distress score were 0 to 1,368. Each subject had three scores: the mean intensity score, the mean frequency score, and the total mean moral distress score.

Upon reflection on the literature and the instrument, it became evident that the Corley et al. scoring recommendations were flawed. Corley, (personal communication, February 8, 2010) self-reportedly summed all of the frequency items and all of the intensity items, and calculated a mean for each. Next, the two means were multiplied to compute a total score. Hamric and Blackhall, (2007) used a different scoring method to achieve a total moral distress score. For each item, a product was calculated by multiplying the mean item intensity times the mean item frequency. The products were then summed for a composite score. It was determined by this researcher that Hamric and Blackhall’s method provided a more accurate reflection of total distress, and was used to analyze total moral distress scores.
Change scores. The tendency for change scores to have a low reliability was evident in the literature (Cronbach & Furby, 1970; Miller & Kane, 2001; Gall, Gall, & Borg, 2007). Alternatively, Rogosa and Willett (1983) posited that when true change occurs among individuals, the reliability of change scores can be high. Change score has been defined as "how much progress an individual has made compared with his or her initial absolute level" (Hagtvet & Hoglend, 2008, p. 163). For this study, how much progress, both the treatment and control group made, on their posttest compared with their individual groups' baseline pretest level.

According to Gall et al. (2007) a change score is defined as the posttest score minus the pretest score. Gall et al. posited five shortcomings concerning the interpretation of change scores when raw data are used to measure change.

The first problem reported by Gall et al. (2007) is referred to as the ceiling effect. When subjects score very high or very low on an instrument, there is a ceiling or restriction on how much higher or lower one can score. In the example of the Moral Distress Scale, if a subject marks mostly one or two under the frequency concept, there is little leeway for a further reduction, possibly rendering a potential minimal decrease in the frequency change score on the posttest.

The second shortcoming identified by Gall et al. (2007) is regression toward the mean; whereby those subjects who tend to score either very high or very low on the pretest, score nearer the mean on the posttest. In the case of the Moral Distress Scale, this would imply that subjects, who scored either very high or very low on the intensity and frequency concepts on the pretest, would score nearer the middle on the posttest.
Assumption of equal intervals is the third shortcoming reported by Gall et al. (2007). Applying this assumption to the Moral Distress Scale would not be valid. Items may not be equal, however, the intervals on the Moral Distress Scale are assumed to be equal.

Different types of ability are the fourth limitation of change scores, according to Gall et al. (2007). As this relates to the Moral Distress Scale, some nurses may have different strengths than other nurses or have more or less experiences with specific clinical situations. While subjects may earn the same score on the pretest instrument, one may have reported more intensity, while another reported more frequency. When those same subjects take the posttest, similar change score results may not necessarily reflect a correlation with those same pretest variables.

Low reliability is the fifth limitation of change scores, according to Gall et al. (2007). The higher the correlation between the pretest and the posttest scores, the lower the reliability of the change scores. The unreliability of pretest and posttest scores also affects the reliability of the change score.

Despite the noted limitations of change scores, in order to compare the effects of this intervention among the treatment and the control group, some measure of change was required. In an effort to address the reliability of change scores, Miller and Kane (2001) proposed that one way to analyze the amount of change from the pretest to the posttest is to compute each individual item and total score from the pretest to the posttest and evaluate the change. Using this method, Miller and Kane suggested assigning points based on performance. For example, if no change occurred from the pretest to the
posttest, the score would be 0. If the item score were higher on the pretest than the
posttest, then the score would be -1. If the item score were higher on the posttest than the
pretest, the score would be +1. This method however, shows the direction of change, but
not the magnitude; therefore this method was not used in this study.

According to Gall et al. (2007), when subjects have been randomly assigned to
two groups, with equivalent mean pretest scores, independent t-tests can be used to
determine statistical significance of the mean change scores. Occasionally, mean pretest
scores may significantly differ, even when subjects were randomly assigned. In this
situation, ANCOVA can be used to adjust for significantly different mean pretest scores.
According to Polit and Beck (2008), ANCOVA analysis is a more sensitive approach that
can "result in more precise estimates of group differences" (p. 624), thus enhancing the
internal validity of the study. To adjust for this difference, ANCOVA analysis enables
researchers to "attribute observed gains to the effect of the experimental treatment rather
than to differences on initial scores" (p. 440).

Upon review of the literature and reflecting on these methodological options, this
researcher opted to analyze change scores using the independent t-test to determine
statistical significance of the mean change scores, as well as, ANCOVA computations to
adjust for initial differences between pretest and posttest means. The pretest scores
served as the covariate to determine whether there were differences in the total moral
distress between the group receiving the intervention and the control group. This design
helped to reduce error variance, eliminate systematic bias, resulting in a more powerful
test (Gall et al., 2007).
The effect of *The 4A's to Rise Above Moral Distress* (2005) class was measured by the change score between the pretest and the posttest scores. Using the recommended computation of Gall et al. (2007), change scores were computed by subtracting the posttest score from the pretest score, for intensity, frequency, and total for both the treatment and control group. The mean change score for intensity (MDI) and frequency (MDF) was computed for each group, using an independent *t*-test and an ANCOVA analysis. The difference between the treatment and control groups' pretest mean total score served as an indicator as to how different or similar the two groups were.

This research attempted to determine the effect of the independent variable (the 4A's class) on the dependent variable (MDS). The desired effect was a statistically significant decrease between the pretest and the posttest, within the treatment group. A negative change score indicated that an individual felt less, or experienced less moral distress at posttest compared to pretest while a positive change score implied that their moral distress escalated in intensity or frequency.

**Data Collection Procedure**

A comprehensive and consistent procedural routine and data collection protocol, timeline (Appendix H) adherence to the facilitator handbook and the class schedule (Appendix I) served to preserve the integrity of the intervention and ensured procedures were consistent throughout the study. Upon approval from the Institutional Review Board (IRB) from Widener University, access to treatment and control sites was gained by e-mailing a letter (Appendix J) to the chairperson of the New Jersey Organization of Nurse Executives (NJONE) Research Committee. These contacts were requested to
forward a solicitation letter (Appendix K) to the NJONE research representatives of the active member hospitals. The NJONE representatives interested in allowing their nurses to participate were asked to contact the researcher by e-mail. Upon receipt of email confirmations, IRB approval was obtained from the four participating hospitals. Determination as to either treatment or control group was made via a coin flip upon IRB approval. Following IRB approval, the researcher contacted the treatment and control group representatives with the request to advertise and promote participation in the research study using flyers, provided by the researcher (Appendix L).

**Procedure for Data Collection of Treatment Group**

The New Jersey Organization of Nurse Executives (NJONE) hospital representative for each treatment group was contacted and requested to schedule the educational program, in a classroom, on a date and time mutually convenient for the researcher and the organization. Flyers for posting throughout the hospital were delivered to the research representative, along with an informational letter to eligible registered nurses (Appendix M) to facilitate the solicitation of treatment subjects. Those registered nurses interested in participating in the research were instructed to register using their hospital’s continuing education registration process.

On the day of the educational event, subjects in the treatment group were asked to sign-in for the purpose of contact hour information. Prior to the start of the class, the researcher explained to the subjects the benefits and risks of participating in the research. The subjects were advised that there was a minimal risk that they may experience emotional or social discomfort relating to case-based scenarios, discussions, or the Moral
Distress Scale (2001) instrument. The subjects were advised that if they experienced distress as a result of participating in this project, they should contact their organization's Employee Assistance Program. Contact telephone numbers were provided. Subjects were advised that the cost of any such follow up was to be incurred by the subject.

The class agenda was reviewed. The treatment process was explained to the subjects including the need to provide consent, complete the pretest, participate in the educational intervention, and complete a posttest in approximately 8 weeks. All subjects were advised that in order to obtain the contact hours, they must have attended the class in its entirety, completed the pretest and posttest, and allowed their data to be used; otherwise no credit would be provided.

Following explanation of the procedure, subjects signed the consent form, which was collected before the educational intervention began. Subjects provided a 6-digit code, in the upper right corner, which was comprised of the first and last letter of their last name, followed by 4-digits representing the month and date of their birthday on all forms in order to match Demographic Data Questionnaire with the pretest and posttest Moral Distress Scale. Both instruments were distributed to the subjects at the same time as the consent form. Approximately five minutes were allotted to complete the DDQ. Subjects were asked to complete the Moral Distress Scale based on how they felt at the time when completing the tool. They were instructed that if a question did not apply to their current practice, they were to fill in the answer with how intense they believed their distress would be, if it were to have occurred. Approximately 15 minutes was allotted to complete the Moral Distress Scale. Subjects were instructed to self-address two business
envelopes for future correspondence. Once this researcher had collected the consent, the
demographic data questionnaire, the Moral Distress Scale, and the two envelopes, the 6-
hour educational session began.

Corley’s (2002) theory of nurse moral distress and the principles of Bandura’s
(1986) social cognitive learning were applied to this workplace-based learning strategy.
The curriculum was dynamic, pertinent, and subject centered involving case studies,
reflection, and dialogue, which aimed to help subjects to remain engaged. Subjects
identified one of their own personal experiences of moral distress. Subjects’ reflection on
scenarios they could relate to was intended to foster retention. Gaining the students'
attention of course content was intended to help the subjects retain and translate what
they had seen and heard, and in turn imitate the examples taught in the class. Subjects
focused on the content, learned what it meant to be a moral agent, and were motivated to
respond effectively to moral dilemmas in the future.

Eight weeks after the class, all subjects in the treatment and control group were
mailed a packet enclosing a thank you note, instructions, the Moral Distress Scale
posttest, and a postage paid return envelope addressed to the researcher. Each Moral
Distress Scale had the subject’s 6-digit code prewritten by the researcher, to match the
posttests with the appropriate pretests. The letter thanked them for their participation and
reminded them to complete the enclosed Moral Distress. For those not responding by 10
weeks, the same follow-up letter was re-sent reminding them to complete the MDS
survey. Several subjects required resending the follow-up letter of reminder. Upon
receipt of the posttest Moral Distress Scale, the researcher promptly mailed the subject the contact hour certificate (Appendix N) in the remaining pre-addressed envelope.

**Procedure for Data Collection of Control Group**

The New Jersey Organization of Nurse Executives (NJONE) representative of each control group hospital was contacted and requested to promote the educational program and facilitate the solicitation of eligible subjects. While it was proposed that the NJONE representative would email contact information of interested eligible control subjects to the researcher, it quickly became evident that this plan would be unwieldy. Interested potential control group subjects were handed the informational letter (Appendix O) by their research representative. It was proposed that the mailing would request the subjects to indicate their interest in participating by providing their preferred contact information on an enclosed preaddressed and stamped postcard or by email; however, this process was cumbersome and an unnecessary step. Alternatively, potential subjects reviewed the materials and notified their research representative of their interest in participating. All nurses who expressed interest was handed a packet by their representatives containing an instructional letter (Appendix P), two copies of the consent (one to send back and one to keep), the MDS, the DDQ, and four envelopes. Subjects were instructed to address two envelopes to them. The other two postage paid envelopes were addressed to the researcher. Members of the control group, in need of assistance or clarification to complete the instruments, were encouraged to seek assistance from the researcher using the telephone or email contact information provided.
In the spirit of ethical fairness, the control group was also given the opportunity to participate in the 4A’s educational session and receive the six continuing education credits. While it was proposed that the control group classes were to be scheduled approximately eight weeks after the treatment groups’ class with dates and time to be determined between the researcher and the two NJONE representatives, due to conflicting organizational initiatives, both of the control group hospitals opted to defer the course until a later time. It was intended that the control group would complete the posttest Moral Distress Scale at the beginning of the 4A’s class; however, since the class was scheduled for a date beyond the timeline of this study, the posttests were mailed to the subjects. The posttest was mailed at the 7-week mark, to the subjects in their preaddressed envelope, which contained a postage paid return envelope to the researcher. For those not responding by 10 weeks, a follow-up letter (Appendix Q) was sent reminding them to complete the MDS survey.

**Human Subjects Protection**

Permission to conduct this study was obtained from the Widener University Institutional Review Board (IRB), as well as the IRB at all participating hospitals. This study supported the virtue of nonmaleficence. The researcher adhered to the principles of informed consent. The treatment subjects were provided essential information regarding the study and signed an informed consent (Appendix R) prior to participation. The control subjects were provided essential information regarding the study and signed an informed consent (Appendix S) prior to participation. Subjects who agreed to participate were given a copy of the signed consent. The consent was at a twelfth grade reading
level using the Flesch-Kincaid Grade Level screen. The consent was explained verbally for the treatment group and in writing for the control group. All questions and concerns were answered verbally for the treatment group. The control group did not contact the researcher with any questions or concerns.

**Benefits and Risks**

The benefit: risk ratio for this study was that of minimal risk, with potentially important benefits to the nursing profession. Subjects may have benefited from this study by gaining knowledge about how to improve one’s management of moral and ethical dilemmas. If the intervention was effective, it may help the nurses, their patients, and their work environment.

The study did not pose any known physical, legal, or economic risks to subjects. Some subjects however, did experience minimal emotional (crying) discomfort related to case-based scenarios, discussions, or the Moral Distress Scale instrument and were encouraged to contact their organization's Employee Assistance Program (EAP). Subjects were informed that they had the option to withdraw at any time.

**Confidentiality**

All of the subjects’ privacy and confidentiality was and shall continue to be safeguarded. The researcher collected the DDQ and pre and post MDS. Subsequent MDS collections were completed by mail in stamped, self-addressed envelopes with unique identifiers. Subjects were asked to provide a 6-digit code comprised of the first and last letter of their last name, followed by 4-digits representing the month and date of their birthday on the right upper corner of the DDQ and MDS. No data were collected by
observation of subjects. The data were compiled and the aggregate data findings will be published, maintaining the confidentiality of subjects.

**Data Storage**

The data and consent forms are stored separately in the researcher's home in a locked cabinet and all related computer files are password protected. After completion of the study, raw data (demographic forms and Moral Distress Scales) will be destroyed by shredding five years after the completion of the study.

**Compensation**

Neither the treatment nor the control group received compensation for participation in the study; however, consistent with normal continuing education practice, six contact hours were awarded to those subjects completing both the pre and posttest and the educational program. Contact hours were awarded through the New Jersey State Nurses Association, Shore Memorial Hospital provider unit. Snacks were provided during the class. Upon completion of the study, the control groups completing the posttest were offered the intervention; however, neither chose to participate; therefore no subjects in the control group received contact hours for the completion of the pretest and posttest. It was doubtful this compensation biased subject responses.

**Conflict of Interest**

This researcher had no vested financial or personal interest in any business entity related to this research.
Data Analysis

The Statistical Package for Social Sciences (SPSS) PC for Windows version 19.0 (PC) was used to analyze the data for descriptive and inferential statistics. Statistical procedures were employed to categorize the collected data. Data were cleaned to assure accuracy, reliability, and consistency. Data cleaning served to eliminate errors. Normality was checked to assess for normal distribution.

Missing Data

Steps were taken to minimize missing data during implementation of the study design. Because there were less than 10% missing data, imputation of the mean values of the variable from the available known group was substituted (Munro, 2005), consistent with psychometric reports of the instrument (Corley et al., 2001).

Demographic Data

Demographic data were analyzed using descriptive statistics. Descriptive statistics included measures of central tendency, frequency distributions, and percentages. Categorical data is presented in a frequency table format. Independent t-tests comparing the pretest scores of the two treatment and two control groups were computed to provide assurance that the groups were similar. The assumption of homogeneity of variance was met, since Levene's Test for Equality of Variance was not statistically significant \( (p = .716) \) (Munro, 2005). The similarity of the treatment and control groups enabled them to be added together to form one treatment and one control group. A second independent t-test comparing the pretest scores of the combined treatment and combined control group was completed to assure equivalency of the groups.
**Primary Hypothesis**

The directional primary hypothesis was: Nurses who participate in the workplace-based 4A's program will have decreased total moral distress, compared to nurses who do not participate in the program.

Inferential statistics were used to test the primary hypothesis and to determine the probability that the observed difference between the groups was due to the intervention. Using the Corley et al. (2001) scoring method, the independent \( t \)-test was analyzed to compare the mean total moral distress change scores of the treatment and control group to determine if a statistically significant difference existed between the dependent variable means of the two groups (Munro, 2005). In order to reduce error variance and increase the power of the analysis (Munro), an ANCOVA approach to data analysis was used to compare the pretest and posttest data, using Hamric and Blackhall's (2007) scoring method. The pretest scores served as the covariate to determine whether there were differences in the frequency of moral distress between the group receiving the intervention and the control group.

**Secondary Hypotheses**

The first directional secondary hypothesis was:

\( H (a) \): Nurses who participate in the workplace-based 4A's program will have decreased frequency of moral distress, compared to nurses who do not participate in the program.

Inferential statistics, including the independent \( t \)-test and analysis of covariance were used to test the secondary hypotheses and to determine the probability that the
observed difference between the groups was due to the intervention. Using the Corley et al. (2001) scoring method, the independent \( t \)-test was analyzed to compare the mean item change scores for MDF of the treatment and control group to determine if a statistically significant difference existed between the dependent variable means of the two groups (Munro, 2005).

In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data. The pretest MDF scores served as the covariate to determine whether there were differences in the frequency of moral distress between the group receiving the intervention and the control group.

The second directional secondary hypothesis was:

\[ H (b): \text{Nurses who participate in the workplace-based 4A's program will have decreased intensity of moral distress, compared to nurses who do not participate in the program.} \]

Inferential statistics, including independent \( t \)-test and analysis of covariance were used to test the secondary hypothesis and to determine the probability that the observed difference between the groups was due to the intervention. Using the Corley et al. (2001) scoring method, the independent \( t \)-test was analyzed to compare the mean item change scores for MDI of the treatment and control group to determine if a statistically significant difference existed between the dependent variable means of the two groups (Munro, 2005).
In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data. The pretest MDI scores served as the covariate to determine whether there were differences in the frequency of moral distress between the group receiving the intervention and the control group.

**Additional Analysis**

Pearson correlations were used to examine relationships that may have existed among the interval and ratio level demographic characteristics with moral distress. In addition, the four additional nominal data questions addressing extraneous events that may have influenced the subjects during the time span between the pretest and posttest were analyzed using independent \( t \)-tests.

**Limitations of the Study**

Factors that may have limited the generalizability of this study included:

1. This research was limited to a specific geographic region.
2. Convenience sampling limited this study; however, attempts to control bias were achieved with a randomization sequence of two treatment sites and two control sites.
3. Research was only conducted in non-religious affiliated hospitals.

**Chapter Summary**

The main purpose of this study was to assess the effectiveness of the 4A's education program in the workplace on decreasing intensity, frequency, and overall moral distress among registered nurses. This chapter presented the research design, sample, and setting, instrumentation, data collection procedures, delimitations, the methods used for
data analysis, and human subject protection. This quasi-experimental pretest and posttest
design, enabled the researcher to measure the frequency, intensity, and overall total of the
Moral Distress Scale (MDS) score before and after *The 4A's to Rise Above Moral
Distress* (2005) education program intervention to determine if the intervention had an
effect on the frequency, intensity, and, or overall total MDS score.
Chapter 4

Findings

The purpose of this quasi-experimental pretest-posttest control group study was to determine the effects of a workplace-based education program on the intensity, frequency, and total moral distress among registered nurses. This chapter includes the findings of this study, which explored the effectiveness of a workplace-based program on reducing moral distress among registered nurses. The study findings as they relate to the three research questions are presented.

Sample

A total of 134 eligible prospective subjects were invited to participate in the study. Of the 134, baseline data were received from 68 subjects in the treatment group and 66 subjects in the control group. Among the 68 subjects in the treatment who completed the class and the pretest, 58 completed the posttest. Among the 66 subjects in the control group who completed the pretest, 52 completed the posttest. Subjects who did not complete the posttest were excluded from the study. Data from the remaining 58 subjects in the treatment group and the 52 subjects in the control group comprised the final sample for analyses ($N = 110$). The power analysis revealed that a minimum sample of 102 subjects was needed to possibly attain statistical significance; therefore, the power analysis was met. Analysis of the demographic characteristics (Table 1) of subjects ($N = 110$) was computed. Among this predominately white (91%), female (95%), non-Hispanic (98%) sample, the average age was 46 years, and the average number of years as a nurse was 19. The majority of the subjects reported their entry-level education to be
Table 1

**Demographic Characteristics**

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Total Sample N=110 (%)</th>
<th>Treatment Group (n=58)</th>
<th>Control Group (n=52)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>104 (95)</td>
<td>55 (95)</td>
<td>49 (94)</td>
</tr>
<tr>
<td>Male</td>
<td>6 (5)</td>
<td>5 (5)</td>
<td>3 (6)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>100 (91)</td>
<td>52 (90)</td>
<td>48 (92)</td>
</tr>
<tr>
<td>Asian</td>
<td>7 (6)</td>
<td>5 (9)</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (3)</td>
<td>1 (1)</td>
<td>2 (4)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>2 (2)</td>
<td>1 (2)</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>104 (98)</td>
<td>55 (98)</td>
<td>49 (98)</td>
</tr>
<tr>
<td>Not reported</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Primary Language</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>100 (91)</td>
<td>54 (93)</td>
<td>46 (88)</td>
</tr>
<tr>
<td>Other</td>
<td>10 (9)</td>
<td>4 (7)</td>
<td>6 (12)</td>
</tr>
<tr>
<td><strong>Entry-level Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>25 (23)</td>
<td>12 (21)</td>
<td>13 (25)</td>
</tr>
<tr>
<td>Associate</td>
<td>52 (47)</td>
<td>33 (57)</td>
<td>19 (37)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>33 (30)</td>
<td>13 (22)</td>
<td>20 (38)</td>
</tr>
<tr>
<td><strong>Highest Nursing Degree</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>16 (15)</td>
<td>8 (14)</td>
<td>8 (15)</td>
</tr>
<tr>
<td>Associate</td>
<td>41 (37)</td>
<td>23 (40)</td>
<td>18 (35)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>40 (36)</td>
<td>22 (38)</td>
<td>18 (35)</td>
</tr>
<tr>
<td>Masters</td>
<td>11 (10)</td>
<td>5 (9)</td>
<td>6 (12)</td>
</tr>
<tr>
<td>PhD</td>
<td>2 (2)</td>
<td>0</td>
<td>2 (4)</td>
</tr>
<tr>
<td><strong>Area of Specialty</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care</td>
<td>21 (19)</td>
<td>9 (16)</td>
<td>12 (23)</td>
</tr>
<tr>
<td>Medical-Surgical</td>
<td>26 (24)</td>
<td>15 (26)</td>
<td>11 (21)</td>
</tr>
<tr>
<td>Maternal Child</td>
<td>17 (16)</td>
<td>15 (26)</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Surgical Services</td>
<td>20 (18)</td>
<td>7 (12)</td>
<td>13 (25)</td>
</tr>
<tr>
<td>Emergency Services</td>
<td>11 (10)</td>
<td>2 (3)</td>
<td>9 (17)</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>7 (6)</td>
<td>3 (5)</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Other</td>
<td>8 (7)</td>
<td>7 (12)</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Certified in Specialty</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>63 (57)</td>
<td>34 (59)</td>
<td>29 (56)</td>
</tr>
<tr>
<td>No</td>
<td>47 (43)</td>
<td>24 (41)</td>
<td>23 (44)</td>
</tr>
<tr>
<td><strong>Magnet Employer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>67 (61)</td>
<td>19 (33)</td>
<td>48 (93)</td>
</tr>
<tr>
<td>No</td>
<td>43 (39)</td>
<td>39 (67)</td>
<td>4 (7)</td>
</tr>
</tbody>
</table>
diploma (n = 25, 23%), associate’s degree (n = 52, 47%), and bachelor’s degree (n = 33, 30%). Most of the subjects practiced in medical-surgical care (n = 26, 24%) and critical care (n = 21, 19%). Less than one-quarter had attended a college level course on nursing ethics (n = 23, 21%), while a similar number reported having received training on nursing ethics at work (n = 26, 24%). The majority of the subjects worked at least 24 hours per week (n = 108, 98%) during day shift, (n = 90, 82%) and were not planning to leave their current position of work (n = 96, 88%).

Levene’s test for equality of variances was analyzed on pretest measures and was determined to be not statistically significant (p = .716), confirming both groups were similar prior to the intervention (Munro, 2005). Chi-square analyses were computed to test for differences in frequencies of the demographic data among the treatment and control groups (Burns & Grove, 2005). Chi-square revealed that except for the area of specialty (p = .001), shift (p = .015), and magnet status of hospital (p < .001), the groups were similar in all other demographic characteristics (p = .05). The participating nurses in the treatment group primarily specialized in maternal-child health (n = 15, 26%), and medical surgical services (n = 15, 26%), while those in the control group were primarily perioperative care (n = 13, 25%), critical care (n = 12, 23%), and medical-surgical care (n = 11, 21%). Only one-third of the nurse subjects in the treatment group came from a magnet hospital (n = 19, 33%), while the majority of the subjects in the control group came from a magnet level hospital (n = 48, 92%).

**Missing Data**

No consistent patterns of missing data were apparent. For subjects with less than
10% missing data, the missing data points were replaced with the group mean, using data available from remaining subjects (Munro, 2004).

**Reliability**

Internal consistency reliability is a reflection of the correlation among items and the correlation of each individual item with the total score. As with other correlation statistics, this index ranges from 0.00 to 1.00. A value that approaches .90 is considered reliable (Gall et al., 2007). The Moral Distress Scale (Corley et al., 2001) served as the instrument to measure moral distress. The scale consisted of two subscales, intensity and frequency, each with 38 items. The Reliability Coefficient (Cronbach’s Alpha) for the frequency and intensity subscales of the Moral Distress Scale were computed to determine the internal consistency reliability of the items that were aggregated to derive the scores. As demonstrated in Table 2, results from the data analysis of this study indicated that the subscales for Moral Distress make it a reliable instrument with Cronbach’s alpha ranging from .94 to .99.

Table 2

*Alpha Reliabilities of Moral Distress Frequency and Intensity Items*

<table>
<thead>
<tr>
<th>Concept</th>
<th>Treatment group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDI</td>
<td>.96</td>
<td>.99</td>
</tr>
<tr>
<td>MDF</td>
<td>.94</td>
<td>.95</td>
</tr>
<tr>
<td>PMDI</td>
<td>.97</td>
<td>.98</td>
</tr>
<tr>
<td>PMDF</td>
<td>.95</td>
<td>.94</td>
</tr>
</tbody>
</table>
Findings Related to Research Questions

Research Question and Hypothesis 1

Do nurses who participate in the workplace-based 4A’s program have decreased total moral distress, compared to nurses who do not participate in the program? The researcher hypothesized that nurses who participate in the workplace-based 4A’s program would have decreased moral distress, as compared to nurses who did not participate in the program. This hypothesis was tested by an independent t-test to compare Moral Distress Scale change scores of the treatment and control groups.

Independent t-test analysis. The Levene's test for equality of variances yielded no statistically significant differences (F = 1.36, p = .246) therefore, equal variance was assumed. Change scores, using the Corley et al. (2005) scoring method, were analyzed using the independent t-test (Table 3) to determine if there was a statistically significant mean gain that may have been attributable to the intervention. Independent t-tests comparing the treatment and control groups’ mean change scores for total moral distress were analyzed and indicated no statistically significant difference. Both groups had a decrease in total moral distress with a mean posttest total change score of -0.92 (SD = 4.0) for the treatment group and -0.79 (SD = 3.0) for the control group. There was no significant decrease in total moral distress based on the independent t-test. In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data.
Table 3

Independent t-test comparing Treatment and Control Groups on Change Scores of Total Moral Distress

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>-0.92</td>
<td>4.0</td>
<td>-0.193</td>
<td>108</td>
<td>.848</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>-0.79</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANCOVA analysis. To determine if a significant difference would be ascertained using Hamric and Blackhall's (2007) scoring method, an ANCOVA was conducted comparing the total moral distress mean posttest scores between the treatment and control groups, with the baseline pretest mean score serving as the covariate. The data were tested and the assumption of a normal distribution was met. Results from the ANCOVA revealed that after controlling for the baseline pretest total moral distress scores, there was a statistically significant difference (p < .001) in total moral distress change scores between the two groups (Table 4); therefore, the research hypothesis was accepted.

Table 4

Treatment and Control Group Posttest Total Moral Distress Change Scores using ANCOVA Analysis

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>f</th>
<th>df</th>
<th>( \eta_p^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>58</td>
<td>214</td>
<td>14.3</td>
<td>30.66</td>
<td>2</td>
<td>.364</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>203</td>
<td>16.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question and Hypothesis 1(a)

Do nurses who participate in the workplace-based 4A's program have decreased frequency of moral distress, compared to nurses who do not participate in the program?
The researcher hypothesized that nurses who participate in the workplace-based 4A’s program would have decreased frequency of moral distress, as compared to nurses who did not participate in the program. This hypothesis was tested by an independent *t*-test to compare the pretest and posttest Moral Distress Scale frequency change scores of the treatment and control groups. Both the treatment group and the control group demonstrated a non-significant decrease in the mean frequency scores from pretest to posttest. Table 5 presents the pretest and posttest mean frequency scores as analyzed using descriptive statistics.

**Table 5**

*Independent *t*-test Comparing Treatment and Control Groups’ Pretest, Posttest Mean Frequency Moral Distress Scores*

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pretest <em>M</em></th>
<th><em>SD</em></th>
<th>Posttest <em>M</em></th>
<th><em>SD</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>1.56</td>
<td>0.79</td>
<td>1.36</td>
<td>0.86</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>1.21</td>
<td>0.78</td>
<td>1.04</td>
<td>1.04</td>
</tr>
</tbody>
</table>

**Independent *t*-test analysis.** The Levene’s test for equality of variances yielded no statistically significant differences (*F* = 1.63, *p* = .204); therefore, equal variances were assumed. Change scores, using Corley’s scoring method (2005), were analyzed using the independent *t*-test (Table 6) to determine if there was a statistically significant difference between the mean change scores of the two groups that may have been attributable to the intervention. Independent *t*-tests comparing the treatment and control groups’ change scores for moral distress frequency were analyzed and indicated no statistically significant difference. While the mean posttest frequency change score was (-.20, *SD* = .78) for the treatment group and (-.18, *SD* = .55) for the control group, the
difference was not significant. In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data.

Table 6

Independent t-test comparing Treatment and Control Groups on Mean Change Scores of Frequency of Moral Distress

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>Df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>-0.20</td>
<td>0.78</td>
<td>-0.17</td>
<td>108</td>
<td>.864</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>-0.18</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ANCOVA analysis.** Despite the groups' randomization, the mean MDF pretest scores differed. In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data (Gall et al., 2007). An ANCOVA was conducted comparing the mean posttest change score of the frequency subscale of the Moral Distress Scale between the treatment and control groups with the pretest mean score serving as the covariate. The ANCOVA analysis compared the mean PMDF subscale of the Moral Distress Scale between the treatment and control groups with the pretest serving as the covariate. The data were tested and the assumption of a normal distribution was met. Results from the analysis indicated that after controlling for the pretest mean score there was a statistically significant difference between the posttest change scores ($p < .001$). Using partial eta squared ($\eta_p^2$) as the measure of association, the interaction between the MDF and PMDF accounted for 42% of the total variability in the frequency score. The adjusted mean PMDF change scores, as shown in Table 7, indicate the treatment group's mean
frequency score decreased. Based on the results of the ANCOVA, the hypothesis was accepted.

Table 7

_Treatment and Control Group Posttest Frequency Moral Distress Change Scores using ANCOVA Analysis_

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>f</th>
<th>Df</th>
<th>$\eta^2_p$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>1.23</td>
<td>0.07</td>
<td>38.29</td>
<td>2</td>
<td>.42</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>1.17</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question and Hypothesis 1(b)

Do nurses who participate in the workplace based 4A’s program have decreased intensity of moral distress, as compared to nurses who do not participate in the program? The corresponding directional hypothesis was: nurses who participate in the workplace based 4A’s program would have decreased intensity of moral distress, as compared to nurses who did not participate in the program. This hypothesis was tested by an independent _t_-test to compare the posttest and pretest Moral Distress Scale intensity change scores of the treatment and control groups.

As demonstrated in Table 8 pretest and posttest mean intensity scores were analyzed. While the treatment group had a small decrease on the posttest, the control group had a small increase.

Table 8

_Pretest, Posttest Mean Intensity Moral Distress Scores_

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pretest M</th>
<th>SD</th>
<th>Posttest M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>4.50</td>
<td>1.03</td>
<td>4.46</td>
<td>1.03</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>4.35</td>
<td>1.53</td>
<td>4.44</td>
<td>1.27</td>
</tr>
</tbody>
</table>
**Independent t-test analysis.** The Levene's test for equality of variances yielded no statistically significant differences \((F = .550, p = .460)\) therefore, equal variances were assumed. Change scores, using the Corley et al. (2005) scoring method, were analyzed using the independent \(t\)-test (Table 9) to determine if there was a statistically significant difference between the mean intensity change scores of the two groups that may have been attributable to the intervention. Among the treatment group, the mean posttest intensity change score decreased \((M = -.05, SD = 1.0)\) while the control group increased \((M = .08, SD = 1.1)\). The independent \(t\)-test comparing the treatment and control group's posttest change scores for moral distress intensity were analyzed and revealed no statistically significant difference. In order to reduce error variance and increase the power of the analysis (Munro, 2005), an ANCOVA approach to data analysis was also used to compare the pretest and posttest data.

Table 9

*Independent t-test Comparing Treatment and Control Groups on Mean Change Scores of Intensity of Moral Distress*

<table>
<thead>
<tr>
<th>Group</th>
<th>(n)</th>
<th>(M)</th>
<th>(SD)</th>
<th>(t)</th>
<th>(Df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>-.05</td>
<td>1.0</td>
<td>-0.63</td>
<td>108</td>
<td>.530</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>.08</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ANCOVA analysis.** Using the Corley et al. (2005) scoring method, an ANCOVA analysis compared the mean posttest change score of the intensity subscale of the Moral Distress Scale between the treatment and control groups, with the baseline pretest mean change score serving as the covariate. Results from this analysis indicated that after controlling for the baseline pretest intensity change score, there was a
statistically significant difference between the treatment and control groups' posttest intensity change scores ($p < .001$). Using partial eta squared ($\eta_p^2$) as the measure of association, the interaction between the MDI and PMDI accounted for 41% of the total variability in the intensity score. The adjusted posttest mean scores in Table 10 indicate that the treatment group's mean PMDI score decreased; however, the control group PMDI score increased. Based on the results of the ANCOVA, the hypothesis was accepted.

Table 10

*Treatment and Control group Posttest Intensity Moral Distress Scores using ANCOVA Analysis*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>f</th>
<th>df</th>
<th>$\eta_p^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>58</td>
<td>4.4</td>
<td>.11</td>
<td>36.48</td>
<td>2</td>
<td>.41</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>4.5</td>
<td>.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional Analyses**

**Posttest Questions**

A chi-square analysis was used to determine if the treatment and control groups were similar or significantly different from one another (Burns & Grove, 2005) on the Moral Distress Scale. Other than primary shift ($p = .015$), area of specialty ($p = .001$), and employment by Magnet designated hospital ($p < .001$), the treatment and control group were similar. Day shift comprised 91% of the treatment group and 71% of the control group. The area of specialties were diverse; however, 26% of the treatment group worked on a medical - surgical unit, and 26% worked on a maternal - child health unit. Among the control group, 23% worked on a critical care unit, while 25% worked in a surgical unit, and 21% worked on a medical - surgical unit.
Additional Pearson correlation analyses were computed on the demographic variables and PMDS, PMDF, and PMDI to measure the strength and direction of linear relationships between two variables. Coefficients nearer to 1.0 represent a strong relationship. Burns and Grove (2005) described an r-value of .1 to .29 to be a weak linear relationship and an r-value of .3 to .5 to be a moderate relationship. A weak negative correlation was reported between age and MDF (r = -.25, p = .008), while a moderate negative correlation was reported between age and PMDF (r = -.368, p < .001). A weak negative correlation was observed between number of years as an RN and PMDF (r = -.26, p = .006). Also, a weak negative relationship was reported between number of years as an RN and PMDS (r = -.21, p = .03), inferring that the longer one works as an RN, the less moral distress frequency and total moral distress one may encounter. Correlations between intensity and frequency were not significant for either the treatment or the control group.

In order to determine if an outside influence, other than the course, influenced answers on the posttest, four follow-up questions were asked of both the treatment and control groups. An independent t-test was performed, on the two groups combined, comparing the four posttest questions on the research variables change score intensity, change score frequency, change score total, MDI, MDF, MDS, and PMDI, PMDF, and PMDS.

To explore the first question which asked whether additional time had been spent learning communication skills since the time of the pretest, an independent t-test was computed, comparing the pretest and posttest of the sample that responded. Thirty-one
percent \((n = 33)\) of the subjects \((n = 107)\) reported they had spent additional time learning communication skills between the time of the pretest and the posttest. No statistically significant difference among change score intensity, change score frequency, change score total was reported.

The second question sought to determine whether additional time had been spent learning to manage ethical or moral dilemmas between the time of the pretest and the posttest of the sample that responded. An independent \(t\) - test was computed. Twenty-three percent \((n = 25)\) of the total subjects \((n = 107)\) reported they had spent additional time learning to manage ethical or moral dilemmas. No statistically significant difference among change score intensity, change score frequency, or change score total was reported.

The third question aimed to determine if subjects had experienced a life changing event that may have influenced their feelings regarding moral distress, between the pretest and posttest data collection using an independent \(t\) - test. Twenty-eight percent \((n = 23)\) of the total subject group \((n = 106)\) that responded reported they had experienced a life-changing event. A statistically significant difference for the MDF variable \((p = .007)\) was reported (Table 11). Responses indicated an array of situations ranging from death of a family member, friend, or coworker and serious illness of self or loved one.

**Table 11**

*Independent t-test Comparing Experience of a Life Changing Experience and MDF Score*

<table>
<thead>
<tr>
<th>Group</th>
<th>(n)</th>
<th>(M)</th>
<th>(SD)</th>
<th>(t)</th>
<th>(Df)</th>
<th>(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>23</td>
<td>1.79</td>
<td>.76</td>
<td>-2.73</td>
<td>104</td>
<td>.007</td>
</tr>
<tr>
<td>No</td>
<td>83</td>
<td>1.28</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The fourth question was intended to explore whether subjects had experienced a significant experience in the clinical setting involving an ethical or moral dilemma. There was a statistically significant difference for both the PMDF \((p = .006)\) and the PMDS \((p = .011)\) (Table 12). Responses indicated an array of clinical experiences that caused subjects to experience moral distress; including provider incompetence, end of life care, failure to honor patients' wishes, unsafe staffing, threatened job loss, failure to provide adequate pain management, inappropriate physician behaviors, and complex patient assignments.

Table 12

*Independent t-test Comparing Experience of Significant Clinical Event and Effect on PMDF and PMDS Score*

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36</td>
<td>1.55</td>
<td>.95</td>
<td>-2.87</td>
<td>104</td>
<td>.006</td>
</tr>
<tr>
<td>No</td>
<td>70</td>
<td>1.04</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>36</td>
<td>6.82</td>
<td>4.56</td>
<td>-2.63</td>
<td>104</td>
<td>.011</td>
</tr>
<tr>
<td>No</td>
<td>70</td>
<td>4.58</td>
<td>3.20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An independent \(t\)-test was computed comparing the Magnet designation status comparing the treatment and control groups' pretest and posttest scores. The 67 subjects who worked for Magnet designated hospitals had statistically significant less total moral distress scores pre and post-intervention, as well as decreased post frequency scores, than the 43 non-Magnet designated employed nurses \(p < .001\) (Table 13).
Table 13

*Independent t-test Comparing Treatment and Control Groups on Magnet Designation and Moral Distress*

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>Magnet</td>
<td>67</td>
<td>5.52</td>
<td>3.9</td>
<td>-2.14</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Non-Magnet</td>
<td>43</td>
<td>7.2</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMDS</td>
<td>Magnet</td>
<td>67</td>
<td>4.58</td>
<td>2.9</td>
<td>-2.35</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Non-Magnet</td>
<td>43</td>
<td>6.5</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMDF</td>
<td>Magnet</td>
<td>67</td>
<td>1.05</td>
<td>.64</td>
<td>-2.5</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Non-Magnet</td>
<td>43</td>
<td>1.46</td>
<td>.96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chapter Summary**

This chapter included a presentation of the statistical findings and the results of this study as they related to the research questions. The findings were based on data collected from the Demographic Data Questionnaire and the Corley Moral Distress Scale. Quantitative data were analyzed using SPSS for Windows computer version 19.0.

Pearson's correlations were computed to explore the relationship between the selected demographic variables and the treatment and the control groups' moral distress scores. To explore whether additional education, personal, or clinical experiences occurred between the pretest and the posttest, a cross-tabulation with chi-square was analyzed.

Descriptive statistics were computed for the demographic characteristics of the registered nurses in the sample. Chi-square analyses determined that other than shift, area of specialty, and employment by Magnet designated hospital, both the treatment and
control group were similar. Among nurses employed by a Magnet hospital, there was a statistically significant decrease in total moral distress on the pretest (MDS) and posttest (PMDS), as well as, posttest frequency (PMDF).

Independent \( t \)-tests compared the differences between the treatment and control groups' pretest and posttest frequency, intensity, and total change scores, as well as, the change scores for each hypothesis, using Corley's scoring method (2005). Analysis of data comparing the treatment and control groups revealed no statistically significant difference on change scores for total moral distress, moral distress intensity, or moral distress frequency. Independent \( t \)-tests were performed to discern if an outside influence, other than the course, influenced answers on the posttest.

An independent \( t \)-test was computed comparing the four posttest questions and the significance of working for a Magnet hospital. Of the four questions, only the potential for the influence of a life-changing event or a significant clinical experience on posttest results were statistically significant. Anecdotal responses supported these findings.

Analysis of the ANCOVA, using Corley's scoring method (2005) revealed statistical significance. Both frequency and intensity decreased among the treatment group after the intervention; however, the control group score increased. ANCOVA was also computed using Hamric and Blackhall’s (2007) scoring method to further analyze change scores on the mean total moral distress scores. Analysis of the ANCOVA revealed a statistically significant decrease in the treatment groups' posttest mean scores.
While this decrease was found among the treatment group, an increase was revealed among the control group.
Chapter 5

Discussion

The purpose of this pretest-posttest quasi-experimental control group study was to explore the effects of a workplace-based education program on the intensity, frequency, and total moral distress among registered nurses. This chapter provides a discussion of the findings of the study as they relate to the study's research questions, literature, additional analyses, and methodological issues. Implications for nursing science and research, nursing education, and nursing practice are discussed. Conclusions and recommendations for future research are presented.

Sample and Recruitment

The demographics of subjects in this study were representative of the United States registered nurse workforce, based on the findings of the 2008 National Sample Survey of Registered Nurses (NSSRN) of 33,549 registered nurses. The average RN age in this study was 46 years (NSSRN = 46). Subjects in this study were 91% Caucasian (NSSRN = 83%). The entry level to nursing was reported to be 23% diploma, 47% associate degree, and 30% baccalaureate, (NSSRN = 20%, 45%, 34%). The highest nursing degree earned was reported as 15% diploma, 37% associate, 36% baccalaureate, and 12% masters (NSSRN = 14%, 36%, 37%, 13%). Among the subjects in this sample, 61% were employed with a Magnet designated hospital, and 57% were certified in their specialty.

The findings of this study are the result of data analyses for the 110 subjects, who completed the study, from four hospitals. Of the 68 subjects assigned to the treatment
group, 58 completed the study; and of the 66 subjects assigned to the control group, 52 completed the study for a combined completion rate of 110 nurses. By way of simple randomization, 58 registered nurses from two hospitals served as the treatment group and 52 registered nurses from two hospitals served as the control group.

Discussion of Research Questions Findings

Research Question One

Research question one asked: Do nurses who participate in the workplace-based 4A's program have decreased total moral distress, compared to nurses who do not participate in the program? The corresponding directional hypothesis initially found that nurses who participated in the workplace-based program, The 4A's to Rise Above Moral Distress, did have decreased moral distress, as compared to nurses who did not participate in the program. An independent $t$-test analysis of the total Moral Distress Scale change score was computed and revealed no statistical significance.

There are several possible explanations for this finding. Corley (personal communication, February 8, 2010) informed this researcher that a total scoring method had been developed, but not reported. Corley reported the formula to be that of adding the sum of intensity items and the sum of frequency items. The intensity sum was then multiplied by the frequency sum for a total composite score. Upon further review of the literature, after data collection, it was found that Corley et al. (2001) reported that the Moral Distress Scale did not meet the criteria of unidimensionality, and therefore, a total composite score would not be meaningful.
Upon review, the total scoring method confirmed by Corley was found to be flawed. It is believed that the flawed scoring method contributed to the lack of significance in the independent $t$-test findings of the change scores for total moral distress. Based upon a review of the literature, an ANCOVA analysis employing the Hamric and Blackhall (2007) scoring method was conducted. This method multiplied the intensity score times the frequency score for each item. The products were then added to compute a composite score. An ANCOVA adjusted for differences between the groups and provided for a more powerful analysis (Gall et al., 2007). An ANCOVA was computed on the posttest total scores, using the pretest total scores serving as the covariate. This analysis revealed a statistically significant difference in the treatment and control groups’ moral distress total mean change scores; therefore, the hypothesis was accepted. Although statistically significant, because the decrease was minimal, clinical significance should be interpreted with caution.

Several other researchers (Pauley et al., 2009; Rice et al., 2008; Zuzelo, 2007) utilized the original Corley et al. (2005) instrument. A total score was also not reported with these studies. Elpern et al. (2005) described a total scoring method for the MDS; however, the authors did not report a total score. In a comparison of the levels of moral distress between doctors and nurses, Hamric and Blackhall (2007) reportedly modified the original Corley et al. instrument, as well as scoring methodology. Only mean total moral distress scores were computed and reported. Due to the extensive modifications made on the original instrument, a comparison could not be made with the findings of this study.
The Moral Distress Scale is an appropriate measure for moral distress among registered nurses. *The 4A's to Rise Above Moral Distress* (2005) intervention shows promise with modifications. The instrument differentiated between those who reported higher levels of moral distress from those reporting low levels of moral distress.

**Research Question One (a)**

Research Question 1 (a) asked: Do nurses who participate in the workplace-based 4A’s program have decreased frequency of moral distress, compared to nurses who do not participate in the program? The corresponding directional hypothesis was: nurses who participate in the workplace-based *The 4A’s to Rise Above Moral Distress* program will have decreased frequency of moral distress, as compared to nurses who do not participate in the program.

Using the Corley et al. (2005) scoring method, a change score was computed on the frequency of moral distress subscale, by conducting an independent *t* - test analysis between the treatment and control group. Overall, the subjects in the treatment and control sample reported low levels of moral distress frequency on both the pretest and the posttest; therefore, no statistical significance was found.

The limitations of analyzing change scores may have affected the results of the frequency scores. A goal of this study was to observe a decrease in the frequency of moral distress on the posttest. The ceiling effect may have occurred among those subjects scoring very low on the frequency pretest. For such subjects, the ceiling effect may render little to no leeway to move lower and thus the posttest scores may not have been an accurate reflection of the frequency of moral distress (Gall et al., 2007). To
provide a more powerful analysis (Gall et al.), an ANCOVA analysis was computed with statistical significance obtained ($p = .001$), therefore the hypothesis was accepted.

The findings of this study were similar to the findings of other researchers (Corley et al., 2005; Elpern et al., 2005; Pauly et al., 2009), all of whom reported low frequency. While moral distress may be prevalent among registered nurses, situations reflective of the MDS were not reported to occur frequently among the subjects in this study.

Because the MDS was developed to address moral distress among critical care nurses, it is plausible that the situations presented did not best capture the frequency of situations experienced by the subjects who worked in other clinical areas. Nurse researchers are encouraged to adapt the MDS instrument to more accurately reflect the frequency of morally distressing situations, unique to the various nursing specialties.

**Research Question One (b)**

Research Question 1(b) asked: Do nurses who participate in the workplace based *The 4A's to Rise Above Moral Distress* program have decreased intensity of moral distress, compared to nurses who do not participate in the program? The corresponding directional hypothesis was: nurses who participated in the workplace based 4A's program would have decreased intensity of moral distress, as compared to nurses who do not participate in the program.

The ceiling effect may have occurred among those subjects scoring very low on the intensity pretest. For such subjects, the ceiling effect may render little to no leeway to move lower and thus the posttest scores may not have been an accurate reflection of their intensity of moral distress (Gall et al., 2007). To provide a more powerful analysis (Gall
et al.), an ANCOVA analysis was computed with statistical significance obtained ($p = .001$), therefore the hypothesis was accepted.

Overall, the subjects in the sample reported generally high mean score intensity levels of moral distress. The heightened complexity of patient acuity and technology, compiled with the diminishing financial returns facing healthcare institutions, may cause hospitals to be potential hotbeds for moral distress. The findings of this study were consistent with the findings of other researchers Corley et al. (2005), Elpern et al. (2005), and Pauly et al. (2009), all of whom reported moderate to high intensity. While moral distress did not occur frequently, when it did occur, the experience caused intense distress among those in this study.

Based on the instructions on the original instrument, when completing the Moral Distress Scale, both the treatment and control group were instructed that even if they had no experience with an item, they were to answer how intense they thought it would feel to encounter the experience. Imagining how one may feel may have influenced the results of this study by inflating the intensity scores, as well as the overall total scores of the MDS. It would behoove nurse researchers to more accurately reflect intensity scores by having respondents only answer the questions with which they have first-hand experience, rather than speculate on how they think they would feel. Adapting the Moral Distress Scale to manifest the unique clinical stressors consonant within different nursing specialties would better reflect the intensity of those items.
Discussion of Ancillary Findings

In order to better understand the findings of this study, additional data were collected and analyzed. Overall, the subjects in this sample reported fairly high levels of moral distress intensity, which were higher than levels reported by Corley et al. (2005) and Pauly et al. (2009). While moral distress may not occur frequently among registered nurses, when it does occur it is perceived to cause intense feelings, which are known to have negative effects on the registered nurse (Corley et al.). Corley (2002) posits such frequency may cause the nurse to experience suffering, burnout, and abandonment of the profession.

The average age of nurses in this study was 46 years. It is possible that the results of this study would be different if the responses of younger nurses had been garnered. Socialization and values may differ among the generations of nurses. The majority of subjects were of the Baby Boomer generation born between 1943 and 1960. According to Carver and Candela (2008), the Baby Boomer generation values consensus building and sacrifices for the greater good of the organization, and may be less likely to speak up or 'rock the boat' than would the Generation X, which includes those born between 1961 and 1981. Carver and Candela report that Generation X values communication and professional interaction among their colleagues. The 'millennial' nurse was born after 1982 and tends to be resilient, independent, and with a desire to make a difference in the world. This generation is likely to leave a job or a profession if not supported in a healthy work environment. One cannot speculate if the moral distress scores in this study would have been higher or lower with larger Generation X and or 'millennial'
representation. Further research is warranted to explore the different generations and their response to moral distress.

This study found a relationship between the frequency of moral distress and the number of years as a registered nurse. The longer one is a nurse, the more likely the nurse is to encounter situations that may result in moral distress. As the complexity of patient care intensifies and technology evolves, nurses may be exposed to increasingly stressful patient, provider, and administrative tensions. Therefore, further research is needed to study what influence the number of years as a registered nurse has on moral distress.

The use of The 4A’s to Rise Above Moral Distress (2005) in this study resulted in statistically significant findings in both moral distress intensity and frequency mean scores, when conducting an ANCOVA analysis. The change in scores between the pretest and the posttest was small; however the intervention was only administered on just one occasion over a six-hour period. This may be referred to as dose of intervention, which according to Sidani and Braden (1998) includes the amount, frequency, and duration of an intervention. Sidani and Braden defined these terms as: amount refers to how much of an intervention is delivered at one time; frequency refers to how often an intervention occurs; and duration is the entire length of time of the intervention. In this study, the amount of the intervention was that 100% of the course content was delivered over one class. As for frequency, the intervention occurred one time; and the duration was six hours with eight weeks between the pretest and the posttest. Further research is
needed with respect to amount, frequency, and duration, as well as the time period between the pretest and the posttest.

A significant finding of this study was that nurses who worked in American Nurse Certification (ANCC) Magnet designated facilities reported decreased pretest and posttest total moral distress, as well as, decreased posttest moral distress frequency, than did nurses who did not work in Magnet designated facilities. This supports the research findings of Kelly, McHugh, and Aiken (2011) who reported that Magnet hospitals have better work environments and that the nurses that they studied were more likely to be satisfied with their job.

The findings of this study are important to nurses and nurse leaders working in hospitals, as well as for those seeking to validate the benefits of Magnet designation. As hospitals seek to create healthy work environments and the promotion of professional practice cultures, educating their registered nursing staff to effectively identify and reduce moral distress may further improve the work environment. More research is necessary to validate these findings.

Several authors suggested the use of *The 4A's to Rise Above Moral Distress* (2005) to reduce moral distress (Pendry, 2007; Rushton, 2006), to date, there were no published empirical studies validating statistical significance for which to compare these findings. No other studies were found to have been published correlating *The 4A's to Rise Above Moral Distress* (2005) class with the Corley et al. (2001) 38-item Moral Distress Scale.
While Beumer (2009) tested the effectiveness of *The 4A's to Rise Above Moral Distress* (2005) using a modified, eight question moral distress questionnaire; no validity or reliability measures were reported to have been conducted prior to, or after, the use of the modified instrument. Three different individuals taught the class over a 5-week period. In addition, no definition of moral distress was provided to the subjects prior to completing the instrument.

The current study was unique in that all of the classes were taught by the same instructor, with consistent delivery of the program across the curriculum. The original Corley et al. (2001) valid and reliable instrument was used to measure moral distress. The definition of moral distress preceded subject completion of the moral distress instrument. This study contributed to knowledge of moral distress, the effectiveness of *The 4A's to Rise Above Moral Distress* 2005), as well as to the further development of the Corley et al. Moral Distress Scale.

**Methodological Implications**

Several problems with the class and method of measurement were observed while undertaking this research including: practical, content and instrument barriers, and the length of the study. A review of these problems follows.

**Practical Barriers.** The practical barriers encountered were the teaching materials for the instructor and the students. *The 4A's to Rise Above Moral Distress* Participant Guide and a Participant Handbook (2005) did not include numbered pages. Using a template and script provided by the AACN, the instructor had to navigate students between the two booklets with some difficulty and loss of ‘flow’. Another
practical barrier was that the class was six hours long and required staff to attend on their
day off, without pay. Several nurses signed up to attend but did not show up for the
class. Some called the researcher to say their schedule did not permit their attendance.

Content Barriers. In reflecting on the experience of this researcher, The 4A’s to
Rise Above Moral Distress (2005) had valuable content, but should not be considered a
comprehensive means to educate registered nurses to manage moral distress. While the
class did meet the stated objectives of helping participants to: recognize signs of suffering
and moral distress; affirm and validate feelings of moral distress, and analyze a case
study using the framework of the 4A’s model, the content lacked specific strategies to
decrease moral distress.

provided subjects with a framework to recognize moral distress, affirm and validate
feelings and perceptions of moral distress, and propose strategies to decrease moral
distress; however, there were important concepts missing from the content including
assertiveness, accountability, and empowerment skills. Although the course employed
lecture, dialogue, a comprehensive review of the American Nurses Association Code of
Ethics, reflection, case scenarios, and positive modeling, it is believed that the course
lacked specific strategies, such as assertiveness (Lindeke & Sieckert, 2005; Tiedje, 1999)
and empowerment skill development (Deuchsher & Myrick, 2008; Kuokkanen & Leino-
Kilpi, 2000; Lachman, 2008).

For some people, it is not enough to tell them what they need to do to prevent or
thwart moral distress, as they may not be empowered or have the assertiveness skills to
be effective. Assertiveness education and skill-building may support subjects to more honestly and effectively communicate in situations that may otherwise result in moral distress. Empowerment strategies may help subjects to take action to offset situations that may otherwise cause moral distress. Based on this researcher's experience teaching this class, strategies for empowerment and assertiveness should be integrated into the curriculum in order to promote high self-efficacy, moral agency, and reduced moral distress.

Utilizing The 4A's Class to Rise Above Moral Distress (2005) framework could help nurses to recognize imminent moral distress; however, recognizing it, and 'rising above' it are very different. Without the support of empowerment, accountability, and/or assertiveness education, telling someone they need to assert themself may be more easily said than done. Inclusion of these concepts into The 4A's Class to Rise Above Moral Distress should be considered.

The subjects for the most part actively participated in the class. Most of the treatment group reported not having read the Code of Ethics since nursing school, and some reported not recalling having ever read it. At the beginning of the class, none could name even one concept or element of the code. Upon reading the code and discussing its interpretations and examples during the class, subjects were able to reflect and apply class content to specific situations in the scenarios presented in the class. Based on classroom interaction, it was evident that nurses do need an ethical framework, as well as, communication tools to manage issues such as these.
Moral Distress Scale Instrument Barriers. The Corley Moral Distress Scale (2001) has been modified in content and length by past researchers (Beumer, 2008; Hamric & Blackhall, 2007; Ohnishi et al., 2010; Pauly et al., 2009; Zuzelo, 2007) who all reportedly reduced the length of the survey, adjusted or limited its content or specialty focus, and altered its scoring schema. The 38-items of frequency and the 38-items of intensity that comprise the current Moral Distress Scale may be considered by some to be too time-consuming. The survey takes approximately 20 minutes to complete. Within both the treatment and control groups, several respondents were observed to answer survey questions in what appeared to be a thoughtful manner; however, as the subjects read on, some were observed to weary of the process and began to quickly answer, circling the same answer each time or even clustering answers in one circle. This may have resulted in some inauthentic responses. Scale refinement, such as condensing the instrument may enhance more thoughtful and authentic responses.

The Moral Distress Scale (2001) was developed to measure moral distress among critical care nurses. Consistent with the instructions of Corley et al. (2001), if questions did not pertain to the clinical practice of the subjects, specific instructions were provided to answer how they would feel 'if' the situation were to occur in their practice. Most of the respondents (81%) were not critical care nurses. Perhaps for the non-critical care nurses, the scenarios were not relevant or it was difficult or unrealistic to 'imagine' how one would feel in such a situation. This process may have resulted in the subjects falsely inflating either or both the intensity and total score, as subjects 'imagine' how intense a situation would feel, having never experienced it. Therefore, the scale might have
measured a situation that may never have occurred. One suggestion for items not
pertaining to a nurse's experience, would be adding the option of 'not applicable'. This
modification would identify issues pertinent as well as those not relevant to specific
nursing specialties.

Another possible explanation for the findings of this study was that subjects may
not have had enough time to 'practice' or apply their new knowledge and skill set.
Bandura's (1986) Social Cognitive Theory posits that learning transpires through
observation, imitation, and modeling. Learning is reinforced by attentiveness, retaining
what has been taught, personally practicing the new knowledge or skill, and motivation to
employ the new knowledge or skill set. While the posttest was administered eight weeks
after the intervention, there may not have been sufficient time for the treatment group to
practice and integrate the new skills into practice. Administering a second follow-up
posttest at 12-16 weeks after the intervention might allow for sufficient time for the
subject to experience a potentially morally distressing situation and utilize their new skill
set. The control group may have been intrigued to seek out more information on moral
distress during the lag time between pretest and posttest and affect their posttest
responses which may have also accounted for the findings.

*Scoring Methodology.* The scoring methodology is of particular concern. Corley
et al. (2005), Elpern et al. (2005), Hamric and Blackhall (2007), and Corley (personal
communication, June 24, 2010) reported different scoring methods. While a scoring
method to determine a total moral distress score was described by each of these authors,
only Hamric and Blackhall reported a total or composite score.
Frequency and intensity are unidimensional and do not represent a common construct, therefore, according to Nunnally and Bernstein (as cited in Haggell & Nilsson, 2009) a total score is technically invalid. While one item may have a frequency score of five and an intensity score of two, another may have a frequency score of two and an intensity score of five. Both would have a total score of 10, reflecting different dimensions. While total moral distress scores may be useful to compare groups, alone, they do not provide predictive value. Calculating a total moral distress score seems to be of limited value when measuring moral distress.

**Length of Study.** The length of the study may have contributed to the study’s findings. The literature did not suggest a specific time interval between the pretest and the posttest, when measuring knowledge or attitude. Subjects may not have had the opportunity to practice or implement their newly acquired knowledge by the time the single posttest was collected at eight weeks.

**Cost of the Study.** The study involved expenses that included costs of copying the Participant Guide and Participant Handbook, travel to hospitals, and postage. Participants were permitted to keep their Participant Handout and Participant Guide.

**Additional Class Observations**

Based on conversations with the subjects, most of those who attended the class came by choice. Even before the class began, many expressed their desire to learn more about moral distress. Examples of moral distress were readily generated and shared by subjects. Subjects were respectful and compassionate toward one another. Consistent with the literature (Gutierrez, 2005; Rushton, 2006) a common theme throughout the
class was gratitude to finally, put a name to the experience, and the realization they were not alone in their experience.

*The 4A's to Rise Above Moral Distress (2005)* class was taught to the treatment group on 12 different occasions, using the same class format. Many of the stories shared during the classes, by both males and female nurses, were disturbing. Many stories surrounded inadequate staffing, incompetent providers, lack of support from nursing leadership, and family disagreements with advanced directives.

This study added to the body of information on the frequency, intensity, and overall moral distress and the influence of *The 4A's to Rise Above Moral Distress (2005)* class on moral distress among registered nurses. The impact of giving a name to the concept of moral distress and a voice to those experiencing moral distress should not be understated.

**Theoretical Considerations**

The theoretical works of Corley’s (2002) Proposed Theory of Moral Distress and Bandura’s (1986) Social Cognitive Theory were blended (Figure 4) to provide a framework for this study. While moral distress is shared with other professions, Corley’s theory provided a nursing context and research agenda to further understand this phenomenon, and Bandura’s theory provided context to the planned intervention.

Bandura’s (1986) Social Cognitive Theory is based on observational learning and modeling, Bandura posited that persons need to witness the modeled behavior, be able to recall and reproduce the modeled behavior, and finally be motivated to reproduce or replicate the new behavior. This theory was a good fit for teaching *The 4A's to Rise*
Above Moral Distress (2005) class as it aimed to promote self-efficacy, self-awareness, dialogue, and moral agency among the treatment group. The didactic portion of the class provided discussion, case studies of common scenarios using the framework, and times to practice some difficult scenarios and difficult conversations to effectively advocate for themselves or their patient. This researcher served as the class facilitator, modeling sample responses and difficult conversations to the challenging situations presented. Modeling occurred using verbal instruction as well as live modeling. Subjects were asked to describe similar scenarios and practice their newly learned and observed communication skills. Many, but not all subjects had limited time to practice modeling appropriate responses due to the time constraints of the class. Subjects appeared to be engaged in other's shared experiences of moral distress.

Just as negative behavior can be learned through modeling, so too can positive moral and ethical behaviors be learned. In the presence of an impending or actual morally distressing situation, the motivation to speak up however was intrinsic to the social and communication styles of the individual. In some situations, subjects verbalized that the stakes may be too high and the nurse may opt to ignore the issue for self-protection. Ongoing practice of the modeled behaviors may become part of the person's schema when faced with an ethically challenging situation. Reflecting on the modeled behaviors may reinforce how to confidently manage similar situations, when they arise.

The findings of this study lend support to the Social Learning Theory (Bandura, 1986) concepts that people learn by observation and learning may result in a behavior
change. Merely being aware of, or recognizing an impending ethical dilemma may affect how a nurse will respond. As moral agents, it is essential that registered nurses acquire a baseline, as well as, an ongoing knowledge of biomedical ethics, a framework for ethical decision making, and effective communication skills. When nurses incorporate *The 4A's to Rise Above Moral Distress* (2005) framework and the modeled behavior with intentionality and forethought, these may serve to strengthen their moral fabric promoting effective communication, meaningful advocacy, and successful encounters for themselves and their patients. According to the AACN (2004), nurses have an obligation to act and commit to addressing moral distress. In order to meet this obligation, nurses need to believe in their ability to advocate for their patients and themselves effectively.

Corley’s Proposed Theory of Moral Distress (2002) posits the relationship between moral distress, the negative effects on the nurse, and the consequences of suffering, burn-out, resignation, and leaving the profession altogether. All of the subjects reported some degree of moral distress with varying degrees of intensity and frequency of moral distress. The stories shared during the class were intense and laden with suffering. Some nurses verbally expressed they would leave their position if they could; however, none expressed the desire to leave the profession; only their desire to limit their moral distress experience.

The dialogue during the intervention revealed the subjects' ability to recognize and understand the consequences (moral sensitivity) that the shared situations had on subjects. Many of the subjects verbally expressed they were aware of their moral autonomy and right to choose their course of action in a given situation; however, they
reported feeling powerless to change or effectively intervene. Many expressed frustration with the moral conflict they faced when having to choose between working in their present environment and leaving their position. Several expressed economic factors as a barrier to their moral autonomy. They feared losing their jobs if they spoke up or “rocked the boat”. All were able to describe a plethora of physical, emotional, psychological, and spiritual responses to suffering. One nurse in the treatment group voiced the intention to leave the organization due to an intense and untenable level of distress involving a particular surgeon. Another nurse began to sob within the first two minutes of opening the class reporting severe moral distress and its impact psychologically, socially, and physically. This nurse was referred to the Employee Assistance Program for follow-up.

**Limitations of the Study**

This study was conducted in four hospitals across New Jersey. The limited sample size and geographic reach of this study limits the researcher's ability to make broader generalizations about the findings. In future research, this could be addressed by utilizing an online survey mechanism. The majority of the subjects were Caucasian women; however, this is consistent with the national characteristics of registered nurses. Future research and collaboration with minority nurse organizations may provide more insight into moral distress as experienced by minority nurses.

While a medium effect size was proposed, only a small effect was observed. This resulted in the study being underpowered. The small effect makes it difficult to generalize the findings of this study.
The interaction effect of testing may have affected responses. The pretest may have influenced posttest results by subjects. Although there was an eight-week lag between the pretest and the posttest, both groups may have been sensitized by the testing. Future researchers could minimize this by extending the time for the posttest, thus allowing for time for the treatment group to employ the concepts learned in the class.

The study also was limited due to the researcher having no jurisdiction over subjects studying moral distress on their own. The treatment group may have been inspired by the class to learn more about moral distress. The control group may have been intrigued to seek out more information on moral distress during the lag time between pretest and posttest and affect their posttest responses.

Conclusions

Based on the findings of this study, the following conclusions were drawn:

1. The majority of registered nurses in this study experienced moral distress at varying levels and degrees of intensity and frequency in their present jobs.

2. Frequency, intensity, and total moral distress decreased among the treatment group who participated in the class.

3. Gender, race, entry level of education, highest level of education, certification, previous ethics education, and religion were not related to frequency, intensity, or total moral distress.

4. Bandura's Social Cognitive Theory (1986) was an appropriate framework for this study. Most humans have the capacity for observational learning, enabling them to acquire knowledge, attitudes, and competencies through modeling behaviors.
5. Corley's Proposed Theory of Moral Distress (2002) was an appropriate framework for this study. When nurses are unable to advocate for patients, they may experience moral distress.

6. Based on observation, content of *The 4A's to Rise Above Moral Distress* (2005) should be enriched to include strategies for empowerment and assertiveness.

7. Nurses who work in Magnet designated hospitals in this study, had less frequency and total moral distress than did nurses who work in non-Magnet hospitals.

8. Older nurses in this study reported less frequent moral distress than did younger nurses.

**Recommendations**

Modification of the Moral Distress Scale is recommended. Amending the instrument by eliminating overlapping or cross-loading variables would serve to shorten the time it takes to complete the form. For example, item 3, "Carry out a physician's order for unnecessary tests and treatments" overlaps item 12, "Carry out a physician's order for unnecessary tests and treatments for terminally ill patients". A shortened form may provide more authentic and thoughtful responses, and reduce the chance for skipped answers. The various modifications of the instrument and other various scoring methods make interpretation across studies difficult (Beumer, 2009; Elpern et al., 2005; Hamric & Blackhall, 2007). Researchers are encouraged to modify this scale, which would require pilot testing to maintain the validity and internal consistency reliability; however, shortening this form, while maintaining its integrity would reduce the length of time required to complete the instrument.
Because the Moral Distress Scale (Corley et al., 2001) was developed for critical care nurses, all of the questions may not be relevant across all nursing disciplines and may not capture the issues germane to nurses in other specialties. Modifying the Moral Distress Scale instrument to reflect various specialties would serve to diversify the instrument. Corley (personal communication, June 24, 2010) reported having modified the instrument for neonatal intensive care staff; however, the findings were not available.

It seems logical that when questions do not apply to those completing the Moral Distress Scale, the subjects should mark the frequency as not applicable, rather than ‘imagine’ how intense the experience would feel. This would allow for a true total score, rather than a hypothetical, and possibly falsely inflated score. This would also help to define the variables unique to specialty nursing areas. If variables were repeatedly reported as not applicable for frequency, they could be eliminated from the instrument. While this would result in no consistent range of scores, scoring would be based on the number of items answered.

Yet another concern rests with the time between the pretest and the posttest. While those who attended The 4A's to Rise Above Moral Distress (2005) program were taught strategies to address moral distress with a strong sense of self-efficacy, more time may have been needed to practice their newly learned framework and skill set. Administering an additional posttest at 16 weeks after the program may allow time for subjects to integrate and apply their new knowledge into practice. While this may result in a threat to mortality, it may provide a better reflection of subjects' attitudes over time.
Another significant concern with the Moral Distress Scale is the inconsistent scoring method. Corley's (personal communication, June 24, 2010) scoring methodology should be replaced with Elpern’s et al., (2005) or Hamric and Blackhall’s (2007) scoring methodology to more accurately reflect individual item, as well as, total moral distress scores. Multiplying the intensity of an item with the frequency would provide a score for each item, computing a total score for each item, and thus more accurately reflect mean total scores for the instrument as a whole.

Replication of the study using a larger sample, with hospitals that are geographically diverse should be undertaken to validate the findings of this study. With this diversity, one may have more diversity in age and ethnicity. Using a snowballing technique, an online survey may enable a broader reach to potential subjects.

Amending the Demographic Data Questionnaire may better elicit specific demographic information. For example, question 7 should ask ‘On the average, how many hours does the nurse work per week’? Obtaining the mean number of hours nurses work may better inform the study. Question 17 should read ‘Do you intend to leave your position due to morally distressing work conditions’? Nurses leave their jobs for many reasons. This revision would identify those considering leaving their job specifically due to moral distress.

Another recommendation arising from this study is to discuss and include assertiveness skills with The 4A's to Rise Above Moral Distress (2005) program. According to Marquis and Huston (2006), assertiveness is one of the most important skills necessary for effective communication. The ability to participate in direct and
honest communication to nurses can be learned over time. The six-hour program schedule agenda *The 4A's to Rise Above Moral Distress* program did not allow for inclusion of assertiveness skill development. Many times during the program, this researcher had to refrain from deviating from the script. Several subjects verbalized a powerlessness and or fear to 'rock the boat', both during and after the program. Reviewing empowerment strategies to more effectively influence situations may have proved useful to operationalize suggested approaches. Effective communication is essential in maintaining collaborative relationships (Marquis & Huston). This may be achieved by adding an additional two hours into the course content. Teaching, reviewing, and practicing effective communication between nurses and members of the healthcare team, and patients and their families may help strengthen their confidence, enabling nurses to achieve high self-efficacy, moral agency, and reduced moral distress. These attributes may better enable the nurse to be a proactive advocate for themselves and their patients. Without empowerment and assertiveness education or support, telling someone they need to assert themselves may be easier said than enacted. Inclusion of these concepts into *The 4A's to Rise Above Moral Distress* (2005) should be considered.

Based on this researcher's teaching experience, the length of the program should be increased. Subjects were so actively engaged in the program and eager to share their stories of moral distress that at times it was difficult to stay on schedule. Extending the program to one eight hour or two four hour classes would provide more time to include effective communication and assertiveness strategies and additional practice of the subjects' newly learned framework.
The final recommendation is to add a qualitative component to the study. This would provide a mechanism for nurses to articulate situations, in which they have moral distress, the effects that it resulted in, and how they responded to the situation. This may also allow for nurses to describe how they managed the situation. These findings would help to inform the adaptation of the Moral Distress Scale (Corley et al., 2005) to capture those situations that cause moral distress.

**Implications for Nursing**

In this study, nurses who attended *The 4A's to Rise Above Moral Distress* (2005) program, reported a decrease in overall moral distress, frequency of moral distress, and intensity of moral distress. These results have several implications for nursing. The information in this study may serve to inform nurse researchers, nurse educators, and nursing practice.

**Nursing Science and Research**

The results of this study contribute to nursing science by describing the intensity and frequency of moral distress and specifically nurses' response to the workplace-based intervention intended to reduce moral distress. The outcomes of this study have provided additional information on the effectiveness of a strategy intended to reduce the incidence and frequency of moral distress among nurses. In addition, this research may help further future studies intending to identify triggers of moral distress and or develop prevention and retention strategies, as well as strategies to promote ethical work climates for nurses.
Psychometric support has been added for the Moral Distress Scale (Corley, 2001). For many nurses, moral distress arises from interpersonal and intrapersonal constraints. This study may contribute to the further development of new measures of the Moral Distress Scale using empirical referents unique to other nursing specialties, specifically for those not routinely providing nursing care for terminally ill patients. Future research on strategies to reduce the incidence of moral distress may benefit from the findings of this study.

The theoretical foundation of Corley’s (2002) theory of moral distress may be supported through this study as a framework for other studies. While Corley's theory describes the causes and effects of moral distress, it does not clarify how to prevent moral distress. Further research is suggested that may explore a variety of strategies to reduce perceived ethical dilemmas among nurses. Additionally, this study validated Bandura's social cognitive theory (1986). Social learning theory was useful in that it was predictive in explaining registered nurses responses to situations that may result in moral distress. Several of the nurses from the treatment group reported, that after attending the program, they effectively utilized the 4A’s framework to preemptively defuse potential moral distress situations.

Nursing Education

Promotion of healthy work environments among staff nurses and nursing leadership should be one of the overarching goals of clinical nurse educators. In order to achieve this, nurse educators must develop and mentor staff nurses and nursing leadership to develop the skills necessary to sustain the desired culture. Bandura (1986)
posited that teaching these behaviors may be facilitated through observation, imitation, and modeling. Clinical educators are encouraged to teach and promote ethical behaviors necessary to establish and sustain the open and honest communication necessary to achieve a healthy work environment. *The 4A's to Rise Above Moral Distress* (2005) could be integrated into employee orientation and annual competency training. This may take place in a classroom environment and through positive role-modeling.

The findings of this study can be used by health care organizations as they develop clinical education programs aimed at reducing moral distress. Educating staff nurses is costly. If nurses are going to attend a six or eight hour program, it is imperative that the program have a significant, positive effect on those attending. Clinical educators, as well as nursing school faculties are challenged to augment *The 4A's to Rise Above Moral Distress* (2005) with more enhanced concepts of empowerment, assertiveness, effective communication strategies and principles of moral courage (Lachman, 2007), in order to help nurses honor their code of ethics and do the right thing.

Ethics education in schools of nursing may bolster confidence in the nurse's ability to make decisions and take action (Grady et al., 2007). It is incumbent upon nurse educators to develop appropriate curricula and androgogical strategies that ensure that student/novice nurse learn specific theories, as well as demonstrate experiential outcome competencies that best meet the often-disparate goals of the nursing education system, the healthcare system, and the patient. This study lends support to *The 4A's to Rise Above Moral Distress* (2005) curriculum inclusion to the undergraduate nursing leadership education curricula requirement.
Nursing faculty, nurse educators, and nurse leaders are encouraged to invest in the ethical climate of healthcare organizations employing registered nurses. One goal for nursing school education is to teach the principles of ethics education and prevention strategies rather than simply the management strategies of moral distress. The findings of this study may contribute to nursing faculty and clinical educators' abilities to develop strategies to embolden nursing students to prepare them to be ever-diligent, empowered, and vociferous patient advocates, not affected by threatening behaviors of oppressors seeking to limit their efficacy.

Schools of nursing are challenged to ensure their curriculum includes a biomedical or health-related ethics course in the senior year of nursing school. While some students may find the situations of ethical dilemmas out of context, the knowledge gained may help them to recognize situations from afar, and use learned techniques to assuage the situation, when encountered.

Nursing Practice

The results of this study are important to nursing research and ultimately clinical practice, as the findings have the potential to influence the culture of nursing. Chinn and Kramer (2008) ascribed to the importance of research leading to a desired future. A future in nursing without moral distress is something that educators, researchers, and clinicians should aspire to every day. This study may serve to help nurses recognize situations that manifest moral distress, respond proactively and professionally, and in turn, diminish the associated consequences.
Nurses should be able to establish, practice, and enact their professional values within their work environment. Organizations that educate and employ nurses must develop and employ strategies to prevent the development of moral distress, as well as prepare nurses to recognize, and effectively respond to potentially morally distressing situations. It is incumbent upon nurse administrators to create healthy work environments that promote ethical practice. Strategies, such as workplace-based education and continuing education, should be explored and implemented to attempt to reduce moral distress. The design of this nursing intervention aimed to provide proactive strategies, rather than reactive strategies and was intended to diminish the incidence, frequency, and the residual effects of moral distress. When the registered nurses encountered a morally distressing situation, some of the subjects reported that the learned 4A's framework was employed to defuse the situation. This study may serve to support the development of strategies to strengthen nurses’ moral fabric and enable them to ‘do the right thing’, regardless of intrinsic and or extrinsic pressures. It is important that both staff nurses and nurse leaders learn how to appropriately respond to unethical behaviors and advocate for patients without fear of retribution.

This study may benefit nurses to identify strategies to defuse moral situations in order to effectively prevent or minimize the experience of moral distress. The findings generated from this study may lead to further discussion among nurses and nurse leaders to further explore strategies to enhance the professional image of nurses among other members of the health care team. Through the dissemination of the results of this study, nurses, as well as other healthcare professionals may learn more about moral distress and
strategies to reduce the incidence and consequences. Ultimately, attending *The 4A's to Rise Above Moral Distress* (2005) may provide nurses with strategies that help them to find satisfaction in their work leading to improving retention of nurses in the workforce.

The findings of this study may contribute to nursing practice. Nurses are expected to be accountable and practice within their Code of Ethics. Accountability is an important concept as it relates to the Code of Ethics. Milton (2008) reinforced that the ANA Code of Ethics (2009) emphasizes that registered nurses are responsible and accountable for all of one's nursing judgments and actions. Accountability is linked to the nurse's integrity; and compromised integrity is linked to moral distress. This researcher affirms Milton's challenge that nurses need to be accountable, in order that the nursing profession enhance its integrity.

Nurses must be knowledgeable of their ethical obligations, and stand by their commitment to adhere to their code. The majority of nurses in this study had not read the Code of Ethics since nursing school, and some had never read it. In order to provide safe care to patients, advocating in the face of adversity, and owing the same duty to themselves, as to their patients, nurses need tools such as *The 4A's to Rise Above Moral Distress* (2005), as well as assertiveness and empowerment skills to achieve these obligations. Kuokkanen and Leino-Kilpi (2000) defined empowerment as a fundamentally positive process whereby power is shared. Empowering nurses enables them to take action and generate positive personal, patient-centered, as well as, organizational results. Empowered nurses have increased self-confidence, and perceive
more freedom in their practice. As empowerment is a process, it can be modeled, observed, and learned over time.

*The 4A's to Rise Above Moral Distress* (2005), with the additional concepts of assertiveness, effective communication, and empowerment may help nurses, in their daily practice, achieve the goals of open and honest communication, necessary for a healthy work environment. In addition, this study may also have served to increase ethical awareness among those who participated.

**Chapter Summary**

In this sample of 110 registered nurses from New Jersey, demographic data revealed a predominately female, Caucasian sample with an average age of 46 years. The majority entered nursing at the associate degree level. Most worked fulltime with an average of 19 years in the registered nurse workforce. More than half were employed at a Magnet hospital.

This researcher concluded that the nurses who participated in the study experienced a reduction in total moral distress and moral distress frequency among the treatment group's posttest scores. This change score reduction validated *The 4A's to Rise Above Moral Distress* (2005) as an effective intervention to reduce moral distress frequency.

Regarding the research question about the effect of *The 4A's to Rise Above Moral Distress* (2005) on moral distress intensity, this researcher concluded that the findings of this study demonstrated a statistically significant decrease in moral distress intensity among the treatment groups' posttest scores. For unknown reasons a small increase was
observed among the control group posttest scores. This change score reduction validated *The 4A's to Rise Above Moral Distress* (2005) as an effective intervention to reduce moral distress intensity.

The study's findings were mixed when compared to published literature. Subjects in this study reported higher moral distress intensity scores than those reported by Corley et al. (2005) and Pauly et al. (2009), while frequency scores were similar. No other published studies were found using the original 38-item instrument.

Several demographic variables were compared to the moral distress total, intensity, and frequency scores. Among the overall subjects employed by a Magnet hospital, there was a statistically significant decrease in total moral distress on the pretest and the posttest, as well as a statistically significant decrease in frequency on the posttest. These findings suggest that registered nurses who work at Magnet hospitals may experience less moral distress than their counterparts in non-Magnet hospitals. Longevity as a nurse was inversely related to total moral distress with the more experienced nurses reporting less total moral distress. Age was inversely related to moral distress frequency, with the older nurses reporting less frequency of morally distressing events.

Methodological implications were discussed including practical barriers encountered with the *The 4A's to Rise Above Moral Distress* (2005) handbook and participant guide. Content barriers identified implementation strategies to be absent from the curriculum. Instrument barriers included the many iterations of the Moral Distress Scale and scoring methods, limiting its generalizability.
Implications for nursing were addressed, specific to nursing science, research, education, and practice. This study advanced nursing science by providing information on The 4A's to Rise Above Moral Distress' effectiveness to reduce total moral distress, as well as moral distress frequency and intensity. This study may lend support to The 4A's to Rise Above Moral Distress (2005) curriculum and may be transferrable to undergraduate nursing education, continuing education, as well as integration into nursing practice.

The use of The 4A's to Rise Above Moral Distress (2005) was effective in reducing total moral distress, as well as, moral distress frequency and intensity. The anecdotal stories of subjects validated that nurses need to find a balance to manage moral distress when it arises, as well as, effective interventions to support nurses endeavors to minimize moral distress and its' consequences. Suggestions have been offered for future research. Nurse educators, nurse administrators, and nurse researchers are challenged to further this research to support the establishment of healthy work environments.
References


doi:10.1097/01.CCM.0000254722.50608.2D


http://www.rwjf.org/files/publications/other/wisdomatwork.pdf?gsa=1


doi:10.1191/0969733005ne828oa


doi:10.1097/NNA.0b013e31822eddbc


doi: 10.1046/j.1440-172x.1999.00143.x


doi: 10.1016/j.socscimed.2007.05.050


Appendix A

AACN Standards for Establishing and Sustaining Healthy Work Environments

Copyright 2005
Appendix B

(First letter of last name, last letter of last name, birthday month & date)

Moral Distress Scale Pretest

**Moral Distress** is defined as a painful feeling and/or psychological disequilibrium caused by a situation where:

1) you believe you know the ethically appropriate action to take, and

2) you believe you cannot carry out that action because of institutionalized obstacles, such as lack of time, supervisory disinterest, medical power, institution policy or legal limits.

This scale measures your perceptions on two dimensions:

1) level of moral distress, and

2) frequency of these situations

The following situations may occur in clinical practice. These situations may or may not cause moral problems for you. If the situation does not apply to your practice, mark how you think you would respond if it were to occur.
Using your current position as a reference, please answer by checking the appropriate column for each dimension: Moral Distress Intensity and Frequency.

<table>
<thead>
<tr>
<th>Intensity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Great Extent</td>
<td>1</td>
</tr>
<tr>
<td>Extent</td>
<td>2</td>
</tr>
<tr>
<td>Never</td>
<td>3</td>
</tr>
<tr>
<td>Very Frequently</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Avoid taking action when I learn that a nurse colleague has made a medication error and does not report it.</th>
<th>None</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let medical students perform painful procedures on patients solely to increase their skill.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Assist physicians who are practicing procedures on a patient after CPR has been unsuccessful.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Carry out the physician's orders for unnecessary tests and treatments for terminally ill patients.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Work with levels of nurse staffing that I consider &quot;unsafe.&quot;</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Carry out orders or institutional policies to discontinue treatment because the patient can no longer pay.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Continue to participate in care for a hopelessly injured person who is being sustained on a ventilator, when no one will make a decision to &quot;pull the plug&quot;.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Observe without taking action when health care personnel do not respect the patient's privacy.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Follow the physician's order not to tell the patient the truth when he/she asks for it.</td>
<td>None</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Using your current position as a reference, please answer by checking the appropriate column for each dimension: Moral Distress Intensity and Frequency.

<table>
<thead>
<tr>
<th>Intensity</th>
<th>None</th>
<th>Great</th>
<th>Extent</th>
<th>Never</th>
<th>Very Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

- 18. Assist a physician who in your opinion is providing incompetent care.
- 19. Prepare an elderly man for surgery to have a gastrostomy tube put in, who is severely demented and a "No Code".
- 20. Discharge a patient when he has reached the maximum length of stay based on Diagnostic Related Grouping (DRG) although he has many teaching needs.
- 21. Provide better care for those who can afford to pay than those who cannot.
- 22. Follow the family's request not to discuss death with a dying patient who asks about dying.
- 23. Providing care that does not relieve the patient's suffering because the physician fears increasing the dose will cause death.
- 24. Give medication intravenously during a Code with no compressions or intubation.
- 25. Follow the physician's request not to discuss Code status with patient.
- 26. Follow the physician's request not to discuss Code status with the family when the patient becomes incompetent.
Using your current position as a reference, please answer by checking the appropriate column for each dimension: Moral Distress Intensity and Frequency.

<table>
<thead>
<tr>
<th>Intensity (None, Great Extent, Never)</th>
<th>Frequency (0, Very Frequently)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not being able to offer treatment because the costs will not be covered by the insurance company.</td>
<td>27</td>
</tr>
<tr>
<td>Increase the dose of intravenous morphine for an unconscious patient that you believe will hasten the patient's death.</td>
<td>28</td>
</tr>
<tr>
<td>Respond to a patient's request for assistance with suicide when patient has a poor prognosis.</td>
<td>29</td>
</tr>
<tr>
<td>Follow the physician's request not to discuss death with a dying patient who asks about dying.</td>
<td>30</td>
</tr>
<tr>
<td>Follow orders for pain medication even when the medications prescribed do not control the pain.</td>
<td>31</td>
</tr>
<tr>
<td>Work with nurses who are not as competent as the patient care requires.</td>
<td>32</td>
</tr>
<tr>
<td>Work with nursing assistants who are not as competent as patient care requires.</td>
<td>33</td>
</tr>
<tr>
<td>Work with non-licensed personnel who are not as competent as the patient care requires.</td>
<td>34</td>
</tr>
<tr>
<td>Work with physicians who are not as competent as the patient care requires.</td>
<td>35</td>
</tr>
<tr>
<td>Work with support personnel who are not as competent as patient care requires.</td>
<td>36</td>
</tr>
</tbody>
</table>
Using your current position as a reference, please answer by checking the appropriate column for each dimension: Moral Distress Intensity and Frequency.

<table>
<thead>
<tr>
<th>Intensity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Great Extent</td>
</tr>
<tr>
<td>0, 1</td>
<td>2, 3</td>
</tr>
<tr>
<td>0, 1</td>
<td>2, 3</td>
</tr>
</tbody>
</table>

37 Ask the patient's family about donating organs when the patient's death is inevitable.
38 Be required to care for patients I am not competent to care for.
Appendix C

Moral Distress Scale Posttest Follow-up Questionnaire Treatment Group

(First letter of last name, last letter of last name birthday month & date)

Directions: Circle the letter to the left representing the appropriate answer.

1. Since attending The 4A's to Rise Above Moral Distress, have you spent additional
time learning communication skills?

   Please describe: ____________________________________________________________

   A. No
   B. Yes

   Please describe: ____________________________________________________________

2. Since attending The 4A's to Rise Above Moral Distress, have you spent additional
time learning how to manage ethical or moral dilemmas?

   A. No
   B. Yes

   Please describe: ____________________________________________________________
3. Since attending *The 4A's to Rise Above Moral Distress*, have you experienced a life changing event that may influence your feelings regarding moral distress?

   A. No
   
   B. Yes

   Please describe: ___________________________________________________________

4. Since attending *The 4A's to Rise Above Moral Distress*, have you had a significant experience in the clinical setting involving an ethical or moral dilemma?

   A. No
   
   B. Yes

   Please describe: ___________________________________________________________
Appendix D

Moral Distress Scale Posttest Follow-up Questionnaire Control Group

(First letter of last name, last letter of last name birthday month & date)

Directions: Circle the letter to the left representing the appropriate answer.

1. Over the past eight weeks, have you spent additional time learning communication skills?

   Please describe: ________________________________

   C. No

   D. Yes

       Please describe: ________________________________

2. Over the past eight weeks, have you spent additional time learning how to manage ethical or moral dilemmas?

   C. No

   D. Yes

       Please describe: ________________________________
3. Over the past eight weeks, have you experienced a life changing event that may influence your feelings regarding moral distress?
   C. No
   D. Yes
   
   Please describe: _______________________________________________________

4. Over the past eight weeks, have you had a significant experience in the clinical setting involving an ethical or moral dilemma?
   C. No
   D. Yes

   Please describe: _______________________________________________________
Appendix E

Follow-up Reminder Letter to Treatment Group

__/__/___

Dear ____________________________:

Thank you for attending the 4 A’s to Rise Above Moral Distress. As of the date of this mailing, I have not received your follow up survey. For your convenience, I am enclosing another copy of the follow-up survey. At your earliest convenience, please complete the survey using the past eight weeks as a reference. Once you have completed the survey, please return it in the stamped self-addressed envelope enclosed. Upon receipt of your survey, the researcher will forward your contact hour certificate valid for 6 hours. If you have any questions, you may contact the researcher at ______________________. I appreciate your promptly returning the questionnaire.

Sincerely,

Nancy M. Powell RNC-OB, MSN, CNM
Widener University School of Nursing
Appendix F

Demographic Data Questionnaire

[ ] Female
[ ] Male
[ ] Transgender

1. Gender:

[ ] Caucasian
[ ] Black or African American
[ ] American Indian
[ ] Alaskan
[ ] Asian
[ ] Hawaiian

2. Race:

[ ] Hispanic
[ ] Non-Hispanic

3. Ethnicity:

[ ] English
[ ] other

4. Primary language:

[ ] diploma
[ ] associate
[ ] bachelors

5. Entry level program to nursing:

[ ] masters

6. Highest nursing degree completed:

[ ] ≤ 23
[ ] > 24

7. Average number of hours worked per week on your primary nursing unit:

8. Number of years you have been employed as an RN: _______________ years
9. Number of years employed in current specialty: ___________years

10. Area of nursing specialty:
   [ ] critical care
   [ ] surgical service
   [ ] medical surgical
   [ ] emergency room
   [ ] maternal child
   [ ] other: __________________________________________

11. Are you certified in your specialty?
   [ ] yes; specify specialty _____________________________
   [ ] no

12. Did you attend a formal stand-alone ethic's education class for credits while enrolled in your school of nursing?
   [ ] yes; please describe: ______________________________
   [ ] no

13. Have you ever attended a workplace-based ethic's education program?
   [ ] yes; please describe: ______________________________
   [ ] no

14. How old are you today? ___________years old

15. Do you practice a religion?
   [ ] Yes
   [ ] No

16. Do you consider yourself spiritual?
   [ ] Yes
   [ ] No

17. Do you intend to leave your work position in the next year?
   [ ] Yes
   [ ] No

18. Are you employed in a designated Magnet facility?
   [ ] Yes
   [ ] No

19. Do you primarily work day shift or night shift?
   [ ] Day
   [ ] Night
   [ ] Rotate
Appendix G

Permission to Use Corley's Moral Distress Scale

----- Original Message -----  
From: Mary C Corley/FS/VCU  
To: nancy powell  
Cc: 
Sent: Thursday, March 27, 2008 5:00 PM  
Subject: Re: Moral distress scale

Dear Nancy,

I received your e-mail requesting the Moral Distress Scale and give you my permission to use it. I do ask that researchers who use it share their data (with identifiers removed) so that the data can be used to improve the Scale. I am retired and no longer collecting data myself, but I have so many requests for the Scale and regret that the current version has not been submitted to factor analysis (enabling the Scale to be shortened).

Mary Corley
Appendix H

Timeline

<table>
<thead>
<tr>
<th>Group</th>
<th>Register</th>
<th>Week 1:</th>
<th>Week 8:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td>pretest, demographic data, class</td>
<td>posttest</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>pretest, demographic data</td>
<td>posttest, class</td>
</tr>
</tbody>
</table>
Appendix I

The 4A's to Rise Above Moral Distress Schedule of Program

7:00 to 8:00 Registration

7:30 to 8:00 Welcome, Instructions, Consent, Moral Distress Scale, and Demographic Questionnaire

8:00 to 8:15 Participant Introductions

8:15 to 8:30 What is moral distress?

8:30 to 8:45 Virtue ethics

8:45 to 9:00 Break

9:00 to 9:15 Purpose of the 4 A's; Discussion: Experiences and examples of moral distress; how handled presently

9:15 to 9:30 Review 4 A’s model

9:30 to 10:15 Case study I

10:15 to 11:00 Case study II

11:00 to 11:15 Break

11:15 to 12:00 Case study III

12:00 to 12:45 Discussion and conclusion

12:45 to 1:00 Evaluations and instruction
Appendix J
Initial Contact to NJONE Chairperson of Research Committee

Date ___/___/____

Dear ______________________________:

My name is Nancy Powell and I am a doctoral candidate in the School of Nursing at Widener University. As part of my research, I am examining the effects of a workplace-based educational intervention on the frequency and intensity of moral distress. I would greatly appreciate your assistance to solicit the participation of NJONE member hospitals, by forwarding the enclosed letter to all NJONE hospital research representatives, and inform the researcher of all hospitals’ willing to participate.

Participating hospitals will be randomly assigned to treatment or control groups. An aggregate of hospital-employed registered nurses will be invited to participate in this research. This research will include attendance at a free, six-hour class designed to help nurses recognize moral distress, identify sources of moral distress, explore case studies, and develop strategies to reduce moral distress. Subjects will be asked to complete a pretest, a demographic data questionnaire, and attend the six-hour class. Eight weeks after the educational intervention a posttest survey will be mailed to the subjects. Upon completion of the class and surveys, subjects will receive a certificate for six contact hours from the New Jersey State Nurses Association (NJSNA).

I would greatly appreciate your assistance to help this researcher solicit hospitals’ participation in this research project. If you have any questions or concerns, please feel free to email me at _________________________.
Appendix K
Initial Contact to NJONE Representative

Date ___/___/____

Dear ________________________:

My name is Nancy Powell and I am a doctoral candidate in the School of Nursing at Widener University. As part of my research, I am examining the effects of an educational intervention on the frequency and intensity of workplace-based moral distress. Because your hospital meets the criteria to participate, I am inviting your organization to participate in this research study by having an aggregate of registered nurses attend a free, six-hour class designed to help nurses recognize moral distress, identify sources of moral distress, explore case studies, and develop strategies to reduce moral distress. Treatment group subjects in this research will be asked to complete a pretest and demographic data questionnaire, attend the six-hour class, and allow their data to be used. Eight weeks after the educational intervention a posttest survey will be mailed to the subjects. Control group subjects in this research will be asked to complete the pretest, demographic questionnaire, and eight weeks later, the posttest. Control group subjects will be given the opportunity to attend the class after they have completed the posttest. Only subjects who complete the class, the pretest, and posttest surveys, and allow their data to be used will receive six contact hours from the New Jersey State Nurses Association (NJSNA). Participation is strictly voluntary.

I would greatly appreciate your hospital's participation in this research. If your hospital is willing to participate, please let me know by e-mailing me at
and indicating your organization's willingness to participate. Upon receipt of your confirmation, I will supply you with flyers to solicit subjects and work with you to schedule the class.

Sincerely,

Nancy M. Powell RNC-OB, PhD candidate, CNM, Principal Investigator
Widener University, School of Nursing
Appendix L

Flyer

4A's to Rise Above Moral Distress

Between a Rock and a Hard Place

A research study and workshop aimed to help the registered nurse:

- recognize moral distress
- identify sources of moral distress
- develop skills and strategies to decrease moral distress
Appendix M

Informational Letter to Target Treatment Population

Date: __/__/____

Dear __________________

My name is Nancy Powell and I am a doctoral candidate in the School of Nursing at Widener University. I am examining the effects of an educational intervention on the intensity and frequency of workplace-based moral distress. Moral distress is the physical, psychological, or emotional suffering that is experienced when intrinsic or extrinsic constraints render the nurse unable to act in a manner the nurse perceives as ethically or morally appropriate.

Because you are a staff nurse at a participating hospital, I am inviting you to participate in this research study by attending a free class designed to help nurses recognize moral distress, identify sources of moral distress, explore case studies, and develop strategies to reduce moral distress. If you agree to participate in this research, you will complete two surveys prior to the class starting. It is anticipated the two surveys will take approximately 10 to 15 minutes to complete. You will also complete a survey eight weeks after the class to evaluate the effectiveness of the class. It is anticipated this survey will take approximately 10 to 15 minutes to complete. You must complete the class and the surveys, and allow your data to be used in this research in order to receive six contact hours from the New Jersey State Nurses Association (NJSNA). Your participation is strictly voluntary.
Subjects are asked to respect the privacy of all subjects and not share names or experiences heard during the class with anyone outside of the group. All of the data collected by the researcher will be confidential. Your name and any identifying factors will not be shared with anyone.

The benefits of this research may serve to help nursing students; faculty, clinical educators, nursing administrations, and most importantly the bedside nurse reduce the incidence and consequences of moral distress. There is a minimal risk that some subjects may experience emotional or social discomfort relating to case-based scenarios, discussions, or the Moral Distress Scale instrument. If you experience distress as a result of participating in this project, you should contact your organization’s Employee Assistance Program. Please note that you are free to withdraw from the study at any time, however, should you withdraw, you will not receive the contact hours.

If you have any questions regarding this study, please contact the principal investigator directly and I will be happy to answer or clarify any questions. I appreciate the opportunity to invite you to participate in this study. I can be reached by email at [email protected].

If you are willing and choose to participate in this study, please register for the class according to your hospital’s policy. Thank you for taking the time to help me with my academic endeavors.

Sincerely,

Nancy M. Powell RNC-OB, PhD candidate, CNM, Principal Investigator
Widener University, School of Nursing
Appendix N
Contact Hour Certificate
Certificate

THIS IS TO CERTIFY

Participant

HAS SUCCESSFULLY COMPLETED

4 A's to Rise Above Moral Distress

Conducted by:

Location of Activity:

Activity Number:
Appendix O

Informational Letter to Target Control Population

Date: __/__/____

Dear ________________

My name is Nancy Powell and I am a doctoral candidate in the School of Nursing at Widener University. I am examining the effects of an educational intervention on the intensity and frequency of workplace-based moral distress. Because you are a staff nurse at a participating hospital, I am inviting you to participate in this research study as a part of the control group. If you choose to participate, you will be asked to complete two surveys and allow your data to be used. One is a 38-item survey and the other requests your demographic information. It is anticipated the two surveys will take approximately 20 minutes to complete. Eight weeks later, you will be offered the option to attend a class at your hospital, aimed at reducing moral distress. Prior to the start of class, you will complete a 38-item survey again, and five additional questions. Providing you complete both surveys, attend the class on moral distress, and allow your data to be used you will receive six contact hours from the New Jersey State Nurses Association (NJSNA). Should you elect to not attend the class, the surveys will be mailed to you at your preferred address. It is anticipated these surveys will take about 15 minutes to complete. Please be advised you will only receive the contact hours if you complete both the class and the two surveys. Your participation is strictly voluntary. Your willingness to participate will in no way affect your job status.
Subjects are asked to respect the privacy of all subjects and not share names or experiences heard in the class with anyone outside of the group. All of the data collected by the researcher will be confidential. Your name and any identifying factors will not be shared with anyone.

The benefits of this research may serve to help nursing students; faculty, clinical educators, nursing administrations, and most importantly the bedside nurse reduce the incidence and consequences of moral distress. There is a minimal risk that some subjects may experience emotional or social discomfort relating to case-based scenarios, discussions, or the Moral Distress Scale instrument. If you experience distress as a result of participating in this project, you should contact your organization's Employee Assistance Program. Any costs related to such follow-up are to be incurred by you. Please note that subjects are free to withdraw from the study at any time.

If you have any questions regarding this study, please contact the principal investigator directly and I will be happy to answer or clarify any questions. I appreciate the opportunity to invite you to participate in this study. The principal investigator can be reached by email at [redacted].

If you are willing and choose to participate in this study, please promptly reply and provide preferred contact information in the enclosed pre-addressed, stamped envelope to the researcher. You may also reply by e-mail to [redacted]. Thank you for taking the time to help me with my academic endeavors.
Sincerely,

Nancy M. Powell RNC-OB, MSN, CNM, Principal Investigator
Widener University, School of Nursing
Appendix P
Pretest Instructional Letter to Control Group

Dear __________________:

Thank you for agreeing to participate in the control group in my research study on The Effect of Work-Place Based Education on Moral Distress Among Registered Nurses. I appreciate your willingness to participate in nursing research, as well as your support of my doctoral research.

Enclosed you will find a consent, the Demographic Data Questionnaire, and the Moral Distress Scale. In the upper right corner, please write a six digit code comprised of the first and last letter of your last name, followed by four digits representing the month and date of your birthday. Please fill them out and return them using the enclosed stamped, self-addressed envelope.

I appreciate your promptness in returning the completed surveys.

Upon completion of the study, you will be given the opportunity to attend the class, The 4A's to Rise Above Moral Distress (2005). Subjects who complete the surveys, attend the class, and allow their data to be used will earn six contact hours from the New Jersey State Nurses Association (NJSNA).

Sincerely,

Nancy M. Powell RNC-OB, MSN, CNM
Widener University, School of Nursing
Appendix Q

Follow-up Letter to Control Group

Dear _____________

Thank you for agreeing to participate in the control group in my research study on The Effect of Work-Place Based Education on Moral Distress Among Registered Nurses. I appreciate your willingness to participate in nursing research, as well as your support of my doctoral research.

Enclosed you will find the follow-up survey using the Moral Distress Scale. For your convenience, your unique identifier has been applied to your survey. Please fill the survey out and return them using the enclosed stamped, self-addressed envelope, at your earliest convenience.

Sincerely,

Nancy M. Powell RNC-OB, PhD candidate, CNM, Principal Investigator
Widener University, School of Nursing
Appendix R

Informed Consent for Treatment Group

Investigator Name: Nancy Powell RNC-OB, MSN, CNM-Principal Investigator,
Widener University School of Nursing

Date of Submission:

Study Title: The Effect of Workplace-Based Education Program on Moral Distress
Among Registered Nurses

Purpose of the Study
The purpose of this study is to explore the effects of a workplace-based educational
intervention on the frequency and intensity of workplace-based moral distress among
registered nurses.

Description of the Study
I am being asked to participate in this study because I am a registered nurse in an
acute care hospital. If I agree to be in this study, I will be asked to complete a 19-item
demographic data form. I will also be asked to complete a 38-item questionnaire prior to
attending a five-hour education program. Eight weeks after the program I will be asked
to complete a 38-item posttest questionnaire, with five additional yes or no questions. I
will be asked to mail the completed survey back to the researcher. The total amount of
time required to participate in the study is six hours.

Risks and Discomforts
There is a minimal risk that I may experience minor emotional or social discomfort
relating to case-based scenarios, discussions, or the Moral Distress Scale instrument. In
the event I perceive any discomfort, I understand I may leave the educational session or 
cease completing the questionnaire at any point. If I experience any distress as a result of 
participating in this project, I am aware I may contact my organization’s employee 
assistance program at my expense.

**Benefits:** There may be no direct benefit of participating in this study for me; however, 
the benefits of this research may serve to help nursing students; faculty, clinical 
educators, nursing administrations, and most importantly the bedside nurse reduce the 
incidence and consequences of moral distress.

**Alternative Procedures:** I understand that I will need to consent to participate, complete 
both the pretest and posttest surveys, and attend the class in order to earn the contact 
hours. There is no other alternative other than that I may choose to not participate.

**Confidentiality:**

All documents and information pertaining to this research study will be kept confidential in 
accordance with all applicable federal, state, and local laws and regulations. I understand 
that data generated by the study may be reviewed by Widener University's Institutional 
Review Board, which is the committee responsible for ensuring my welfare and rights as a 
research subject, to assure proper conduct of the study and compliance with university 
regulations. If any presentations or publication result from this research, I will not be 
identified by name.

All information will be kept confidential. The data will be stored in the researchers’ 
home in a locked cabinet and all related computer files will be password protected. Raw 
data (demographic forms and Moral Distress Scales) will be destroyed by shredding one
year after completion of the study. Your confidentiality will be also protected as data will not contain any information that can identify you.

**Termination of Participation:** I am aware that I am free to withdraw from the study at any time and for any reason. I understand that withdrawing from the study will not affect my job status. If I choose to drop out of the study, I will contact the researcher and my records will be destroyed. I understand that should I withdraw from the study, I will not receive the contact hours. The investigator may withdraw me from the study if I do not attend the educational session and complete the pretest and posttest surveys.

**Compensation:** Participation in this study is strictly voluntary. I will not receive any monetary payment for being in this study; however, six contact hours will be awarded to me if I complete the educational program and submit both the pretest and posttest and allow my data to be used. I understand that should I withdraw from the study I will not receive the contact hours. Contact hours will be awarded through the New Jersey State Nurses Association.

**Injury Compensation**

Neither Widener University nor any government or other agency funding this research project will provide special services, free care, or compensation for any injuries resulting from this research. Treatment for such injuries will be provided under the same financial arrangements as those under which treatment is usually provided.

**Questions:** All of my questions have been answered to my satisfaction and if I have further questions about the study, I may call the researcher. If I have any questions about
the rights of research subjects, I may call the Chairperson of Widener University’s Institutional Review Board at 610

Voluntary Consent:

I understand that my participation in this study is entirely voluntary, and that refusal to participate will involve no penalty or loss of benefits to me. I am free to withdraw or refuse consent, or to discontinue my participation in this study at any time without penalty or consequence. I voluntarily give my consent to participate in this research study. I give my consent to have my data used in this study. I understand that I will be given a copy of this consent form.

_____________________________ / / 

Subject’s Signature Date

_____________________________

Subject’s Printed Name

Nancy Powell RNC-OB, MSN, CNM

Investigator’s Name

_____________________________ / / 

Investigator’s Signature Date

Widener University’s Institutional Review Board has approved solicitation of subjects until December 30, 2012.
Appendix S

Informed Consent for Control Group

Investigator Name: Nancy Powell RNC-OB, MSN, CNM-Principal Investigator,
Widener University School of Nursing

Date of Submission:

Study Title: The Effect of Workplace-Based Education Program on Moral Distress
Among Registered Nurses

Explanatory Information: The purpose of this study is to explore the effects of a
workplace-based educational intervention on the frequency and intensity of workplace-
based moral distress among registered nurses I have been asked to participate in this
study because I am an actively employed registered nurse in an acute care setting. I
understand that my participation in this study will in no way affect my job status. My
participation in this study is that of a control group.

If I agree to participate in this study, as part of the control group, I will be asked
to complete a 19-item demographic data form, and a 38-item questionnaire. It is
anticipated that these surveys will take 15 minutes to complete. Eight weeks later, I will
be asked to complete a 38-item posttest questionnaire with four additional questions.
After the research has concluded, in order that I may obtain six contact hours, I will be
given the option to attend a six-hour class on moral distress at my place of employment.

Risks: There is a minimal risk that I may experience minor emotional or social
discomfort relating to case-based scenarios, discussions, or the Moral Distress Scale
instrument. In the event I perceive any discomfort, I understand I may cease completing
the questionnaire at any point. If I experience any distress as a result of participating in this project, I am aware I may contact my organization’s employee assistance program at my expense.

**Benefits:** There may be no direct benefit of participating in this study for me; however, the benefits of this research may serve to help nursing students; faculty, clinical educators, nursing administration, and most importantly the bedside nurse reduce the incidence and consequences of moral distress.

**Alternatives:** There is no other procedure to be used. I may choose to not participate.

**Confidentiality:** All documents and information pertaining to this research study will be kept confidential in accordance with all applicable federal, state, and local laws and regulations. Any patient information or experiences related to moral distress verbalized in class will be kept confidential according to HIPPA regulations. I understand that data generated by the study may be reviewed by Widener University's Institutional Review Board, which is the committee responsible for ensuring my welfare and rights as a research subject, to assure proper conduct of the study and compliance with university regulations. If any presentations or publication result from this research, I will not be identified by name. All information will be kept confidential. The data will be stored in the researchers’ home in a locked cabinet and all related computer files will be password protected. Raw data (demographic forms and Moral Distress Scales) will be destroyed by shredding after one year. My confidentiality will be also protected as data will not contain any information that can identify me.
**Termination of Participation:** I am aware that I am free to withdraw from the study at any time and for any reason. I understand that should I choose to withdraw from the study, it will not affect my job status. If I choose to drop out of the study, I will contact the researcher and my records will be destroyed. The investigator may withdraw me from the study if I do not attend the educational session and complete the two questionnaires. I understand that should I withdraw from the study, I will not be eligible for contact hours.

**Compensation:** Participation in this study is strictly voluntary. I will not receive any monetary payment for being in this study. I understand that six contact hours will be awarded to me if I complete the educational program, complete the pretest and posttest, and allow my data to be used. Contact hours will be awarded through the New Jersey State Nurses Association.

**Questions:** All of my questions have been answered to my satisfaction and if I have further questions about the study, I may call Nancy Powell. If I have any questions about the rights of research subjects, I may call the Chairperson of Widener University’s Institutional Review Board at 610-

**Voluntary Consent:** I am free to withdraw or refuse consent, or to discontinue my participation in this study at any time without penalty or consequence.

I voluntarily give my consent to participate in this research study. I give my consent to have my data used in this study. I understand I will be given a copy of this consent form.
Widener University’s Institutional Review Board has approved solicitation of subjects until December 30, 2012.