Moral Distress in Certified Registered Nurse Anesthetists: Implications for Nursing Practice

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Registered nurses are frequently confronted with ethical dilemmas in their nursing practice. As a consequence of their decisions regarding ethical challenges, nurses report experiencing moral distress. This experience is often manifested by such feelings as anger, guilt, and sadness, and has been identified as a contributing factor to burnout and turnover in nursing.

The purpose of this exploratory, descriptive study was to determine if Certified Registered Nurse Anesthetists (CRNAs) experience moral distress in their nursing practice. A random sample of 800 CRNAs from the registry of the American Association of Nurse Anesthetists was selected to participate in this study. Participating nurses were asked to complete a demographic data survey and the Ethics Stress Scale. Three hundred surveys were analyzed for this study.

The data supported the assumption that CRNAs do experience moral distress in their nursing practice. Although a small number of nurse anesthetists experienced high levels of moral distress, CRNAs generally experienced moderate levels of moral distress. Moral distress was associated with situations in which anesthetists believed they were aware of the morally correct course of action but were unable to follow through with these behaviors. Also, CRNAs reported physical and psychological manifestations in relation to moral distress.

Keywords: CRNAs, moral distress, nurses.

In an ever-increasingly complex healthcare arena, nurses are faced with ethical challenges in their delivery of nursing care. Nurses report that they often feel compelled to make ethical decisions that are counter to their professional and personal values in relation to various situations that arise in the clinical setting. These clinical issues include care-related decision making that nurses believe is counter to the expressed desires of the patient, aggressive or futile treatment of terminal patients, issues related to informed consent, working with incompetent nurses and physicians, and working under institutional policies that constrain ethical decision making and may interfere with the needs of patients. As a consequence of their decisions regarding these issues, nurses report experiencing moral distress. This experience is often manifested by such feelings as anger, guilt, sadness, fear, withdrawal, silence, not taking risks, and frustration and has been identified as a contributing factor to burnout and turnover in nursing, as well as the occurrence of “moral residue,” a residual distress that lingers after the initial experience of moral distress.

“Certified Registered Nurse Anesthetists (CRNAs) administer approximately 32 million anesthetics to patients each year in the United States. In rural areas across the country, CRNAs assume primary responsibility for providing anesthesia care, and in some states they alone provide anesthesia in almost all rural hospitals. Anesthetists’ roles are also expanding to include procedures in radiology and the area of pain management. The field of anesthesia is continuously evolving as new medications and procedures are introduced, requiring nurse anesthetists to adapt to this changing environment. Nurse anesthetists are also faced with practice situations that require the monitoring of patients who are in extremely vulnerable and critical situations, requiring responses to physiologic conditions on a continuous basis, sometimes without a physician’s order. Often decisions must be made that have life or death consequences and because of the urgent nature of situations, ethical issues may go unaddressed. Nurse anesthetists, like other nurses, relate that they are faced with ethically challenging clinical situations, such as working with incompetent colleagues or prolonging the dying process of patients. If dilemmas are accompanied by perceived or real constraints that prohibit anesthetists from acting in what they believe is the morally correct manner, moral distress may arise. The occurrence of moral distress may result in professional and personal ramifications for CRNAs as a result of their decisions.

The term moral distress was introduced by Jameton in 1984 to assist in categorizing ethical issues that occurred in hospitals. He identified moral distress as a consequence of a situation in which a person is cognizant of what is the morally correct action to be taken but encounters obstacles to acting in such a manner. Obstacles encountered in morally distressing situations may be in the form of institutional constraints or conflicts with coworkers that prohibit the person from acting in what he or she believes is the morally correct manner.

Wilkinson 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 in-
tated by that decision.” Situations that she identified resulting in moral distress included delivery of aggressive care to terminal patients, performing unnecessary tests on dying patients, and not being truthful with patients.

Moral distress is manifested by emotions such as sadness, guilt, remorse, and fear as nurses come to the realization that they have violated their personal principles and values and compromised their integrity. Moral distress may result in moral residue, which involves being burdened by the effects of this experience for an indefinite time period. Webster and Baylis stated that moral residue often resulted from the realization that a person has compromised his or her integrity. Whereas moral residue can have a positive impact by assisting individuals to redefine their ethical principles and moral obligations, it can also have profound negative effects if it results in nurses losing their moral compass and continually shifting their values. Such continual shifts can leave nurses in a state of being incapable of identifying their personal values and becoming “desensitized to wrongdoing, willing to tolerate morally questionable or morally impermissible actions.”

Moral distress has the potential to create suffering in those nurses who experience it, affecting the nurse’s ability to practice in an ethical manner and possibly compromising the care the nurse provides. Moral distress can fracture nurses’ self-images, feelings of worth, and integrity. Thus, it is important that moral distress be identified and strategies be designed to prevent its occurrence, to eliminate unnecessary suffering, and to provide relief in an attempt to avoid the potential impact on nurses and patients.

Wilkinson developed the Moral Distress Model to examine the phenomenon of moral distress in nurses. This model recognized that in their practice, nurses are often confronted with patient care dilemmas that encompass a moral component and require the nurse to formulate a moral decision. This decision is affected by the nurse’s individual beliefs regarding moral practice, beneficence, and patient empathy. However, nurses, during the course of action, become aware that there are constraints (real or perceived) that prevent them from pursuing the morally correct course of action for their patient, resulting in distressing physical and/or psychological manifestations. The magnitude of these manifestations is affected by several factors, including how the nurse perceives his or her relationship with the patient as well as his or her role as a nurse.

Nurses react to the negative emotions they experience by using coping behaviors, which may or may not be successful in dealing with these feelings and can be affected by the number of occurrences of moral distress they encounter. Effective coping skills lead to a sense of completeness or integrity, control of patient care issues, and delivery of satisfying patient care. Ineffective coping behaviors result in feeling a lack of control over patient care issues, a fractured sense of self, and possibly a change in employment or even careers.

Wilkinson’s Moral Distress Model was the theoretical framework that guided this study and provided an approach to identify the occurrence and ramifications of moral distress in CRNAs.

Methods

The purpose of this exploratory, descriptive study was to determine levels of moral distress of CRNAs in nursing practice. Demographic variables were also examined in relation to moral distress. The research questions that guided this study were: “What levels of moral distress are experienced by Certified Registered Nurse Anesthetists, as measured by the Ethics Stress Scale?” and “How do levels of moral distress correlate with demographic variables that include, but are not limited to, age, years of experience, and educational level?” Quantitative methods were employed to gather data regarding moral distress as well as demographic data related to the sample.

Following permission from the Duquesne University Institutional Review Board to conduct this research study, participants were recruited from the registry of CRNAs in the state of Pennsylvania that was obtained from the American Association of Nurse Anesthetists (AANA), including certified and recertified members. Using an $\alpha$ of .05, an effect size of .20, and a power of .80, the researcher targeted a sample size of 160 CRNAs. With the prospect of receiving a 20% return rate, 800 participants were randomly selected from the registry using a systematic sample. Voluntary consent was assumed by receipt of unidentified, completed participant questionnaires.

Two instruments were employed for data collection for this study: a demographic data questionnaire and the Ethics Stress Scale. Demographic data were collected using a 9-item questionnaire designed by the researcher. This tool sought to elicit data regarding the following variables: age, ethnicity, marital status, gender, highest educational degree, healthcare setting where the participant was currently employed, employment status, years of service at the current employer, and years as a nurse anesthetist. Demographic data were also examined to see if levels of moral distress in CRNAs correlated with the demographic variables.

The Ethics Stress Scale was employed to measure moral distress. This tool was developed by Raines (and Tymchuk) and was employed by Raines in her study of nurses and ethical decision making. The Ethics Stress Scale is a self-administered, 56-question instrument with responses for the first 52 questions rated on a Likert-type scale of 1 (agree strongly) to 5 (disagree strongly). Questions 53 through 56 are intended to provide additional information to the researcher and are designed to be answered in various ways.
There are 6 identified subscales of the instrument, based on the first 52 questions; positive and negative affective subscales; positive and negative behavioral subscales; and positive and negative cognitive subscales. Content validity of this tool was established using a 4-option Content Validity Index rating scale by a group of advanced practice nurse clinicians who were exposed to ethical dilemmas in their practice several times per week.\textsuperscript{13} Content Validity Index of 0.89, \( P < .05 \) was obtained. Content reliability of the tool was also established by Raines, employing test-retest methods. A reliability coefficient of \( r = 0.82, P < .005 \) was determined. In this study, the Cronbach \( \alpha \) was 0.87 (mean, 3.64). Before initiation of the mailing, face validity of questions 1 through 52 was established by review of the Ethics Stress Scale by 4 nurse educators.

Data were analyzed using the Statistical Package for the Social Sciences 15.0 (SPSS).

Results
Two hundred and ninety-three respondents completed the entire demographic survey. However, all returned surveys (\( n = 300 \)) were used to generate demographic data. Most respondents (65\%) were between the ages of 41 and 60 years. Ninety-six percent were white and 68\% were female. The greatest percentage of nurse anesthetists (58\%) held master's degrees in nursing or other fields, worked in hospital settings (79\%), were married (80\%), and had worked 26 years or more as anesthetists (29\%). Finally, 32\% of respondents had worked at their current employer between 1 and 5 years, and 83\% were employed full time.

Of the 800 surveys that were sent, 302 replies were received by the researcher, for a 38\% response rate, and 300 surveys were used. Two hundred eighty-three surveys (\( n = 283 \)) had complete data for questions 1 through 52 of the tool that were rated on a Likert-type scale of 1 indicating strongly agree to 5 indicating strongly disagree.

Although the original Ethics Stress Scale included 56 questions, Raines\textsuperscript{13,14} did not address the method used to calculate the total score for the Ethics Stress Scale. Attempts to contact Dr Raines regarding scoring of the scale were unsuccessful, as the researcher was informed by Dr Raines’ husband that she was deceased. The other scale originator, Dr Tymchuk, was unable to provide data regarding criteria for determining scores. Finally, a review of the literature was unproductive in identifying any other research studies using this tool. Therefore, following collaboration with committee members, it was decided that for purposes of this research study, the sum of responses to questions 1 through 52 was to be used as the subject’s total Ethics Stress Scale score. Totals for these questions ranged from a minimum of 130 to a maximum of 238, with a mean score of 190. The lower 10\% of the total Ethics Stress Scale scores were considered indicative of high moral distress, which included scores of 161 and below. Scores of 188 (the median) to 162 were determined to be indicative of moderate moral distress (Figure 1). Questions 53 through 56 provided additional data to the researcher regarding moral distress.

Subscale scores were also calculated. Lower total scores and subscale scores for questions 1 through 52 were indicative of higher levels of distress.

Pearson product moment correlation coefficients were computed to detect correlations between the subscale scores and the total Ethics Stress Scale scores. There were statistically significant correlations between all subscale scores and the total Ethics Stress Scale scores with the exception of the behavioral positive subscale, which did not demonstrate a correlation.

Pearson product moment correlation coefficients were also computed to determine if correlations existed between the demographic variables and the total Ethics Stress Scale score. Of all of the variables listed on the demographic survey, only age correlated with the total Ethics Stress Scale score (\( r = .120, P = .05 \)). Those CRNAs aged 24 to 30 years had higher levels of moral distress than anesthetists in any other age range (Figure 2). Thus, as nurses’ ages increased, levels of moral distress decreased.

Exploratory factor analysis was performed on the 52 questions rated on the Likert-type scale, using principal component analysis with mean substitution. The 3 factors identified, which incorporated a total of 12 questions, were labeled: (1) Factor 1—Somatic Response, with 5 items loading greater than .50; (2) Factor 2—Self-Reliance, with 4 items loading greater than .43; and (3) Factor 3—Uncertainty, with 3 items loading greater than .62. These 3 factors explained 32.33\% of the variability in responses to the Ethics Stress Scale.

The data support the assumption that CRNAs do experience moral distress in their nursing practice. Although a small number of CRNAs experienced high levels of moral distress, as indicated by total Ethics Stress

Figure 1. Total Scores on Ethics Stress Scale (ESS)
High moral distress is indicated by scores 130-161; moderate moral distress, by scores 162-188.
Scale scores, CRNAs in this study generally experienced moderate levels of moral distress. The finding of the occurrence of moral distress in nurse anesthetists supports the research on moral distress in nurses. The findings of this study support Wilkinson’s theoretical framework of moral distress. Certified Registered Nurse Anesthetists reported experiencing situations in which they believed they were aware of the ethically correct course of action but were unable to follow through with the appropriate behaviors. They also experienced feelings of frustration, anger, guilt, and powerlessness as well as physical symptoms in response to ethical dilemmas. Finally, some CRNAs had considered leaving nursing or changing their work setting or specialty as a result of ethical issues in the workplace.

Certified Registered Nurse Anesthetists overwhelmingly reported that when faced with an ethical dilemma, they believe they know the appropriate ethical response but are unable to follow through with the correct course of action. This finding supported the work of Jameton, who identified that moral distress results when a person is mindful of the morally correct course of action to be taken but encounters obstacles to acting in that manner. It is also consistent with the findings of Wilkinson, who acknowledged 4 components of moral distress, including a perception by the nurse that constraints inhibited them from carrying out the morally correct response.

Another important finding is the resultant manifestations of moral distress experienced by CRNAs. These nurses reported psychological symptoms that included frustration, anger, feelings of powerlessness, and, to a lesser extent, guilt and physical symptoms that included headaches, stomachaches, and muscle tension. These symptoms, as well as crying, sadness, fear, insecurity, decreased self-worth, and sorrow, were reported in numerous studies regarding moral distress in nursing. Webster and Baylis reported that these types of reactions are the result of failure to act in an ethically correct manner. Interestingly, CRNAs felt powerless in dealing with physicians most times (38%), followed by physicians and administrators (24%), and administrators alone (9%). They rarely reported feeling powerless in dealing with other nurses (2%). This finding is supported by the work of several other authors, including Krishnasamy and Gutierrez, who found nurses believed that they lacked power to influence decision making in regard to their patients’ care. Additionally, Zuzelo found that ethical dilemmas in the workplace included nurses feeling subordinate to physicians, and Tang et al found that nurses experienced moral distress as a result of lack of input into decision making and being subordinate to physicians.

Throughout the literature, many studies have reported that nurses have left their place of employment, or considered doing so, in response to the occurrence of moral distress. These findings were reported by researchers over a considerable time frame, indicating that the problem is ongoing. In this study, 10% of the CRNAs responded that they had considered leaving nursing because of ethical issues. Additionally, 9% indicated that they had thought of changing their “nursing specialty/work setting” in response to ethical problems.

One recurrent theme in studies of moral distress is that nurses avoid contact with the patients involved in the ethical issues or express a desire to not care for the involved patients. Twenty percent of respondents indicated that they have stopped working with patients and families because of ethical dilemmas. Surprisingly, 77% of respondents also indicated that they have avoided working with, or stopped working with, physicians as a result of ethical issues while 8% indicated they have avoided or stopped working with both physicians and nurses. This finding highlights further professional effects of moral distress on nurse anesthetists.

Nurse anesthetists also fear loss of job, status, and financial security as a result of ethical decision making. Thirty percent of respondents indicated that, as a result of their ethical decision making, they feared losing their job; an additional 30% feared losing their job, status, and financial security; and 21% feared losing their job and financial security. These results support the findings of Godfrey and Smith that nurse practitioners believed their moral responsibilities to meet their patients’ needs may result in job loss. They also support the findings of Wilkinson that fear of job loss was a constraint to carrying out what was believed to be the ethically correct action.

In the current survey, 17% of CRNAs reported that they believed that their ethical values are compromised in their work setting. Although the respondents were not af-
farded a vehicle to elaborate on what types of situations contributed to these feelings, there are various examples in the literature that address causes of moral distress in the workplace. These include the delivery of aggressive care to patients who will not benefit from that care,\textsuperscript{5,30,33} ignoring the wishes of patients regarding treatment,\textsuperscript{6} working with unsafe levels of nursing staff,\textsuperscript{3,15,28,34} and working with incompetent physicians.\textsuperscript{3} Another important result is that nurse anesthetists reported that they viewed their spouses and significant others as most helpful in dealing with ethical issues that arise in the workplace. This is an interesting finding that varies from those of Raines\textsuperscript{13,14} and Montagnino and Ethier,\textsuperscript{25} who found that other nurses were most helpful in dealing with work-related ethical issues, and Zuzelo,\textsuperscript{28} who found nurse managers and supervisors to be of most assistance.

Of the demographic data examined, the only statistically significant relationship was between the age of the CRNA and the total Ethics Stress Scale score. There was an inverse correlation, indicating that levels of moral distress decreased with age. These results supported the findings of McClendon and Buckner,\textsuperscript{15} who reported that as the nurses’ ages increased, moral distress decreased. Thus, it appears that younger nurse anesthetists may lack ethical decision making experience and, as a result, encounter greater moral distress when faced with ethical dilemmas.

While not statistically significant, the data of this study also indicated that doctoral prepared nurses had higher levels of moral distress than nurses prepared at the diploma, associate degree, bachelor’s degree, and master’s degree levels. This finding should be explored more fully in future research studies to examine the implications of being prepared at the doctoral level in relationship to ethical dilemmas.

Finally, there was a negative relationship between years of experience and higher level of moral distress (not statistically significant), indicating that CRNAs with lesser years of experience had higher moral distress, which decreased with increasing experience.

**Discussion**

The implications for nursing practice that emanate from this study focus on reducing the occurrence of moral distress in CRNAs and promoting support for ethical decision making for nurses in the workplace. This study was undertaken because the researcher believed that the occurrence of moral distress was a major practice issue for CRNAs and was deeply concerned with the suffering of those dedicated to the healing of others. Generally, CRNAs in this study experienced moderate levels of moral distress.

Nurse anesthetists also reported experiencing both physical and psychological manifestations of moral distress. These findings support the literature regarding the occurrence of moral distress in nursing practice settings and indicate that nurse anesthetists do experience suffering as a result of the occurrence of moral distress. This suffering on the part of nurse anesthetists cannot be minimized. It should be noted that it may be impossible to practice nursing without encountering some degree of ethical conflict. However, the occurrence of moral distress that results from ethically challenging situations appears to increase the burden of functioning in an already professionally challenging nursing specialty, leading to avoidable stress and negative emotions. Continued moral distress may result in moral residue, with the nurse anesthetist being plagued with feelings of guilt, powerlessness, anger, and frustration for a prolonged time. One must question how the nurse anesthetist can continue to function effectively in the role of healer while dealing with the adverse consequences of moral distress.

Another important result is that nurse anesthetists reported that they found their spouses and significant others most helpful in dealing with ethical issues that arise in the workplace. This finding suggests that nurse anesthetists may be fearful of openly discussing ethical issues in the workplace, possibly because of fear of job loss and financial security, as indicated by their responses to these questions. Thus, they feel safer discussing ethical issues with their spouse or significant other. This also indicates that CRNAs may feel a lack of support in the work setting in dealing with ethical issues and thus turn to spouses or significant others for support that is absent in the workplace.

It is apparent that greater emphasis must be placed on alleviating the moral distress encountered by nurse anesthetists and providing greater support for ethical decision making in the workplace. Perhaps if CRNAs perceived greater support by physicians, fellow nurses, and administrators in ethical decision making, there would be a decrease in the degree of moral distress experienced and a reduction in the occurrence of manifestations of these stressful feelings. It must be recognized that since life and death decisions are a facet of the responsibilities of the nurse anesthetist, they may not be afforded the luxury of extensive consultations regarding ethical issues. Thus, it becomes critical that support of fellow CRNAs and physicians, both anesthesiologists and surgeons, be readily available during these urgent times so that timely decisions can be made without compromising the well-being of the patient. This fact was borne out by respondents who stated that they would like more support from physicians and other nurses in dealing with ethical issues.

The findings that age was inversely correlated with moral distress and that high moral distress was associated with lesser years of experience as a nurse anesthetist suggest that younger anesthetists and novice practitioners should be afforded greater support in ethical decision making. As young and newly graduated nurse anesthetists begin to function more independently following
an initial orientation period, autonomous ethical decision making seems to become most stressful. Mentoring of younger and newer practitioners by other CRNAs and by physicians may provide guidance and input regarding the most appropriate methods to address ethically challenging situations for these anesthetists and may help alleviate the occurrence of moral distress.

Support resources should be examined that may contribute to recognition and understanding of ethical issues in the workplace and assist CRNAs in dealing with these issues when they arise. Educational and departmental in-service programs that address ethical dilemmas may foster greater dialogue between CRNAs and physicians, promote an understanding of the issues that confront nurse anesthetists in their practice, and contribute to greater support and decreased moral distress.

Interventions should be developed that are aimed at the reduction and alleviation of moral distress in CRNAs. Nursing and hospital administrators should strive to identify and implement strategies that will alleviate the occurrence of moral distress in nurse anesthetists, in an attempt to decrease the burden of functioning in an already professionally challenging nursing specialty. These may include identification and elimination of constraints that CRNAs perceive as affecting their ability to act in what they believe is the morally correct manner as well as encouraging nurse anesthetists to communicate with their coworkers and supervisory personnel about morally distressing patient care situations. Another strategy would be to encourage greater involvement of ethics committees to provide forums for the discussion of ethical dilemmas and approaches to dealing with them in an ethically correct manner.

As a result of this study and its findings, several recommendations for future research are recognized. Further research testing of the Ethics Stress Scale is recommended. The results of this study have demonstrated that this instrument is useful in measuring moral distress in nurses; however, scoring of the tool and assignment of questions to the various subscales should be reviewed.

Random sampling of CRNAs from a larger, more geographically diverse population may provide a better picture of the relationship among Ethic Stress Scale questions and between Ethics Stress Scale questions and demographic variables. Results could then be compared for differences and similarities related to geographic locations, hospital description, gender, and other descriptors.

There are several limitations of this study that also need to be addressed. Potential participants were recruited from the registry of CRNAs from the state of Pennsylvania, obtained from the AANA. This restricts the generalization of the findings to the larger population of CRNAs.

Data analysis and interpretation of the subscales presented another limitation. No published documentation regarding the method of calculation of total scores for the Ethics Stress Scale was available. Although the value of the tool was evident, the proper interpretation of scores and subscales presented a challenge. Future studies should further refine the clarification of the subscales, the direction of the positive and negative scales, and the cutoff points for high moral distress and low moral distress.

Lack of correlation between the total Ethics Stress Scale scores and the behavioral positive subscale is also a concern. It appears that the behavioral positive subscale is not predictive of total moral distress. This finding may indicate a chance grouping of questions in this subscale that have no predictive power.

A fourth limitation is that the Ethics Stress Scale questions elicited information regarding the occurrence of moral distress but did not provide a vehicle for elaboration of the types of situations that elicited the greatest degree of distress or the frequency of occurrence of distress in various situations. In future studies, researchers should consider the addition of open-ended questions that would address the occurrence of moral distress in specific situations encountered in the clinical setting. This qualitative component would offer participants a supplementary medium to address specific instances of moral distress and afford the researcher greater depth of information regarding the occurrence of moral distress in nursing.

Finally, certain questions from the scale may need to be refined to address specific nursing career-altering decisions. Participants indicated that they had considered changing their “nursing specialty/work setting” in response to ethical problems encountered in their practice. However, it is not clear from this study which specific career change the CRNAs had considered. A rewording of the question may clarify nurses’ consideration of specific behaviors of either leaving their nursing specialty or changing their work setting in response to encountering morally distressing situations. These responses, along with the response to the question regarding thoughts of leaving nursing as a result of ethical dilemmas, may elucidate the effects of moral distress on career decisions in nurses.

**Conclusions**

Certified Registered Nurse Anesthetists experience moral distress in their nursing practice, as evidenced by their generally moderate levels of moral distress in this study. Moral distress results in professional and personal ramifications for CRNAs when they are faced with situations in which they believe they are cognizant of the morally correct course of action but are unable to follow through with the appropriate behaviors. As a result of their ethical decision making, nurse anesthetists experience physical and psychological manifestations of moral distress. Strategies must be developed to assist these nurses in dealing with ethical issues and in decreasing the occurrence of moral distress.