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NEONATAL INTENSIVE CARE NURSES' PERCEPTIONS OF PARTICIPATION IN ETHICAL DECISION MAKING IN THE CARE OF IMPERILED NEWBORNS

By

Dennis W. Philpott

A THESIS

Submitted to
Grand Valley State University
in partial fulfillment of the requirements for the
degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

2000

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ABSTRACT

NEONATAL INTENSIVE CARE NURSES' PERCEPTIONS OF PARTICIPATION IN ETHICAL DECISION MAKING IN THE CARE OF IMPERILED NEWBORNS

By

Dennis W. Philpott

The purpose of this descriptive correlational study was to empirically examine the extent of Neonatal Intensive Care Unit (NICU) nurse participation in the ethical decision making process. The study also examined the relationship of nurse participation and satisfaction in ethical decision making to age, years of experience, level of education, and religious participation. This study attempted to describe what NICU nurses believe their role should be in the ethical decision making process. Kohlberg's theory of moral development was the theoretical framework. Data were obtained through the use of a survey mailed to Registered Nurses employed in a level III NICU. The study found that 63.3% of the responding subjects believe they should be more involved in ethical decisions. Eighty-five percent have experienced conflict in their efforts in ethical decision making. Years of experience is the only nurse characteristic with a positive relationship to participation and satisfaction in ethical decision making.

DEDICATION

This thesis is dedicated to my wife, Sue and our children, Matthew, Andrew, and Emily. Thank you for your support and help through all of this. If it weren't for your support and faith in me, I'm not sure that I would have persevered to the end. Thank you, I could not have done this without you.

ACKNOWLEDGEMENTS

The author would like to thank Dr. Andrea Bostrom for her help in completing this study. Dr. Bostrom was kind enough to accept this project and become my thesis chairperson in mid stream after my former chairperson, Dr. Mary Horan retired. Thank you for bearing with me and seeing me through. I would also like to thank my two other thesis committee members, Dr. Cynthia Coviak and Dr. Deborah Orth. Lastly I would like to thank Dr. Linda Scott for her help in data analysis and helping me make sense of all those numbers.

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NEONATAL INTENSIVE CARE NURSES' PERCEPTIONS OF PARTICIPATION IN ETHICAL DECISION MAKING IN THE CARE OF IMPERILED NEWBORNS

CHAPTER I

INTRODUCTION

Currently Neonatal Intensive Care Unit (NICU) nurses are faced with more difficult ethical considerations than at any other time in the history of neonatal nursing. This is largely due to the rapid advances being made in the medical science of neonatology, and the numerous advances made in the technology that supports the practice of neonatology. The advances of the past few years have allowed NICUs to keep ever smaller and gestationally younger infants alive. But because these smaller, younger infants are more likely to experience complications and serious illness, their treatment raises a number of ethical challenges. As essential primary caretakers of these infants, the nurses who work in the NICUs of today are confronted with the troubling treatment decisions that these advances have wrought. The purpose of this study is to empirically examine the extent of NICU nurse participation in the ethical decision making process. Satisfaction with participation and its relationship to characteristics of nurses will also be examined.

The ability to save a greater number of imperiled newborns prompted the federal government to enact "Baby Doe" regulations that legally mandate standards of care for compromised newborns. These regulations make it illegal to deny treatment to a newborn on the basis of perceived or expected handicap (Department of Health and Human Services, 1984). The most famous Baby Doe was a child born with Down's syndrome and a tracheoesophageal fistula. The family, believing that the quality of life for their child would be intolerable, decided not to treat the fistula and to withhold nutritional support. Legal battles ensued over the parents' right to make these decisions for their child. This case was the impetus for the enactment of the Baby Doe

regulations (Reedy, Minogue, & Sterk, 1987) and is one example of the types of ethical decisions faced in NICUs.

In neonatal care, a common dilemma is to determine what should be done rather than what could be done. In some cases, to prolong life artificially may be to prolong dying rather than living (Goodall, 1984). Miya (1989) argues that NICU nurses should be involved in ethical decision making because of the unique relationship that they develop with both the infant and his/her family, and the critical role they play in coordinating care for the infant. A nurse's ability to participate in the decision making process depends on the individual unit and hospital, its overall culture, and communication between staff. Nurses' perceptions of their role may also influence their participation (Raeside, 1997). Although nurses often have special insight and information about their clients which may contribute to solutions to ethical dilemmas, historically they have had little part in the decision making process (Mellien, 1992). Martin (1989) found that 85% of the nurses she surveyed do not actively participate in decisions to initiate or forego life-sustaining treatments for their infant patients, yet they bear the responsibility of implementing those decisions.

Problem Statement

In the NICU setting, registered nurses provide the greatest amount of direct care to the patients and their families. The nurses are at the infant's bedside 24 hours a day. The registered nurse has the responsibility to closely monitor the infant and his/her responses to medical interventions. Not only do nurses provide the physician with data to assist in clinical decisions, they are also capable of making judgments in regard to the effectiveness of prescribed medical interventions. NICU nurses are responsible for carrying out prescribed medical interventions for which they may have had no participation in the decision making process. The registered nurses in the NICU have a unique opportunity to develop close relationships with the infant patients and families. NICU nurses may develop a protective relationship toward the patients they care for. It would seem reasonable to assume that these nurses, who are closely involved with the patients and

their families, and quite possibly, know them better than any other person involved in treatment decisions, should be included in the ethical decision making process (Martin, 1989).

The study reported here is a replication of a study done by Elizondo (1991) titled, "Nurse Participation in Ethical Decision Making in the Neonatal Intensive Care Unit." The purposes for her study were (a) to determine the extent to which NICU nurses do participate in the ethical decision making process regarding the care of imperiled newborns, (b) to identify the degree of satisfaction of NICU nurses related to their participation in the ethical decision making process, (c) to identify the indicators of satisfaction when NICU nurses' participation in the ethical decision making process is perceived as satisfactory, (d) to identify conflicts encountered by NICU nurses related to their participation in the ethical decision making process regarding the care of imperiled newborns, and (e) to identify NICU nurses' beliefs on what their role in the ethical decision making process regarding the care of imperiled newborns should be. In addition to replicating Elizondo's work, this study will also examine the relationship of nurse participation and satisfaction in the ethical decision making process to nurse characteristics such as age, years of experience, level of education, and religious participation. It is felt that nurses who are older, more experienced, more highly educated, and who partake in religious practices may be more willing and better able to participate in the ethical decision making process.

Although most experts argue that nurses should have a critical role in the ethical decision making process, Elizondo (1991) found little data to suggest that NICU nurses actually participate in the decision making process. She found that when NICU nurses did participate in the decision making process they experienced conflict related to their participation. The conflict they faced came from a variety of sources, with the main sources being physicians, parents, and one's own ethical beliefs.

This study will serve to further nursing knowledge in the practice of neonatal nursing. The information gained will identify ways NICU nurses can increase their level of participation and

degree of satisfaction in the ethical decision making process when caring for imperiled newborns. It is important to identify nurses' beliefs regarding the role they believe they should play in the ethical decision making process since ethical dilemmas in the NICU will continue to become even more complex as medical and technological advances are made.

CHAPTER 2

REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

Review of Literature

Ethics in the NICU. In the past, imperiled newborns had little potential for survival. If they did survive the neonatal period many of them were left with a poor prognosis and long term complications. With advances in neonatal medicine and advanced technology, the survival rate of imperiled newborns has greatly increased (Avery, 1987; Harms & Giordano, 1990; Mellien, 1992). Imperiled newborns are frequently defined as having extremely low birth weight (ELBW) of less than one kilogram (2.2 pounds) (Avery, Fletcher, & MacDonald, 1994). The survival rate of extremely low birth weight neonates has increased from 29% to 50% between 1979 and 1994 (O'Shea, Klinepeter, Goldstein, Jackson, & Dillard, 1997). The advances made in the care of these imperiled newborns involve complicated ethical issues.

This review of literature will consist of a brief discussion of ethics as related to imperiled newborns as well as federally mandated standards for compromised infants. This will be followed by a review of current research related to NICU nurses' involvement in the ethical decision making process. There will also be a review of current research that demonstrates the impact that education and job experience have on nurses' willingness to participate in ethical decisions.

Nurses need to be aware of what ethics are and how they apply to nursing practice. Ethics can be defined as the study of standards of conduct and moral judgments. To be ethical is to conform to established standards of conduct (Elsea, 1985). In the nursing profession, ethical

behavior is delineated by the "Code for Nurses" (American Nurses' Association [ANA], 1999) and legislation.

In 1984, Congress incorporated the withholding of medically indicated treatment from handicapped infants into the already existing Federal Child Abuse Prevention and Treatment Act of 1974. This legislation requires child protection agencies in each state to develop procedures to monitor, and if necessary, initiate legal actions to investigate reports of medical neglect of handicapped infants (Hastings Center Report, 1987; Martin, 1985). Congress defined "medical neglect" as "withholding medically indicated treatment." "Withholding medically indicated treatment" is defined as:

> ...the failure to respond to the infant's life-threatening conditions by providing treatment (including appropriate nutrition, hydration, and medication), which, in the treating physician's (or physicians') reasonable medical judgment will be most likely to be effective in ameliorating or correcting all such conditions... Three separately sufficient exceptions to the rule are:
>
> (1) The infant is chronically and irreversibly comatose;
>
> (2) The provisions of such treatment would merely prolong dying, not be effective in ameliorating or correcting all of the infant's life-threatening conditions, or otherwise be futile in terms of the survival of the infant; or
>
> (3) The provision of such treatment would be virtually futile in terms of the survival of the infant, and the treatment itself under such circumstances would be inhumane (Hastings Center Report, 1985, p.5).

An important aspect of this legislation is the emphasis on the development of Infant Care Review Committees within hospitals, especially those with tertiary NICUs. These committees should serve the purpose of staff education, institutional policy advisement, and case review (Martin, 1985; Moreno, 1987). The American Academy of Pediatrics supports the use of "infant

bioethics committees" (Infant Bioethics Task Force and Consultants, 1984, p. 306) that are comprised of both physicians and non-physicians. It is stated that these committees can provide education, develop and recommend institutional policies, and offer consultation to providers and families facing ethical dilemmas or questions.

It is suggested that membership of an Infant Care Review Committee should be multidisciplinary (Levine-Ariff, 1989). An ethics or review committee should be reflective of the organization in which it functions. That is, all disciplines should be represented. In its 1984 Guidelines, the American Hospital Association states that bioethics committees may include physicians, nurses, administrators, social workers, clergy, trustees, attorneys, ethicists, and patient advocates (Levine-Ariff, 1989). This varied composition would reflect a diversity of views and expertise.

In 1984, the ANA House of Delegates adopted the motion that nurses should participate in multidisciplinary ethics committees. As stated in the "Code for Nurses with Interpretive Statements," nurses bring a unique perspective to the decision making process based on the nature of their expertise and on their obligations to and relationships with patients, families, other health professionals, and society (ANA, 1988, p. 10).

Nurses' role in ethical decisions in the NICU. Following this decision by the profession, Elizondo (1991) conducted a mail survey to determine what neonatal nurses perceived their participation to be in ethical decision making in the NICU. The sample consisted of 150 NICU nurses who were current members of the National Association of Neonatal Nurses (NANN). Three subjects were randomly selected from each state by NANN personnel. Subjects chosen were staff RNs employed in level III NICUs. Of the original 150 subjects, 87 (58%) returned a completed questionnaire. Of the returned questionnaires only 60 met criteria for a completed questionnaire. The survey developed by Elizondo was based on personal experience, review of the literature, and consultation with experts in the care of imperiled newborns.

Subjects were asked to (a) identify ways in which they currently participate in ethical decision making in the NICU and (b) indicate their degree of satisfaction related to their participation. Subjects indicating satisfaction with their participation in ethical decision making were asked to indicate what it was about their participation that was satisfying to them. Choices about participation included the amount of involvement allowed, participation in ethics committees, conferences with physicians, ideas respected by others, and ideas or treatment choices being implemented. Subjects were also asked to indicate if they thought they should be more involved in ethical decisions. If they believed they should be, they were given the opportunity to indicate ways in which they should become more involved. Some of the choices were to become a member of an ethics committee, participate in daily rounds, or become involved in legislation related to newborn ethics. Subjects' degree of satisfaction was measured using a Likert Scale format.

This study revealed that 93.3% of the respondents experienced conflict related to their participation in ethical decision making in the NICU. This conflict came from various sources, the most important being physicians, parents, and their own ethical beliefs. Another finding was that 49% of the respondents felt concerned with the lack of consideration given to nursing input. Forty-five percent of the respondents stated that their input "carries very little weight" and that they have "no influence on ethical decision making" (Elizondo, 1991, p.57).

Limitations to this study include the following. The main problem or limitation of using a mail questionnaire is the unrepresentative nature of the return rate and therefore the information received. There may be a natural tendency for selection bias. Participants who find the study interesting or meaningful will take part in it while others may choose not to. Another potential limitation to this study was the use of a survey that was designed specifically for the study. There was no mention of a pilot study having been done to test the reliability of the instrument. Nurse characteristics, such as age, education, religious participation, and job experience in relation to a

nurse's satisfaction with participation were not examined. These characteristics and their relationship to satisfaction with participation will be examined in this current study.

Penticuff (1989) in another study with NICU nurses, conducted interviews to determine how the nurses viewed themselves as advocates for imperiled newborns. Over a six year period (1983-1989) 20 NICU nurses in three separate NICUs were interviewed. All reported having experienced significant personal distress related to infant suffering. Most of these nurses indicated that their acts of advocacy focused on meeting infants' needs for alleviation of pain and air hunger. A minority of the nurses interviewed viewed their role of advocate as requiring them to initiate an examination of whether continued life-sustaining treatments were in the best interest of some of the infants under their care.

Martin (1989) conducted a study to determine nurses' involvement in ethical decision making with severely ill newborns. Eighty-three registered nurses from NICUs in five large urban hospitals in the southwestern United States were interviewed. It was found that the majority (85%) of the nurses interviewed did not participate in a substantial way in decisions to initiate or forego life-sustaining treatment for their infant patients. Seventy percent of the nurses cited the lack of participation in the decision making process as being a major source of occupational stress and ethical anguish. A majority of the nurses interviewed (70%) believed that physicians do not fully respect the opinions of nurses about whether imperiled newborns should be given or continued on life-sustaining treatments. It was found that although the physicians rely on the nurses for overall progress reports, they do not include them in discussions about initiating or discontinuing treatments.

Related research indicates that nurses perceive themselves to be powerless in having influence over ethical decisions. In a study conducted by Erlen and Fost (1991) it was found that nurses perceive themselves to be powerless to affect ethical decisions involving patient care. The purpose of the study was to examine nurses' experience in influencing ethical decisions related to

patient care, and to determine how nurses perceive their role when they are confronted with ethical dilemmas. Data were collected through interviews with nurses directly involved in clinical practice in an acute care setting in southwestern Pennsylvania. A convenience sample of 25 nurses was obtained. All but two of the participants had some background in ethics education. Participants were asked to describe a situation which they considered to be an ethical dilemma in their practice, to discuss why the situation was troubling, to describe the nursing action taken, and to discuss factors influencing that action. Findings of the study included statements such as "feeling trapped," and "powerless." It was found that 84% of the nurses interviewed described feelings of powerlessness. Factors that contributed to the perceived feelings of powerlessness were lack of knowledge of alternatives and physician dominance or control over patient care situations.

Holly (1989) conducted a study to explore how critical care nurses perceived themselves as participating in decision making related to ethical dilemmas and to describe the nurses' perceptions of the supportiveness of the work environment in relation to such participation. Critical care nurses were chosen as the study population because it was believed that these nurses are more assertive and function more autonomously and therefore would be involved in ethical decision making more frequently. The study sought to answer the following questions: (a) what are critical care nurses' perceptions of support when participating in ethical decisions, (b) what factors do nurses believe impact on how ethical decisions are made, and (c) what are critical care nurses' perceptions of their individual participation in ethical decision making?

The study was conducted at six hospitals in mid New York state. Staff nurses from critical care units were interviewed. Forty-five staff nurses participated in the study. Subjects completed the study questionnaire while on duty. Nurses were asked to identify factors that may impact their participation in ethical decision making, their perception of how ethical decisions are made in hospitals, and to rate their own participation in ethical decisions from high to low participation.

The results of the study revealed that nurses perceived low support from hospital administration and physicians. Nurses perceived the greatest amount of support from co-workers. Data revealed that 46% of the respondents reported low levels of personal participation in ethical decision making, 44% reported some participation, and 10% reported high participation. Thirty-nine percent of the nurses reported that in their institutions the majority of ethical decisions were made by physicians. Only 10% of the respondents indicated that ethical decisions were made by an ethics committee. The findings of this study indicated that critical care nurses face obstacles in their attempts to participate in ethical decision making. Ethical decisions do not appear to be multidisciplinary as suggested in the literature and these nurses perceived limited opportunity to participate in ethical decisions.

Oddi and Cassidy (1990) conducted a study to determine the degree to which nurses are involved in ethical decision making by virtue of their membership on institutional ethics committees, to describe nurses' perceptions of the role of ethics committees, and to assess their preparation for functioning in this role. A descriptive study was conducted. A Midwestern state was chosen as the site. Hospitals were surveyed to determine if they had institutional ethics committees. Nurses were surveyed to determine the extent of their involvement in ethical decision making and their perception of the role of the ethics committee in their institutions.

In Phase 1 of the study, questionnaires were mailed to all directors of nursing (N=255) within the state. Responses were received from 148 (58%) of those surveyed. Of the hospitals (N=62) represented in the sample, 45% had an ethics committee. All of the hospitals with ethics committees reported that nurses serve on those committees.

In Phase 2 of the study nurses' formal involvement in ethical decision making and their perceptions of the role of the ethics committee within the institution were assessed. All (N=141) nurses identified as serving on ethics committees were invited by mail to participate in the study by completing a demographic data sheet and a brief questionnaire about their perceptions of how the

ethics committee is involved with selected aspects of practice. The majority (87.7%) of those nurses who served on ethics committees were appointed to serve on the committee. Education in ethics was mostly (88%) achieved by attending conferences and workshops. All respondents indicated that they contributed to the discussion of the committee. Twelve percent indicated that they sometimes contributed, 40% usually contributed and 47% always contributed. Only 1.4% indicated that their input was seldom sought while 15.3% indicated that their input was always sought.

Oddi and Cassidy (1990) found that the nurses who participated on ethics committees were not always the nurses with the closest experiences of ethical dilemmas. Of the nurses serving on ethics committees it was found that 69% of the respondents in the study served in administration or management roles. Forty-six percent held a master's degree. Because staff nurses are the most involved in the direct care of patients they may be able to bring critical information to the deliberation of hospital ethics committees. The unique perspectives of staff nurses may be lost if they are not adequately represented. However, nurses in management may have a broader view. There was no mention of comparison of hospitals with ethics committees to hospitals with no ethics committee.

Thus far the research indicates that nurses desire to be more involved in making treatment decisions for the imperiled newborns under their care. Limitations of the studies examined are small samples from limited geographical areas. The studies were conducted in specific geographical regions of the United States and their findings may be of limited external validity due to regional influence. Another limitation of the studies examined are that events could have influenced nurses given the small samples and the long time frame of some of the studies.

Nurses and ethical decision making. Following will be a review of literature that describe characteristics of nurses that impact their ethical decision making abilities. Characteristics such as

experience and education which affect nurses' ability or willingness to participate in ethical decisions will be addressed.

Duckett et al. (1997) conducted a descriptive longitudinal study to determine (a) Do moral reasoning scores of baccalaureate nursing students at entry to and exit from the program vary in relationship to selected student characteristics: age at entry, gender, prior college credits, and grade point average (GPA) at entry? (b) Do the moral reasoning scores of baccalaureate nursing students change significantly between entry to the program and graduation? and (c) Do moral reasoning score changes between entry and graduation vary in relationship to selected student characteristics and moral reasoning scores (Duckett et al., 1997, p. 223)?

The sample consisted of 348 students who entered the upper division nursing program at the University of Minnesota in 1989, 1990, 1991, and 1992. Moral reasoning of these students was measured at entry into the program and again just prior to graduation. The mean age of the 348 entering students was 25.2 years. The mean number of prior college quarter credits earned was 145, and the mean grade point average was 3.3.

The Defining Issues Test (DIT) was chosen to assess students' progress in moral reasoning because of the extensive use of this instrument and the evidence that has accumulated to demonstrate reliability and validity. The instrument consists of six brief moral dilemma stories. The respondents are asked to rate the importance of 12 items that represent different ways of stating the critical issue in the situation. The respondents rank the items with a score from no importance to one of great importance. From the responses four moral reasoning scores were computed as well as a stage score for each of the six Kohlbergian stages of moral reasoning. A P% score is calculated by summing the points for all items that represent principled thinking and dividing the raw score (P score) by 0.6. The P% score is considered the most useful and was used to report all DIT scores in this article. In DIT norms, the mean P% score for college students is 42.3 (SD = 13.2); for graduate students it is 53.3 (SD=10.9).

In answer to the first question, the authors found that women, older students, those with more college credits, and those with higher admission GPAs tended to have higher moral reasoning scores at entry into the program. Upon entry into the program, admission GPA, gender, and prior credits significantly contributed to the variance of DIT P% scores, whereas age did not. At graduation, admission GPA, gender, and prior credits contributed significantly to moral reasoning scores, accounting for 14% of the variance in the DIT P% scores at exit. Again age at entry did not have an impact. Women, students with higher admission GPAs, and those with more prior credits upon admission tended to have higher DIT P% scores at graduation.

Progress in moral reasoning between entry to the program and graduation (question 2) found that students from all four classes made significant improvement in moral reasoning scores between entry into and graduation from the program. The mean increase of 6.9 points for all four classes combined, using a paired t-test, was significant.

Relationship between DIT P% gain scores, student characteristics, and DIT P% scores at entry (question 3) indicated that mean gain scores of men and women did not differ. It was found that students whose DIT P% scores on admission were in the lowest categories gained the most.

The results of this study indicate that higher moral reasoning scores in this sample were significantly associated with higher GPAs, more college education, and gender (women) but not with age. The result of this study, relating more college education and moral reasoning, is consistent with previous findings that indicate that moral reasoning development tends to increase while people are engaged in formal education, not just as they grow older.

Critics of Kohlberg's theory of moral development contend that women reason differently than men and are therefore at a disadvantage when the DIT or Kohlbergian interview is used to measure moral reasoning. However, in this study women scored significantly higher in moral reasoning than men although the two groups did not differ significantly in GPA or prior credits.

This study may be limited in that it was not a cross-sectional sample. It was limited to the University of Minnesota and therefore may not be representative of all baccalaureate nursing programs. Also, the students in this program had the benefit of a carefully constructed ethics curriculum based on the multicourse sequential learning model which is designed to enhance the ability to reason about ethical issues. Finally, this is not a study of practicing nurses who are no longer associated with an educational program, as is planned in the current study.

Felton and Parsons (1987) conducted a study to determine the influence of the level of formal education on factors believed to be associated with ethical/moral decision making: ethical/moral reasoning, attribution of responsibility, and the ability of nursing students to resolve ethical/moral dilemmas. The study was based on Kohlberg's theory of moral development and Heider's attribution of responsibility construct derived from attribution theory.

The participants in the study were female senior undergraduate (n=227) and master's (n=111) students who had completed 18 hours of course work. The students were enrolled in nursing schools located in the southern United States. Participants in the study completed both the Defining Issues Test (DIT) and the Attribution of Responsibility (AR) instrument. The combined return rate of the two groups was 62%. As mentioned earlier the DIT is an objective test composed of six hypothetical stories dealing with moral dilemmas. The respondents are asked to respond to questions regarding the story character's actions. The AR was developed to measure the attribution of responsibility in relation to ethical/moral dilemmas. Attribution of Responsibility measured the commission, foreseeability, intentionality, and justification levels of responsibility.

Data analyses were conducted to determine if differences existed between undergraduate and graduate participants in relation to the major variables of the study. The findings of this study indicated that formal education does have an impact on overall ethical/moral reasoning abilities as graduate students scored significantly higher than undergraduate students. This result supports

previous research findings that indicate that formal education is a significant variable in the development of ethical/moral reasoning.

Strengths of this study are that it used previously developed and tried tools for the collection of data. Also the study built on previous research and the authors were able to compare the findings of this study with findings of previous studies. A limitation of the study may have been that only female students participated.

Gaul (1987) conducted a study to determine if there is a significant relationship between ethical choice and ethical action in baccalaureate nursing students who have completed a nursing ethics course and those who have not. The author also wanted to determine if baccalaureate nursing students who have completed a nursing ethics course differ in ethical choice and ethical action from those who have not. The American Nurses' Association's Code for Nurses (1976) and Kohlberg's theory of moral development served as the conceptual frameworks for this study.

Subjects for this study were obtained from a private university school of nursing. The subjects were baccalaureate students. The treatment group were students enrolled in an elective course in nursing ethics. The control group contained matched students who were not enrolled in the ethics course. A sample of 37 students was obtained consisting of Group1, students not enrolled in the ethics course (n=20); and Group 2, students enrolled in the ethics course (n=17). The students enrolled in the ethics course were approached during class time. The study was explained and instrument packets were given to the students. They were asked to voluntarily complete and return them to a box in a specified location. Instrument packets for students not enrolled in the ethics course were labeled on the envelope and the students were approached during class time. The purpose of the study was explained and volunteers were solicited. Volunteers picked up a packet, completed it and returned it anonymously to the same box.

The Judgment About Nursing Decisions (JAND) instrument was used to measure ethical choice and ethical action. The instrument consists of six stories depicting nursing situations

relevant to everyday nursing practice. The stories are followed by nursing actions. Subjects are asked to respond twice to each action. First, whether the nurse in the dilemma should or should not engage in the action; second, whether they think the nurse experiencing the dilemma is likely to engage in that action.

The findings of this study demonstrate that formal education in ethics does impact one's ability to make ethical decisions when encountered. There was a strong correlation between ethical choice and ethical action in the ethics group as opposed to the control group. The students that completed the ethics course indicated that when a correct ethical action was chosen it would be acted upon. The ethics course enabled students to determine ethical choice and ethical action. It may be reasonable to expect that nurses who have completed an ethics course may be more willing and able to participate in the ethical decision making process in the care of imperiled newborns.

The findings of this study are limited by the fact that it was performed in only one college of nursing and the sample size is small. A strength of the study is the use of the JAND. Validity and reliability have been well established for the JAND.

Erlen and Sereika (1997) conducted a descriptive correlational study in an attempt to describe the relationship of ethical decision making and stress in nurses working in intensive care units. The sample of 61 nurses was comprised of registered staff nurses employed full-time in one of 16 critical care units. The instrument used for this study presented the participants with hypothetical situations to assess variables related to ethical decision making and to assess professional nurse autonomy. Also the Health Professions Stress Inventory (HPSI) was used to assess both the level and source of stress of health professionals actively engaged in clinical practice.

The results of the study indicated that approximately one half of the nurses surveyed had at least a baccalaureate degree and a background in ethics through formal education. Another finding was that 93% of the respondents indicated that religion was of at least some importance to

them. The study also found that there was a significant amount of stress related to workplace restrictions in regards to ethical decision making. Nurses in this study with more experience in nursing and more years in their present positions valued nurse autonomy and expressed less anxiety about the ethical decisions they faced in the hypothetical situations. This may indicate that as nurses gain more experience and are in a specific position for a longer period of time they may become less anxious when faced with ethical dilemmas and perceive themselves to be more involved with the ethical decision making process.

Limitations to this study include the following. Due to the exploratory nature of the study the findings need to be viewed carefully. While the sample was originally selected randomly, over half of the subjects who were invited to participate in the study elected not to do so. Due to this, the findings may demonstrate a particular response bias. Nurses may not have had experience with situations similar to the hypothetical situations presented in the study making it difficult for them to make an ethical decision or to know whether there would be any restrictions placed on them or if their decision would create any anxiety for them. Given these limitations one cannot conclude that ethical decision making leads to stress in critical care nurses.

This latter section of the literature review has indicated that specific characteristics of nurses have an impact upon their ethical decision making abilities. It has been found that one's level of formal education along with experience and a belief in the value of religion has a significant impact in the development of one's ethical/moral reasoning abilities.

The literature indicates that nurses desire to be more involved in making treatment decisions for the imperiled newborns under their care (Martin, 1989). It also indicates that education and job related experience have an impact upon one's ability and willingness to participate in the ethical decision making process (Duckett et al., 1997; Erlen & Sereika, 1997; Felton & Parsons, 1987; & Gaul, 1987). Nurses in the NICU possess a special knowledge about their patients that is unique to nursing. They spend the vast majority of their time at their patients'

bedside making detailed observations as well as assuming responsibility for the diagnostic and treatment procedures. Given these responsibilities and the knowledge that they gain about their patients, it seems incongruent that in many NICUs nurses play a very small role in the decision making process (Mellien, 1992).

Conceptual Framework

Kohlberg's theory of moral development has served as the theoretical framework for numerous nursing studies. The theory is applicable to the study of ethical decision making and, therefore, has been chosen as the conceptual framework for this study. The basic concept of Kohlberg's theory is that moral reasoning is a developmental process that begins in childhood and continues into adulthood. Kohlberg built upon the work of Piaget who is the recognized pioneer in the psychology of moral development (Duska & Whelan, 1975). Kohlberg has identified three levels and six stages in the development of moral reasoning.

The first level of moral reasoning is the Pre-Conventional level which consists of two stages. At this level an individual is aware of good and bad, right and wrong, but interprets these labels in terms of punishment and reward. Individuals in stage one have a punishment/obedience orientation. The goodness or badness of an action is determined by its physical consequences. One's actions are governed by the avoidance of punishment rather than any respect for moral order (Duska & Whelan, 1975). Persons in stage two are considered individualistic. A right action is one that satisfies one's own needs and occasionally the needs of others. Elements of fairness and reciprocity are present but they are interpreted in a manner of "you scratch my back and I'll scratch yours" (Duska & Whelan, 1975, p.46).

The second level is the Conventional level. In this level individuals are concerned with maintaining the expectations of others. Individuals have an attitude of conformity and social order. In stage three individuals have a good boy - nice girl orientation. Good behavior is that which

pleases others. There is much conformity to the rules. Persons in stage three are concerned with maintaining mutual trust (Thomas, 1997).

Stage four is characterized by an orientation to law and order. Persons in this stage demonstrate an orientation toward authority, fixed rules, and maintaining social order. Right behavior is characterized by doing one's duty and showing respect for authority (Duska & Whelan, 1975)

The third level of Kohlberg's theory is the Post-Conventional, Autonomous, or Principle Level. In this level individuals make an effort to define moral values that are valid apart from the authority of the groups that hold to them. Stage five is characterized by a social-contract or legalistic orientation. Right actions are defined in terms of individual rights and standards that have been agreed upon by society. There is an awareness of personal values with an emphasis on rules for reaching a consensus. Right can be seen as a matter of personal values and opinions (Duska & Whelan, 1975).

Stage six is characterized by the universal ethical principle of orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency (Duska & Whelan, 1975). These are abstract and ethical principles. Kohlberg describes this stage as the moral point of view that "all human beings should take toward one another as free and equal autonomous persons" (Kohlberg, 1984, p. 636). There are general principles of respect for human personality and dignity as well as benevolence and universal compassion and care. Moral decisions can be based on the principle of maximum quality of life for everyone (Thomas, 1997).

It is important to note that, according to Kohlberg's theory, individuals advance through the six stages sequentially. One cannot advance to the next higher stage without having first mastered the stage of development prior to it. Kohlberg suggests that all individuals advance through the stages in the same sequence but not all at the same rate. He also suggests that not all

individuals will attain the highest stage of moral development (Duska & Whelan, 1975). Kohlberg hypothesized that a person's advancement and how far an individual will advance in the six stage hierarchy depends on heredity and environment. A person's genetic makeup will have some impact upon the rate of advancement and the maximum stage that can be attained. Environmental factors such as exposure to moral issues and having the opportunity to exercise one's own judgments in decisions about moral issues can impact how one develops and to what stage in the hierarchy he or she will progress (Thomas, 1997).

Kohlberg's theory has served as the conceptual framework for a number of nursing studies. Most notable of other studies, not directly related to the current study is Ketefian (1981). She developed Judgments about Nursing Decisions (JAND) which is an instrument used to measure nurses' knowledge and valuation of ideal moral behavior in nursing dilemmas and to determine if there is a positive relationship between moral reasoning and nurses' perception of realistic moral behavior in nursing dilemmas. She based her research on the work of Kohlberg.

Nursing research has indicated that there is a relationship between level of education and experience as it relates to moral reasoning and ethical decision making (Duckett et al., 1997; Erlen & Sereika, 1997; Felton & Parsons, 1987; and Gaul, 1987). It was found that nurses moral reasoning abilities increased as education increased (Duckett et al., 1997; Felton & Parsons, 1987). The research of Gaul (1987) indicated that greater education leads to a greater involvement in ethical decisions and greater confidence in decisions made. Erlen and Sereika (1997) found that education and experience made an impact upon nurses' moral reasoning abilities and willingness to partake in ethical decisions. The research supports that higher levels of education and greater job experience lead to higher levels of moral reasoning and a greater tendency to become involved in ethical decision making when faced with ethical dilemmas. The relationship between cognitive development, moral development and experience supports the use of Kohlberg's theory in this study.

Research Questions

This study seeks to determine NICU nurses' perceived level of participation and satisfaction with participation in the ethical decision making process, and the relationship to nurse characteristics of age, years of experience, level of education, and religious participation. It also seeks to identify what role nurses believe they should play in ethical decisions in the NICU. The following research questions will be addressed:

(1) To what extent do NICU nurses participate in the ethical decision making process regarding the care of imperiled newborns?

(2) If nurses do participate in ethical decisions, how?

(3) What is the degree of satisfaction of NICU nurses related to their participation in the ethical decision making process?

(4) When nurses are satisfied with their role in the ethical decision making process what factors do they cite as present?

(5) What conflicts do NICU nurses encounter related to their participation in the ethical decision making process?

(6) What do NICU nurses believe their role in the ethical decision making process should be?

(7) What is the relationship between nurse characteristics of age, years of experience, level of education, and religious participation with the perceived level of participation in and satisfaction with ethical decision making in the NICU?

Definition of Terms

NICU nurse: A registered nurse employed as a regular staff nurse in a level III NICU. It is assumed that this nurse possesses a comprehensive knowledge base of neonatal disease and treatments, and that this nurse interacts with all members of the health care system when participating in the ethical decision making process.

NICU: A level III neonatal intensive care unit that provides specialized care for infants such as assisted ventilation and hyperalimentation. Pediatric subspecialties such as neonatal surgery, cardiology, and genetics are available.

Imperiled newborn: A newborn requiring level III NICU care for survival, usually due to prematurity, multiple congenital anomalies, or severe asphyxia.

Ethical actions: Actions taken by the nurse that are in accordance with accepted standards of professional practice.

Ethical decision making process: A process by which decisions of an ethical nature are made which may include any member of the health care team, the community, and the involved patient and family. Participants in this decision making process may be at varying stages of development in their moral reasoning abilities due to their unique educational background and life experiences.

CHAPTER 3

METHODS

Design

This descriptive correlational study is a replication of a study conducted by Arleen Portell Elizondo (1991) titled "Nurse Participation in Ethical Decision Making in the Neonatal Intensive Care Unit." The purpose of the original study was to identify the role of the NICU nurse in the ethical decision making process in regard to imperiled newborns and the NICU nurse's beliefs as to what the role of the NICU nurse should be in that process. Also evaluated in the original study were degree of satisfaction, indicators of satisfaction, and conflict related to nurse participation in the ethical decision making process. The purpose of this study is to identify the role of the NICU nurse in the ethical decision making process in the care of imperiled newborns as well as to determine what NICU nurses believe their role should be in that process. A second purpose is to evaluate the degree of satisfaction related to participation in the ethical decision making process as well as identify indicators of satisfaction and areas of conflict related to nurse participation in the ethical decision making process. The last purpose is to determine if nurse characteristics of level of education, job related experience, age, and a belief in the value of religion have an impact on one's perception of participation in the ethical decision making process.

Instrument

The instrument used in this study (Appendix A) was based on the Nurse Participation in Ethical Decision Making Questionnaire developed by Elizondo (1991). It was administered through the mail. Some modifications were made in the content and format of the questionnaire. Two

questions were added to indicate educational history regarding graduate study and any formal course work in ethics. Responses for some questions were modified into a Likert scale format.

This tool collects demographic data about participants as well as data related to participation in ethical decision making about imperiled newborns in the NICU. There are ten questions that pertain to participant characteristics. The questions in this section are easily answered by either yes or no, checking the appropriate item, or providing a number. There are 6 questions that assess NICU nurses' current level of perceived participation in the ethical decision making process. They include questions about the degree of satisfaction and the factors that contribute to nurses' feelings of satisfaction related to their role in the ethical decision making process. The participants were also questioned about conflicts related to their role in the ethical decision making process and given the opportunity to describe such conflicts. The format of the questionnaire is a combination of multiple response and open ended questions. In four of the questions participants were allowed to check more than one response if they were appropriate. In each of those questions participants were given the opportunity to write in any additional comments that they may have regarding the question. One question simply asks the respondents to check the level of satisfaction that they experience related to their role in ethical decision making. The last question is an open ended question that allows participants to express anything that they would like about their participation in ethical decision making in the NICU.

The content of the questionnaire was generated by Elizondo (1991) through a review of literature, her own experiences, and consultation with experts in the care of imperiled newborns. Elizondo's questionnaire was evaluated for content validity by nine content and clinical experts. These experts consisted of five level III NICU nurses, two neonatal nurse practitioners, one nurse educator, and one nurse with a background in ethics. There was no evidence that reliability of the tool was tested.

For the current study, before mailing the questionnaire to the sample a pilot study was conducted at a mid-western level III NICU to determine the test-retest reliability of the study tool. Five staff nurses were asked to complete the questionnaire at two points in time, two weeks apart. There was a 92% rate of agreement demonstrated when comparing the test results to the retest results. Question number 14 which asks participants if they can identify any conflicts they have experienced related to ethical decision making in the NICU and question number 15 which asks if participants believe that they should be more involved in ethical decision making in the NICU were the two questions most frequently answered differently between the test and retest. Each of these questions allows the participant the opportunity to select from several choices all of the indicators that apply to them. Respondents did vary some in their responses between the test and retest.

Sample

Subjects for this study consist of a randomly selected sample of NICU nurses who belong to the National Association of Neonatal Nurses (NANN). The NANN staff representative for research grants randomly generated a list of candidates through the use of the computer. The sample was selected from current members of NANN which numbers approximately 12,000 members. The sample consisted of three nurses from each state in the United States and Washington D.C. for a total of 153 names. Subjects chosen as participants in the study were registered nurses who work in a level III NICU as a staff nurse.

Eighty-two questionnaires were returned yielding a response rate of 56%. Of the 82 returns, 60 met criteria for inclusion into the sample (a usable return rate of 41.1%). Thirty-nine states and Washington D.C. were represented in the sample. Alabama, Alaska, California, Colorado, Kansas, Nevada, New Mexico, New York, Virginia, West Virginia, and Wyoming were not represented.

Data Collection Procedures

The Nurse Participation in Ethical Decision Making Questionnaire and an informational letter (Appendix B) explaining the study were mailed to each of the randomly selected NANN members. Questionnaires were mailed April 4 through April 10, 1999. Due to duplication of some of the names on the list of candidates the total number of surveys mailed was 145. Prospective subjects were informed that the questionnaire would take approximately 10-15 minutes to complete. Prospective subjects were asked to return the completed questionnaire in the enclosed self-addressed stamped envelope as soon as possible. A thank you/reminder postcard (Appendix C) was sent to all participants 10 days after the first mailing. Responses were accepted through May 31, 1999.

Subjects were assured that data would be reported in a manner that would not make any reference to individuals responding to the survey. No names were used in the reporting of any data. Confidentiality was maintained throughout the study. There were no names on the questionnaires. The list of participants was destroyed at the end of the study. There were no foreseeable physical or psychological risks to the subjects involved in this study and none were reported. The benefit of participating in this study was that participants helped to advance nursing knowledge in the practice of neonatal nursing. Consent to participate was implied by the subjects' return of the completed questionnaire.

The use of a mailed questionnaire was selected to enable the sample to be derived from a larger geographical area. The questionnaire was mailed to prospective participants in each state of the United States and Washington D.C. This was done in an attempt enhance the external validity of the study in that the findings would not be limited to any one specific geographical location. There is a risk of selection bias when using a mailed survey. Candidates from the original sample who are interested in the topic may be more likely to respond than those who are not interested.

CHAPTER 4

DATA ANALYSIS

Data analysis was accomplished using the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics were be used to describe the sample. Subject characteristics included 10 variables. These variables assessed subject's employment status, experience as a level III NICU nurse, educational preparation, religious practice, and gender. These included means, frequencies, ranges, and percentages.

Research questions 1 through 6 which describe participation and satisfaction with ethical decision making were analyzed using descriptive statistics. Research question number 7 seeks to examine several relationships between nurse characteristics and perceived level of participation in and satisfaction with ethical decision making in the NICU. Correlational and inferential statistics were used.

Sample Characteristics

Table 1, which describes the sample in age groupings, indicates that the modal age for this sample fell between the ages of 41 to 50 years. Table 2, which describes the sample in terms of experience in nursing in general and in a level III NICU, indicates that the modal (n=18) nursing experience of the nurses was between 16 and 20 years. The modal (n=16) level III NICU experience of the nurses falls between 16 and 20 years. The sample tends to be older, more experienced nurses.

Table 1

Age of Respondents

Age	n	%
23-30	10	16.9
31-40	17	28.9
41-50	26	44.0
51-57	6	8.5

Table 2

Years of Experience for Respondents

	Nursing		NICU level III	
Years	n	%	n	%
0-5	10	18.3	13	21.7
6-10	6	10.0	13	21.6
11-15	8	13.4	13	21.7
16-20	18	30.0	16	26.7
21-25	12	20.0	4	6.6
26-30	5	8.3	1	1.7

Tables 3 and 4 describe the educational and religious characteristics of the sample. The data in table 3 indicate that 50.0% of the sample hold a Bachelor's Degree in Nursing. According to Table 4, 71.2% of the sample are members of a religious organization.

Of the 60 respondents that met inclusion criteria for study, 59 were female and 1 was male. This is not representative of the nursing profession as a whole but it is representative of the NANN organization (C. Kenner, personal communication, October 6, 1999).

Table3

Educational Characteristics of Respondents

Level of Education	n	%
Diploma in Nursing	6	10.0
Associate Degree in Nursing	12	20.0
Associate Degree in field other than nursing	1	1.7
Bachelor's Degree in Nursing	30	50.0
Bachelor's Degree in field other than nursing	1	1.7
Master's Degree in Nursing	8	13.3
Master's degree in field other than nursing	2	3.3
Graduate Level Course	20	33.3
Course in Ethics	32	54.2
Missing Data	1	1.7

Table 4

Religious Characteristics of Respondents

Religious Preference	n	%
Protestant	30	50.0
Catholic	15	25.0
Jewish	1	1.7
Other	11	18.3
None	3	5.0
Member of Religious Organization	42	71.2
Attend Religious Organization Regularly	30	51.7

Analysis of Research Questions

Research questions number 1 and 2 are: To what extent do NICU nurses participate in the ethical decision making process regarding the care of imperiled newborns? And, if nurses do participate in ethical decisions, how?

To answer these questions subjects were asked a multiple response question in which they could indicate whether or not they participate in the ethical decision making process. If they do, they were asked to indicate all of the ways in which they do participate. Table 5 indicates the frequency and percent of methods of nurse participation in ethical decision making in the NICU. There were four (6.8%) subjects that indicated that they do not participate in any form of ethical decision making in the NICU. The two most common means of participation are informal conversations with physicians (79.7%) and consultation with parents (61.0%). There were only two subjects who indicated belonging to ethics committees. One (1.7%) belonged to a hospital wide ethics committee and one (1.7%) belonged to a neonatal ethics committee. There were no subjects that indicated that they participated in legislation related to newborn ethics. None of the subjects indicated any other form of participation in ethical decision making that was not listed in the choices given in the questionnaire. Table 6 indicates the number of ways in which NICU nurses participate in ethical decision making in the NICU.

Table 5

Methods of Nurse Participation in Ethical Decision Making in the NICU

Variables	n	%
Hospital ethics committee	1	1.7
NICU ethics committee	1	1.7
Conferences with physicians	29	49.2
Conferences with physicians/social workers	32	54.2
Conferences with physicians/parents	35	59.3
Consultation with parents	36	61.0
Informal conversations with physicians	47	79.7
Daily rounds for all patients	27	45.8
Daily rounds on patients assigned to you	33	55.9

The third research question is: What is the degree of satisfaction of NICU nurses related to their participation in the ethical decision making process?

Table 6

Number of Ways NICU Nurses Participate in Ethical Decision Making: M (SD) 4.0 (2.5)

Number of ways	n	%
1	9	15.0
2	8	13.3
3	3	5.0
4	6	10.0
5	7	11.7
6	6	10.0
7	16	26.7

Subjects' degree of satisfaction was obtained through a seven point Likert scale format as indicated in Table 7. Five (8.5%) were very satisfied. The majority of subjects indicated that they were either satisfied or somewhat satisfied. One subject did not answer this question.

Table7

Degree of Satisfaction of NICU Nurses Related to Role in Ethical Decision Making in the NICU (N=59)

Degree of Satisfaction	n	%
Very Satisfied	5	8.5
Satisfied	22	37.3
Somewhat Satisfied	21	35.6
Neutral	5	8.5
Somewhat dissatisfied	4	6.8
Dissatisfied	1	1.7
Very Dissatisfied	1	1.7

The fourth question is: When nurses are satisfied with their role in the ethical decision making process what factors do they cite as present?

The 27 (45.8%) subjects who were either very satisfied or satisfied with their role in decision making were asked to identify factors that contribute to their satisfaction through a multiple response question. Table 8 illustrates the frequency and percent of indicators of satisfaction for NICU nurses who are satisfied with their role in ethical decision making in the NICU. Two (3.4%) subjects indicated that they were satisfied with their role because of other factors that were not listed in the choices given. They indicated that they were satisfied because "I feel that I have a good rapport with families who are involved in making ethical decisions about their infants" and "I enjoy the relationships I have with the parents and the fact that they respect my views." Of the 27 subjects that were either satisfied or very satisfied with their role in decision making, 33% (n=9) selected two sources of satisfaction. Six (22%) subjects selected one source of satisfaction. Six (22%) selected three sources of satisfaction. And another six (22%) selected four sources of satisfaction.

Table 8

Indicators of Satisfaction for NICU Nurses Who Are Satisfied With Their Role in Ethical Decision Making in the NICU (N=27)

Indicators of Satisfaction	n	%
Amount of Involvement	16	27.1
"Ways" I Get to Participate	19	32.2
Ideas Respected by Other Health Care Professionals	24	40.7
Ideas on Treatment Choices Often Implemented	7	11.9

The fifth research question is: What conflicts do NICU nurses encounter related to their participation in the ethical decision making process?

Subjects were asked a multiple response question to answer question number 5 about the conflicts they face. They were asked to indicate all of the conflicts they have experienced related to their participation in ethical decision making in the NICU. Table 9 indicates the frequency and

percent of conflicts experienced by NICU nurses. Fifty-one (85.0%) of the 60 subjects identified experiencing conflicts related to their participation in ethical decision making in the NICU. No subjects indicated any areas of conflict that they had encountered that were not listed as choices on the questionnaire.

Table 9

Conflicts Experienced by NICU Nurses in Ethical Decision Making in the NICU (N=60)

Conflicts	n	%
Conflicts with own beliefs	24	40.0
Conflicts with parents	35	58.3
Conflicts with other nurses	25	41.7
Conflicts with other health care providers	20	33.3
Conflicts with physicians	34	56.7
Conflicts with institutional/administrative policies	9	15.0
Conflicts with laws regarding care of infants in NICU	8	13.3

Table 10 includes the number of sources of conflict experienced by NICU nurses when participating in ethical decisions in the NICU. The modal number (n=15) of nurses identified 2 sources of conflict.

The sixth research question is: What do NICU nurses believe their role in the ethical decision making process should be?

To answer this question of what role subjects believe they should take, they were first asked if they believed that they should be more involved in ethical decision making in the NICU. Thirty-eight (63.3%) of the 60 subjects indicated that they didi believe that they should be more involved in ethical decision making in the NICU. Following this question subjects were asked a multiple response question in which they could choose all of the methods of participation in ethical decision making that they believe they should be involved in. Table 11 indicates the

Table 10

Number of Sources of Conflict Experienced by NICU Nurses: M (SD) 2.6 (1.9)

Number of Sources	n	%
1	9	15.0
2	15	25.0
3	8	13.3
4	10	16.7
5	4	6.7
6	3	5.0
7	2	3.3

frequency and percent of methods of participation in ethical decision making in which NICU nurses believe they should participate. The two most frequently cited methods of participation that NICU nurses identified were to belong to a neonatal ethics committee n=27 (45.0%) and to participate in

Table 11

Methods of Participation in Ethical Decision Making (N=60)

Methods of Participation	n	%
Belong to hospital wide ethics committee	7	11.7
Belong to neonatal ethics committee	27	45.0
Belong to nursing ethics committee	9	15.0
Participate in conferences with physicians	12	20.0
Participate in conferences with physicians/social workers	20	33.3
Participate in conferences with physicians/parents	17	28.3
Participate in informal consultation with parents	9	15.0
Participate in informal conversations with physicians	12	20.0
Participate in daily rounds for all patients	6	10.0
Participate in daily rounds on patients assigned to you	16	26.7
Participate in newborn legislation	7	11.7

conferences with physicians and social workers n=20 (33.3%). The method of participation that NICU nurses least believed they should be involved in was to participate in daily rounds for all

patients n=6 (10.0%). There were no other suggestions made by subjects. Table 12 indicates the number of methods of participation in ethical decision making in which NICU nurses believed they should be involved. The modal response (n=20) of the nurses was that they should be involved in two methods of participation.

Table 12

Number of Methods of Participation: M(SD) 2.4(1.9)

Number of Methods	n	%
1	8	13.3
2	10	16.7
3	5	8.3
4	2	3.3
5	3	5.0
6	2	3.3
7	2	5.0
8	2	3.3
9	3	5.0

The seventh research question is: What is the relationship between nurse characteristics of age, years of experience, level of education, and religious participation with the perceived level of participation in and satisfaction with ethical decision making in the NICU? To answer this question, a variety of statistical procedures were performed to determine if there were any statistically significant relationships between the dependent variables and the independent variables. The dependent variables are perceived level of participation in ethical decision making and level of satisfaction with one's role in ethical decision making in the NICU. The independent variables are nurse characteristics of age, years of experience, level of education, and religious participation. It was demonstrated by using a Pearson's r that nurses with a greater amount of experience did perceive themselves to have a greater level of participation in ethical decisions r =

.27, $p = .04$. A Spearman's rho test indicated that those nurses also have a greater level of satisfaction associated with their participation in ethical decision making in the NICU $r = -.30$, $p = .02$ when compared to nurses with less experience. The r is a negative number due to the highest level of satisfaction is represented by the lowest number on the satisfaction scale.

There was no statistically significant relationship found between age and level of participation in and satisfaction with participation in ethical decisions. A Pearson's r test indicated that age had no relationship with participation $r = .16$, $p = .22$. A Spearman's rho indicated that age had no relationship with satisfaction in participation in ethical decisions $r = -.17$, $p = .19$.

A One-Way ANOVA was performed to determine if the level of participation was greater in the subjects with a greater level of education. The results indicate that there is no relationship between level of participation and education by degree $F(2.57) = 1.32$; $p = .28$. A Kruskal-Wallis test was performed to determine if there was a relationship between level of satisfaction with participation in ethical decision making and increased level of education. There was no statistically significant relationship found, $X^2 = 1.06$, $df = 2$, $p = .59$. This may be related to the small number of subjects represented in the study who hold a masters degree.

A t-test did not find a relationship between participation in ethical decision making and attendance of a religious organization $t = -.51$, $df = 56$, $p = .61$. A Mann - Whitney U test was performed and found no relationship between attendance of a religious organization and satisfaction with participation in ethical decision making $Z = -1.6$, $p = .10$.

Comparison of Current Findings to the Replicated Study

The following tables will demonstrate similarities and differences between the current study and the Elizondo (1991) study. In both studies the method of participation that NICU nurses believed they should be involved in most often is to belong to a neonatal ethics committee (Table 13). Both studies also indicated that NICU nurses ranked participation in daily rounds for all patients in the NICU as the lowest method of participation they believe they should be involved in.

In the current study conflicts with parents is cited as the number one source of conflict experienced by NICU nurses when participating in the ethical decision making process whereas Elizondo (1991) found that nurses cited conflicts with physicians as their number one source of conflict (Table 14).

Table 13

Desired Methods of Participation in Ethical Decision-Making: Current Study Compared to Elizondo (1991)

Methods of Participation	Current %	Current Rank	Elizondo %	Elizondo Rank
Belong to hospital ethics committee	11.7	7	18.9	8
Belong to neonatal ethics committee	45.0	1	83.0	1
Belong to nursing ethics committee	15.0	6	41.5	3
Participate in conferences with physicians	20.0	5	35.8	5
Participate in conferences with physicians/social workers	33.3	2	37.7	4
Participate in conferences with physicians/parents	28.3	3	47.2	2
Participate in informal consultation with parents	15.0	6	13.2	9
Participate in informal conversations with physicians	20.0	5	22.6	7
Participate in daily rounds for all patients	10.0	8	9.4	10
Participate in daily rounds for patients assigned to you	26.7	4	24.5	6
Participate in newborn legislation	11.7	7	37.7	4

Table 14

Conflicts Experienced by NICU Nurses: Current Study Compared to Elizondo (1991)

Sources of Conflict	Current %	Current Rank	Elizondo %	Elizondo Rank
Conflicts with own beliefs	40.0	4	50.0	3
Conflicts with parents	58.3	1	58.9	2
Conflicts with other nurses	41.7	3	39.3	4
Conflicts with other health care providers	33.3	5	26.8	7
Conflicts with physicians	56.7	2	82.1	1
Conflicts with institutional/administrative policies	15.0	5	32.1	6
Conflict with laws regarding care of infants in NICU	13.3	6	35.7	5

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The subjects that participated in this study were all members of the professional nursing organization (NANN) and a majority of them were educated at a BSN level. Ninety-three percent of the respondents of this study did report that they participate in ethical decision making in the NICU, however participation is informal. With only two nurses on official ethics committees, there is little formal recognition of nursing's role. However, with the exception of belonging to a neonatal ethics committee, nurses desire/prefer this informal role based on how they indicate they would like to participate.

Despite the professionally motivated and educated group of nurses that participated in this study, still 6.7% reported no participation in ethical decision making in the NICU. Also, despite the support in the literature for interdisciplinary input, including nurses on ethics committees (ANA, 1988; Levine-Ariff, 1989), only one nurse reported participating on a hospital wide ethics committee and only one nurse reported participating on a neonatal ethics committee. NICU nurses do believe that they should have a role in the ethical decision making process. It was found that the two most common methods of participation that subjects reported participating in are informal conversations with physicians and informal consultation with parents

An important finding of this study was that only 10.2% of the respondents indicated that they were either somewhat dissatisfied, dissatisfied, or very dissatisfied with their role in ethical decision making as compared to the findings of Elizondo (1991) who reported that 24.1% of her subjects indicated that they were not satisfied with their role in ethical decision making. Only one subject reported that they were very dissatisfied. Some of this difference may be because the scales

used to measure satisfaction were different. Elizondo's scale offered only four choices: very satisfied, satisfied, somewhat satisfied, or not satisfied. The scale used for this study offered the subjects seven choices: very satisfied, satisfied, somewhat satisfied, neutral, somewhat dissatisfied, dissatisfied, or very dissatisfied.

Subjects were asked to indicate what factors related to their participation in ethical decision making gave them satisfaction. Twenty-four were very satisfied or satisfied with their role because their ideas are respected by other health care providers. Nineteen were very satisfied or satisfied with their role because of the "ways" they get to participate in ethical decision making.

Another important finding of this study is that 85% of the subjects reported having experienced conflict in their role in ethical decision making in the NICU. This finding is consistent with that of Elizondo (1991) who reported that 93.3% of her subjects reported experiencing conflict in their role in ethical decision making in the NICU. The results of this study indicated that the number one source of conflict for nurses when participating in ethical decisions comes from interactions with parents. Elizondo (1991) found that the number one source of conflict for her subjects was from interactions with physicians. The literature indicates that experiencing conflict of an ethical nature in the work place is a significant source of stress (Erlen & Sereika, 1997; Holly, 1989; and Martin, 1989).

When asked what NICU nurses believe their role in the ethical decision making process should be, the two methods of participation that were most cited were to belong to a neonatal ethics committee (n=27) and to participate in conferences with physicians and social workers (n=20). There appears to be discordance between what NICU nurses are actually doing and what they believe their role should be in the ethical decision making process. When given the opportunity to indicate methods of participation that they currently use the two most commonly cited methods were participation in informal conversations with physicians (n=47) and to participate in informal conversations with parents (n=36).

The seventh research question sought to determine if there were any statistically significant relationships between any of the independent variables of age, years of experience, level of education, and religious participation to the dependent variables of perceived level of participation in ethical decision making and level of satisfaction with one's role in ethical decision making in the NICU. Several statistical procedures were performed in the analyses of the data to determine if there were any statistically significant relationships. The relationships between experience and participation/satisfaction were the only significant findings.

These relationships support some earlier findings, but not others. Erlen and Sereika (1997) found that as nurses gained more experience and are in a specific area for a longer period of time they perceive themselves to be more involved with the ethical decision making process. The findings of this study are consistent with this. In this study, age is not a factor in either participation or satisfaction. This finding is consistent with Duckett et al. (1997).

On the other hand, the literature indicates that as education increases so does one's ability and/or willingness to participate (Duckett et al., 1997; Felton & Parsons, 1987; & Gaul, 1987). In this study, no statistically significant relationships were found between level of education by degree and participation and satisfaction in ethical decision making. This may be related to the small number of subjects represented in the study who hold a masters degree. Erlen and Sereika (1997), with 93% of their subjects indicating religion important to them, found a weak relationship between religious participation and participation in ethical decision making. In this study, with 51.7% of the respondents reporting regular religious attendance, no relationships were found.

Kohlberg's theory implies that moral reasoning is a developmental process that begins in childhood and continues into adulthood. Kohlberg found that there was a relationship between cognitive development, moral development, and experience that enhances one's moral reasoning abilities. In this study only experience in the respondent's job affected ethical decision making

activities. Other developmental and experiential variables such as age, education, and religious activity did not. Kohlberg's theory was only partially supported by this study.

Implications for Nursing

In practice. Several implications for nursing can be identified through the results of this study. Nurses should be encouraged to form nursing and neonatal ethics committees. Belonging to a neonatal ethics committee was the number one method of desired participation cited by the respondents of this study. Nurses are directly involved by the decisions that are made regarding the care of imperiled infants with little or no input into the decisions being made. As indicated in this study only one nurse participates on a neonatal ethics committee. Neonatal nurses should become formally involved in hospital ethics committees. It would also be beneficial and appropriate to have neonatal nurses serve as members of hospital ethics review committees. This is supported in the literature (ANA, 1988; Levine-Ariff, 1989). Newly hired nurses should be informed of the ethical decision making process that is used in their institution and how they can become involved in it. As the results of this study indicate, nurses with more experience participate more and gain more satisfaction from their participation in ethical decision making than do lesser experienced nurses. It would seem that a mentoring program should be implemented in which more experienced nurses serve as mentors to less experienced nurses in demonstrating ways that they can become more involved in the ethical decision making process

In administration. The results of this study indicate that 15% of the respondents experience conflicts with institutional or administrative policies when attempting to participate in the ethical decision making process. NICU nurses should be encouraged to participate in ethical decision making and should be supported in their efforts by nursing and hospital administration. Nursing administration should be supportive and offer assistance to nurses that are experiencing conflict with parents and/or physicians with their efforts at participating in ethical decision making. This could be accomplished through in-services on conflict resolution being offered to staff who are

experiencing conflicts. Hospital and nursing administration should insist that nursing is part of the makeup of the multidisciplinary composition of ethics committees. Holly (1989) found that nurses perceived low support from administration. She found that decisions did not appear to be multidisciplinary and that nurses had limited opportunities to participate in ethical decisions.

In education. Ethics education should continue to be a part of nursing curricula and should be incorporated into staff development programs. The findings of this study did not demonstrate a correlation between increased level of education and an increased perception of one's participation in ethical decision making. While this study focused on older practicing nurses,the literature with student nurses indicates that as level of education increases there is an increase in ones abilities and willingness to participate in ethical decisions (Duckett et al. 1997; Felton & Parsons, 1987; & Gaul, 1987). It is evident from the results of this study that nurses face conflicts with their attempts at participating in ethical decision making. Nursing curricula need to offer students the opportunity to learn about conflict resolution and possibly the opportunity to participate in conflict resolution exercises.

Limitations

Subjects for this study were randomly selected from the membership roster of the National Association of Neonatal Nurses (NANN) who may not have been representative of all level III NICU staff nurses. Therefore it is likely that the findings of this study may not be representative of all NICU nurses. The findings of this study are consistent with those of Elizondo (1991) and therefore appear to be representative of all NICU nurses that are members of the NANN organization. The size of the sample was decreased because not all of the respondents were level III NICU staff nurses. The use of multiple choice responses on the questionnaire may have influenced subjects' responses by leading them in their choices. Lack of control over timing and location of completing the questionnaire also may have had an impact on subjects' responses.

Return rate with mailing of the questionnaire may have been lower than other methodologies. The timing of mailing of the questionnaire may have impacted the return rate for surveys.

Recommendations for Further Research

This study should be replicated using a randomized sample of level III NICU staff nurses across the country. Replication of this study using interview format rather than questionnaire format should be done. This would allow the interviewer the opportunity to gain more information about the types of moral dilemmas that NICU nurses experience. The interview format could possibly lead to enhanced data regarding participation and satisfaction. Subjects may realize through discussion with the interviewer that they do participate in ethical decisions in ways that were not given as choices on the questionnaire. A comparison study of expanded role level III NICU nurses and level III NICU staff nurses perceived participation in the ethical decision making process and their perceived level of satisfaction with their participation should be done.

Another study could incorporate an educational intervention designed to teach NICU staff nurses how ethics impacts their daily practice and how they can become more involved in ethical decision making in their daily practice. The study should be conducted at two NICUs with similar characteristics in a similar geographical zone. One of the NICUs would receive the educational intervention and the other one would serve as the control. A comparison of findings would indicate if further teaching in ethics related to the care of imperiled newborns was beneficial in helping NICU nurses become more involved in the ethical decision making process.

Further research using the same questionnaire should be conducted. This would be beneficial in determining the validity of the tool and demonstrating any similarities or differences in findings of future research compared to the current study.

Summary

Nurses working in the NICU face ethical dilemmas daily. It is clear from the results of

this study that NICU nurses desire to be more involved in the ethical decision making process. It is important that nurses be included in the ethical decision making process because NICU nurses bring a unique perspective that other members of the health care team may not have due to the amount of time nurses spend caring for imperiled infants Ethical decisions should be made by all appropriate members of the health care team including nurses. Involving nurses will increase their satisfaction with the ethical decision making process.

APPENDICES

APPENDIX A

NURSE PARTICIPATION IN ETHICAL DECISON MAKING QUESTIONNAIRE

DEMOGRAPHIC DATA

1) State in which you are employed:_________

2) Number of years employed as a nurse:_______

3) Are you currently employed as a staff nurse in a level III NICU? 1____yes 2____no

4) Number of years employed in a level III NICU:_____

5) Please check the highest level of education attained:
____1 Diploma in Nursing
____2 Associate Degree in Nursing
____3 Associates Degree in field other than nursing
____4 Bachelor's Degree in Nursing
____5 Bachelor's Degree in field other than nursing
____6 Master's Degree in Nursing
____7 Master's Degree in field other than nursing

6) Are you currently or have you ever taken any graduate level courses?
1____yes 2____no

7) Are you currently or have you ever taken a course in ethics?
1____yes 2____no

8) Please indicate your religious preference:
____1 Protestant
____2 Catholic
____3 Jewish
____4 Other
____5 None
Are you a member of a religious organization? 1____yes 2____no
Do you attend regularly? 1____yes 2____no

9) Age in years:____

10) Gender: 1____male 2____female

11) Please check **all** of the ways in which you participate in ethical decision making in the NICU:

____0 Don't participate
____1 Belong to hospital wide ethics committee
____2 Belong to neonatal ethics committee
____3 Belong to nursing ethics committee
____4 Participate in conferences with physicians in making ethical decisions regarding specific cases
____5 Participate in conferences with physicians and social workers in making ethical decisions regarding specific cases
____6 Participate in conferences with physicians and parents in making ethical decisions regarding specific cases
____7 Participate indirectly through informal consultation with parents regarding ethical decisions
____8 Participate through informal conversations with physicians offering input regarding ethical decisions
____9 Participate in daily rounds for patients offering input regarding ethical decisions
____10 Participate in daily rounds for patients assigned to you offering input regarding ethical decisions
____11 Participate in legislation related to newborn ethics
____12 Other____
____

12) Please check the degree of satisfaction you experience related to your role in ethical decision making in the NICU:

____1 Very satisfying
____2 Satisfying
____3 Somewhat satisfying
____4 Neutral
____5 Somewhat dissatisfying
____6 Dissatisfying
____7 Very dissatisfying

13) If you marked "**satisfying**" or "**very satisfying**" in item 12, please check **all** of the following factors that contribute to your satisfaction related to your role in ethical decision making in the NICU:

____1 The amount of involvement I have in ethical decision making
____2 The "ways" I get to participate in ethical decision making (ethics committee, conferences with physicians, etc.)
____3 My ideas are respected by other health care professionals
____4 My ideas on treatment choices in ethical dilemmas are often implemented
____5 Other____
____

14) Can you identify any conflicts you have experienced related to ethical decision making in the NICU?

____1 Yes
____2 No

If yes, please check **all** of the following conflicts you have experienced related to ethical decision making:

____1 Conflicts with your own ethical beliefs
____2 Conflicts with parents
____3 Conflicts with members of the nursing staff
____4 Conflicts with other health care providers
____5 Conflicts with physicians
____6 Conflicts with institutional or administrative policies
____7 Conflicts with existing laws regarding care of infants in the NICU
____8 Other____
____

15) Do you believe that you should be more involved in ethical decision making in the NICU?

____1 Yes
____2 No

If yes, please check **all** of the following ways in which you believe you should become more involved in ethical decision making in the NICU:

____1 Belong to hospital wide ethics committee
____2 Belong to neonatal ethics committee
____3 Belong to nursing ethics committee
____4 Participate in conferences with physicians in making ethical decisions regarding specific cases
____5 Participate in conferences with physicians and social workers in making ethical decisions regarding specific cases
____6 Participate in conferences with physicians and parents in making ethical decisions regarding specific cases
____7 Participate indirectly through informal consultation with parents regarding ethical decisions
____8 Participate through informal conversations with physicians offering input regarding ethical decisions
____9 Participate in daily rounds for all patients offering input regarding ethical decisions
____10 Participate in daily rounds for all patients assigned to you offering input regarding ethical decisions
____11 Participate in legislation related to newborn ethics
____12 Other____
____

If no, please comment on the reason that you do not believe you should become more involved in ethical decision making in the NICU:____________________________
____
____

16) Is there anything related to your participation in ethical decision making in the NICU that you would like to comment on? Please comment here. ______________________________
____
____
____
____

Thank you very much for taking the time to complete this survey, your input is greatly appreciated.

APPENDIX B

INFORMATIONAL LETTER

Dear NANN Member,

Ethical dilemmas are daily occurrences in the field of neonatal nursing. This survey is intended to examine the ways in which neonatal nurses are involved and to what extent they are involved in the ethical decision making process. As a level III NICU nurse, your experience and beliefs regarding ethical decisions in the care of imperiled newborns in the NICU are very valuable. Your response to this survey is important due to the limited number of nurses across the country who will be asked to take part in this study.

Please do not write your name on the survey. At the end of this study the list of names will be destroyed. Every effort will be made to protect your confidentiality.

As a level III NICU nurse myself, I am aware of the many ethical dilemmas that we face daily in our field of practice. The enclosed survey should take approximately 10-15 minutes of your time to complete. There are no foreseeable physical or psychological risks associated with taking part in this study. The benefit of participating in this study will be that participants will be furthering nursing knowledge in the practice of neonatal nursing. Consent to participate in this study will be implied by the return of a completed questionnaire.

This study is being conducted as part of the requirements for completion of my Masters of Nursing Degree at Grand Valley State University. If you have any questions regarding this study you may call me at (616) 669-4162 or my faculty advisor at Grand Valley State University, Dr. Andrea Bostrom RN,PhD at (616) 895-3558 or the Chairman of the Human Subjects Committee, Paul Huizenga at (616) 895-2472.

Thank you very much,

Dennis W. Philpott, RN

APPENDIX C
FOLLOW-UP POSTCARD

Last week you received a survey questionnaire regarding NICU nurses participation in ethical decision making. If you have already completed and returned it please accept my sincere thanks. If not, please do so as soon as possible. Because it has been sent to a small, but representative sample on NICU nurses it is important that your input be included in the study.

I appreciate your taking the time to complete this questionnaire today. It should take no more than fifteen minutes of your time to do so.

Thank you very much,

Dennis W. Philpott, RN

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