

THE MORAL INTEGRITY DEVELOPMENT OF NURSING STUDENTS
IN TWO-YEAR COLLEGES

by

Ellen Frances Wirtz

A dissertation submitted in partial fulfillment
of the requirement for the degree

of

Doctor of Education

in

Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2007

© COPYRIGHT

by

Ellen Frances Wirtz

2007

All Rights Reserved

APPROVAL

of a dissertation submitted by

Ellen Frances Wirtz

This dissertation has been read by each member of the dissertation committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the Division of Graduate Education.

Dr. Betsy Palmer, Chair of Committee

Dr. Robert N. Carson, Department Head, Department of Education

Dr. Carl A. Fox, Vice Provost, Division of Graduate Education

STATEMENT OF PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirement for a doctoral degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. I further agree that copying of this dissertation is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for extensive copying or reproduction of this dissertation should be referred to ProQuest Information and Learning, 300 North Zeeb Road, Ann Arbor, Michigan 48106, to whom I have granted "the exclusive right to reproduce and distribute my dissertation in and from microfilm along with the non-exclusive right to reproduce and distribute my abstract in any format in whole or in part".

Ellen Frances Wirtz

April 2007

ACKNOWLEDGEMENTS

First, I wish to express my gratitude to my dissertation committee members, Dr. Art Bangert, Dr. Marilyn Lockhart, Dr. Therese Sullivan, Dr. Steven Shaw, and my committee chairperson Dr. Betsy Palmer for their professional support, kindness, challenge and encouragement through this learning and growing process. Each of you have earned my unending respect.

Second, I wish to express my love and gratitude to my husband and sons for their constant support and encouragement through this long and fulfilling learning process.

Third, I wish to express my gratitude to the college personnel and nursing students who gave of their time and shared their experience in nursing education to make this research a reality. Without them, I would be lacking in understanding of their moral development while in nursing school.

TABLE OF CONTENTS

1. INTRODUCTION	1
Introduction to the Study	1
Problem, Purpose, Question/Hypothesis	3
Background of Problem	3
Problem Statement	3
Purpose of Study	4
Research Questions	5
Theoretical Framework	6
Significance of Study	7
Definition of Terms	7
Assumptions, Limitations, Delimitations	8
Chapter Summary	9
2. LITERATURE REVIEW	10
Introduction	10
Synthesis of Literature	11
Theoretical Framework	11
Professional Conduct	16
Current Research	19
Dishonesty and Unethical Behavior	21
Honor Codes	22
Nursing Students	23
Variables Identified in Moral Development	24
Review of Previous Research Findings and Opinion	25
Review of Methodology	25
Evaluation of Literature	27
Overall Weaknesses and Strengths	28
Gaps and Saturation Points	28
Chapter Summary	29
3. METHODOLOGY	30
Introduction	30
Design	30
Population/Sample	31
Instrumentation	32
Validity and Reliability	34
Variables	35

TABLE OF CONTENTS, Continued

Dependent Variable	35
Independent Variables	36
Data Collection	38
Data Analysis	40
Research Questions and Statistical Tests	40
Chapter Summary	41
4. RESEARCH FINDINGS	43
Introduction	43
Results of Data Analysis	44
Regression Analysis	54
Internal Validity Issues	56
Chapter Summary	57
5. CONCLUSIONS	58
Introduction	58
Summary of Problem, Methodology, Results and Conclusions	58
Limitations of the Study	59
Discussion of Broader Implications	60
Theory	60
Implications for Further Research	63
Practice	66
Chapter Summary	67
REFERENCES	69
APPENDICES	74
APPENDIX A: Invitation Letter to Participants and Consent Form	75
APPENDIX B: Demographic Data Sheet	79

LIST OF TABLES

Table	Page
1. Descriptive Statistics of Sample: Independent Variables for Nursing Students	38
2. Descriptive Statistics of Sample	44
3. Means and Standard Deviations for Moral Development	45
4. Analysis of Variance for Moral Development: Term and Gender	47
5. Analysis of Variance for Moral Development: Term and Age	48
6. Means and Standard Deviations for Moral Development: Term and Age	49
7. Analysis of Variance for Moral Development: Term and Experience in Higher Education	50
8. Means and Standard Deviations for Moral Development: Term and Experience in Higher Education	51
9. Analysis of Variance for Moral Development: Term and Prior Healthcare Experience	52
10. Means and Standard Deviations for Moral Development: Term and Prior Healthcare Experience	53
11. Means and Standard Deviations for Moral Development: Term and Grade Point Average	54
12. Summary of Variable Regression Analysis Dependent Variable: Moral Development	55

ABSTRACT

Moral integrity development and professional decision making ability is a vital characteristic in nurses. A review of the literature revealed that while the moral development of baccalaureate nursing students had been investigated, there was little data investigating the variables affecting the moral development of nursing students in two-year colleges. Therefore, the purpose of this study was to investigate if age, gender, prior work experience in the health care field, prior college experience and grade point average made a difference in the moral development of nursing students in two-year colleges at the beginning and at the end of their nursing programs. The cognitive development theory of Piaget, the moral development theory of Kohlberg, Gilligan's theory of the moral development in women and Parse's nursing theory of human becoming formed the framework for this research. A cross sectional cluster sample of first term and final term nursing students enrolled at two year colleges were tested using Rest's Defining Issues Test – 2 (DIT – 2) to measure moral development. The sample included 156 first term nursing students and 144 final term nursing students currently enrolled at eight, two-year colleges in the Pacific northwest region of the United States. Descriptive statistics and analysis of variance were used to investigate the difference in moral development when considering these independent variables: term in program, age, gender, prior work experience in the health care setting, prior college experience and grade point average. Results indicated moral development was different in first term nursing students compared with final term nursing students at two-year colleges. Age and prior college experience were significant independent variables in moral development while gender, prior work experience in the health care setting and grade point average were not found to be significant variables.

CHAPTER ONE

INTRODUCTION

Introduction to the Study

For the last eight years, nurses topped The Gallup Poll's (2007) annual ranking of the most ethical professions in America. Participants cited characteristics such as honesty and ethical standards of nurses as high or very high. Poll respondents expected these characteristics to be present in the nurses they encountered in their experience with the health care system. These characteristics speak of a person with moral integrity. According to the American Heritage College Dictionary (2004) integrity is defined as "the quality of steadfast endurance to a strict ethical code; the state of being unimpaired or condition of being whole or undivided; completeness" (p. 721). The same source defined moral as "arising from the conscience; having a sense of right and wrong; having firm conviction" (p. 903).

Consequently, when the public seeks medical care, the individual enters the health care system with a set of assumptions regarding health care workers, nurses specifically. Nurses are expected to use patient information with confidentiality, demonstrate patient advocacy, practice nursing safely, and develop a sense of 'right and wrong' professional behavior. Do all nurses possess moral integrity? How do they obtain, maintain, and exercise professional moral actions? Where does a nursing student obtain the information regarding appropriate behavior and expectations? How are these behaviors and expectations developed, nurtured and reinforced?

The way in which moral integrity develops in nursing students and nurses is in question. There is a possibility that the profession of nursing attracts students with moral integrity. The other possibility is that the educational process by which a student becomes a nurse influences the development of moral integrity in the nurses produced by the educational process. This researcher is interested in the moral development of nursing students and the variables that may influence the development of moral integrity within the educational process.

In the United States, there are three educational paths a student can complete to be eligible to take the national standard test to earn the title of Registered Nurse. Each of these educational programs must be approved by the Board of Nursing in the state in which the education is delivered. The three educational programs currently recognized as preparing a nursing student to take the national licensing examination are associate degree programs, diploma programs (programs affiliated with healthcare institutions), and baccalaureate programs.

The last four years of data (2000-2003) indicate there were 287, 259 graduates of approved nursing programs that chose to take the national licensing examination. Of those candidates, 60.60 percent of the candidates were associate-degree prepared, 36 percent were baccalaureate-prepared, and 3.40 percent of the candidates were diploma-program prepared (American Association of Colleges of Nursing, 2007).

Most of the research to date on moral development in nursing students has exclusively invited baccalaureate nursing students to participate. This researcher found one research study that included the associate degree nursing student, along with

baccalaureate and graduate nursing students in a moral development study. There was no research found exclusively using associate degree or diploma-prepared nursing students and moral development. Consequently, this researcher investigated whether there is a difference in moral development in nursing students in two-year nursing programs.

Problem, Purpose, Question/Hypothesis

Nurses are expected to be morally developed and the public perceive nurses as having integrity. If nurse researchers and nurse educators identified and investigated how moral development is influenced, nurtured, and developed, perhaps the researchers and educators can positively influence the moral development of nursing students and new practitioners. Are people morally developed when they enter a nursing program? Is there a difference in the moral development of nursing students between the time they enter a nursing program and the time they graduate from a nursing program? What may be the variables that influence moral development?

Background of Problem. Nursing students and nurses are expected to be morally developed and possess integrity by the public and by the professional nursing organizations, peers, and employers. These characteristics are primary to a nurse and are the basis for the public's trust and confidence in the profession of nursing.

Problem Statement. There is research indicating that there is a difference in the moral development of nursing students during the course of their nursing program. These studies have exclusively studied nursing students in baccalaureate programs only. This

researcher found no research exploring the moral development of nursing students in two year associate degree programs. One study, Hirschmann (1991), used participants from associate, baccalaureate and graduate nursing programs but did not delineate the type of nursing student with research results. Two prior studies identified significant variables effecting moral development: Roell (1982) identified these variables: education and academic level, age, grade point average, selection of principled moral reasoning, and public versus private schools while Duckett (1997) identified gender, prior college credit earned, and grade point average as significant variables in moral development in baccalaureate nursing students. Nurse educators and nurse researchers could benefit from knowing if there is a difference in the moral development of nursing students between when the nursing student starts a nursing program and when the nursing students finish a two year nursing program and what may be some of the variables effecting moral development in two-year nursing students. Nurse educators and nurse researchers could assist in the proficient educational and moral development of nursing students.

Purpose of the Study. The purpose of this research study was to investigate the moral integrity development in nursing students at selected two-year colleges in northwestern United States. This research investigated if the student entering a nursing program is morally different than the nursing student finishing a nursing program when controlling for such variables as gender, age, experience in health care, experience in higher education and grade point average.

The Defining Issues Test-2 (DIT-2) was used to measure the difference in the development of first term nursing students, as compared with final term nursing students in two year nursing programs. The Defining Issues Test was developed by James Rest (1979), Rest & Narvaez (1994) and provides a numerical measurement (the N2 statistic) on a continuum of moral development. The DIT presents various scenarios that people have to make a moral judgment regarding the scenario's importance (Center for the Study of Ethical Development 2006). The original DIT was developed in the late 1970s and extensively used by researchers to measure, on a continuum, moral development. In 1998, the second version of the DIT, the DIT-2, was implemented with one fewer scenario, thus providing a more concise tool for the measurement of moral development while maintaining reliability.

Research Questions. 1) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges?

2) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for gender?

3) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for age (over 25 or younger than 25)?

- 4) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in higher education?
- 5) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous work experience versus no other experience in health care?
- 6) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when considering the current grade point average of each responding student?

Theoretical Framework

The purpose of this research study was to investigate moral development in nursing students. Cognitive Development Theory of Piaget, Kohlberg's Theory of Moral Development, Gilligan's Theory of Women's Moral Development and Parse's Theory of Human Becoming all provided the theoretical foundation and framework for this research. This researcher reviewed related research in order to develop a wide, theory-based framework on which to understand the theoretical bases of cognitive development, moral development, but also acknowledged and considered the process of socialization of students within the educational setting.

Significance of the Study

This research will add to the scarce body of research knowledge involving associate degree nursing students. In essence, this research could benefit all educators, policy makers, administrators and consumers of associate degree education.

This research could specifically benefit nurse educators who model and nurture moral development in nursing students and thus affect methods of educational content delivery. If the process of completing a nursing program does influence moral development in nursing students, nurse researchers could continue to research what specific variables may influence moral development in nursing students and how these variables may influence moral development. Results could inform nursing faculty who have the responsibility of admitting students into nursing programs. Nurse educators could effectively assist these new practitioners in their moral development. If nursing education does not influence the moral development of nursing students, researchers may chose to further investigate the factors influencing moral development.

Definition of Terms

Two-year colleges: For the purpose of this research study, two-year colleges are defined as technical or community colleges awarding associate degrees in nursing.

Moral integrity development: The characteristic of having moral integrity; the place in process at the time of this research that a nursing student is on his/her journey of development of this characteristic.

First-term nursing students: Students enrolled in their first term of an associate degree nursing program at a two-year college.

Final-term nursing students: Students enrolled in their final term of an associate degree nursing program, and who are planning graduation from the two-year college.

Work experience in the health care system: Paid or volunteer work the student has done to gain knowledge and understanding of the health care system.

Grade point average: The self-reported numerical system of calculating performance standards in higher education, based on a zero-to-four point system. Participants self-reported current grade point average at the time each participant completed the DIT-2 questionnaire.

Assumptions, Limitations, and Delimitations

This research study assumed the homogeneity of nursing students earning associate degrees in two-year colleges. Because of the time constraints of this research, a cross-sectional study using the DIT-2 was completed with both first-term nursing students and final-term nursing students at a number of two-year colleges in the Pacific Northwestern region of the United States. The Pacific Northwestern region of the United States was chosen for the convenience of the researcher.

While the DIT-2 provides a reliable and valid measure of moral development in a sample group, results obtained from this research can not be generalized to the population of two year nursing students. Area of the country, primary language and ethnic background, national and international events, along with the mission and vision of the

college may influence the results of subsequent research studies using nursing students from two year colleges. The DIT-2 measures cognitive moral development and decision-making processes but does not necessarily indicate behavior that will be utilized in presented situations. Thus, it is not clear what difference a gain on the DIT-2 score makes in real life application.

There is a question of truth-telling and the potential limitation of self-reporting behavior to the presented scenarios. The DIT-2 does address internal reliability or consistency of the participant's answers to the scenarios presented.

Chapter Summary

The moral integrity development of nursing students is important to the practice of the profession of nursing. This research investigated if nursing students' moral integrity development is different when they complete a nursing program as compared to the moral development of nursing students starting a nursing program. This research investigated if the age, gender, prior experience in higher education, work experience in healthcare and grade point average influenced the moral integrity development in nursing students.

The remainder of this research study will introduce the literature supporting the theories, research, and practices of moral integrity development, specifically in the profession of nursing. In chapter three, methodology is detailed and explained, along with the application for this research. Results and findings of the research are discussed along with the conclusions and recommendations of this work in chapters four and five.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The moral development of nurses is identified by the public as important. Employers, peers, professional organizations, and patients depend on the moral development of the nursing population. Prior research studies have investigated moral development in nursing students and moral decision-making in nurses. Moral development has been investigated in students primarily in baccalaureate or advanced degree-seeking professions, namely nursing students, medical students and lawyers. One research study was located that included subjects in shorter health education programs, namely an associate degree nursing program. This research investigated if nursing students' moral development is different when the student completes an associate degree nursing program, as compared to when the student starts the associate degree nursing program. This research compared the variables that possibly influence moral development during nursing school.

This research can not be thoroughly completed without first investigating the theory surrounding moral development, the context of the problem, along with the current understanding in the literature regarding the moral development, the moral development as influenced by higher education, and the moral development of nursing students.

Synthesis of the Literature

The literature selected for inclusion in this research was of a scholarly nature. The literature was either from peer-reviewed journals, published texts, or dissertation and theses work. Primary sources of work were used whenever possible.

Theoretical Framework

Understanding students as learners and student development have long been interests of educators. The concept of moral development among students in the education setting was investigated by Kohlberg, whose theory of moral development is based on the psychologist Jean Piaget's work. More recent work in the area of students in higher education and moral development (Gilligan, 1982; Gilligan, Lyons & Hanmer, 1990) include identity development, responsibility and connectedness versus rights and autonomy.

The cognitive development theorist Jean Piaget began his work in the 1920s and 1930s by studying male children's cognitive structural development and identified four stages of mental growth. In the sensorimotor stage, occurring from birth to age two, the child is concerned with gaining motor control and learning about physical objects. In the second stage or preoperational stage, from age two to seven, the child is preoccupied with verbal skills. At this stage, the child can name objects and reason intuitively. In the third stage, the concrete operational stage, from age seven to twelve, the child begins to deal with abstract concepts, such as relationships and numbers. Finally, in the fourth stage, the formal operational stage, from ages twelve to fifteen, the child begins to reason logically

and systematically (Microsoft Encarta, 2000). Each step of Piaget's cognitive developmental theory is based on accomplishing the previous step.

Piaget continued his cognitive development research to include moral development of children. "Moral realism is the tendency which the child has to regard duty and the value attached . . . as imposing itself regardless of the circumstances in which the individual may find himself" (Piaget 1966, p. 111). Piaget's theory of moral realism contained three features: that of which duty was related to obedience, the letter of the law was observed, and included an objective of notion of responsibility (Piaget 1966). Although Piaget's theories are widely applied and accepted, the participants in the development of these theories were white males only. His findings suggested that moral judgments were based on rights and justice, along with the importance of fairness.

Lawrence Kohlberg's work followed the work of Piaget and examined moral reasoning in adolescence boys, using the assumptions and methodology from Piaget's investigation of the moral development of children (Evans, Forney & Guido-DiBrito 1998). Kohlberg's theory of moral development is developmental and cognitive but specifically focuses on how people make moral judgments. Kohlberg's theory of moral development proposed that a person develops through six distinct stages grouped in three levels: pre-conventional, conventional, and post-conventional (Evans, Forney & Guido-DiBrito 1998). The pre-conventional level identified two levels of development: Stage one is labeled heteronomous morality and is explained as the understanding of right and wrong through punishment and obedience and accepting authority without question. Stage two of the pre-conventional level is labeled individualistic, instrumental morality

and is explained as the actions that one takes for one's own hedonistic pleasure. This might be illustrated by a person taking the largest share of candy because of personal desire.

The conventional level also identified two levels of development: interpersonally normative morality and social system morality. In the interpersonally normative morality level, the orientation is to good boy/bad boy behavior and the subjects at this level of development conformed to the expectations of caregivers for approval sake. In the social system level, law and order was the orientation. Obeying the law and protecting the social system was the premise surrounding this level.

In Kohlberg's post-conventional stage of moral development, human rights/social welfare morality and the morality of universal ethical principles were identified as the two levels making up this stage. The human rights/social welfare level was characterized by laws being made and changed by the members of society. The universal ethical principle level identified characteristics in its participants as actions taken for universal rightness, such as civil disobedience movements enacted when a system fails.

Kohlberg's theory of moral development identifies a continuum of behavior that moved from concrete and egocentric to general and relativistic. Kohlberg's theory has been used to identify factors related to moral development, the impact of educational interventions, and has been demonstrated in a variety of cultures. Carol Gilligan, a student of Kohlberg's, further investigated moral development but addressed differences relating to gender.

In contrast to Kohlberg's research findings regarding moral development in males relating to objectivity, justice and individualism, and being generalized to both men and women, Gilligan (1982) found that women identified responsibility, relationship, connection and caring in their own personal moral development. In Gilligan & Lyons (1983), contextual reference was important to the woman's moral development.

In Gilligan's theory of women's moral development, she identified three levels and two transition periods between each level of moral development. Each level identified a more intricate relationship between self and others. Each transition represented the achievement of a more sophisticated understanding between selfishness and responsibility (Evans, Forney & Guido-DiBrito 1998). Hence, each level reflects more intricate relationships with self and others and a clearer understanding of the differences between selfishness and responsibility.

Level one of Gilligan's theory of women's moral development was identified as survival. Moral decisions made by those women in this level centered on self-preservation and individual desires. In the first transition, labeled from selfishness to responsibility, the woman moves from selfishness and independence to responsibility and connection, integrating care into decisions. In the woman's decision-making process, she considers doing the right thing.

Level two of Gilligan's theory is labeled goodness as self-sacrifice. In this level, the woman demonstrated her moral development by achieving consensus and maintaining connection with others at the expense of one's own judgment. In the second transition, labeled from goodness to truth, moral decisions are made by including the needs of those

around her as much as she considers her own needs. In this transition stage, a woman is able to identify her own needs as real and truthful. Some people in this transition period experienced a conflict either between selfishness and responsibility or survival and morality.

Level three of Gilligan's theory is labeled the morality of nonviolence. The woman that experienced level three of moral development avoided hurt of self and others and an enhanced self esteem with respect for self and others.

There has been widespread application of Gilligan's theory of moral development with indications that relationship aspects should be investigated in respect to moral reasoning (Peter 1991; Kerka 1993; Levy 1993; Johnston 1994). Gender related differences may be related to self concept issues, and differences in moral issues, not gender, may influence moral reasoning.

Rosemarie Parse's Theory of Human Becoming offers one further element to the theoretical framework for this research. In Parse's human becoming theory, the two basic tenets of her theory include intentionality and human subjectivity. Parse (1998) explains the tenet of intentionality as a human's nature as an intentional being, that is a person is open, knows, and is present in the world. By being present and involved in the world, Parse suggests a person creates personal meaning. The other tenet of Parse's Theory of Human Becoming is human subjectivity. Parse states that a person is growing and developing with each encounter in his or her life, thus giving meaning to the individual within each new situation.

There are nine assumptions in Parse' Theory of Human Becoming. They include humans exist in rhythmical patterns with the universe, humans continually define patterns of relating, humans are multidimensional with consideration of the possibilities, human becoming emerges towards health, there is a rhythmic process between humans and the universe, humans become connected with possibilities, human becoming is a human emerging. But the two assumptions of this theory that support the theory of moral development include humans are open and freely choose meaning and value in situations and bear responsibility for decisions and humans develop patterns of relating by valuing priorities. Parse (1998) further explains valuing as a concept of structuring meaning . . . confirming cherished beliefs in light of a world view and choosing from imagined options and owning the choices (p. 37). This theory supports the worth of the human experience as being unique and valuable to the understanding of humankind. Cody and Mitchell (1992) stated Parse's theory provides a theoretical perspective to enhance understanding of the lived experience and that biological manifestations are not ignored but are subsumed within the experience of the person. These theories form the framework for this research and lead to examining the current state of nursing education and practice.

Professional Conduct

Nurses and nurse researchers have developed a large body of knowledge describing professional attributes and behaviors. Summaries of these findings are found within the missions and policies of such professional organizations as the American

Nurses' Association (2001) and the National Council of State Boards of Nursing (2005) on each of these organization's website.

The above mentioned professional associations of nursing clearly provide guidelines to all nurses regarding the characteristic of moral integrity. Usually nursing students are provided these principles in the classroom as theoretical knowledge and are provided examples of character development, modeling, and mentoring in the clinical educational setting in nursing school.

The American Nurses' Association (ANA) is a national professional association that develops and distributes a code of ethics for nurses with interpretive statements. The ANA's Code of Ethics (2001) reflects the profession of nursing and this Code of Ethics is intended to guide nurses in the application of professional skills and personal responsibilities. The ANA Code of Ethics specifically speaks to a nurse's professional and personal moral integrity:

Individuals who become nurses are expected not only to adhere to the ideals and moral norms of the profession but also to embrace them as a part of what it means to be a nurse...the code of ethics for nurses serves the following purposes...it is a statement of the ethical obligation and duties of every individual who enters the nursing profession, the profession's nonnegotiable ethical standard, and nursing's understanding of its commitment to society (p. 5).

The ANA Code of Ethics broadly describes fundamental values expected to be displayed by nurses along with boundaries of loyalty and duty within the nursing profession. The ANA Code of Ethics (2001) "provides a framework for nurses to use in

ethical analysis and decision-making...it establishes ethical standards for the profession and it is not negotiable in any setting” (p. 6).

The ANA Code of Ethics lists nine provisions with interpretive statement for each provision. The first provision offers a preface regarding integrity, listing fundamental values all nurses should possess, including respect for human dignity and the right to self-determination. The fifth provision specifically speaks to the boundaries of duty and loyalty, including wholeness of character and the preservation of integrity. The ninth provision speaks to duty beyond the individual encounter and generally speaks to integrity in all aspects of the nurse’s life. While the other provisions address the nurse’s general development, these three specifically address the nurse’s moral integrity development.

The fifth provision in the ANA Code of Ethics (2001) states “the nurse owes the same duties to self as to others, including the responsibility to preserve integrity and safety, to maintain competence, and to continue personal and professional growth” (p. 18). The interpretive statement further explains this provision and states

Nurses have both personal and professional identities that are neither entirely separate, nor entirely merged, but are integrated. In the process of becoming a professional, the nurse embraces the values of the profession, integrating them with personal values. Duties to self involve an authentic expression of one’s own moral point-of-view in practice (p. 19).

The ninth provision of the ANA Code of Ethics (2001) specifically speaks to intraprofessional integrity and states

A professional association is responsible for expressing the values and ethics of the profession and also for encouraging the professional organization and its members to function in accord with those values and ethics...promotes awareness of and adherence to the Code of Ethics (p. 25).

Clearly, the profession of nursing has established the characteristic of integrity as valuable and necessary to practicing nurses. Indeed, the American Nurses' Association has established written provisions with interpretive statements that guide nurses in their practice of the profession. Reasonably, nursing students are expected to possess the characteristic of moral development and integrity. Consequently, there is research investigating moral development in college students, specifically nursing students.

Current Research

Evans, Forney & Guido-DiBrito (1998); Feldman & Paulsen (1998); and Pascarella & Terenzini (1991) discuss the moral development in college students, specifically applying Kohlberg's theory of moral development in the college student. Theory suggests that students investigate and experiment with their moral values and that there is a change in moral development during the college years, usually students confirm and solidify their moral values during the college years.

In his work Enteman (1979) suggested researchers begin with the premise students are persons with a set of values that they have decided to adopt and whose freedom and dignity are to be celebrated...students should expect that universities be committed to the development of the freedom of each student (p. 154). But Enteman (1979) also maintains that members of the university have an obligation to treat each

other (and, so, the university) with honesty and integrity...a student who enters a university acquires obligations to other people in the university to become a giver. Participation and cooperation...are heralded as characteristics of the student when the student accepts the responsibility for being part of the university (p. 155). Specific challenges to integrity in the university system are listed as plagiarism and cheating.

Noah & Eckstein (2001) studied integrity and countering fraud in academia.

The quality of a society depends on how it educates its young people...to fulfill their various roles as citizens, as experts, as professionals...misconduct erodes confidence in the integrity of an important institution, devalues credentials, and reduces the effectiveness of the workforce. In education, it calls into question the whole process of selection, training, and certification of future citizens. In research, it undercuts a powerful system of discovering new knowledge and testing its truth (p. 142).

Whitney & Keith-Spiegel (2002) published their work on academic dishonesty in the form of an educator's guide. Whitney & Keith-Spiegel (2002) present a guide to research and theory involving academic dishonesty, preventing dishonesty and managing dishonesty when it occurs. Thus, these two researchers acknowledge and investigate academic dishonesty and steps to counteract the effects of a lack of moral integrity in students.

With the advent of the internet, academic integrity took on other dimensions. Another tool was added to the means by which students are able to commit acts of academic dishonesty. Lathrop & Foss (2000) investigated the internet as a means and motive of committing academic dishonesty. Lathrop & Foss (2000) cite competition, pressures, and lack of trust as issues effecting academic integrity. Character education and development, ethics, and a student code of conduct are listed as means to address

cheating and plagiarism. The internet was not viewed as negative but as a tool by which some students may easily adopt dishonest behavior.

The literature is rich with research regarding honesty and dishonesty, moral development in the college student, moral development in the nursing student (baccalaureate programs only), and tools used to measure moral development. This researcher has summarized the findings gained from reviewing the literature.

Dishonesty and Unethical Behavior. There is a growing body of research addressing the dishonesty and unethical behavior of students in higher education. In fact, there is a National Center for Academic Integrity in which more than 400 institutions of higher education belong. This organization annually gathers professionals from higher education to address the issues surrounding integrity and dishonesty in academia.

In her work, Liddell (1990) investigated moral orientation and uncovered two tendencies: either a moral orientation to caring or to justice. Liddell found no gender differences in the preference to caring or justice as a personal moral orientation in her subjects. In her more recent work, Healy & Liddell (1998) discovered students' role in their own moral development, namely identifying ways that faculty and staff could promote and facilitate students' own development.

In his recent work, Callahan (2004) addresses cheating in higher education, specifically on the scholastic aptitude test, on other college admissions documents, when competing for colleges, and with securing tutors and consultants. Callahan (2004)

defends the premise that more Americans are doing wrong and getting ahead and he maintains we live in a cheating culture.

In her doctoral work, Sheer (1989) examined the classroom behavior of baccalaureate nursing students and socialization. She found nursing students perceived obtaining test questions prior to the examination less dishonest than purchasing a term paper. In her research with college students in general, Cole (2002) extracted themes through thematic and contextual material using historical trend analysis and found that academic dishonesty is prevalent and serious, the stakes of misconduct are high, academic dishonesty is encouraged through persistence, and she welcomes further research to increase academic integrity. In other research, Russian (2003) studied academic dishonesty in baccalaureate nursing students specifically. She noted that with the increase of seriousness of the dishonest event, there was a decrease in the incidence of reporting the incident.

Honor Codes. A number of researchers investigated honor codes at higher education settings, with college students in general and with nursing students specifically. The strategy of implementing an honor code in the nursing classroom and nursing program can facilitate the development of personal and professional integrity (Davis 1996). In contrast, Bush (2000) specifically used Kibler's Academic Integrity Survey to review and measure the colleges' and universities' characteristics and promotion of student academic integrity. There were seven areas of intervention identified in relation to institutions promoting academic integrity. They included active promotion of academic

integrity, communication strategies to explain the institution's policy on academic integrity, having an honor code, facilitating training strategies for faculty and students regarding the academic integrity policy, engaging faculty assistance, publishing disciplinary policies, and enforcing disciplinary sanctions. These seven interventions could promote academic integrity on campuses but the research indicated that pivotal to the success of these interventions was a need for an understanding of what combination of interventions promoted academic integrity on a campus (Bush 2000). Thus, research did not address effectiveness of intervention strategies. In identifying variables in moral development among all college students, Scott (2001) was the only research identified that found males had a higher inclination to cheat and engage in academic dishonesty than females. The other variable Scott (2001) identified was the increasing trend to use unauthorized technology as a resource. There was also an identified decrease in the incidence of reported cheating with the increase confidence in a college-wide honor system (Gambill 2003).

Consequently, dishonesty does exist in the higher education system but research shows that integrity is promoted and incidences of academic dishonesty may decrease with specific processes in place to identify and change behaviors, namely honor systems.

Nursing Students. Research investigating the moral development in nursing students almost exclusively used baccalaureate degree-seeking nursing students as subjects in the research on moral development. Hirschman (1991) was the only research work that included associate degree, bachelor degree, and master degree nursing students

in her work using the Defining Issues Test to assess moral reasoning. Hirschman (1991) found no difference in the application of the caring principle as compared to the justice principle, when controlling for gender. Hirschman did not differentiate between associate, bachelor or master degree nursing students. Also, a number of pieces of research investigated the moral development of nurses in practice.

For example, Hamm (2002) used a descriptive study to compare the moral reasoning abilities of senior nursing students and experienced nurses. She discovered level of education was non-significant to the use of principled thinking and findings indicated that moral reasoning declined as nurses gain years of experience. In the qualitative research conducted by Kelly (1998), a descriptive study investigated nurses at work two years post graduation and uncovered the major influences on their moral values and ethical role building. These influences included role models in school and in the work setting, availability of ethics committees, and professional expectations.

Variables Identified in Moral Development.

During the review of literature, this researcher discovered a consistent finding of similar variables attributed to the moral development in nursing students in the higher education system. Roell (1982) identified the following variables effecting moral development in nursing student: education and academic level, age, grade point average, selection of principled moral reasoning, and public versus private schools. Duckett (1997) identified gender, prior college credit earned, and grade point average as significant variables in moral development in baccalaureate nursing students. While Roell

(1982) found age to be a significant variable in moral development of nursing students, Duckett (1997) identified grade point average, prior college experience and gender to be significant variables in the moral development of nursing students, not age. Booth (1992) identified faculty use of an unethical situation for teaching an ethical decision-making framework and promoting moral development, faculty rights and student protection. Kinney (1999) investigated the variability in students' perception of cheating across cultural backgrounds, including Hispanic and Asian. He used scenarios to evaluate perceptions of cheating in the classroom. Kinney (1999) found no difference in the variability of perceptions of cheating across cultures.

Review of Previous Research Findings and Opinions

Review of Methodology. Pascarella & Terenzini (1991) have studied the moral development in college students. They state that two instruments dominated the assessment of moral development, and briefly describe each instrument and the evidence on the influence of college. The two basic instruments used are the Moral Judgment Interview (MJI) developed by Colby and the Defining Issues Test (DIT) developed by Rest. The DIT has the longest history of use. Other identified tools were generally used in only one or two studies. Qualitative research was reviewed regarding moral development in college students and generally intensive interviews were used to gather data.

Only one reference, Sheer (1989), cited the use of Hilbert's Unethical Behavior Scale; Russian (2003) cited the use of Academic Integrity Survey, but there was also one study that used self-developed surveys for gathering data. In Jones & Watt (1999), the

Measure of Moral Orientation (MMO) was used to assess college-aged students in general. Hirschman (1991) compared moral reasoning along with care and justice with the Defining Issues Test, along with the Interpersonal Reactivity Index. She found that the greater the student's moral development and the higher the indicator on the DIT, the higher the level of caring in the student. One phenomenological study by Mitchell (1990) was located and indicated that nursing students reported a commitment to professional values. Just a small number of research works were identified that used the Nursing Dilemma Test (NDT). In fact, Ham (2002) used the NDT to investigate moral reasoning between senior baccalaureate nursing students and nurses in practice and found higher moral development in senior nursing students compared to nurses in practice. There were two other tools used to investigate professional values after nursing students completed their coursework. One tool, Nursing Professional Values Scale (NPVS) was used by Weis & Shank (2000) paired with qualitative data to assess values in post graduation nurses. Kelly (1998) also used qualitative methods to investigate moral integrity in new nursing graduates.

The most consistently used tool to investigate the moral integrity of nursing students was the Defining Issues Test (DIT). The DIT has been used since 1979, with a second version of the tool being introduced in 1998. In Roell (1982), the DIT was used as a one-time measurement to determine moral development in nursing students. Variables included grade point average, credit earned, along with public versus private institutions. Roell (1982) recommended that the DIT be used with different populations other than

baccalaureate degree nursing students to further develop the research on moral development to reflect the variety of education levels in nursing students.

Duckett (1992) used the DIT and found the need for rigor in the formal education setting to develop moral reasoning. Later, Duckett and Ryden (1994) using the DIT investigated and found evidence that ethics can be learned. Arangie-Harrell (1998) and Sivberg (1998) both used the DIT in longitudinal studies with paired subjects. Arangie-Harrell (1998) investigated the level of stress and self esteem and the effects of these two variables on the ability of nursing students to make moral judgments. Arangie-Harrell (1998) identified a positive correlation between the increase in moral development and self esteem over the course of the nursing program. Sivberg (1998) found an increase in moral development with the social learning during the nursing program. Finally, Yeap (2000) used the DIT to investigate moral reasoning and found that moral education led to an increase in moral reasoning and the increase in moral reasoning was greatest in the subjects with the lowest initial scores on moral reasoning.

Evaluation of the Literature

The review of the literature regarding integrity and moral development, specifically the theories supporting and explaining moral development, moral development in students in higher education, and the moral development in nursing students, revealed a rich amount of research. There is progressive theoretical knowledge on moral development, including the work of Piaget, Kohlberg, Gilligan and others, with application of these theories. Specific research regarding moral development in students

in the higher education arena was plentiful. As this researcher narrowed her focus, the research on moral development in nursing students was prevalent, but almost exclusively conducted with nursing students in baccalaureate programs. There was a number of qualitative studies investigating moral development in nursing students but these studies were without a consistent tool.

There were a small number of tools used in the quantitative research projects measuring moral development, but the most consistently used tool, with strong reliability and validity statistics was the Defining Issues Test-2 (DIT-2).

Overall Weaknesses and Strengths

There is a consistent use of Piaget and Kohlberg's theories of moral development in the research reviewed for this project. The research identified and reviewed in relationship to moral development in higher education with nursing students as subjects was plentiful but the baccalaureate nursing student was almost exclusively used as subjects, neglecting the investigation into the moral development of the practical nursing student and the associate degree nursing student.

Gaps and Saturation Points

This research investigated the moral development of nursing students in two year nursing programs in higher education. This research compared the moral development of associate degree nursing students in their first term of nursing education to the moral development of associate degree nursing students in their final term of nursing education.

This research adds to the body of knowledge developing on moral development in nursing students while specifically adding knowledge about the two-year nursing student.

Chapter Summary

The moral development of nursing students is important to the nursing profession and to the public who reap the services of the nurses in practice. A thorough review of the research literature revealed the moral development of associate degree nursing students has not been specifically investigated. In fact, this researcher found no research investigating the moral development of two-year nursing students. This researcher conducted a quantitative, associational design research to add to the body of knowledge regarding associate degree nursing students' moral development. This research begins to address the moral development in a specific nursing student population that has not been investigated.

CHAPTER THREE

METHODOLOGY

Introduction

The moral development of associate degree nursing students is integral to the practice of the profession of nursing. This research investigated if associate degree nursing students' moral integrity development is different in the final term of a nursing program as compared to the moral development of nursing students during the first term of a nursing program. This research investigated how age, gender, experience in health care, experience in higher education and grade point average affected the moral development of nursing students.

Design

A causal-comparative design approach using an independent sample t-test, factorial analysis of variance and analysis of covariance to statistically test the relationships among the variables was used for this research. Consequently, a survey method of data collection was implemented to investigate the moral development of nursing students (Gliner & Morgan, p. 199). A cross sectional study using the Defining Issues Test - 2 (DIT-2) of first-term nursing students compared to final-term nursing students moral development was used to identify differences between the groups. The researcher ascertained if there is a difference between first term nursing student

development and final term nursing student moral development while controlling for age, gender, experience in higher education, experience in the healthcare field, and grade point average.

Population/Sample

This study used a cluster sampling of nursing students at colleges awarding associate degrees in nursing to achieve an acceptable sample size. To be included in this study, nursing students met the following criteria: (a) enrolled with a declared major in nursing at one of the colleges in the Pacific Northwestern region of the United States that were chosen as sites for this cross sectional study, (b) enrolled in the final-term nursing course spring term 2006 or enrolled in the first-term nursing course fall term 2006, (c) spoke and understood English, and (d) volunteered to participate in study. The Pacific Northwestern United States region was chosen because the researcher resided in this area of the country. Also, this region was chosen because of the abundance of institutions of higher education available awarding associate degrees in nursing.

The nursing student population chosen was first-term students and final-term nursing students at eight associate degree nursing programs in the Pacific Northwestern United States. There are approximately more than 400 first-term nursing students in the possible nursing programs. The programs were chosen as possible research sites by geographic location to the researcher.

After performing a power analysis for a moderate effect of 0.6 and to determine effect size, this researcher sought a participant number of at least an $n=100$ nursing

students in the first year term and at least an n=100 nursing students enrolled in the final term of the nursing program. Programs were contacted for participation and sampling of clusters (i.e. programs) continued until the sampling targets were attained. All students in each participating program were included in the sampling frame. There were 307 complete surveys from first term and final term nursing student participants in this research. All participants were enrolled at one of eight colleges awarding associate degrees in nursing in the Pacific Northwestern United States.

At the eight colleges participating in this research, the population of first term and final term nursing students was 401, with a sample population of 307 involved in this research. This resulted in an overall response rate of 76.53 percent. Participation in the survey was voluntary and some non-participation was anticipated. The non-response rate, 23.47 percent, was attributed to prior family commitments during the scheduled survey time, several student absences, and length of the survey itself.

Instrumentation

The Defining Issues Test-2 (DIT-2) was used to measure moral development. The DIT was originally developed by James Rest in the late 1970s at the Center for the Study of Ethical Development, located on the campus of the University of Minnesota. There is extensive information and research available about the development and use of the DIT. The DIT has gone through one revision, hence the DIT-2.

A common assumption in the field of morality, and one with which we disagree, is that reliable information about the inner processes that underlie moral behavior

is obtained only by interviewing subjects...self reported explanations of one's own cognitive process have severe limitations. The DIT is a device for activating moral schemas and for assessing them in terms of importance judgments or moral importance...presumably those are the schemas that structure and guide the subject's thinking in decision-making beyond the test situation (Bebeau, Thoma, & Narvaez, 2006).

The Defining Issues Test-2 presents five moral dilemmas; each dilemma is followed by twelve statements. The participant's task was to rank each of the twelve statements coinciding with each of the five dilemmas in terms of moral importance. The ranking indicated the subject's decision as to whether the item is highly important or less important. An N2 score was calculated from the participant's rankings using Kohlberg's fifth and sixth stages of moral development and indicated the participant's level of post conventional thinking. The N2 statistic is an outcome variable comparable to a p score (Bebeau & Thoma, 2003). The N2 score is comparable to the fifth and sixth stages of Kohlberg's moral development theory.

The five dilemmas on the DIT-2 are (a) a father contemplates stealing food for his starving family from the warehouse of a rich man hoarding food; (b) a newspaper reporter must decide whether to report a damaging story about a political candidate; (c) a school board chair must decide whether to hold a contentious and dangerous open meeting; (d) a doctor must decide whether to give an overdose of pain-killer to a suffering but frail patient; (e) college students demonstrate against U.S. foreign policy.

The Center for the Study of Ethical Development has booklets, answer sheets, and guides to the DIT-2. The Center for the Study of Ethical Development at the University of Minnesota at Minneapolis, machine-scored the surveys and provided a paper copy report, along with a floppy disk with subject scores. The results of the DIT-2 were

reported on a numerical continuum. For further information regarding the Defining Issues Test – 2 and statistical analysis, see the website at www.centerforthestudyofethicaldevelopment.net

A demographic questionnaire was developed to gather data regarding the independent variables. The tool asked participants to indicate whether they were under 25 years old or 25 years old or older, male or female, first or final term nursing students, having none or some prior college experience and having some or no work experience in health care, and indicate numerically what their current grade point average was on a 0-4 point scale. See Appendix B to view the demographic questionnaire tool.

Validity and Reliability

Bebeau, Thoma, & Narvaez (2006) state the validity of the Defining Issues Test-2 (DIT-2) has been assessed in over 400 published research articles using these seven criteria: 1) differentiation of age groups and education level, indicating a 30-50 percent variance in scores on this test attributed to education level. 2) longitudinal gain; in more than ten studies of college Freshmen to Senior students (n=755) indicated an effect size of .80 (large gain). 3) in cognitive capacity of moral comprehension ($r=.60s$, moderate gain); 4) the test indicates sensitivity to moral education interventions with an effect size of .40 (moderate gain); 5) the DIT is significantly linked to professional decision-making with 37 of 47 measures statistically significant; 6) the DIT are linked to political choices with a correlation range, $r = .40$ to $.65$; 7) the DIT-2 reliability is measured using Cronbach alpha and test retest is in the upper .70s to low .80s. In addition, the DIT-2

demonstrated discriminant validity or how groups differ in moral development when compared with the seven criteria listed above. The DIT-2 is also equally valid for males and females (Center for the Study of Ethical Development, 2006).

Piloting the DIT for this research study was not implemented because of the extensive use of this tool. Rest (1979) updated the DIT making it shorter (five moral dilemmas instead of six) with clearer instructions with a slightly stronger validity criteria. “The persuasiveness of the validity for the DIT-2 comes from the combination of criteria for construct validity that many researchers have found, not just from one finding with one criterion” Bebeau, Thoma, & Narvaez (2006, p. 179). The internal consistency of the DIT-2 is indicated by whether or not each subject scores consistently on their moral development scale, as indicated by the DIT-2.

A Cronbach alpha test was used to determine the internal reliability of the sample used for this research. For this sample ($n = 307$) the internal reliability was strong with a Cronbach alpha of 0.70. This reliability coefficient is slightly lower than the five story variable reliability of 0.81 for the DIT-2 in general. This lower reliability may be indicative of the limited range of education levels in this research sample (Center for the Study of Ethical Development, 2006).

Variables

Dependent Variable. The dependant variable in this research was moral development, as measured by Rest’s Defining Issues Test – 2 (DIT-2). Moral development was measured and recorded on a nominal continuum and was reported as

the N2 statistic. N2 scores N = 300 with 7 participants' N2 scores missing because of inconsistencies in answers on the survey thus resulting in the inability to calculate a valid N2 score. For this sample, the N2 score ranged from -1.38 to 66.23 (out of a possible range of 0 – 95). Negative scores were a result of missing or inconsistent answers.

Independent Variables. The primary independent variable in this research was term. Term is defined as either the first term of study in the nursing program in which the student is enrolled or final term of study for the nursing student in an associate degree nursing program. On the demographic portion of the survey, each participant identified themselves as either in their first term of study in the associate degree nursing program (n = 156) or in the final term of study in the nursing program (n = 144) and preparing to graduate.

In addition to term the study also examined the effects of gender, age, previous college experience, previous health care experience and GPA as secondary independent variables. (Please see the demographic survey in Appendix B for the exact wording of questions which measured these variables.) Gender was one of the independent variables investigated in this research. On the demographic portion of this research, participants were asked to indicate either maleness or femaleness. Response rate was 100 percent with n = 307; males n = 53, females n = 254. Age was another identified independent variable. On the demographic portion of the survey each student identified either being under 25 years of age (n = 64) or being 25 years old or older (n = 243). Four participants did not

indicate their age. When analyzing the moral development of nursing students under 25 years old or 25 years old and older, the four surveys without an age indicated were not included in the analysis. The median age indicated on the DIT-2 was 32.30 years old with a range of 18-67 years old. The two measures of age were cross-validated to eliminate any discrepancies.

College experience was self reported on the demographic portion of the survey. Participants were asked if their current educational experience was their first college experience or if the participant had any prior college experience. The results were reported simply as first college experience or prior college experience. The response rate for this independent variable was 299 out of 307 (94.86 percent) with 62 of 299 (21.86 percent) of the participants having no prior college experience and 237 of 299 (79.26 percent) of the participants did have prior college experience.

Health care experience was also self reported on the demographic portion of the survey and was defined as 'any previous experience in the health care'. The results were reported as either yes or no experience in health care. The response rate for this independent variable was 300 out of 307 (97.72 percent) with 217 of 300 (72.33 percent) reported having experience in the health care field while 83 of 300 (27.67 percent) of the participants reported having no prior experience in the health care field.

Grade point average was the final independent variable studied in this research. Current college grade point average was self reported on the demographic portion of the survey by each participant on a 1- 4 point scale. The range of self reported grade point averages was 2.5 - 4.0. Table 1 illustrates the results of the independent variables.

Table 1. Nursing Student Independent Variables

Variable	Frequency	Percent	Range
First Term	166	54.1	
Final Term	141	45.9	
Males	53	17.3	
Females	254	82.7	
Under 25	64	20.8	
25 and Older	243	79.2	
First College Experience	63	20.5	
Prior College Experience	237	79.5	
Healthcare Experience	223	72.6	
No prior experience	84	27.4	
Grade Point average			2.5-4.0

Data Collection

The researcher gained permission from Montana State University – Bozeman Human Subjects Committee to conduct this research. Then the researcher for this study contacted the directors of the nursing programs selected to seek general permission to access their nursing classes to participate in this study. After obtaining verbal general consent from the director of the nursing program to involve nursing students from the selected college to participate, the researcher contacted the appropriate college representative to obtain written permission to access students. This representative was primarily the Dean of Students or Provost at the college. A copy of the Montana State University Human Subjects' Committee Approval was provided to the college's representative when requested.

After receiving written permission from the participating colleges, an informational letter and invitation to participate was sent to each of the directors of the nursing programs (Appendix A). One week following the mailing of the informational letter, the potential faculty of the courses with participants was contacted via email to introduce the researcher, the research study, establish their willingness to facilitate participation and to arrange a mutually agreed upon time and date for the researcher to visit the first-term or final term nursing students. Data was gathered spring term 2006 with final-term nursing students and data was gathered fall term 2006 with first-term nursing students. The surveys were administered after regularly scheduled class time for each of the groups at the respective colleges. The contact faculty members at the participating colleges announced to the student population about the upcoming research and voluntary participation.

The researcher visited each first term and final-term nursing student group to introduce, and summarize research study. The participants were given an informed consent form to read, sign and return to the researcher (Appendix A). The format of the questionnaire and demographic information sheet was explained and participants used 20 to 45 minutes to complete the surveys. The researcher explained that participants were free to withdraw from the study at any time and could chose to omit answering any question, if they so chose. The demographic form (Appendix B) and the DIT-2 was distributed and collected in an unhurried manner that encourages participation and truthful completion.

The researcher explained the benefits anticipated from the research findings, briefly explain the timeline involved, and offer to facilitate a subsequent meeting to the class to present the research findings.

Data Analysis

Descriptive statistics, such as the mean, range, standard deviation, standard error of the mean were reported on all independent and dependent variables. An independent t – test and ANOVA were used to ascertain if there is a difference between first term nursing student development and last term nursing student development. The researcher compared age, gender, prior experience in higher education, experience in healthcare, and grade point average to analyze any significant differences in development. Each subgroup and N2 scores were analyzed and histograms graphed. Each subgroup closely approximated a normal bell curve.

Research Questions and Statistical Tests. 1) Does the moral integrity development, as measured by Rest’s Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges? An independent sample t-test was used to measure difference.

For each of the following questions, a factor analysis of variance (ANOVA) was used to measure the difference. An analysis of covariance (ANCOVA) was used to analyze question number 6.

2) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for gender?

3) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for age (over 25 or younger than 25)?

4) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in higher education?

5) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in health care?

6) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when considering grade point average?

Chapter Summary

The moral development of associate degree nursing students is integral to the practice of the profession of nursing. The methodology described above was implemented and then aided the investigation into determining if associate degree nursing

students' moral integrity development is different in the final term of a nursing program as compared to the moral development of nursing students during the first term of a nursing program. The next chapter of this research describes the results from the data gathered after applying statistical analyses to investigate how age, gender, work experience in health care, prior experience in higher education and grade point average affected the moral development of nursing students at two year colleges.

CHAPTER FOUR
RESEARCH FINDINGS

Introduction

At eight two-year colleges in the Pacific Northwestern region of the United States, this researcher sampled 307 of a potential 401 sample of first term and final term nursing students in two-year colleges. The response rate for this survey and demographic data gathering was 76.53 percent. This research investigated if associate degree nursing students' moral integrity development is different in the final term of a nursing program as compared to the moral development of nursing students during the first term of a nursing program. This research investigated how age, gender, experience in health care, experience in higher education and grade point average affected the moral development of nursing students.

The descriptive statistics for the nominally reported variables are listed in Table 2. The dependent variable, moral development, ranged from -1.38 to 66.23. For moral development, the higher the number the more developed moral reasoning is in the participant. The distribution of moral development scores was found to be approximately normal. Grade point average was used as a covariate to control for academic ability. The distribution of grade point average for all nursing students ranged from 2.5 to 4.0 and was already a self-selected high range of grade point averages. When considering the spread of the range of the sample population (2.5 - 4.0), this sample's spread is slightly below a

normal spread, skewness = $-.78$ but kurtosis = $.23$ indicates the majority of grade point averages for the participants in this sample were slightly above the mean of 3.58 . The independent variable, grade point average, is approximately normally distributed although limited in range.

Table 2. Descriptive Statistics

	Range	Mean	SD	Skewness	Kurtosis
Dependent Variable					
Moral Development (N2)	-1.38-66.23	32.81	14.7	.015	-.79
Independent Variable					
Grade Point Average	2.50-4.00	3.58	.31	-.75	.23

Results of Data Analysis

1) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges?

Descriptive statistics for the DIT-2 scores for first term and final term nursing students are reported in Table 3. An independent sample t-test was conducted to determine if there were significant differences in average moral development scores obtained from the DIT-2 when comparing first term and final term nursing students. Results from an independent samples t-test found that final term students ($M = 37.74$, $SD = 13.87$) scored significantly higher on the DIT-2 than first term students ($M = 28.43$, $SD = 13.97$), $t(298) = -5.78$, $p = .00$. The moral development of this sample of first term nursing students is different than the moral development of this sample of final term

nursing students. The effect size was 0.38 (small) but moral development addresses a belief not the knowledge base of the participants involved in the research. This effect size is approximately half the effect size found in a meta-analysis conducted by McNeel (Rest & Navaez 1994). McNeel's meta-analysis found a large effect size (0.79) on moral development of students over the course of their studies at liberal arts colleges (four year programs). In Pascarella & Terinzini (2005) the difference in moral development from freshman to seniors (in four-year institutions) is about .8 of a standard deviation (28 percentile points) suggesting that the difference in moral development between first and final semester nursing student is moderate when considering other students that have investigated moral development.

Table 3. Means and Standard Deviations for Moral Development (N2)

	Term	N	Mean	Standard Deviation
N2 Score	First Term	159	28.43	13.97
	Final Term	141	37.74	13.87

2) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for gender?

A Factorial Analysis of Variance (ANOVA) was conducted to evaluate the effects of gender on the moral integrity development of first term and final term nursing students. The means and standard deviations for moral development by term and gender

are presented in Table 4. Because there was not a significant interaction effect for term and gender, $F(1,296) = 2.12, p = 0.14, \eta^2 = .01$, the term and gender main effects were interpreted. This analysis revealed a significant main effect for term, $F(1,296) = 28.11, p = 0.00, \eta^2 = .09$ but not for gender, $F(1,296) = 0.21, p = .65, \eta^2 = .00$. The Partial Eta squared for the significant term effect was found to be moderate (Cohen, 1988) and indicated that approximately nine percent of the difference in moral development is due to term. These findings suggest that moral development significantly differs from first term ($M = 28.43, SD = 14.02$) to final term ($M = 37.74, SD = 13.87$) in nursing students at two year colleges but gender is not a significant variable effecting that difference.

These results further indicate that there is not a statistically significant difference between moral development of males and females when controlling for term. Practically speaking, whether nursing students are male or female, there is a difference in moral development over the course of the nursing program. Table 4 illustrates that there is a significant difference in the means of moral development between first term and final term nursing students no matter the participant's gender. But the difference is approximately the same in male students (25.03 to 39.57) as those students who are female (29.15 to 37.39). Practically speaking when controlling for gender, there is a significant difference in moral development between first term and final term nursing students.

Table 4. Means and Standard Deviations for Moral Development: Term and Gender

Dependent Variable: Moral Development (N2 Score)				
Gender	Term	N	Mean	Standard Deviation
Males	First	28	25.03	16.25
	Final	23	39.57	12.81
Females	First	131	29.15	13.39
	Final	118	37.39	14.31
Totals	First	159	28.43	13.97
	Final	141	37.74	13.87

3) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for age (over 25 or younger than 25)?

An Analysis of Variance (ANOVA) was conducted to evaluate the effects of age on the moral integrity development of first term and final term nursing students. The means and standard deviations for moral development by term and age are presented in Table 5. Because there was not a significant interaction effect for term and age, $F(1,296) = 0.00, p = 0.97, \eta^2 = .00$, the term and age main effects were interpreted. This analysis revealed a significant main effect for term, $F(1,296) = 12.15, p = 0.00, \eta^2 = .94$ and a significant main effect for age, $F(1,296) = 10.70, p = 0.00, \eta^2 = .90$.

The Partial Eta squared for the significant term effect was found to be large at .6 (Cohen, 1988) and indicate that approximately four percent of the difference in moral development is due to term and approximately four percent of the difference in moral

development is due to age. Less than one percent of the moral development is due to the interactive effect of term and age on moral development. These findings suggest that moral development is significantly different from first term to final term in nursing students at two year colleges in students under 25 years old ($M = 25.01$, $SD = 12.48$) and students 25 years old and older ($M = 34.84$, $SD = 14.53$) and that age during term is a significant variable effecting that difference.

Table 5. Analysis of Variance for Moral Development: Term and Age

Source	df	F	Sig.	Partial Eta Squared
Between Subjects				
Model	3	16.11	.00	.14
Term	1	12.15	.00	.04
Age	1	10.70	.00	.04
Term*Age	1	.00	.97	.00

Findings from these results suggest that when considering the influence of both age and term on moral development, both variables have an effect on moral development. There is a difference in the moral development when considering the influence of both age and term. Table 6 illustrates that there is a difference in the means of moral development between first term and final term nursing students but the difference is approximately the same in students under 25 years old (23.22 to 31.16) as those students over 25 years old (30.67 to 38.47). When looking at age, younger students score lower, on average, than older students. When considering the influence of both age and term on moral development, there is not a significant interaction.

Table 6. Means and Standard Deviations for Moral Development: Term and Age

Dependent Variable: Moral Development (N2 Score)				
Term	under 25, over 25	N	M	Standard Deviation
First Term	Under 25	48	23.22	12.25
	Over 25	111	30.68	14.12
Final Term	Under 25	14	31.16	11.63
	Over 25	127	38.47	13.95
Total	Under 25	62	25.01	12.48
	Over 25	238	34.84	14.53

4) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in higher education?

An Analysis of Variance (ANOVA) was conducted to evaluate the effects of prior college experience on the moral integrity development of first term and final term nursing students. Table 7 illustrates that there is a significant interaction between term and prior college experienced, $F(1,296) = 4.80, p = 0.03, \eta^2 = .02$. This analysis revealed a significant main effect for term $F(1,296) = 14.14, p = 0.000, \eta^2 = .05$ and prior college experience $F(1,296) = 14.68, p = 0.00, \eta^2 = .05$. Partial Etas squared for the significant term effect was found to be moderate at .6 (Cohen, 1988) and indicated that approximately five percent of the difference in moral development is due to term and approximately five percent of the variability in the moral development scores is due to prior experience in higher education. Approximately two percent of the difference in

moral development is explained by the interaction of term and prior experience in higher education.

Table 7. Analysis of Variance for Moral Development: Term and Experience in Higher Education

Source	df	F	Sig.	Partial Eta Squared
Between Subjects				
Model	4	14.33	.00	.16
Term	1	14.14	.00	.05
Experience in Higher Ed	1	14.68	.00	.05
Term*Experience Higher Ed	1	4.50	.03	.02

These findings suggest that means of moral development from first term to final term in nursing students at two year colleges are significantly different and that students with prior college experience have a larger difference in the means of their moral development scores first term to final term than the students with no prior college experience.

However, there were not large differences between students with some and no prior college experience during the final term.

The means and standard deviations for moral development by term and prior college experience are presented in Table 8. There is a statistically significant interaction between moral development of the nursing student with prior college experience and student without prior college experience when considering first term and final term development. Practically speaking, the moral development of a nursing student with prior college experience is much higher than the moral development of a nursing student

without prior college experience during the final term. However, there were not large differences between students with some and no prior college experience during the first term.

Table 8. Mean, Standard Deviation for Moral Development: Term, Experience Higher Ed

Dependent Variable: Moral Development (N2 Score)				
Term	Experience Higher Ed	N	Mean	Standard Deviation
First Term	None	29	25.98	10.60
	Some	29	28.98	14.65
Final Term	None	33	28.54	12.63
	Some	108	40.56	13.04
Total	None	62	27.34	11.70
	Some	237	34.25	15.06

5) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in health care?

An Analysis of Variance (ANOVA) was conducted to evaluate the effects of prior health care experience on the moral integrity development of first term and final term nursing students. Table 9 illustrates there was not a significant interaction effect for term and prior health care experience, $F(1,296) = 0.47, p = 0.50, \eta^2 = .00$, consequently, the term and prior health care experience main effects were interpreted. This analysis revealed a significant main effect for term, $F(1,296) = 29.78, p = 0.00, \eta^2 = .09$ and not a

significant main effect for prior health care experience, $F(1,296) = .36, p = .55, \eta^2 = .00$.

The Partial Eta squared for the significant term effect was found to be moderate at .6 (Cohen, 1988) and indicated that approximately nine percent of the difference in moral development is due to term and approximately less than one percent of the difference in moral development is due to prior experience in health care. Less than one percent of the moral development is due to the combined effect of term and prior health care experience on moral development.

Table 9. Analysis of Variance for Moral Development: Term, Health Care Experience

Source	df	F	Sig.	Partial Eta Squared
Between Subjects				
Model	3	11.40	.00	.10
Term	1	29.78	.00	.09
Experience in Healthcare	1	.36	.55	.00
Term*Experience Healthcare	1	.47	.50	.00

The means and standard deviations for moral development, term and prior health care experience are presented in Table 10. These findings suggest that moral development is significantly different from first term ($M = 29.08, SD = 13.64$) to final term ($M = 37.70, SD = 13.52$) in nursing students at two year colleges and that prior health care experience is not a significant variable effecting that difference. Practically speaking, the moral development of a nursing student with prior health care experience is not different than the moral development of a nursing student without prior health care experience over the course of the nursing program.

Table 10. Means and Standard Deviations for Moral Development: Term and Prior Health Care Experience

Dependent Variable: Moral Development (N2 Score)				
Term	Healthcare Exp	N	M	SD
First Term	None	144	29.08	13.64
	Some	45	26.77	14.80
Final Term	None	103	37.70	13.52
	Some	38	37.86	14.99
Total	None	217	33.17	14.22
	Some	83	31.85	15.80

6) Does the moral integrity development, as measured by Rest's Defining Issues Test-2 (DIT-2), differ in first term nursing students as compared with final term nursing students at two-year colleges, when considering grade point average?

An Analysis of Covariance (ANCOVA) was conducted to evaluate the effects of moral development of first term and final term nursing students while controlling for grade point average. This analysis revealed a significant main effect for term, $F(1,296) = 34.94, p = 0.00, \eta^2 = .11$ but not a significant effect for the grade point average covariate, $F(1,296) = 1.92, p = 0.17, \eta^2 = .01$. The Partial Eta squared of 0.11 for the term effect is small (Cohen, 1988) and indicated that approximately eleven percent of the difference in moral development is due to term. These findings suggest that moral development is significantly different from first term to final term in nursing students at two year colleges but grade point average is not a significant influence on that difference. There is not a statistically significant difference between moral development of the

nursing student when considering first term and final term development when considering grade point average.

Table 11 illustrates the R Squared statistic and indicates that regardless of term in the nursing program, there is a very weak relationship between the grade point average and moral development in nursing students over the course of the program. With this data, the grade point average is approximately normally distributed. The sample had a mean grade point average of 3.56 with a range of 2.5 - 4.0. Consequently, this sample already possessed a high range of grade point averages. The small R squared value indicates no correlation between term and grade point average.

Table 11. Means and Standard Deviations for Moral Development: Term, Grade Point Average

Source	Mean	Standard Deviation
Term	1.46	.50
Grade Point Average	3.58	.31

R squared = .11 (Adjusted R squared = .10)

Regression Analysis

This researcher used a stepwise multiple regression to investigate the strength of the relationship between each of the five variables to moral development. Although this analysis is not related to a specific research question, this researcher sought further analysis to the relative importance of all of the variables related to moral development.

This researcher manually entered the variables and allowed the computer to analyze the order in which each variable was analyzed. With each regression analysis, the most nonsignificant variable was eliminated and the analysis continued. Table 12 illustrates the multiple regression findings.

Table 12. Summary of Variable Regression Analysis Dependent Variable: Moral Development

	Variable	df	F	Sig.
Step 1	Term*College Experience	1	5.57	.02
	Grade Point Average	1	.47	.50
	College Experience	1	12.23	.00
	Age	1	11.55	.00
	Term	1	8.23	.00
	Gender	1	.45	.50
	Experience in Healthcare	1	.36	.55
Step 2	Term*College Experience	1	5.27	.02
	Grade Point Average	1	.65	.42
	College Experience	1	11.93	.00
	Age	1	11.25	.00
	Term	1	8.78	.00
	Gender	1	.41	.53
Step 3	Term*College Experience	1	4.97	.03
	Grade Point Average	1	.66	.42
	College Experience	1	12.39	.00
	Age	1	11.27	.00
	Term	1	9.27	.00
Step 4	Term*College Experience	1	5.58	.02
	College Experience	1	12.70	.00
	Age	1	11.48	.00
	Term	1	8.68	.00

Results presented in Table 12 show that the interaction between college term and prior college experience suggests that moral development of nursing students as assessed by the DIT-2 is dependent on the level of college experience and term. The difference in moral development between first term ($M=28.43$) and final term ($M=37.74$) nursing students is significant. In students with no prior college experience, the difference in moral development in first term nursing students compared to final term nursing students ($M = 25.98$ and $M = 28.54$) is a less than the difference of the moral development of first term nursing students with prior college experience to final term nursing students with prior college experience ($M = 28.98$ and $M = 40.56$). Likewise, the difference in the moral development of first term nursing students under 25 years old to final term nursing students under 25 years old ($M = 23.22$ and $M = 31.16$) is about the same difference observed in the difference in moral development in first term nursing students over 25 years old to final term nursing students over 25 years old ($M = 30.68$ and $M = 38.47$).

Students having prior experience in health care settings, grade point average, and gender have a weak influence on moral development in this sample of nursing students but the term variable, age, and the interaction of term and college experience were significant.

Internal Validity Issues

Independent samples were used to survey the first term and final term nursing students. This research could be strengthened using a longitudinal survey sample and collecting data from the same individuals during their first term and final term in a two year college's nursing program.

Chapter Summary

At eight colleges awarding associate degrees in nursing, 159 first term nursing students and 141 final term nursing students were surveyed to determine if there is a difference in moral development in students over the course of their nursing education. After statistical analysis of the sample data, it was determined that there is a difference in moral development in final term nursing students as compared with first term nursing students. While gender, prior healthcare experience and grade point average did not have a significant effect with moral development, prior college experience and age did make a difference in the moral development with this sample of associate degree nursing students.

CHAPTER FIVE

CONCLUSIONS

Introduction

The moral development of individuals preparing to practice nursing is important. This research found the moral development scores of associate degree-seeking nursing students completing their final term of nursing education were higher than the scores of associate degree-seeking nursing students in their first term of nursing education for this sample. Regardless of whether the profession of nursing attracts people with integrity or through their nursing education, students develop moral integrity; this research demonstrated that there is a difference in this sample's moral integrity in final term nursing students compared to the moral integrity of first term nursing students.

Summary of Problem, Methodology, Results and Conclusions

As one of the most trusted professions in our country, nurses are expected to have professional decision making capabilities and uphold a level of integrity when interacting with the patients they serve. Using a cross sectional research design and Rest's Defining Issues Test – 2, this research investigated the following six questions: 1) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year colleges? 2) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year

colleges, when controlling for gender? 3) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for age (over 25 or younger than 25)? 4) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous experience versus no other experience in higher education? 5) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year colleges, when controlling for previous work experience versus no other work experience in health care? 6) Does the moral integrity development differ in first term nursing students as compared with final term nursing students at two-year colleges, when considering grade point average?

This research supports that there is a difference in moral development of nursing students between their first and final term in nursing school. The independent variables of prior college experience and age were also significant factors affecting this moral development.

Limitations of the Study

This research sampled two-year nursing students in one region of the United States. Further research is needed to continue to investigate the experience of two-year nursing students in different regions of the United States and beyond.

This research used a cross sectional design using one sample of first term nursing students and a different sample of final term nursing students. Differences in the research

results could be attributed to the utilization of two differing samples. Future research using a longitudinal sample of nursing students, surveying them during both their first and final term of their nursing education could eliminate potential variables associated with using different samples.

This research incorporated the use of Rest's Defining Issues Test – 2 (DIT-2) as instrumentation to evaluate the degree of moral development in the subjects sampled. In the review of literature, there were other tools identified that had been used to investigate the moral development of college students, specifically nursing students. Further research is needed to continue to develop the body of research investigating moral development in nursing students. A variety of instrumentation may discover further information about moral development and may specifically identify other independent variables involved in the moral development of nursing students.

Discussion of the Broader Implications

Theory. The cognitive development theory of Piaget and the moral development theory of Kohlberg were used as part of the framework for this research. Both Piaget's and Kohlberg's research was based on the findings from male participants only. Specifically, Kohlberg ((Evans, Forney & Guido-DiBrito 1998) identified objectivity, justice and individualism as significant characteristics in the moral development of men.

Gender-specific research involving the moral development uncovered differences between the moral development of men compared to women. Gilligan (1982) found that women identified responsibility, relationship, connection and caring in their own personal

moral development. Contrary to prior moral development theory and gender, this research provides some evidence that gender was not a significant variable in the moral development of men compared to women in this sample. Males and females differed much less than expected in the moral development process for this sample

The theory of being and becoming, as developed by Rosemarie Parse (1982) suggested that when people are open to the world, present and involved in the world, a person creates personal meaning. Parse (1982) also stated that a person is growing and developing with each encounter in his or her life, thus giving meaning to the individual within each new situation. This research provides evidence that the moral development of first term nursing students is different than final term nursing students in this sample. Since educational experiences, but not prior health care experience, were found to affect moral development scores, this research suggests that there may be something particularly powerful about educational environments.

Several prior researchers investigated applied Kohlberg's theory of moral development to the moral development in college students (Evans, Forney & Guido-DiBrito, 1998; Feldman & Paulsen, 1998; and Pascarella & Terenzini, 1991). These researchers investigated the moral development in college students and reported a difference in moral development during the course of college education. Researchers also reported a difference in moral development with beginning baccalaureate nursing students to nursing students finishing their nursing baccalaureate education (Evans, Forney & Guido-DiBrito, 1998; Feldman & Paulsen, 1998; and Pascarella & Terenzini, 1991). While prior research also revealed a relationship between grade point average and

moral development, prior research did not investigate the moral development of nursing students in two-year colleges. This research did not support the relationship between grade point average and moral development.

This research does support this prior research by providing some evidence that there is a difference in the development of moral character during the college experience, specifically comparing first term nursing students' moral development to final term nursing students' moral development. This research also discovered the independent variables of previous experience in higher education and age were significant. The independent variables of gender, prior health care experience, and grade point average were not found to be significant variables in the process of moral development in this research.

The college experience, age, and having prior experience in a higher education system were significant in the process of moral development for this sample. This finding supports the theory of moral development in adulthood. This research supports Piaget's Cognitive Development theory, Kohlberg's theory of moral development, and Parse's theory of Human Becoming by providing some evidence that moral development is different between first term and final term nursing students and age and prior college experience were significant variables. This new research offers some evidence and thus support for these theories while adding to the body of knowledge about a specific sample of two year nursing students and creating new knowledge.

Implications for Future Research. The process of educating a nursing student is important to the student's moral development. Prior research investigating the moral development of nursing students identified education, academic level, age, grade point average, and public versus private schools as significant independent variables in their development (Roell 1982). Gender, grade point average and prior college experience were the significant independent variables identified by Duckett (1997). This research provides evidence supporting prior research that college experience, age and 'academic level' are significant to the moral development in college students. This research did not provide evidence that gender and grade point average were significant variables. Both Roell (1982) and Duckett (1997) used longitudinal studies to measure the change in moral development in students and this method may have influenced the outcomes of their findings.

There are a number of other variables not isolated in this research that could uncover greater influence on the moral development of nursing students. Future research may consider a number of other variables, such as public versus private colleges, learning styles of students, teaching styles of faculty, the presence of honor codes or mentoring programs, and the presence and extent of ethics in the program's coursework that may influence the moral development of nursing students in two year programs. Future researchers may also want to consider the variables identified by Kelly (1998) in her descriptive study. Kelly investigated nurses at work two years post graduation and uncovered role models in school and in the work setting, availability of ethics

committees, and professional expectations as influences on their moral values and ethical role building.

While this research used an age category of under 25 years of age and 25 years old or older, future research should consider identifying specific age in years by each participant. This data could provide researchers more detailed and specific data regarding the participant population and may uncover any currently unknown variations specific ages may have on moral development.

Future research investigating moral development in nursing students may consider where and when the students obtain prior college experience. Researchers should investigate if prior college experience ten, twenty, thirty or more years ago has a similar influence on moral development as college experience within the last two years. All participants in this research were currently enrolled at public institutions. Future research should also consider if there is a difference in the moral development of nursing students at public versus private institutions.

This research did not investigate the teaching styles of the faculty involved in the delivery of the nursing programs involved in this study. This research did not consider the learning styles of nursing students in general or the specific learning styles of the students participating in this research. Future research investigating the moral development of nursing students should consider incorporating a tool to indicate learning style of the students, teaching style of faculty and both of these variables' influence on moral development

This research did not investigate nor consider variations in nursing curriculum and the possible influence curriculum may have on the moral development of nursing students. The combination of curriculum, teaching styles of faculty and the learning styles of nursing students and the individual and interactive effect on moral development of nursing students may be fascinating research work.

This research did not investigate the existence of any mentoring programs within the nursing schools involved in this research. Future researchers might consider investigating the moral development of the mentor and mentee nursing students in programs with mentoring programs. It would be interesting to analyze the findings of mentor's moral development, mentee's moral development and assess if there was any difference in the moral development of each over the passage of time.

Honor codes were not investigated in this research but the existence of honor codes and the influence of such codes on the moral development of nursing students at institutions with honor codes would be valuable additional findings regarding the moral development of nursing students (Davis 1996). If evidence supported the positive influence of honor codes on moral development, this evidence could guide program and institutional resource use to develop and implement honor codes.

This research did not investigate admission criteria used at the participating programs. Antidotal evidence suggests grade point average is used as admission criteria to nursing programs. Some programs may give advanced standing to applicants that have prior healthcare experience. This research did not provide evidence that prior health care experience or grade point average made a difference in the development of one nursing

characteristic: moral development. Future research might investigate the incidence of the use of grade point average and prior health care experience as admission criteria for nursing programs.

Future research could also investigate moral development from a qualitative perspective. Future researchers might want to conduct a qualitative study to discover more in-depth information from the students' perspective and investigate what happens regarding moral development during their nursing education.

Nursing faculty need to know that moral development was different over the course of nursing education for this sample of students. Nursing researchers could use this knowledge to replicate findings to their specific college. Nurse researchers could uncover further evidence that supports tailoring course content, delivery styles, and clinical application to further stimulate moral development by replicating the quantitative methods used in this research and pairing qualitative methods to uncover specific reasons why some variables affect moral development and some variables do not affect moral development in nursing students.

With nursing content, such as disaster training, nursing faculty could specifically apply moral development to global health care issues. Moral development could be applied to a variety if not all of the decision making processes in nursing education leading to sound nursing practice.

Practice. Nurse educators need to know this research found age, prior college experience, and that the nursing education process is significant in the moral

development of nursing students. Nurse educators may want to consider implementing a mentoring program for those students who are younger, in their first terms of nursing school or students who have no prior college experience. These students may need extra intervention, such as navigating the college experience in their first term, to successfully develop their moral decision making abilities in the nursing profession. It may be that the work of navigating the higher education system was known and higher cognitive functions could develop, such as moral reasoning in the participants that scored higher in their moral development.

This research provided evidence that there is a higher moral development in final term nursing students compared to first term nursing students in this sample. Nursing faculty may want to assess the content of their nursing program and assess the delivery and application of moral decision making within the coursework. Nursing faculty should consider moral decision making applications in graduated complexity to stimulate thought and application or moral decision making in nursing students.

Chapter Summary

This research provides evidence that the educational process did effect the moral development of first term nursing students is different compared to final term nursing students in two-year colleges in this sample studied. Prior experience in higher education and age were significant variables in the moral development of this sample. Further research is needed to continue to add to the body of research knowledge uncovering the experience of students in two-year colleges.

Nursing faculty need to know that moral development is different over the course of nursing education for this sample of students. Nursing faculty could use this knowledge to replicate findings to their specific college. Nursing faculty could further aid in moral development by tailoring course content, delivery styles, and clinical application to further stimulate moral development.

The moral challenges facing nurses are constantly changing. Decisions made by health care professionals during the Katrina disaster and the attacks on September 11, 2001 are examples of the ever changing environment in which nurses practice demanding moral development and decision making abilities. In order to continue to prepare the highest quality nurses, nurse educators need to remain informed about the influences in the development of moral decision making in the education of nursing students.

REFERENCES

- American Association of Colleges of Nursing. (2007). *Nursing shortage fact sheet*. Retrieved January 22, 2007 from <http://aacn.nche.edu/Media/Backgrounders/shortagefacts.htm>
- American Nurses' Association. (2001). *Code of ethics for nurses with interpretive statements*. Washington, D.C.: American Nurses' Publishing.
- American Nurses' Association. (2004). *Mission and vision statement with interpretation*. Retrieved August 4, 2004 from <http://www.ana.org/mission>.
- Arangie-Harrell, P.A.R. (1998). *Moral development among college nursing students: Cognitive and affective influences*. Dissertation Abstracts International Section A: Humanities & Social Sciences, 59(9A), 3343.
- Bebeau, M.J. & Thoma, S.J. (2003). *Guide for DIT-2*. Minneapolis, MN: Center for the Study of Ethical Development at the University of Minnesota.
- Bebeau, M.J., Thoma, S.J., & Narvaez, D. (2006 March). Instruments, services, and materials. *Center for the Study of Ethical Development*. Retrieved from <http://www.centerforthestudyofethicaldevelopment.net/Instruments,%20Services>
- Berube, M., Pickette, J. P., Pritchard, D. R., & Leonesio, C. (Eds.). (2004). *The american heritage college dictionary*. (4th Ed.). Boston: Houghton Mifflin.
- Booth, D.E. & Hoyer, P.J. (1992). *Cheating: Faculty responsibilities when integrity fails*. *Nursing Outlook*, 40(2), 86-93.
- Bush, D.K. (2000). *An examination of how selected colleges and universities promote student academic integrity*. University of Virginia.
- Callahan, David. (2004). *The cheating culture*. Orlando, FL: Harcourt.
- Carroll, J. (2005). *Nurses are the most trusted professional, says gallup poll*. Retrieved July 15, 2005, from <http://www.gallup.com/poll/relaears/pr031201.asp>
- Center for Academic Integrity. *Fundamental values of academic integrity*. Retrieved October 10, 2004 from <http://www.academicintegrity.org>.
- Center for the Study of Ethical Development. *Instruments, Services, and Materials*. Retrieved February 20, 2006 from <http://centerforthestudyofethicaldevelopment.net/Instruments,%20Services,%20>

- Cody, W.K. & Mitchell, G.J. (1992). *Parse's theory as a model for practice: The cutting edge*. *Journal of Advanced Nursing Science*, 15(2), 52-65.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Mahwah, NJ: L. Erlbaum Associates.
- Cole, C.A. (2002). *Academic dishonesty among college students: Themes of the professional literature 1950—1997*. Austin, TX: The University of Texas.
- Davies, M. (1996). *The case for a student honor code and beyond*. *Journal of Professional Nursing*, 12(1), 24-30.
- Duckett, L., Rowan-Boyer, M., Ryden, M.B., & Crisham, P. (1992). *Challenging misperceptions about nurses' moral reasoning*. *Nursing Research*, 41(6), 324-331.
- Duckett, L., Rowan, M., Ryden, M., Krichbaum, K et al. (1997). *Progress in the moral reasoning of baccalaureate nursing student between program entry and exit*. *Nursing Research*, 46(4), 222-229.
- Duckett, L., & Ryden, M.B. (1994). *Education for ethical nursing practice*. In Moral development in professions: Psychology and applied ethics. Rest, J. & Narvaez, D. (Eds). Hillsdale, NJ: Engandiates, Inc.
- Enteman, W.F., (1979). The integrity of the student: A normative approach. In C.C. Walton & F. W. Bolman (Eds.). *Disorders in higher education* (pp. 143-165). Englewood Cliffs, NJ: Prentice-Hall.
- Evans, N.J., Forney, D.S., & Guido-DiBrito, F. (1998). *Student development in college: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.
- Feldman, K.A. & Paulsen, M.B. (1998). *Teaching and learning in the college classroom*. (2nd Ed.). Boston: Pearson Custom Publishing.
- Gallop Poll.(n.d.). *2007 Gallop Poll*. Retrieved January 18, 2007, from <http://www.gallup.com/poll/relears.asp>
- Gambill, S.T. (2003), *Discouraging academic dishonesty: Perceived best practices for one liberal arts college*. University of Virginia.
- Gilligan, C. (1982). *In a different voice*. Cambridge, MA: Harvard University Press.

Gilligan, C. & Lyons, N.J. & Hanmer, T.J. (1990). (Eds.). *Making connections: The relational world of adolescent girls at Emma Willard school*. Cambridge, MA: Harvard University.

Gliner, J.A., & Morgan, G.A. (2000.). *Research methods in applied setting: An integrated approach to design and analysis*. Mahwah, NJ: Lawrence Erlbaum Associates.

Ham, K.L. (2002). *A comparison of ethical reasoning abilities of senior baccalaureate nursing students and experienced nurses*. Memphis, TN: University of Memphis

Healy, M.A. & Liddell, D.A. (1998). *The developmental conversation: Facilitating moral and intellectual growth in our students*. In *New Directions for Student Services*. San Francisco, CA: Jossey-Bass.

Hirschmann, D.L. (1991). *Moral reasoning of nurses: Care perspective versus justice perspective*. Reno, NV: University of Nevada.

Johnston, B.A. (1994). *The relationship of moral development and selected variables to ethical decision-making in baccalaureate nursing students*. Hempstead, NY: Hofstra University.

Jones, C.E. & Watt, J.D. (1999). *Psychological development and moral orientation among traditional-aged college students*. *Journal of Student Development*, 40(2), 125-131.

Kerka, S. (1993). *Women, human development, and learning*. No. EDO-CE-93-139. Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education.

Kelly, B. (1998). *Preserving moral integrity: A follow-up study with new graduate nurses*. *Journal of Advanced Nursing*, 28(5), 1134-1146.

Kinney, D. (1999). *Cultural variability in perceptions of cheating*. University of Southern California.

Lathrop, A. & Foss, K. (2000). *Student cheating and plagiarism in the internet era: A wake-up call*. Englewood, CO: Libraries Unlimited.

Levy, K.W. (1993). *Moral Development of women in nursing*. Fresno, CA: California State University.

Liddell, D.A. (1990). *Measure of moral orientation: Construction of an objective instrument measuring care and justice, with an investigation of gender differences*. Unpublished dissertation. Auburn University.

Microsoft Encarta Encyclopedia. (2003). Redmond, WA: Microsoft.

Mitchell, M.M. (1990). *Nursing educator's commitment to the profession's values and beliefs as perceived by nursing students*. Dissertation Abstracts International, 50(8B), 3403-3404.

National Council of State Boards of Nursing. (2005). *Mission and vision with interpretive statements*. Retrieved September 24, 2005 from <http://www.ncsbn.org/missionandvision/>

Noah, H.J., & Eckstein, M.A. (2001). *Fraud and education: The worm in the apple*. Lanham, MD: Rowman and Littlefield.

Parse, R.R. (1998). *The human becoming school of thought: A perspective for nurses and other health professionals*. Thousand Oaks, CA: Sage Publications.

Pascarella, E.T. & Terenzini, P.T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.

Pascarella, E.T. & Terenzini, P.T. (2005). *How college affects students: A third decade of research. Vol. 2*. San Francisco, CA: Jossey-Bass.

Peter, E.H. (1991). *Moral orientation: A comparison of nursing and medical students*. Toronto, Ontario: University of Toronto.

Piaget, J. (1966). *The moral judgment of the child*. New York: Free Press.

Rest, J. (1979). *Revised manual for the defining issues test: An objective test of moral judgment development*. Minneapolis, MN: Minnesota Moral Research Projects.

Rest, J. and Narvaez, D. (1994). (Eds.). *Moral development in the professions: Psychology and applied ethics*. Hillsdale, NJ: Erlbaum.

Roell, S. (1982). *Moral development levels of university education graduate and undergraduate nursing students*. Dissertation Abstracts International, 43(3A), 736-737.

Russian, J.A. (2003). *Academic dishonesty in baccalaureate nursing students in the midwest*. Indiana State University.

Scott, K. (2001). *Academic dishonesty: The impact of honor codes on cheating as perceived by student leaders in selected texas universities*. Austin, TX: Texas A&M University.

Sheer, B.L. (1989). *The relationships among socialization, empathy, autonomy, and unethical student behaviors in baccalaureate nursing students*. Widener University School of Nursing.

Sivberg, B. (1998). *Self perception and value system as possible predictors of stress*. *Nursing Ethics*, 5(2), 103-121.

Weis, D. & Shank, M.J. (2000). *An instrument to measure professional nursing values*. *Journal of Nursing Scholarship*, 32(2), 201-204.

Whitney, B.E. & Keith-Spiegel, P. (2002). *Academic dishonesty: An educator's guide*. Mahwah, NJ: Lawrence Erlbaum Associates.

Yeap, C.H. (2000). *An analysis of the effects of moral education interventions on the develop of moral cognition*. Minneapolis, MN: University of Minnesota.

APPENDICES

APPENDIX A

INVITATION LETTER TO PARTICIPANTS

CONSENT FORM

May 2006

Hello,

My name is Ellen Wirtz and I am a graduate student at Montana State University – Bozeman pursuing a Doctoral degree in Higher Education. I am also a nurse. Throughout my studies I have become interested in the topics of integrity and moral development in nursing students and if age, gender, and/or nursing curriculum might effect the moral development of nursing students. I am conducting some research this spring and fall investigating the moral development of nursing students. Specifically, I want to know if the moral development of first-term nursing students differs from final-term nursing students. I also want to know if male nursing student moral development differs from female nursing student development and if age may be a factor.

As a first-term or final-term nursing student, I invite you to assist me in investigating the moral development in nursing students. The criteria for this research study are 1) you must be enrolled in either the first-term or the final-term of an associate degree nursing program, 2) you must be a nursing student at one of the colleges agreeing to participate in this research, and 3) you must read and understand English to complete the Defining Issues Test-2 (DIT-2) and demographic profile provided. If you meet these criteria, I hope you will agree to participate in this study.

Attached is a brief description of the research study and consent form. By completing the DIT-2 questionnaire and demographic profile, you consent to participate in this research study. There is no further time commitment expected from the participants in this research study.

You may also contact Dr. Mark Quinn, Chair of the Human Subjects Committee at Montana State University-Bozeman 406-994 5721 or mquinn@montana.edu if you have any further questions or concerns.

Thank you for considering participation in this research study. Please do not hesitate to contact me if you have any questions.

Sincerely,

Ellen F. Wirtz, RN, MN
MSU-B Doctoral Candidate
Department of Education
Bozeman, MT 59717
ewirtz@msn.com
(406) 994-6786

CONSENT FORM

Research: Moral Integrity Development of Nursing Students in Two-Year Colleges

Purpose: The purpose of this research study is to investigate moral development in first-term nursing students as compared with final-term nursing students. The researcher wants to investigate if curriculum, age, or gender effect the moral development of nursing students.

Participation: Participation in this research study is strictly voluntary and involves completing the Defining Issues Test-2 (DIT-2) research tool and a demographic form. These two questionnaires will take the participant approximately 60 minutes to complete and will be paired so the researcher can identify age and gender only to the DIT-2 tool. Participants will be free to ask any questions, decline to answer any question, or withdraw from the research process at any time. The questionnaire (DIT-2) will investigate moral development in the participant and a short, demographic questionnaire will gather some simple background information. There will be only one time commitment for the participant of this research.

Benefits: There are no immediate benefits to the participant in this research study, although participants may gain an understanding into his/her moral development as a nursing student. Your participation may also benefit the practice of nursing and nursing education by assisting in the understanding of moral development in nursing students and possible effects of age and gender. There is no financial cost or financial compensation to the participant.

Risks: There are no physical risks to the participant in this study, but there may be some anxiety associated with the questionnaire (DIT-2) completion process, revealing personal thoughts and feelings associated with moral development and decision making. There is also the inconvenience involved because of the time needed to complete the questionnaires. Should the participant experience any anxiety or feel uncomfortable at any time, the participant is free to stop completing either questionnaire at any time.

Protection of Subjects: The anonymity of the participant will be maintained at all times. All the information obtained from this research study will remain confidential. The participant's DIT-2 and demographic data will be paired. The questionnaires will be stored in locked files at Montana State University – Bozeman Department of Education and accessible only to the researcher and her dissertation committee. There will be no identifying information on any of the written materials. The participants will not be identified in any publication, report, or presentation resulting from this research. You may call the researcher any time with questions or concerns involving this research. You are free to request a copy of the completed study.

I have read the above statements and I voluntarily consent to participate in this research study. I understand that I am free to ask questions and stop the questionnaire competition process at any time or withdraw from the research. I understand that by completing the questionnaire and demographic form, I am consenting to participate in this research study.

Signature of participant

Ellen F. Wirtz, RN, MN
Doctoral Candidate
Montana State University
ewirtz@msn.com (406) 994-6786

APPENDIX B

DEMOGRAPHIC DATA SHEET

MONTANA STATE UNIVERSITY-BOZEMAN
Department of Education

Demographic Data

Defining Issues Test – 2

FIVE DIGIT NUMBER (Paired with your DIT-2) _____

Birth date: _____ Under 25 years old: _____ 1
(month, day, year) 25 years or older: _____ 2

Gender: _____ Male 1
_____ Female 2

Nursing Student: _____ Yes 1
_____ No 2

Term in Nursing Program: _____ First Term in Nursing 1
_____ Last Term in Nursing 2

Is this your first experience in a college _____ Yes 1
_____ No 2

Current estimated Grade Point Average (GPA) _____ (0.0-4.0)

Do you have any previous experience in the health care
(work in health care, as a patient, friend or family
member works in health care) _____ Yes 1
_____ No 2