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Education and Experience in Nursing Professional Values Development

Heidi A. Monroe
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2017

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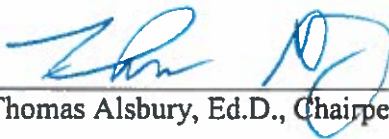
A dissertation submitted in partial fulfillment of the requirements for the degree of

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Approved by



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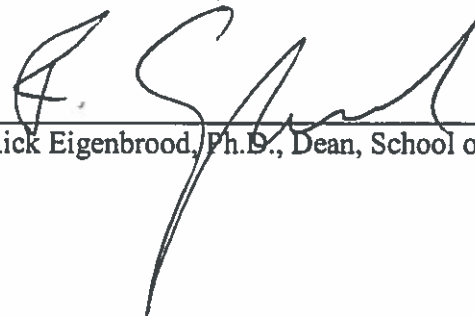
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Signature Heidi A. Murwe

Date 6/1/17

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The world is so empty if one thinks only of mountains, rivers and cities; but to know someone who thinks and feels with us, and who, though distant, is close to us in spirit, this makes the earth for us an inhabited garden.

Johann Wolfgang von Goethe

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Abstract

Education and Experience in Nursing Professional Values Development

by

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Chairperson: Thomas Alsbury, Ed.D.

The nursing code of ethics (American Nurses Association [ANA], 2015) defines professional values for the nurse, but educational differences experienced by nursing students as well as varied work experiences after licensure may affect development of those values. The purpose of this study was to measure the professional values of practicing registered nurses (RNs) in the state of Washington (WA) using the Nurses Professional Values Scale-Revised (NPVS-R; Weis & Schank, 2009), and to determine if their values were significantly related to variables of education and experience. Independent variables in this study were type of pre-licensure nursing program, pre-licensure ethics curriculum method, hours of post-licensure ethics education, and years of RN work experience. Rest's (1994) Four Component Model theory of professional moral development provided a foundation for this study of professional nursing values. The author used a causal comparative research design to examine relationships between variables of interest, and invited RNs with active licenses and email addresses on file with the state to participate in an online survey. Findings suggested professional values of nurses in WA were similar to those reported in other studies. The author found no statistically significant relationship between type of pre-licensure nursing program and strength of professional values ($\eta^2 = .003$), and identified no significant difference between nurses who had a standalone nursing ethics course during pre-licensure curricula and those who experienced curricula with integrated nursing ethics (Cohen's $d =$

.03). Professional values did vary significantly based on years of nursing experience ($\eta^2 = .01$), and there was a significant, modest, positive relationship between professional values and amount of time spent by the nurse in post-licensure ethics education ($r^2 = .02$).

Findings in this study suggest that providing education and support to practicing nurses for development of strong professional values may have positive enduring consequences and curriculum factors prior to gaining the initial nursing license may be of lesser importance.

This study may have application for health care leaders and educators to promote support for ongoing workplace investment in ethics education for practicing nurses.

Keywords: registered nurse, ethics education, professional values, NPVS-R, curriculum, work experience, degree

Chapter One: Background

Every newly licensed registered nurse (RN) in the United States (U.S.) is expected to be fully prepared to practice as a professional guided by an understanding of a common code of ethics (ANA, 2015). Difficult patient care decisions are made by interdisciplinary health care teams as well as by family members and patients themselves. Nurses in particular are at the forefront of daily ethical decisions, both large and small, by virtue of their close physical proximity, the nature of the intimate care they deliver, and the relational position they hold in the lives of their patients (ANA, 2015; Gilkey, Earp, & French, 2008). The *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2015) provides students and educators, as well as practicing nurses, an explication of the “primary goals, values, and obligations of the profession” (p. 5). This code of ethics describes a moral code and set of expected professional values for nurses, and for the purposes of this study the terms *professional values*, *morals* and *nursing ethics* are used interchangeably. The American Association of Colleges of Nursing (AACN, 2008) stated that “...professional values epitomize the caring, professional nurse. Nurses, guided by these values, demonstrate ethical behavior in patient care” (p. 27). The code (ANA, 2015) addresses a variety of terminology used in ethics, and reflects the nurse’s responsibilities in both routine, everyday ethical decisions and in broader, bioethical dilemmas.

Although the code implies uniformity among nurses and the expectation of a common understanding of professional values, RNs account for the largest sector of the health care provider workforce (AACN, 2016c; Health Resources and Services Administration, 2010) and great variations exist in the educational pathways to licensure in the 21st century. Individuals entitled to sit for the National Council Licensure

Examination (NCLEX) may have earned that eligibility via completion of one of several types of educational programs including (a) a traditional four-year baccalaureate program, (b) a fast-track program for second baccalaureate degrees, (c) a master's degree in nursing program for students with a bachelor's degree in another field, (d) a diploma program from a health care organization, or (e) an associate degree from a community college (Benner, Sutphen, Leonard, & Day, 2010). These programs vary in length – some can be completed in 14 months, and others may take four years. This variety of possible entry points to practice, and differences in length of programs, means great variation in nursing curricula, including how educators address particular content such as nursing professional values and ethics. Washington State offers 28 associate's, nine bachelor's, and two master's degree-entry nursing programs (Washington State Department of Health Nursing Care Quality Assurance Commission [WSDHNCQAC], 2015). Due to differences in degree and program, variation may exist in professional values development among licensed RNs in Washington.

After the nurse completes initial licensure, professional values are refined through the everyday work environment and nurses encounter a variety of nuanced situations requiring moral decision-making (Benner et al., 2010) that may or may not be specifically addressed in the code of ethics. The code is prescriptive in some areas, such as Provision 2.4 forbidding “dating or sexual relationships with patients...” (ANA, 2015, p. 7); however, the code is less explicit in other areas, such as the provision of quality patient care as described in Provision 1.3: “Optimal nursing care enables the patient to live with as much physical, emotional, social, and religious or spiritual well-being as possible and reflects the patient's own values” (p. 2). As working nurses accumulate

experience over time, they may internalize those professional values described in the code of ethics. This knowledge of the code, internalization of those values, and subsequent empowerment to implement those values may help to decrease or mitigate negative effects of morally challenging health care situations (Numminen, Leino-Kilpi, Isoaho, & Meretoja, 2015). Continuing education opportunities and organization-sponsored ethics inservice trainings may also contribute to the furthering of professional values development among practicing nurses (Lennon-Dearing, Lowry, Ross, & Allen, 2009; Ulrich et al., 2010).

The aim of this study is to determine if there is a statistically significant relationship between education and experience, and the professional values of practicing nurses in Washington State.

Statement of Problem

While the nursing code of ethics (ANA, 2015) defines professional values for the nurse, educational differences experienced by nursing students as well as varied work experiences after licensure may affect development of those values. It remains unclear how these differences relate to the level of nurses' professional values.

Pre-licensure education. Educational accrediting organizations mandate the incorporation of professional ethics into nursing curricula; however, how and to what degree this is achieved is inconsistently specified depending upon the accrediting organization (AACN, 2016b; Accreditation Commission for Education in Nursing [ACEN], 2013; National League for Nursing [NLN], 2016). The lack of standardized expectations means nursing programs do not use uniform reference points for evaluating their ethics curricula against accreditor requirements. Initiation into professional nursing

values occurs as a part of the educational processes students undergo prior to program completion, examination, and licensure (Benner et al., 2010; Benner, Tanner, & Chesla, 1996). Individual state boards of nursing, responsible for licensure and disciplinary action of nurses, incorporate professional values language into regulations and laws. The law in Washington State has stated, “each individual, upon entering the practice of nursing, assumes a measure of responsibility and public trust and the corresponding obligation to adhere to the professional and ethical standards of nursing practice” (Washington State Legislature, 2016, para. 1). Pre-licensure programs differ in many ways, including varied responsibilities to the accrediting organizations associated with these programs. For example, the accrediting arm of AACN, the Commission on Collegiate Nursing Education (CCNE) is responsible for baccalaureate degree granting programs, but does not accredit associate degree programs (AACN, 2016b); ACEN is the accreditation agency chosen largely by associate degree programs and few baccalaureate programs. The NLN requires curricula to support professional values development and professional identity formation, but lists the inclusion of the *Code of Ethics for Nurses* (ANA, 2015) as optional in the programs they accredit, noting it on a list of “professional nursing standards...that nursing faculty *may elect* to integrate into their program curricula” (p. 37). It is not known if nurses with differing entry-to-practice degrees in Washington State assign different levels of importance to professional values.

Schools of nursing across the nation vary significantly in what and how ethics content is taught to students, not only due to non-standardized accrediting organization expectations, but also to nurse educators’ varying degrees of interest in and comfort levels with the teaching of ethics content (Bartlett, 2013; Garity, 2009; Nolan & Markert,

2002). Additionally, while programs are expected to integrate nursing values development across the curriculum to some degree, some programs offer additional or focused standalone nursing ethics courses (Benner et al., 2010). Consequently, the potential exists for a wide variation in the level of ethics knowledge and ability of new nurses to apply ethical frameworks to health care situations. It is not known if differing curricular designs of pre-licensure ethics education affects professional values among practicing nurses in Washington State.

This study investigated the relationship of professional values of RNs in Washington State to pre-licensure programs and pre-licensure nursing ethics curricula.

Post-licensure experience and exposure. It is possible that professional values development is influenced by experience on the part of the nurse, or through exposure to further educational opportunities such as continuing education offerings, institutional inservices, or academic coursework. It is not clear from prior research if post-licensure variations significantly relate to discrepancies among practicing nurses in the workforce (Deshpande, Joseph, & Prasad, 2006; Dodd, Jansson, Brown-Saltzman, Shirk, & Wunch, 2004; Kubsch, Hansen, & Huyser-Eatwell, 2008), or if experience and longevity as a nurse is significantly related to professional values development (Gallegos & Sortedahl, 2015; Jansson et al., 2015; LeDuc & Kotzer, 2009; Schank & Weis, 2001). Some nurses may enjoy opportunities in their practice environment to participate in organization-sponsored ethics inservices, choose ethics-associated continuing education or certifications, or participate in nursing ethics programs in their workplace (Dodd et al., 2004; Seattle Children's Hospital, 2016; Settle, 2014; Ulrich et al., 2010). Graduate coursework may influence professional values development, as studies may include

additional professional values content and exploration (Gallegos & Sortedahl, 2015; Lennon-Dearing et al., 2009). This study investigated the relationship of professional values of RNs in Washington State to years of nursing experience and exposure to post-licensure ethics education.

Theoretical Framework

Professional values of nurses are developed through a variety of psychological and educational processes (Benner et al., 2010; Duckett & Ryden, 1994; McNeel, 1994). In this study, Rest's (1984) theory of moral development was used to explore the development of nurses' professional values. Rest generated a theory of inner processes related to moral development of the individual. He described these interactive processes as necessary precursors to moral action. His Four Component Model (Rest, 1994) includes (a) *moral sensitivity*, which involves interpreting a situation through imagining possible consequences, (b) *moral judgment*, which is a determination of which actions are morally justifiable, (c) *moral motivation*, which is deciding the action one intends to take, and (d) *moral character*, which is described as perseverance in executing moral action in the presence of obstacles or barriers.

In this study, three of Rest's (1994) four components - moral sensitivity, moral judgment, and moral motivation – formed the foundation to further understand nurses' assignment of importance to a variety of professional values based upon the *Code of Ethics for Nurses* (ANA, 2001). The Four Component Model, its relevance to professional moral development and specifically nursing ethics, and its influence on explanations of nursing ethics education, are discussed further in Chapter Two.

Purpose of Study

The purpose of this study was to measure the professional values of practicing RNs in the state of Washington using the Nurses Professional Values Scale-Revised (NPVS-R; Weis & Schank, 2009), developed from the *Code of Ethics for Nurses* (ANA, 2001), and to determine if their values were significantly related to certain distinctions. These distinctions included the type of nurses' education in ethics prior to gaining initial licensure, the obtained nursing degree at time of initial licensure, ethics education exposure since becoming licensed, and the number of years' experience as a RN.

Research Questions

This study investigated the following research questions, and associated null hypotheses:

1. What are the professional values, as measured by the NPVS-R instrument, of practicing registered nurses in the state of Washington?
2. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on type of pre-licensure nursing program?
3. H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on type of pre-licensure nursing program.
4. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on nursing ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum?

5. H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum.
6. Are the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly related to hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices?
7. H₀: There is no statistically significant relationship between professional values scores, as measured by the NPVS-R instrument, and hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices.
8. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on years of nursing experience?
9. H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on years of nursing experience.

Research Design and Analysis Methods

This study utilized a causal-comparative research design to determine the professional values of Washington State nurses. Data collection was through a quantitative and demographic survey utilizing the NPVS-R (Weis & Schank, 2009). The scores on the NPVS-R served as the dependent variable. This instrument yields scores on

an interval scale allowing for its use in parametric statistical analyses. The NPVS-R is a validated survey instrument, with item statements derived from the American Nurses Association's (2001) code of ethics (Weis & Schank, 2009). Studies similar to this one have used the NPVS-R to measure professional values of nurses (Fisher, 2014; Gallegos & Sortedahl, 2015; Iacobucci, Daly, Lindell, & Griffin, 2013). The original version of the scale (Schank & Weis, 2001), based upon an earlier version of the ethics code, had also been used in nursing professional values research (LeDuc & Kotzer, 2009; Leners, Roehrs, & Piccone, 2006; Martin, Yarbrough, & Alfred, 2003; Yarbrough, Alfred, & Martin, 2008).

In addition to the NPVS-R, demographic data were collected for the independent variables of pre-licensure ethics curriculum method, type of pre-licensure nursing program, years of RN work experience, and hours of post-licensure ethics education.

The convenience sample used in the study was from the list of 71,631 registered nurses in the state of Washington (Washington Center for Nursing, 2016), obtained through the WSDHNCQAC (M. Schaffner, personal communication, April 1, 2016). The state collects contact information as part of nurses' licensing process. The survey instrument was sent electronically to all registered nurses in the state whose email addresses had been filed with their license registrations.

The acquired data was analyzed using inferential statistical methods. The first research question was answered using descriptive statistics. Question two was answered using one-way between-groups analysis of variance (ANOVA). This statistical approach was useful to detect existing differences in NPVS-R scores between groups categorized by type of pre-licensure nursing program (Tabachnik & Fidell, 2013). Question three was

answered through a *t*-test analysis to identify existing differences in NPVS-R scores of the two groups related to pre-licensure ethics education curriculum design. The two-tailed *t*-test was appropriate here as there was no prediction of directionality between the two groups' scores (Vogt & Johnson, 2011). Question four was investigated using the Pearson product-moment correlation coefficient, to measure the relationship between hours of post-licensure ethics education and NPVS-R scores. There is scarce exploration of these variables in the existing literature, and this approach was designed to contribute to foundational understanding of their relationship. Both variables were measured on an interval scale, which allowed this analysis to describe the strength and direction of the linear relationship between hours of education and professional values (Field, 2013). Finally, question five was answered using ANOVA and post-hoc testing, to identify existing differences in NPVS-R scores between groups related to years of work experience. This approach was used to identify if there were significant changes to professional values during particular timeframes of nursing experience, which had been suggested by other researchers, and when those variations occurred (Benner et al., 1996; Gallegos & Sortedahl, 2015).

Limitations of the Study

This study was limited to selected variables of pre-licensure ethics curriculum method, type of pre-licensure nursing program, years of RN work experience, and hours of post-licensure education. While these variables were selected from a review of the literature and the researcher's own postulations, there are other influences of potential impact on nurses' professional values that remain outside the scope of this study. This study was not expected to be an exhaustive analysis of all possible influences on nurses'

values development. Indeed, researchers in psychology have posited myriad influences on moral/ethical decision-making from behavioral, affective, and cognitive-developmental perspectives (Rest, 1984; Rest, Bebeau, & Volker, 1986).

There are other limitations based upon decisions related to measurement of certain variables or statistical analyses. Due to a number of formal ways practicing nurses may develop new knowledge and understanding about ethics, a decision was made to combine these ways into one variable termed *post-licensure hours of education* (HrsCE). While there are likely many pedagogical differences between the hours assigned to academic credits, continuing education courses, and organization-sponsored inservices, there is no one way to qualify them; therefore, those hours were pooled together. Additionally, non-formalized personal-interest ethics learning was not measured in this study. In assessing types of nursing program at initial licensure it was acknowledged a priori that the sample may yield some categories with limited numbers of respondents - small numbers that may violate assumptions of normality during statistical analyses. For example, actively practicing RNs in Washington State were surveyed, whether they were educated in the state or not. Although Washington had diploma programs in the past, none exist in the state anymore or even on the West coast of the United States. Diploma programs make up 10% or less of pre-licensure nursing programs in the nation (AACN, 2016b). It was anticipated that this group of nurses may be limited in size, be older, and/or have more years of nursing experience. Likewise, the presence of only two master's level entry programs in Washington State (WSDHNCQAC, 2015) was expected to yield similarly limited numbers of survey respondents, and potentially violate assumptions of normality for inferential statistical testing.

Sampling procedures were considered a limitation. Based upon the need for an adequate sample size to conduct the planned statistical analyses, convenience sampling was utilized instead of more rigorous probability sampling procedures. The convenience sample was recruited from the list of all registered nurses in Washington State and therefore was determined to be an adequate representation of the population, though there were likely differences between nurses motivated to participate and those who chose not to.

There are additional limitations to validity in this study. The survey was programmed to require a response to each question before respondents could submit; the researcher received a few emails from nurses about their inability to accurately recollect number of post-licensure ethics education hours. Responses to this question may have been estimates of hours and may have been inaccurate. Additionally, it is possible that participants in this study rated their perceived importance of some value statements higher than what they actually believed. Social-desirability bias in self-report surveys, such as this one asking respondents about issues attached to moral values, may yield results based upon participants' perceptions of what they *should* think instead of what they actually *do* think (Vogt & Johnson, 2011). Validity may also have been limited by the recent 2015 revision to the *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2015). The NPVS-R (Weis & Schank, 2009) was developed based upon the 2001 version of the code. The newest version has presumably been adopted by nursing faculty, however it is common for inconsistent adoption of new curriculum when faculty encounter changes to well-established content (Gordon, 2010). Only one year's worth of new graduate nurses were likely exposed to the 2015 version in their nursing programs.

In any case, edits to the code are described by the ANA (2015) as “minor revisions that amplify their inclusivity of nursing’s roles, settings, and concerns” (p. xii). Therefore, the NPVS-R remained an appropriate instrument to measure professional values of nurses.

Finally, the ultimate goal of strong professional values development is for the individual to behave in a highly ethical manner (Rest, 1994); however, perceptions of importance of professional values as measured by the NPVS-R may not significantly link to actual ethical behaviors of nurses. This study did not yield data about behavior and did not measure ethical actions of nurses. Krautscheid and Brown (2014) described a disconnect between baccalaureate students’ abilities to perform ethically in clinical simulations and the ethical concepts and professional values they had been taught in courses. Future studies to compare the NPVS-R results to actual behaviors of nurses might give a more accurate view of internalized professional values of practicing nurses. Results may contribute to future research predicting moral behavior in practicing nurses, but this aspect was beyond the scope of the current study.

Significance of Study

The results of this study contribute to theoretical, substantive, and practical significance in the area of professional nursing values development. Results have theoretical significance, particularly the understanding of Rest’s (1994) moral development theory related to professional values. In alignment with the Four Component Model, the constructs of moral sensitivity, moral judgment, and moral motivation gain further strength and acceptance as authentic representations of professional values development, as applied to RNs. Results lend support to Rest’s

proposition that professional values are concretely conceptualized through professional codes of ethics.

Substantively, the exploration of particular variables in this study lays important groundwork for future studies aiming to predict strong professional values of nurses. Researchers have useful information to contribute to decisions about inclusion of particular predictors. The findings of this study also contribute to the body of knowledge in nursing ethics curriculum design. Nurses in the study population provided a sample size adequate to generate inferential statistics and extend understanding of professional values education among Washington State nurses. Cumulative work in this area may target gaps in diverse educational programs and ongoing education of nurses for more effective impacts on professional values development.

Regarding practical significance, healthcare continues to grow ever-more sophisticated and technologically complex; nurses need increased support to stay grounded in the profession's code of ethics, true to high standards of patient care, and competent to engage in interdisciplinary ethical dialogue (Jansson et al., 2015; Lennon-Dearing et al., 2009). Conflicts related to professional values have been associated with negative effects such as moral distress, effects upon patient safety, quality of care, persistence in the profession, and legal ramifications (Jameton, 1993; Numminen et al., 2015; Ulrich et al., 2010). Results from this study provide some insights that may help strengthen professional values and reduce these conflicts.

This study contributes to knowledge about pre-licensure programs related to professional values education and provides additional information to use in pedagogical and curricular discussions. This study also provides data for clinical educators

responsible for new graduate nurse education, to assist them in recognizing gaps in professional values and educational needs of novice nurses. Health care organizations may benefit from data about the value of continuing ethics education for strengthening professional values among experienced nursing staff. In both academic and clinical practice settings, this study contributes knowledge for nurse educators to prioritize the focus, timing, and placement of nursing ethics education.

Terms and Definitions

Code of Ethics – A published statement describing non-negotiable standards, values, obligations and duties of the individual nurse and the nursing profession at large (ANA, 2015, p. viii).

Ethical comportment - “The embodied, skilled know-how of relating to others in ways that are respectful, responsive, and supportive of their concerns...thoughts and feelings fused with physical presence and action” (Benner et al., 1996, p. 233).

Moral development – The growth in an individual’s social values concerned with human cooperation, “furthering human welfare, and...” adjudicating “conflicts among individual interests.” (Rest et al., 1986, p. 3)

Moral distress - A phenomenon that occurs when an individual recognizes that moral action should be taken but is unable to act upon that recognition due to institutional or interpersonal constraints (Jameton, 1993, p. 542).

Nursing professional values - Those “standards for action preferred by practitioners and the professional group” (Weis & Schank, 2009, p. 221), which are based upon the ANA *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2001).

Chapter Two: Review of the Literature

The aim of this study was to measure the presence of a statistically significant relationship between education and experience, and the professional values of practicing registered nurses in Washington State. With the additional empirical support gained through this study, academic nurse educators may have improved decision-making around placement of ethics content in pre-licensure nursing curricula, and understanding of the potential impact of various academic credentials. Clinical educators may have increased understanding about the timing and quantity of post-licensure education in ethics to better prepare practicing nurses to deal with inevitable ethical issues in the work environment.

The development of nurses' professional values defined through the code of ethics, and manifested by ethical understanding and behavior in nurses, has been widely discussed in research and theory literature. This literature review describes and critiques the theoretical underpinnings of nursing professional values development, as well as the research that undergirds variables related to pre-licensure ethics curriculum decisions, type of pre-licensure nursing program, years of experience, and post-licensure exposure to ethics education.

Theoretical Foundation

Historical overview of theory. Rest's (1984) Four Component Model of moral development was the theoretical framework utilized in this study. Researchers concerned with professional values growth have described that it is built upon a foundation of developmentally acquired moral values (Duckett & Ryden, 1994; Rest, 1994).

Kohlberg's influence on Rest's theory. Rest's (1984) moral development theory is based on Kohlberg's (Kohlberg & Hersh, 1977) stage analysis theory, framed from the viewpoint of cognitive psychology. Kohlberg posited six stages of moral development exemplified by individuals as understanding of moral values increases and becomes more sophisticated over time. Kohlberg's support for this theory came from his research work with boys, and the coding and scoring of their responses to a hypothetical moral dilemma. In a subsequent 20-year longitudinal study of Kohlberg's participants, Colby et al. (1983) found evidence supporting the stage theory beyond childhood and adolescence; they noted progressive development as participants moved into adulthood. Kohlberg's stage theory provided a foundation for Rest's (1994) subsequent studies of values development among professionals, including the discipline of nursing. Rest acknowledged Kohlberg's contributions to the understanding of moral development and extends that work towards adult professional values formation, which was the focus of this study.

Gilligan's influence on Rest's theory. Notably, there has been criticism of Kohlberg's (Kohlberg & Hersh, 1977) foundational work in moral development, since his original research participants were White, American males, and largely comprised of adolescents (Gilligan, 1977). Initially this implied limitations to extensions of Kohlberg's (Kohlberg & Hersh, 1977) and Rest's (1984) theories to diverse adult professionals, such as registered nurses. Gilligan (1977) noted that with Kohlberg's staging and scoring design, women tended to score in a lower developmental stage than men, as women tended to focus on "interpersonal concordance" rather than the higher levels of "law and order" or "social contracts" typically assessed of males (p. 489). She argued for a divergent theory of moral development differentiating men from women; she posited

moral development as described by Kohlberg focused on the moral concept of justice and was attached to a strictly male viewpoint.

Gilligan (1977) proposed an alternative understanding of moral development focused on the concept of caring, which she attached to a female viewpoint. She based this alternative theory for women on her research study of women contemplating abortion; she argued that this area of moral decision-making belongs to the individual woman alone, and therefore offers an appropriate study population of women for her theory:

...It raises precisely those questions of judgment that have been most problematic for women. Now she is asked whether she wishes to interrupt that stream of life which has for centuries immersed her in the passivity of dependence while at the same time imposed on her the responsibility for care. Thus the abortion decision brings to the core of feminine apprehension...the adult questions of responsibility and choice. (p. 490)

Gilligan's perspective about reproduction is informative regarding her view of childbearing as a posture of dependence and passivity; however, she made the assumption that this research, based on interviews with women who were ambivalent about their pregnancies, was generalizable to all women and their moral values development.

Contributions to Rest's theory for contemporary practice. Rest (1994) considered caring as an important concept in formation of professional values leading to moral action, but viewed it as vague in definition with its variety of meanings subsumed in components of his theory. While Gilligan's (1977) study design may be viewed as a

drawback for proposing an overall difference in female moral development from Kohlberg's (Colby et al., 1983) theory, she identified key considerations applicable to the nursing profession that are missing in Kohlberg's explication. The strength in Gilligan's (1977) perspective is the view that moral decision-making is significantly impacted through a caring orientation and is a contextualized activity. These concepts are consistent with today's health care ethics as a whole (Jonsen, Siegler, & Winslade, 2015) and are addressed through Rest's (1984) Four Component Model theory used in this study.

Figure 1 shows the general influence of Kohlberg (Kohlberg & Hersh, 1977) and Gilligan (1977) on professional values development according to Rest (1994). It depicts Rest's (1994) views that stage analysis is a significant yet incomplete explanation of professional moral development, and caring is an important but vague concept in formation of professional values leading to moral action. Despite debates around methodologies and differences between the two theorists, both Kohlberg (Colby et al., 1983) and Gilligan (1977) have influenced the field of professional values research. Rest (1994) was clear in addressing both theorists in the development of his Four Component Model. Kohlberg's (Colby & Kohlberg, 1984) theory provided general concepts and stages to understand the progressive, constructivist nature of moral development. Gilligan (1977) provided critique and elaboration of additional constructs central to discussions of adult moral development of both genders. Significantly, the profession of nursing is considered to be largely situated on the concepts of caring and contextualized decision-making (Benner, 2001), described by Gilligan (1977) as critical components of development.

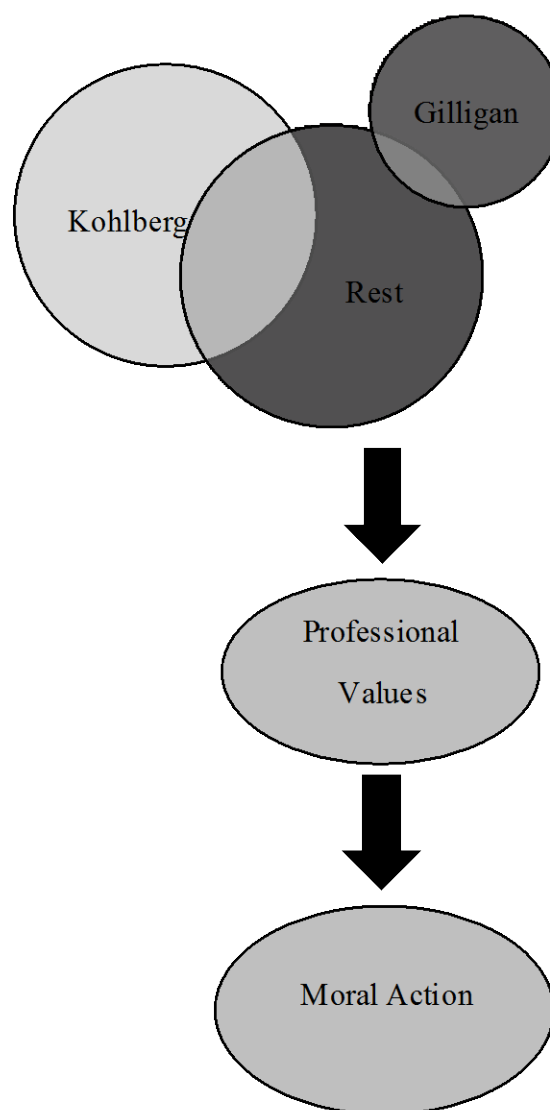


Figure 1. Representation of the relative influence of Kohlberg (1981) and Gilligan (1977) on Rest's (1984) theory of professional moral development. Rest (1994) incorporates work by these theorists in his paradigm with the end goal of moral action.

Scholars in nursing and other health care professions continue to identify both Kohlberg's (Kohlberg & Hersh, 1977) and Gilligan's (1977) contributions as foundational to continued research in the field of moral development theory (Asahara,

Kobayashi, & Ono, 2015; Benner, 2001; Duckett & Ryden, 1994; Penticuff & Walden, 2000; Rest, 1994; Settle, 2013; Ulrich et al., 2010). Rest's (1984) Four Component Model theory, used in this study, extends that work to specifically connect moral development of professionals to professional codes of ethics (Rest, 1994).

Rest's Four Component Model. Rest (1994) theorized adult professional values development through his interpretation of Kohlberg's (Kohlberg & Hersh, 1977) stage theory as stages of organizing social cooperation, then extended that stage analysis to include more complex psychological processes utilized by professionals. Rest incorporated Kohlberg's stage analysis theory as a useful foundation to explicate some aspects of moral development, but argued that the theory falls short in fully analyzing adult professional moral reasoning. Rest described two key limitations within Kohlberg's theory – that stage analysis is a simplified conceptualization of moral development, and that it lacks consideration of other potential psychological influences. As a result of these limitations, Rest proposed a more refined theory of moral development applicable to professional work life - the Four Component Model (FCM). His theory goes beyond Kohlberg's fundamental concepts to include what Rest termed the “intermediate-level concepts” of applied ethics necessary in professional work, and the “practical, concrete level of codes of ethics” common among professional guilds (p. 9).

Rest's (1994) theory is that professional moral development is multifaceted and involves four main psychological components that determine moral behavior. Ultimately, the purpose of professional values is that they become manifested in moral behaviors of the individual. He posited that the ability to act in a moral manner depends upon

- the ability to interpret the situation to determine the range of possible actions and consequences (Moral Sensitivity),
- judgment about right and wrong to decide what action is morally just (Moral Judgment),
- the ability to prioritize moral values to decide on the best action (Moral Motivation), and
- the possession of innate qualities, such as resoluteness and determination, that enable the individual to carry out the moral actions (Moral Character).

Figure 2 illustrates the components of Rest's theory in relation to Kohlberg's (Kohlberg & Hersh, 1977) and Gilligan's (1977) influences. It depicts Rest's views of the four components as interactive in nature, as individuals are influenced in various ways toward a morally significant action. In Rest's theory, these four component processes occur in differing degrees of sophistication depending on developmental stages as explained by Kohlberg, shown at the center of interaction in the figure. Gilligan's (1977) constructs are also at center to illustrate Rest's assertion that they necessarily occur in the setting of component interactions. While Rest acknowledged Gilligan's concerns about the Kohlbergian stage theory, he gave compelling rationale for this FCM as a robust theory. Rest and Narváez (1994) reported its use by a wide variety of researchers to describe and test professional values among diverse populations, both male and female. Additionally, he explained the previously noted concern about contextualized decision-making is addressed through the interactions of the four components that are contextual in nature. Rest (1994) also argued that the caring orientation espoused by Gilligan (1977) is an abstract concept, with so many potential interpretations and meanings that a consistent

definition, measurement, or testing of a particular construct is not possible. Rest (1994) acknowledged the importance of the caring orientation as a component of moral development, and concluded that the many possible aspects of caring such as “sensitivity to needs and interests of another...valuing human relationships ahead of every other value...following through behaviorally on intended commitments...” (p. 12) are addressed through the four components of the model.

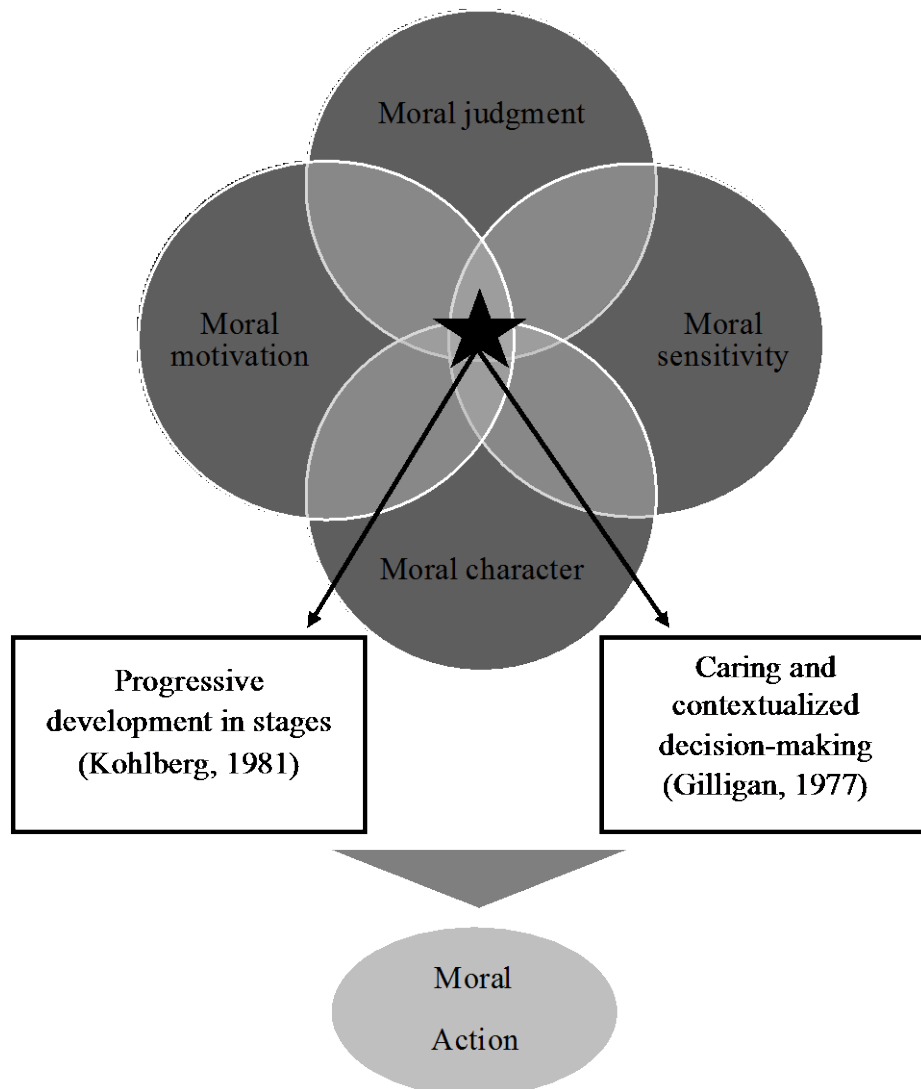


Figure 2. Rest's (1984) Four Component Model theory embodying developmental stages as well as concepts of caring and contextualized decision-making. The four components are interactive and are influenced by developmental progression and constructs of caring.

The Four Component Model and codes of ethics. Rest (1994) reasoned that moral development in adult professionals can be measured against codes of ethics. He explained that this is because ethics codes are concrete conceptualizations of moral judgment and are generally prescriptive in nature. His rationale is consistent with the nursing profession, as nursing values are reflected in the *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2015). Internalized personal values and moral development from childhood, faith/religious backgrounds, and other lived experiences, may also impact professional values development (Benner, 2001; Duckett & Ryden, 1994; Rest, 1984); however, as suggested by Rest (1994), the ethical comportment of the nurse in the workplace ultimately is measured against the profession's code of ethics (ANA, 2015). This connection between nurses, their ethical comportment, and values demanded by the profession through the code of ethics, substantiated Rest's theory as an appropriate foundation for this study.

Complementary perspectives on ethical comportment influences.

Complementary to Rest's (1994) FCM, Dreyfus, Dreyfus, and Benner (1996) described how a conceptualization of nursing skill acquisition could also be used to explain and understand the development of ethical comportment in nurses. Like Rest (1984), Dreyfus et al. described the growth in ethical comportment from a foundation of stage theory. Benner (2001) further described this via five chronological stages of professional development in the nurse:

1. novice
2. advanced beginner
3. competent
4. proficient
5. expert

Additionally, Benner et al. (1996) suggested that ethical comportment in nursing is based on a wide variety of variables that can be influenced through education including ethical reflection, discernment, communication, and contextualized decision-making. Rest (1994) also indicated that educational interventions can promote professional moral development (p. 20) by influencing the four components in a variety of ways; other researchers studying professional values development in nurses likewise have indicated that experience and education are influential in the development of professional ethical competence and comportment (Benner et al., 2010; Dreyfus et al., 1996; Duckett & Ryden, 1994).

There are aspects of Benner et al.'s (1996) novice-to-expert stages theory that are complementary to Rest's (1994) theory of professional values development (Benner, 2001; Benner et al., 2010; Benner et al., 1996;); there is agreement among these researchers that professional values are subject to developmental processes that necessarily include the influences of education and experience. The strength in viewing professional values development through the lens of Rest's (1994) FCM is the specific connection of this theory to the nurses' code of ethics and the availability of a measurement instrument developed from this code. As the professional code of ethics is

central to the function of all registered nurses (ANA, 2001), Rest's (1994) FCM provided an appropriate theoretical foundation for this study.

The FCM and measuring professional values of nurses. The current study used Rest's (1984) FCM as a framework for understanding professional values development of nurses. It is essential to note that while Rest et al. (1986) defined the four components of moral development as distinct psychological processes, they emphasized that they are not linear or sequential in nature but rather are highly interactive. Rest and others have developed tools to measure the component of moral judgment relative to professional values, but distinct measures of the other three components have been sparse (McNeel, 1994; Rest & Narváez, 1994).

For this study I utilized the Nurses Professional Values Scale-Revised (NPVS-R; Weis & Schank, 2009), which is based on the nursing code of ethics (ANA, 2001). The NPVS-R yields an overall score indicating the strength of the nurse's professional value orientation reflecting moral sensitivity, moral judgment, and moral motivation as defined by Rest (1984). Rest's fourth component of moral character is described as the internal strength to enact a moral decision. Moral character, involving resoluteness towards and actual implementation of the stated professional values, is not reflected in this instrument and was not measured in this study.

Moral sensitivity is reflected in the NPVS-R in regards to the interpretation of situations implied by the code of ethics. Rest et al. (1986) connected affect and cognition in the component of moral sensitivity, describing that this component requires imagination of a possible range of actions and consequences to a range of stakeholders. The code of ethics (ANA, 2001) stated its purpose as a framework for ethical analysis

and decision-making (p. 6); by definition, this purpose aligns with Rest et al.'s (1986) component of moral sensitivity.

The NPVS-R also includes application of moral ideals and a commitment to an ideology or code, consistent with Rest et al.'s (1986) moral judgment influences. Built on the nurse's code of ethics (ANA, 2001), the NPVS-R measures professional values from conceptions of the respondent's sense of justice and fairness, what Rest et al. (1986) call the component of moral judgment.

At the same time, moral motivation is also reflected in the NPVS-R as it requires the nurse to assign degree of importance to the various professional values delineated in the code of ethics. Rest (1984) described influences on moral motivation include weighing costs and benefits, as well as making "subjective estimates of the probability of certain occurrences" (p. 35). The decisions of degrees of importance selected by the nurse on the NPVS-R requires these cognitive exercises of weighing pros and cons and making subjective determinations.

Rest et al. (1986) asserted that moral development is progressive in nature and is influenced by education and time. In this study, it was anticipated that relationships would be found between nurses' professional values and variables related to educational differences (type of pre-licensure nursing program and type of curriculum); the presence of these relationships would lend support for Rest's claim that a connection exists between education in ethics and development of moral sensitivity, moral judgment, and moral motivation. Length of time in practice as a nurse and amount of time spent in post-licensure ethics education may also influence progressive strength in moral reasoning and

lend support to Rest's assertion that these variables are key to growth in the moral decision-making components of sensitivity, judgment, and motivation.

Rest's (1994) FCM and his clear articulation of the relationship between this moral development theory and professional codes of ethics suggested a logical connection to the NPVS-R (Weis & Schank, 2009) as a measure of professional values in nurses. Rest's (1994) interactive components of moral sensitivity, judgment, and motivation formed a foundation for understanding the connection of this measure to nurses' professional values.

Empirical Research

As professionals, registered nurses in the United States are expected to embody professional values as outlined in the *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2015). This code forms the foundation for American nurses in their efforts to provide safe, quality care to patients. Educational institutions and health care organizations across the nation have engaged in efforts to promote ethical knowledge, understanding, and behavior among nurses and other health care providers as health care ethics have come to the forefront of quality care and patient safety discussions (Greiner & Knebel, 2003; Jansson et al., 2015; Lennon-Dearing et al., 2009). This review of empirical research will highlight previous work done to examine influences on nurses' professional values development, specifically related to education and experience.

Pre-licensure education. This study examines the influences of pre-licensure academic variables on nurses' professional values, specifically the type of pre-licensure nursing program and the manner in which nurses experienced nursing ethics curricula. Professional nursing values development is an expected part of the educational processes

students undergo prior to licensure (Benner et al., 2010; Benner et al., 1996) and a number of researchers have investigated professional values differences based upon type of pre-licensure nursing program and aspects of pre-licensure ethics education. The findings of this study add empirical evidence related to the influences of nursing program pathways and pre-licensure ethics education on professional values development.

Program pathways. Research to date has not provided conclusive, consistent data about the relationship between type of pre-licensure nursing program and professional values. It is not clear if varied pathways to achieving initial licensure as a registered nurse indicate students receive equivalent professional values education. Some researchers have suggested some differences between program paths, yet there is lack of uniformity about extent of significance.

Nursing students in differing program types. Some research focused upon students themselves. For example, Martin et al. (2003) found differences when they compared measures of professional values between 841 associate degree (ADN) and 501 baccalaureate degree (BSN) nursing students in Texas, utilizing the original version of the Nurses Professional Values Scale (NPVS). Two-tailed *t*-test analyses were used to evaluate differences between the two groups. While the overall scores demonstrated no statistically significant differences ($t = 1.6, p = .10$), they noted significantly higher scores for ADN students on five of eleven subscales: (a) right to privacy ($t = 2.61, p = .01$), (b) assumes responsibility and accountability ($t = 2.66, p = .01$), (c) exercises informed judgment ($t = 2.56, p = .01$), (d) implements and improves standards of nursing ($t = 2.23, p = .03$), and (e) collaborates with others ($t = 2.17, p = .03$). These results suggested the possibility of some differences in the two degree pathways. While there

was no statistically significant difference in the overall scores, significant differences noted on subscales might imply greater emphasis on certain professional values in ADN programs in Texas than in their BSN programs. Martin et al.'s study is relevant to the current study which will seek to identify differences in professional values among nurses from varied pre-licensure nursing program backgrounds, as Washington State's pre-licensure programs are largely ADN and BSN (WSDHNCQAC, 2015).

Fisher (2014) also investigated professional values among students and found notable differences between pre-licensure nursing programs. She compared students in diploma, ADN, and BSN programs using the NPVS-R instrument factor scores to evaluate the existence of differences between the groups. Through ANOVA with post-hoc comparisons, Fisher found that diploma students had statistically significant higher mean scores ($M = 4.38$) than students in other programs ($F = 8.51, p = .0003$); however, BSN students had higher means ($M = 4.19$) than ADN students ($M = 3.99$). Fisher's conclusions are pertinent to the current study, which will similarly investigate possible differences between professional values based upon pre-licensure nursing programs including diploma, ADN, and BSN.

Studies with students conducted by Martin et al. (2003) and Fisher (2014) left room for further investigation of differences between program groups. While Martin et al. (2003) suggested ADN students may practice higher professional values in some areas, Fisher (2014) suggested ADN students produce lower professional values scores. Firm conclusions cannot yet be drawn about differences between diploma, ADN, and BSN programs and professional values development. Additionally, in Washington State there

now exist master's degree entry nursing programs (WSDHNCQAC, 2016a) and data is lacking in the literature related to professional values development of those students.

Practicing nurses from differing pre-licensure program types. Other researchers sought to investigate pre-licensure program differences through focus on practicing nurses. Gallegos and Sortedahl (2015) found differences when they studied 348 pediatric nurses' professional values, as measured by the NPVS-R, compared to what degree the nurses held. They compared scores between nurses holding diplomas, ADN, BSN, and graduate degrees. The highest scores were among graduate degree nurses, followed by diploma, ADN, and BSN nurses who scored lowest. A one-way ANOVA with post-hoc comparisons resulted in statistically significant differences between groups ($F [3, 344] = 4.08, p = .007$), and revealed that BSN nurses ($M = 98.0, SD = 15.9$) scored significantly lower than graduate degree nurses ($M = 111.0, SD = 9.5$); however, with further investigation using analysis of covariance (ANCOVA) the authors found that controlling for age rendered the differences in between these two degree groups statistically non-significant. Similar to results described by Martin et al. (2003), the differences in mean scores were concerning to researchers, and reflected the possibility of educational differences in pre-licensure programs (Gallegos & Sortedahl, 2015). Reported differences in professional values among pediatric nurses based upon degree preparation is similar to previously noted research done among students (Fisher, 2014; Martin et al., 2003). The current study is expected to clarify whether significant differences exist.

Other researchers found results that suggested negligible differences among practicing nurses based upon attained degree. In contrast to Gallegos and Sortedahl (2015), Berkow, Virkstis, Stewart and Conway (2009) found few differences when they

surveyed “frontline leaders” (p. 17) about their satisfaction of proficiencies among newly graduated nurses from BSN and ADN programs. The descriptive survey was a Likert scale design requesting respondents’ perceptions of competency in new graduates in a variety of proficiency areas including items directly related to professional values and the nursing code of ethics. The two degree groups were defined by nurse leaders reporting the new graduate cohorts on their units were comprised of greater than 70% of either ADNs or BSNs. Berkow et al. reported BSNs were perceived as slightly better prepared than ADNs in many competencies related to ethics, for example patient advocacy (42% were satisfied with BSNs; 38% were satisfied with ADNs), respect for diverse cultural perspectives (55% were satisfied with BSNs; 47% were satisfied with ADNs), and accountability for actions (41% were satisfied with BSNs; 34% were satisfied with ADNs). Although BSNs were perceived more often as better prepared than ADNs, the authors reported that the frontline leaders still judged BSNs to be below satisfactory on all but three proficiencies (“utilization of information technologies, rapport with patients and families, and respect for diverse cultural perspectives”; p. 21). Berkow et al. concluded that the overall differences in the perceived proficiencies of BSNs and ADNs in the 36 competency areas were too small to warrant orientation training differences between degree groups. The current study will provide additional insight about possible significant differences between professional values development of practicing nurses based upon degree program, not only among ADNs and BSNs, but also including diploma nurses and master’s entry to practice nurses.

Application to current study. The current study investigates whether the professional values of nurses in Washington State are significantly related to the type of

pre-licensure nursing program. As described above, researchers reported conflicting data regarding the presence of significant professional values differences related to the type of pre-licensure program attended by RNs. While some study results have suggested differences do exist, there is no agreement upon whether the type of program is related to significantly different professional values. While Martin et al. (2003) suggested ADN students might measure higher professional values than BSN students in some areas, Fisher (2014) described diploma students as highest followed by BSN students, and ADN students scoring lowest. Like Fisher, Gallegos and Sortedahl (2015) attempted to ascertain the nature of the differences and described professional values score means as higher in diploma nurses. However, unlike Fisher (2014) ADNs scored higher than BSNs. Berkow et al. (2009) concluded there were no practical differences between perceived competency achievements including areas pertaining to professional values, regardless of pre-licensure program type, due to the majority of new graduates being rated by frontline leaders as below proficiency levels. It is clear from existing literature that ambiguity continues in determining if differences exist among nurses due to type of pre-licensure academic program. This study seeks to describe a statistically significant difference in professional values of practicing nurses based on pre-licensure education pathways which may help educators understand which programs warrant greater emphasis on professional values development.

Pre-licensure ethics education. There is a gap in the literature comparing delivery methods of nursing ethics education in the United States. Academic nursing educators frequently engage in discussions around content inclusion and content overload in the curriculum, including debates on when and how to include professional nursing

ethics (Bartlett, 2013). Some programs offer standalone nursing ethics courses in addition to the thread of professional values education that runs through pre-licensure programs as required by accrediting organizations (ACEN, 2013; AACN, 2008; Bartlett, 2013; NLN, 2016). While accreditors expect professional values education in nursing programs to some degree, it is not known if the addition of a separate, standalone ethics course rather than integration-only in the pre-licensure nursing curriculum positively influences the professional values development of nurses. Existing research provides some background about the differing education delivery models.

Integrated and standalone nursing ethics courses. Bartlett (2013) used a mixed methods approach to describe how ethics were taught in pre-licensure baccalaureate nursing programs. Ethics was defined broadly to include professional nursing values as well as bioethics and other specific ethics content. From a survey of 128 nursing faculty representing 18 programs in New York, California, Illinois, and Texas, Bartlett found a standalone pre-licensure nursing ethics course requirement was reported by 18.8% of respondents. Related courses were reported in liberal arts, research issues, medical ethics, or bioethics, and 3.9% of respondents identified that ethics content was integrated into the curriculum. A few faculty (3.1%) were unsure if ethics was included in the curriculum, and no ethics course was reported by 53% of faculty. This study reflected 18 programs in four different states and it is clear that there existed among this sample a lack of uniformity in approaches to ethics education for nursing students. A small number of faculty were unsure about how ethics education was incorporated in their curricula, while a majority reported that a standalone course in ethics was not a part of their program curricula. These responses hint at questions about whether there is equivalency in nursing

professional values education across pre-licensure programs, and how that content is clearly articulated to faculty members as well as students.

Duckett and Ryden (1994) argued that both standalone courses and integrated ethics education have been problematic due to lack of realistic application to practice affecting relevance to students, and lack of interest or preparation of faculty. They designed a model of ethics education and defined content intentionally integrated and sequenced throughout the nursing curriculum. This early work was done to gather evidence for a best-practice approach to nursing ethics education. Duckett et al. (1997) conducted a longitudinal study of four groups of baccalaureate nursing students who took a moral reasoning test (Defining Issues Test; DIT) at entry and just prior to graduation from the program. They found statistically significant differences in moral reasoning of the 213 students at post-test ($t = 7.88, p = .0001$). DIT scores in students increased from entry ($M = 44.5, SD = 13.22$) to exit ($M = 51.38, SD = 13.19$) over the course of the nursing program designed with integrated ethics education content. Similar in curriculum design to Duckett et al.'s study, Leners et al. (2006) studied the professional values development of students in a baccalaureate program with integrated nursing ethics content. They too used a pre-test/post-test design and measured scores on the original version of the NPVS; they reported statistically significant changes in mean scores from 3.93 to 4.07 ($t = -2.56, p < .01$). Both Duckett et al. (1997) and Leners et al. (2006) studied growth over time in professional values of baccalaureate nursing students within integrated curriculum designs; however, they did not aim to compare ethics curricular approaches.

Similar questions about nursing ethics education curricula exist internationally. Numminen, van der Arend, and Leino-Kilpi (2009) conducted a qualitative descriptive study to evaluate educators' and students' views on the teaching of the nursing code of ethics in Finland. One research question was, "How should teaching of the codes be developed?" (p. 70). Both educators ($N = 126$) and students ($n = 125$) provided written responses overwhelmingly in favor of an integrated, threaded approach to ethics education rather than a standalone course. Parsons, Barker, and Armstrong (2001) used a Delphi method with semi-structured questionnaires to describe nurse educators' views about health care ethics education in the United Kingdom. While 45.5% of participants described existing ethics education as integrated across the nursing curriculum, 87.5% felt that a separate course should be offered in addition to the integrated content. Both studies focus on opinions and perceptions of respondents, with conflicting views about which curricular approach is best for student learning.

The current study describes the curricular approach nurses experienced in their pre-licensure ethics education. These data add to the existing empirical work to identify significant differences between professional values of nurses who experienced ethics education solely integrated throughout the curriculum and those whose education included standalone coursework.

Application to current study. It remains unclear if evidence exists to support the inclusion of ethics education in a standalone course within the pre-licensure nursing curriculum, or whether an integrated approach is satisfactory for professional values development. Educators disagree on which approach is best for the development of students' professional values. Some are strongly opposed to further overloading already

full curriculum plans (Numminen et al., 2009) and assert that learning is best done in an integrated fashion with application of learning done in specific situations to promote critical thinking and contextualized decision-making (Benner et al., 2010); other educators believe a focused course will assist students to develop stronger nursing ethics (Parsons et al., 2001). Some educators have evaluated the professional values development of their students within their established curricula and identified significant growth over the course of the programs (Duckett & Ryden, 1994; Leners et al., 2006). Still other educators may have decreased awareness of the curriculum design related to nursing ethics content (Bartlett, 2013). Research in this area has focused largely on baccalaureate programs, faculty, and students (Bartlett, 2013; Duckett & Ryden, 1994; Leners et al., 2006). There is a paucity of research comparing professional values related to pre-licensure ethics education delivery methods across a population of practicing nurses from diverse pre-licensure backgrounds. This study addresses the existing gap in the literature by examining the relationship between nursing ethics education curriculum delivery and the professional values of nurses to determine if there is additional evidence in favor of a particular approach.

Registered nurses in practice. In addition to my examination of pre-licensure program pathways and nursing ethics curriculum, this study investigates the relationships between nurses' professional values and the independent variables of years of work experience and hours of post-licensure ethics education. Research to date suggests conflicting conclusions about work experience and ongoing education influences on professional values development. It is possible that this study will identify significant

relationships between these influences and professional values of nurses once they are licensed and actively working in the profession.

Work experience in nursing. Rest et al. (1986) described the complex and interactive nature of moral reasoning development, and proposed health care professionals as an ideal population in which to measure professional values. Benner et al. (2010) differentiated nurses based on varied amounts of time spent in practice, and described the importance of contextual experiences on the development of ethical comportment and professional values in nursing. It is not clear if there is a statistically significant difference in professional values based on years of experience in nursing practice.

Novice and experienced nurses. Gallegos and Sortedahl (2015) used the NPVS-R to study whether demographic variables, including years of experience, were related to professional values of working pediatric nurses. One-way ANOVA resulted in a statistically significant overall effect of years of experience ($F[4, 343] = 2.74, p = .03$). Post-hoc analysis show no significant differences between groups; however, scores were lowest in nurses with three to 10 years of experience ($M = 96.1, SD = 11.7$). Scores of nurses with less than two years of experience ($M = 101.4, SD = 11.9$) were very close to those of nurses with greater than 20 years of experience ($M = 101.9, SD = 15.4$). Kubsch et al. (2008) found comparable results in a comparison of practicing nurses using the Professional Values Survey (PVS; $\alpha = .946$); scores of novice nurses with two years or less of experience ($M = 4.2, SD = .52$) were similar to those of nurses with more than 15 years of experience ($M = 4.2, SD = .43$) with drops in scores of the groups in-between, although they found no overall statistical significance ($F[4, 192] = 0.897, p = .47$).

Gallegos and Sortedahl (2015) described this finding as being possibly due to initial idealism among novice nurses that drops after they encounter “challenges or formative experiences” (p. 192). Indeed, Ulrich et al. (2010) also described strong significant relationships between types of ethical stress and nurses with fewer years of experience. There are some indications in these studies suggesting that the higher scores found among the most experienced nurses are related to longevity in the profession, which strengthens professional values.

In contrast, LeDuc and Kotzer (2009) found no significant differences in professional values due to years of experience. They employed the original version of the NPVS to compare three groups from a children’s hospital: baccalaureate nursing students ($n = 97$), novice nurses with a year or less experience ($n = 46$), and seasoned nurses with five years or more experience ($n = 84$). Analyses using the Pearson product-moment correlation coefficient did not result in statistically significant correlations between years of experience and scores on the NPVS ($p > .10$ in each case). The authors suggested that students, novice nurses, and seasoned nurses all view the nursing code of ethics as important and hold congruent professional values. These results correspond with Fetzer’s (2003) conclusions from a study of 304 practicing ADN’s evaluating the relationship between length of nursing experience and degree of professionalism. Fetzer used the five-factor Hall’s Professionalism Scale (HPS; $\alpha = .72 - .84$) to measure self-actualization of nurses’ professional values. Like LeDuc and Kotzer (2009), Fetzer (2003) found no correlation between years of experience and professionalism scores.

Application to current study. Theory suggests that increased experience and exposure to real-life situations result in development of stronger professional values and

growth in ethical comportment (Benner et al., 1996; Rest et al., 1986); however, this is not uniformly borne out in recent studies. As described above, researchers reported conflicting data regarding the presence of significant professional values differences related to length of time in practice of licensed RNs. The current study investigates whether the professional values of nurses in Washington State are significantly related to years of nursing experience.

Post-licensure ethics education. While ethics education within pre-licensure nursing programs is required to some degree by accrediting agencies (AACN, 2008; ACEN, 2013; NLN, 2016), there are no such specific requirements for post-licensure nurses. In the U.S. some states such as Washington mandate general requirements for continuing education (WSDHNCQAC, 2016b), however it is possible nurses might choose to increase ethics learning through continuing education opportunities or as an employment requirement. There are additional myriad ways nurses can access continued learning of ethics, including inservice offered by their employers, webinars, independent reading or study, and formal academic programs to name a few. While it is not known if more time spent in post-licensure ethics education increases the professional values development of nurses, a few studies described impacts of continued education on select aspects of nurses' professional ethics.

Multiple modes of ethics learning. Kubsch et al. (2008) identified continued academic study after licensure as influential in the overall professional values development of ADNs. They used the Professional Values Survey (PVS; $\alpha = .946$) to compare practicing nurses with varied degrees, including ADNs who were in school to pursue a baccalaureate degree (RN-BSN students) and ADNs who were not. RN-BSN

students demonstrated the highest group scores ($M = 4.32$, $SD = .39$) among all degree types, while non-student ADNs had the lowest group scores ($M = 4.00$, $SD = .44$). Kubsch et al. conducted an ANOVA with post-hoc Tukey Honestly Significant Difference (HSD) analysis to explore the impact of academic preparation on professional values, and identified that the most significant difference was in the RN-BSN student group ($F[5, 191] = 3.42$, $p = .006$). While nurses holding master's degrees, completed bachelor's degrees, and diplomas all scored higher than the ADNs, there were no significant differences between mean scores. The authors attributed the differences between the RN-BSN students and the ADNs to an assumption that while both these highest and lowest scoring groups held either the diploma or ADN degree and had basic professional values, RN-BSN students' scores may have been strongly influenced by the further academic training in ethics and humanities typically offered in baccalaureate completion programs. Kubsch et al.'s conclusion may implicate additional hours of ethics education as influential in the development of professional values, and this relationship will be measured in the current study.

Dodd et al. (2004) also reported significant influences of differing types of ethics education on nurses' ethical assertiveness and activism, concepts linked to professional values (Benner et al., 2010). The ethical assertiveness scale ($\alpha = .72$) was used to describe the degree to which nurses sought to shape ethical deliberations despite not being invited to participate in decision-making activities by physicians. The ethical activism scale ($\alpha = .89$) was used to describe the degree to which nurses sought to engage in developing protocols and norms, working to be involved in multidisciplinary ethics decisions, and promoting ethics trainings. Dodd et al. developed a 72-item survey to measure the two

correlated constructs ($r = .41, p = .0001$) of assertiveness and activism. Their results from a sample of 165 nurses suggested relationships between various types of ethics education and levels of assertiveness and activism. Ethics education as a whole correlated with ethical activism ($r = .28, p = .001$); when broken down into types of ethics education, Dodd et al. found that nurses who had extended in-service training ($M = 10.7, SD = 4.9$) were more likely to be ethically active ($t = 3.1, p = .003$) than those who had not ($M = 7.7, SD = 4.4$). Ethical activism scores were also significantly higher ($t = 2.2, p = .031$) in nurses who had daily ethics discussions in the workplace ($M = 8.8, SD = 4.9$) versus those who did not ($M = 7.2, SD = 3.9$). Ethical assertiveness was not shown to be related to either types of workplace ethics education, although education experienced during a nursing program was significantly related ($t = 2.1, p = .04$). A regression model for ethical activism was significant ($F = 23.6, df = 3.89, p = .0001$) and explained 43% of activism, with ethics education as a whole appearing as a significant predictor ($b = .16, t = 2.0, p = .048$). While Dodd et al. did not distinguish between all possible post-licensure ethics education opportunities, their results suggested that some kinds of post-licensure ethics education have influence on nurses' professional values. In the current study I will explore the relationship between total amount of post-licensure ethics education and nurses' professional values.

Grady et al. (2008) similarly noted some significant differences between types of post-licensure ethics education in their moral action study of 422 nurses and 793 social workers (SWs). Moral action was defined as likelihood of taking action, which is descriptive of the component of moral character in professional values development (Rest, 1994). The Nursing Ethical Involvement Scale (NEIS; $\alpha = .80$) measured moral

action, and coursework or training in ethics was analyzed in four categories: “1) professional program only, 2) continuing education (CE) or in-house training only, 3) both professional program and CE/in-house training, or 4) no ethics training” (Grady et al., 2008, p. 5). ANOVA was used to investigate differences in scores of moral action across the categories. Ethics education did not significantly influence differences between moral action scores of nurses and SWs, but moral action scores for all participants as a group did differ significantly based upon ethics education ($F = 12.37, p < .001$). Based on the post-hoc Tukey test, ethics education experienced by participants in their professional program and through CE or in-house education demonstrated the highest action scores ($M = 40.1$), compared with those who had ethics education only in their professional program ($M = 37.9$) or none at all ($M = 35.7$). Grady et al. further investigated using a multiple regression model which explained 30.1% of the variance in moral action ($F[12, 499] = 17.89, p < .001$); however, in the final model ethics education was not a significant predictor of moral action. A combination of exposures to ethics education via CE/in-house opportunities plus pre-licensure education may influence nurses’ and SWs’ professional values and likelihood that they will engage in moral action. Moral action is the ideal outcome of internalized professional values (Duckett & Ryden, 1994), and Grady et al. have provided additional evidence that ethics education is influential in practicing SWs and nurses as a group. In the current study, I will examine this relationship further to determine if there is significant influence between nurses’ professional values and how much time they have spent in post-licensure ethics education.

Application to current study. It can be challenging to define differences between the many ways nurses obtain ethics education after licensure. The variety of opportunities include re-enrollment in academic programs as noted by Kubsch et al. (2008), CE/in-house training (Dodd et al., 2004; Grady et al., 2008), and formalized daily workplace discussions (Dodd et al.). While prior studies provide some indication that post-licensure ethics education may impact on professional values development of nurses, there is no firm evidence that professional values are improved or strengthened through an increased exposure to ethics education. This study measures the relationship of numbers of post-licensure ethics education hours to the professional values of practicing nurses.

Conclusion

Existing research does not provide conclusive or consistent evidence about the relationships between professional values development, education, and experience in practicing nurses. According to Rest's (1994) Four Component Model, moral sensitivity, moral judgment, moral motivation, and moral character must all be developed in the professional as precursors to moral behavior. Nurses must adhere to the professional code ethics that is the standard of moral development and function in the discipline (ANA, 2015); this moral development in professional values must exist in the nurse in order for the nurse to act in an ethically sound manner (Duckett & Ryden, 1994; Weis & Schank, 2009). This study concerns the clarification of relationships between professional values and both education and experience using the NPVS-R instrument.

Chapter Three: Methods

In order to measure the professional values of practicing RNs in the state of Washington and to determine if their professional values were significantly related to education and experience, NPVS-R scores and demographic data were obtained using a survey developed by the investigator.

Research Design

This study utilized a causal-comparative research design to determine the professional values of Washington State nurses. Data collection was through a quantitative and demographic survey utilizing the Nurses Professional Values Scale – Revised (NPVS-R; Weis & Schank, 2009) as the dependent variable. According to Gall, Gall, and Borg (2007), causal-comparative research design is useful to answer non-experimental research questions about associations between variables or comparisons of groups. Similar research inquiries in studies of nursing values have utilized this research design (Dodd et al., 2004; Gallegos & Sortedahl, 2015; Grady et al., 2008; Kubsch et al., 2008; LeDuc & Kotzer, 2009). The study generated an adequate volume of data and a quantitative design allowed the use of inferential statistical methods to analyze these data.

Sampling

Non-probability, convenience sampling was used in order to reach as many active registered nurses in Washington as possible. This method is frequently employed in nursing and social sciences research to increase response rates and obtain adequate sample sizes, and meet assumptions for inferential statistical methods (Gall et al., 2007; Polit & Beck, 2004). Findings resulting from sample data analyses were interpreted cautiously with the understanding that generalizability is affected by this sampling

method. Participants included nurses across the spectrum of years of experience, as well as across the varieties of pre-licensure nursing program types, and reached adequate group n sizes to conduct inferential statistical analyses.

Participants

The convenience sample used in the study was recruited from the list of registered nurses in Washington State obtained through the state nursing commission. The state collects contact information as a part of the nurse's licensing process. A two-step process was followed in order to obtain the list. First, a formal request for access approval was emailed to the state along with a completed lists application form. This form was signed by the dean of the School of Health Sciences at Seattle Pacific University, and the application was subsequently approved by the Washington State Nursing Commission Panel (see Appendix A). The second step, after initial approval, required submitting another request to receive the licensure lists which was completed on June 3, 2016; that same afternoon the state sent the requested lists via email in three zip files (see Appendix B).

Eligibility

Eligibility criteria for this study consisted of active registered nurse license credentials and an email address on file with the state of Washington as of June 3, 2016. All RNs meeting these criteria were sent invitations to participate in the study. Per the state of Washington, "active license credentials" include all nurses with a current license to practice, including those designated as "active, active in renewal, active not renewable, active on probation, active print license, active provisional, active with conditions, active with restrictions, approved, retired active, retired active in-state, retired active out-of-

state” (Washington State Department of Health, 2016). These inclusion criteria secured respondents from a range of educational backgrounds and experience representing Washington State nurses. According to the state licensure lists, as of June 3, 2016 there were 71,631 active Washington registered nurses, and 44,361 who filed email addresses with their licensure registrations (S. Oatney, personal communication, June 3, 2016). The request for participation and survey instrument was sent electronically via SurveyMonkey® to all registered nurses in the state whose email addresses had been filed with the State of Washington.

Sample

A total of 44,123 invitations to participate were deliverable to the email addresses on file. Of those, 1,334 recipients opted out of the survey, and 2,406 email addresses bounced. Of the remaining number, 19,133 opened the email. The final sample size comprised 2,439 nurses who completed the survey, yielding a 5.5% response rate.

Estimates for adequacy of the sample size in this study were based upon power analysis approximations. According to Polit and Beck (2004), power analysis in nursing research conventionally uses an alpha (α) level of .05, power ($1 - \beta$) equal to .80 (indicating the probability of obtaining a significant result and rejecting the null hypothesis), and a modest population effect size (gamma; γ). Power analysis is used to reduce Type II errors, and calculated estimates for sample size adequacy may be done prior to a study (Polit & Beck, 2004). The power analysis parameters differed between the three statistical approaches used to analyze data in this study. In analysis of variance using four groups and an estimated small effect size using eta-squared (η^2) of .01, each group needed to contain approximately 272 participants in order to have a power of .80 at

an α level of .05 (Polit & Beck, 2004). For analysis using the t test, an estimated effect size using Cohen's d of .20 (small effect) required approximately 392 participants in each group. For analysis using Pearson's correlation coefficient, approximately 785 participants were necessary to achieve $r = .10$ (small effect). These estimates were conservatively based on a presumption of modest relationships between study variables.

Procedures

An Institutional Review Board (IRB) application was submitted to Seattle Pacific University along with the survey comprised of the Nurses Professional Values Scale – Revised (NPVS-R; Weis & Schank, 2009) and four demographic questions (see Appendices C and D).

Survey review. A review of the survey instrument was conducted once IRB approval was obtained. Four registered nurses known to the researcher were asked to respond to the survey using SurveyMonkey® and provide feedback about the usability of the technology, wording of the instructions and demographic questions. Gall et al. (2007) recommend this strategy to improve quality of the process by eliciting criticisms and recommendations. No important concerns were raised, and feedback and responses from these nurses allowed the researcher to assure the SurveyMonkey® platform was properly functioning for data collection, and wording was clear and easy to interpret.

Administration of study. After review by the invited nurse respondents, the survey was sent via the SurveyMonkey® platform to eligible RNs. Participation in the survey comprised consent by the respondents and participants were told completion of the survey would require five to 10 minutes of their time. SurveyMonkey® was used as the survey administration and data-gathering software. This electronic platform preserved

the anonymity of respondents to the researcher. In order to calculate a NPVS-R score all scale questions required an answer, therefore the platform settings were programmed to require a response to each question before enabling submission. The initial request for participation and survey was sent with a two-week window for responses. At the two-week point, a reminder was generated by SurveyMonkey® and sent to non-respondents requesting a response within one week. After one week, one last reminder was generated requesting a response within one week. At the end of five weeks the responses were evaluated for adequacy, access to the survey closed, and data analyses commenced. The total timeframe for data collection was November 15, 2016 to December 22, 2016.

Instruments

This study utilized a survey instrument comprised of the NPVS-R and a demographic questionnaire.

NPVS-R. Weis and Schank (2009) developed the Nurses Professional Values Scale – Revised with statements derived from the 2001 revision of the *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2001). The original version of the scale (NPVS; Schank & Weis, 2001) has been used extensively in nursing professional values research (LeDuc & Kotzer, 2009; Leners et al., 2006; Martin et al., 2003; Yarbrough et al., 2008), and recent studies have used the NPVS-R to measure professional values of nurses and students (Cowin, Johnson, Wilson, & Borgese, 2013; Fisher, 2014; Gallegos & Sortedahl, 2015; Iacobucci et al., 2013).

Structure of NPVS-R. The NPVS-R contains 26 items (see Appendix C), each of which is a value statement derived from a specific code provision in the 2001 ANA code of ethics (Weis & Schank, 2009). Corresponding to each statement is a five-item scale of

importance: (a) not important; (b) somewhat important; (c) important; (d) very important; and (e) most important. Respondents are instructed to select the degree of importance that corresponds to each value statement related to nursing practice.

Scoring of instrument. Scoring of the NPVS-R is done by assigning point values to each of the five scaled choices, such that one point = not important, two points = somewhat important, three points = important, four points = very important, and five points = most important. The score is obtained by summing the responses to each item yielding a total ranging from 26 to 130, with higher scores indicating stronger professional values orientation. There is no reverse scoring on scale items.

Psychometric analyses. Weis and Schank (2009) conducted thorough psychometric analyses of the NPVS-R to establish instrument validity and reliability.

Construct Validity. Four expert nurses with backgrounds in professional values education, publication, and research, and all with involvement in revisions to the *Code of Ethics for Nurses* (ANA, 2001), were selected to establish content and face validity (Netemeyer, Bearden, & Sharma, 2003) of the NPVS-R. They achieved 100% agreement on all 26 items, including item-to-item relevance and sufficiency related to the nine code provisions, and established that the instrument was readable, clear, and meaningful.

Additional construct validity (Netemeyer et al., 2003) was established using principal component analysis (PCA) with Varimax rotation and confirmatory factor analysis (CFA). A study was conducted using a random sample of baccalaureate nursing students ($n = 404$), graduate nursing students ($n = 80$), and practicing nurses ($n = 298$) who completed the NPVS-R (Weis & Schank, 2009). Sample adequacy was established using the Kaiser-Meyer-Olkin (KMO) test ($KMO = .93$), and Bartlett's test of sphericity

which was statistically significant ($p < .0001$). A five-factor solution was identified using PCA which explained 56.7% of the extracted common variance. CFA supported the five-factor solution and goodness-of-fit indices approached acceptable fit to the model: root mean square error of approximation (RMSEA) = .063 ($< .08$ indicates acceptable fit), comparative fit index (CFI) = .894 ($> .90$ is desirable), Tucker-Lewis index = .871 ($> .90$ is desirable), Hoelter critical $N = 233$ (greater than 200 indicates model is adequate representation of sample data), and normal fit index = .865 ($> .90$ is desirable).

Reliability. Cronbach's alpha was used to assess internal consistency of the instrument. Results suggested good reliability of the instrument as a whole ($\alpha = .92$) as well as for the factors within the scale (α range = .70 - .92). For the total scale, average item-to-total correlation was .56. Correlations ranged from .27 - .65, however the one item below .30 did not notably change the item-to-total correlation when deleted, and was determined to be conceptually important to retain.

This instrument has been used extensively in studies of nursing professional values since initial testing of the NPVS-R by Weis and Schank (2009), and researchers have reported consistently high reliability. For example, in U.S. studies, Brown, Lindell, Dolansky, and Garber (2014) reported a Cronbach's alpha of .93, as did Iacobucci et al. (2013). High reliability of the instrument has also been reported in international studies. In Turkey, Geçkil, Ege, Akin, & Göz (2012) reported a Cronbach's alpha of .92. An Iranian study yielded a Cronbach's alpha of .81 (Parvan, Zamanzadeh, & Hosseini, 2012), and in Korea, Moon, Kim, Kim, Kim, and Lee (2014) reported a Cronbach's alpha of .93. In a Taiwanese study, Lin, Wang, Yarbrough, Alfred, and Martin (2010) reported a Cronbach's alpha of .90.

Suitability for current study. As noted, the NPVS-R has been used extensively in domestic and international studies, with high reliability and good internal consistency of the instrument across diverse demographics of nurses and nursing students. The current study sample yielded results on the NPVS-R demonstrating good reliability with a Cronbach's alpha coefficient of .92.

Although this instrument was developed based upon the 2001 *Code of Ethics for Nurses with Interpretive Statements* (ANA), and a revision to the code was published in 2015, the majority of nurses in practice when the current study was completed would have been exposed to the earlier versions of the code. Even if participating novice nurses were exposed to the newest version of the code, edits to the code are described by the ANA (2015) as "minor revisions that amplify their inclusivity of nursing's roles, settings, and concerns." (p. xii) Therefore, the NPVS-R remained a suitable instrument to measure professional values of nurses in this current study, and permission from the authors was obtained for its use (see Appendix D).

Demographic questionnaire. In addition to the NPVS-R, demographic data was collected for the independent variables of type of pre-licensure nursing program, pre-licensure ethics curriculum method, years of RN work experience, and hours of post-licensure ethics education (see Appendix E).

Variable Choice. Four independent variables were selected for this study based upon prior research indicating conceptual significance, and gaps in the literature.

Type of pre-licensure nursing program. Researchers have reported conflicting data regarding the presence of significant professional values differences related to the type of pre-licensure nursing program (Berkow et al., 2009; Fisher, 2014; Gallegos &

Sortedahl, 2015; Martin et al., 2003). While some study results suggested that differences do exist, there is no agreement upon whether the type of pre-licensure program is related to significantly different professional values. This study used four pre-licensure program types to assess for a relationship with professional values. Participants were asked to select what type of education program they completed prior to initial licensure - diploma, associate degree, bachelor's degree, or master's degree. Accelerated bachelor's degree recipients were considered in the same category as traditional bachelor's degree recipients due to equivalency in accreditation requirements (AACN, 2016a).

Pre-licensure ethics curriculum method. While integration of professional values in pre-licensure nursing programs is standard (AACN, 2008; ACEN, 2013; NLN, 2016), some programs offer additional standalone courses related to nursing ethics. Some studies have measured the growth of professional values over time in particular programs (Duckett & Ryden, 1994; Leners et al., 2006) or surveyed educators' perspectives on the topic (Bartlett, 2013; Numminen et al., 2009; Parsons et al., 2001). No research has been conducted to identify if addition of separate, standalone ethics courses rather than integration-only in the pre-licensure nursing curriculum positively influences the professional values development of nurses. This study addressed a gap in the literature by comparing delivery methods of nursing ethics education. In this study, participants were asked to consider the following definition of "standalone course": *A required or elective course dedicated to studying nursing ethics and taken over the length of an academic term.* They were then asked if they had a standalone course related to professional nursing ethics during their pre-licensure nursing program (yes or no).

Years of RN work experience. It has not been clear if there is a statistically significant difference in professional values based on years of experience in nursing practice. Some researchers have described marked differences in mean scores of nurses, but these differences have lacked statistical significance (Gallegos & Sortedahl, 2015; Kubsch et al., 2008). Others have reported no differences between novice and experienced nurses (Fetzer, 2003; LeDuc & Kotzer, 2009). Theoretical work in professional values development has suggested more experience leads to stronger values and therefore stronger ability to act in a morally reasoned way (Benner et al., 2010; Benner et al., 1996; Rest & Narváez, 1994). This study compared years of experience in nursing with scores of professional values in an effort to identify a statistically significant difference. Respondents were asked to select a category corresponding to ranges of nursing experience. Categories were: (a) less than two years; (b) two to five years; (c) more than five years, but less than 10 years; and (d) 10 years or more. Categories were derived from theory as well as through prior studies in this area of inquiry (Benner et al., 2010; Gallegos & Sortedahl, 2015; Kubsch et al., 2008).

Hours of post-licensure ethics education. There are no specific requirements for professional values/ethics education in U.S. post-licensure nurses. Some states such as Washington have requirements for continuing education (WSDHNCQAC, 2016b) and it is possible that nurses might choose to increase ethics learning through continuing education opportunities. Others may have employment requirements or academic opportunities for post-licensure ethics education. Despite a few studies suggesting impacts of continued education on select aspects of nurses' professional values (Dodd et al., 2004; Grady et al., 2008; Kubsch et al., 2008), it was not known if there is a direct

relationship between hours of post-licensure ethics education and professional values development of nurses. Survey respondents were asked to enter total hours spent attending courses that address nursing ethics, including continuing education courses, inservices/in-house training, and academic classes.

Summary. Validity and reliability of the NPVS-R has been adequately established through prior research, and the demographic questionnaire in this study was limited to data necessary to address gaps in existing literature. The survey and questionnaire were combined into one instrument and sent to nurses via email using the electronic SurveyMonkey® platform.

Statistical Analyses

Analyses varied according to the question being investigated. Descriptive statistics were used for question one to give overall impressions of the respondents in the sample and to summarize the data. A *t* test, correlation, and ANOVAs were utilized to analyze data and answer questions two through five. This section contains a summary of the research questions followed by a section detailing the statistical approaches used in each question. All analyses were conducted using IBM SPSS v.24 software.

Research Questions

The survey in this study was used to answer the following five questions:

1. What are the professional values, as measured by the NPVS-R instrument, of practicing registered nurses in the state of Washington?
2. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on type of pre-licensure nursing program?

3. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on nursing ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum?
4. Are the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly related to hours of post-licensure ethics education via academic credits, continuing education, and organizational inservice?
5. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on years of nursing experience?

Question one analyses. The first research question pertained to describing professional values of Washington State nurses and was answered using descriptive statistics. The NPVS-R measures professional values according to the nursing code of ethics, and participants' scores on the NPVS-R served as the dependent variable in this study. The NPVS-R has a score range from 26 to 130. As a continuous variable, NPVS-R scores were reported in terms of *N*, mean, standard deviation, range of scores, skewness and kurtosis (ideally less than 1.0). These data were inspected for any missing values and assessed for assumptions of normality, including minimal skewness and kurtosis on the histogram (Field, 2013). The Kolmogorov-Smirnov statistic was inspected for non-significance ($> .05$) as another indicator of whether the sample distribution was significantly different from a normal distribution. Normality and the presence of outliers were also assessed through inspection of the histogram, Q-Q plots, and boxplots. Means

and standard deviations pertaining to each of the 26 questions on the NPVS-R were reported, and assessed to ascertain the professional values statements ascribed lowest and greatest importance by Washington nurses.

Question two analyses. Question two concerned a difference between professional values scores on the NPVS-R based on type of nursing program completed for licensure. The dependent variable (DV) was the NPVS-R score, and the independent variable (IV) was the type of program. There are four types of programs in the IV - diploma, associate degree, bachelor's degree, and master's degree – therefore appropriate analysis involved one-way between-groups ANOVA and post-hoc testing if indicated. Pre-study assumptions for this analysis were met for level of measurement since the DV is on a continuous scale and observations were independent. After data collection, additional assumptions were assessed including normality of score distribution within groups, and homogeneity of variance. The assumption of random sampling was not met, however this is commonly accepted in nursing and social sciences research (Gall et al., 2007; Polit & Beck, 2004). One way between-groups ANOVA is relatively robust to unequal group sizes and is useful to detect existing differences in NPVS-R scores between groups categorized by pre-licensure program type (Field, 2013). If found to be indicated, post-hoc testing was planned to identify where differences exist while controlling for Type 1 error (Tabachnik & Fidell, 2013). There were no a priori expectations of where differences might exist, therefore post-hoc testing was preferred over planned comparisons.

The initial step in this analysis generated descriptive statistics on the categorical variable of program type noting frequencies for diploma, associate degree, bachelor's

degree, and master's degree programs. Information about each group's scores was obtained via descriptive statistics to determine n , means, standard deviation, confidence intervals, and ranges. Normal distribution of scores for each group was assessed via histograms, and homogeneity of variance was checked via Levene's test, seeking non-significance ($> .05$; Field, 2013). Using an alpha level of .05 to control for Type I error, overall F ratio (omnibus F) was calculated to check for significant differences between groups. Post-hoc testing was planned if significance was found, to identify which groups are significantly different from one another; effect size was reported via eta squared to determine how much variance in professional values scores is due to type of pre-licensure nursing program.

Question three analyses. The purpose of the third research question was to determine if a difference exists between professional values scores based on curriculum format of nursing ethics education during a nurse's pre-licensure program. An independent samples t -test was appropriate to compare the means between two groups of nurses – one group having had a standalone course related to nursing ethics and one group having had nursing ethics education delivered only via integration in the curriculum. T -test assumptions include measurement on an interval scale as with the NPVS-R scores, and independence of observations. According to Polit and Beck (2004), convenience sampling does violate an assumption in inferential statistical testing which impacts the interpretation of analysis results. Non-probability convenience sampling is common, however, in social sciences research including nursing, and interpretation of analysis results was done with caution (Gall et al., 2007, Polit & Beck, 2004).

The initial step in this analysis was to generate descriptive statistics on the categorical variable of curriculum type noting frequencies for nurses having taken standalone courses and those in integration-only programs. Information about each group's scores was obtained via descriptive statistics to determine n , means, standard deviation, confidence intervals, and ranges. Normal distribution of scores for each group was assessed via histograms, and homogeneity of variance was checked via Levene's test ideally seeking non-significance ($> .05$; Field, 2013). Using an alpha level of .05 to control for Type I error, a two-tailed t -test was conducted to identify existing differences in NPVS-R scores of the two groups related to pre-licensure ethics education curriculum design. Since there was no prediction of directionality between the groups, the two-tailed t -test was appropriate for this analysis (Vogt & Johnson, 2011). The significance of the result was reported along with a Cohen's effect size statistic.

Question four analyses. The purpose of question four was to assess for a significant relationship between professional values and hours of post-licensure ethics education. This was investigated using the Pearson product-moment correlation coefficient. This analysis was an appropriate approach given that both variables of interest were measured on interval scales, which allowed for assessment of the strength and direction of the linear relationship between hours of education and professional values (Field, 2013). Descriptive statistics of variables were reported for n , means, and standard deviation. Normality of score distribution was evaluated through the use of histograms for each variable. A scatterplot was inspected to assure homoscedasticity, to assess for outliers, as well as to evaluate linearity and ascertain there was no curvilinearity (Field, 2013). Additional assumptions for independence of observations

and related pairs were met; each participant provided an NPVS-R score and numbers of hours of post-licensure ethics. The initial inspection yielded general information about the relationship between variables and substantiated the calculation of a Pearson correlation coefficient. Pearson's r was calculated, effect size was reported as r^2 to indicate percentage of shared variance between variables, and significance level was reported.

Question five analyses. Question five concerned a difference between professional values scores on the NPVS-R based on years of nursing experience. The dependent variable (DV) was the NPVS-R score and the independent variable (IV) was years of experience. There were four categories of experience in the IV: (a) less than two years; (b) two to five years; (c) more than five years, but less than 10 years; and (d) 10 years or more. Accordingly, appropriate analysis involved one-way between-groups ANOVA and post-hoc testing. Assumptions for this analysis were met for level of measurement since the DV is on a continuous scale and observations were independent, although, as is common in nursing and social sciences research, the assumption of random sampling was not met (Gall et al., 2007; Polit & Beck, 2004). One way between-groups ANOVA is relatively robust to unequal group sizes and was useful to detect existing differences in NPVS-R scores between groups categorized by years of experience. If found to be appropriate, post-hoc testing was planned to identify where differences exist while controlling for Type 1 error (Tabachnik & Fidell, 2013). There were no a priori expectations of where differences would exist, therefore post-hoc testing was preferred over planned comparisons.

The initial step in this analysis generated descriptive statistics on the categorical variable of years of experience noting frequency for each grouping of years. Information about each group's scores was obtained via descriptive statistics to determine n , means, standard deviation, confidence intervals, and ranges. Normal distribution of scores for each group was assessed, and homogeneity of variance was checked via Levene's test, seeking non-significance ($> .05$; Field, 2013). Using an alpha level of .05 to control for Type I error, overall F ratio (omnibus F) was calculated to check for significant differences between groups. Post-hoc testing was planned if significance was found, to identify which groups are significantly different from one another; effect size was reported via eta squared to determine how much variance in professional values scores is due to specified timeframes of nursing experience.

Summary. In this study, descriptive statistics were used to answer the first research question and the remaining four questions were answered via diverse statistical approaches including t -test, ANOVA, and correlation. These analyses were selected due to best fit to the research questions.

Chapter Four: Results

This study measured the professional values of practicing RNs in the state of Washington using the Nurses Professional Values Scale-Revised (NPVS-R; Weis & Schank, 2009) to determine if their values were significantly related to certain distinctions. These distinctions included the type of nurses' education in ethics prior to gaining initial licensure, the obtained nursing degree at time of initial licensing, ethics education exposure since becoming licensed, and the number of years' experience as a RN.

The researcher analyzed data collected from nurses via an electronic survey platform delivered by email, in order to answer the following research questions and associated null hypotheses:

1. What are the professional values, as measured by the NPVS-R instrument, of practicing registered nurses in the state of Washington?
2. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on type of pre-licensure nursing program?

H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on type of pre-licensure nursing program.

3. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on nursing ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum?

H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum.

4. Are the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly related to hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices?

H₀: There is no statistically significant relationship between professional values scores, as measured by the NPVS-R instrument, and hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices.

5. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on years of nursing experience?

H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on years of nursing experience.

Final Sample

The final sample size comprised 2,439 nurses who completed the survey, yielding a 5.5% response rate. While this response rate was not as high as hoped for, the sample size was adequate for inferential statistical analyses. Fowler (2009) described the effects of nonresponse as a significant source of error in survey research, and this response rate

along with the convenience sampling method affected generalizability of study results. Concerns about generalizability were managed by comparing the study sample characteristics to the characteristics of actively licensed RNs in the state of Washington and the United States. Demographic questions in the study were limited to items necessary to answer the research questions. Although current measures of hours of post-licensure ethics education, presence of a standalone nursing ethics course in the curriculum, and years of experience as a nurse, are not available on the state or national level for comparison with the study sample, measures do exist for pre-licensure nursing degree type. This variable has been measured at various points in time, and with varying sample sizes and sampling procedures. The most current national data are from the 2015 National Nursing Workforce Survey (Budden, Moulton, Harper, Brunell, & Smiley, 2016). Washington State data from the national survey was obtained from a sample of 970 nurses. State level data for Washington was provided to me by the executive director of the Washington Center for Nursing (S. Aragon, personal communication, February 13, 2017). The director reported Washington has a history of poor nurse response rates to surveys, and that this has historically hindered robust data collection in the state (S. Aragon, personal communication, February 10, 2017). Figure 3 illustrates the comparison of nursing degrees at initial licensure from available state and national measures, and demonstrates approximation with the current study.

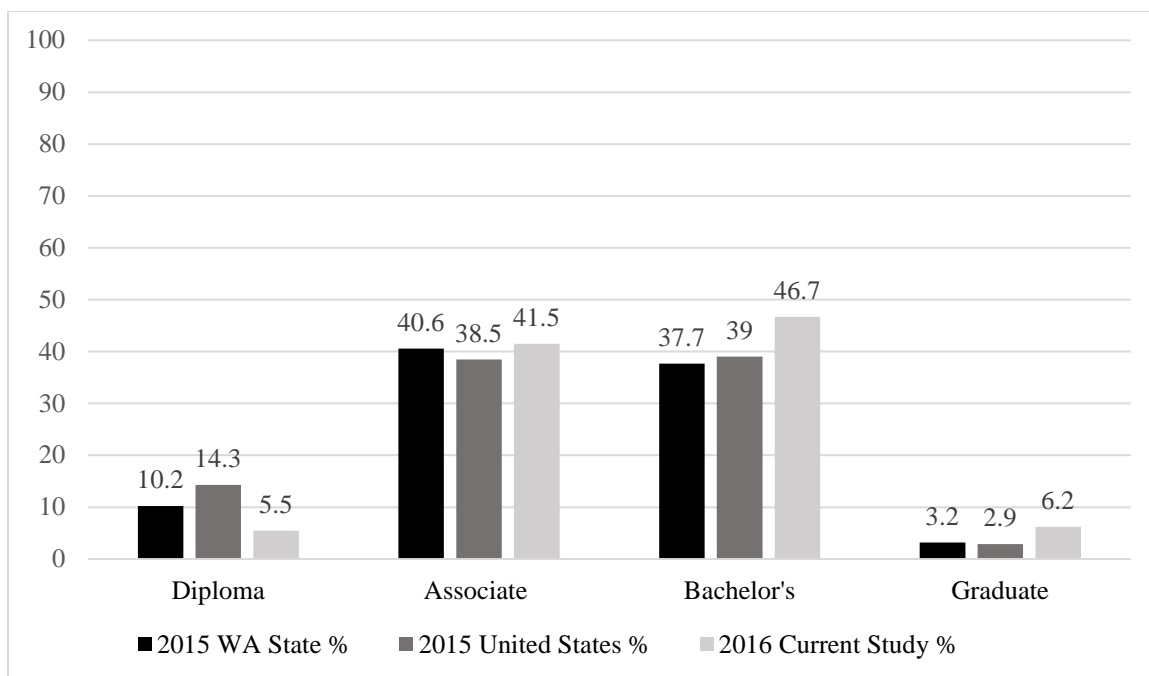


Figure 3. Percentages of registered nurses by initial degree at licensure. State (S. Aragon, personal communication, February 13, 2017) and national (Budden et al., 2016) percentages are compared to sample percentages in current study.

Statistical Analyses of Research Questions

These five research questions required differing analytical approaches, including descriptive statistics and three statistical procedures: (a) *t* test, (b) one-way analysis of variance (ANOVA), and (c) Pearson product-moment correlation. For all tests an alpha level of .05 was designated a priori for statistical significance, typical in educational and nursing research (Gall et al, 2007; Polit & Beck, 2004). One assumption applicable to all parametric techniques includes independence of observations, which was true for all data points. As previously discussed, this study did not meet the assumption of random sampling but this is commonly accepted in nursing and social sciences research. This chapter contains analysis procedures and results for each of the five questions.

Research question one. What are the professional values, as measured by the NPVS-R instrument, of practicing registered nurses in the state of Washington?

Results. This research question was answered using descriptive statistics and through the calculation of scores on the NPVS-R. The sample consisted of 2,439 respondents. Possible total scale scores on the NPVS-R range from 26-130, and in this study scores ranged from 34-130 ($M = 103.54$, $SD = 12.325$), with a higher score indicating a stronger orientation toward professional nursing values. The NPVS-R consists of 26 scaled items with values from one to five points. The three statements scored highest by these Washington nurses included “maintain competency in area of practice” ($M = 4.64$, $SD = 0.58$), “accept responsibility and accountability for own practice” ($M = 4.60$, $SD = 0.62$), and “act as a patient advocate” ($M = 4.57$, $SD = 0.64$). The three lowest scoring items by these Washington nurses included “participate in peer review” ($M = 3.28$, $SD = 0.87$), “refuse to participate in care if in ethical opposition to own professional values” ($M = 3.21$, $SD = 1.29$), and “participate in activities of professional nursing associations” ($M = 2.92$, $SD = 1.01$). Table 1 shows all scale items and how statements scored from highest to lowest in relative importance in the sample.

NPVS-R normality. The totaled NPVS-R scores served as a key variable for analyses in this study, and it was important to assure normality of the data prior to conducting inferential statistical analyses in order to decrease bias (Field, 2013). Normality of the NPVS-R variable was assessed using descriptive statistics which demonstrated skewness = $-.504$ and kurtosis = $.843$. A significant ($p < .001$) Komogorov-Smirnov test confirmed a non-normal distribution. The results of these tests of normality are acceptable given they are

influenced by the large sample size, according to Field. Histogram and boxplot review revealed three extreme outliers of very low score values (see Appendix F).

After inspection of the complete data sets of the three respondents with very low NPVS-R score values, the decision was to retain those scores as authentic measures. Field (2013) states transformation of data is one possible approach to correct the issue of extreme outliers, however, a square root reverse score transformation based on the negative skew yielded unremarkable differences in normality (skewness = $-.390$ and kurtosis = $.594$).

Table 1

Means and Standard Deviations of NPVS-R Statements

Scale Statements	<i>M</i>	<i>SD</i>
Maintain competency in area of practice.	4.64	0.58
Accept responsibility and accountability for own practice.	4.60	0.62
Act as a patient advocate.	4.57	0.64
Provide care without prejudice to patients of varying lifestyles.	4.50	0.72
Protect moral and legal rights of patients.	4.45	0.69
Maintain confidentiality of patient.	4.45	0.70
Safeguard patient's right to privacy.	4.41	0.72
Protect health and safety of the public.	4.39	0.72
Request consultation/collaboration when unable to meet patient needs.	4.38	0.65
Practice guided by principles of fidelity and respect for person.	4.29	0.77
Seek additional education to update knowledge and skills.	4.23	0.72
Confront practitioners with questionable or inappropriate practice.	4.17	0.79
Establish standards as a guide for practice.	4.02	0.81
Promote equitable access to nursing and health care.	3.97	0.90
Protect rights of participants in research.	3.95	0.90
Initiate actions to improve environments of practice.	3.93	0.79
Assume responsibility for meeting health needs of the culturally diverse population.	3.87	0.89
Promote and maintain standards where planned learning activities for students take place.	3.86	0.84
Engage in on-going self-evaluation.	3.80	0.77
Advance the profession through active involvement in health related activities.	3.52	0.89

Recognize role of professional nursing associations in shaping health care policy.	3.45	0.95
Participate in public policy decisions affecting distribution of resources.	3.35	0.88
Participate in nursing research and/or implement research findings appropriate to practice.	3.31	0.91
Participate in peer review.	3.28	0.87
Refuse to participate in care if in ethical opposition to own professional values.	3.21	1.29
Participate in activities of professional nursing associations.	2.92	1.01

Note. $N = 2,439$

Histogram and boxplot review demonstrated improved normality and no extreme outliers (see Appendix G). Q-Q plots done before and after transformation of the scores did not reveal marked differences (see Appendix H). The Kolmogorov-Smirnov test remained significant ($p < .001$); however, Field stated that this test is not very useful in large samples and that normality is best determined via the various other assessments described above. Due to negligible differences before and after transformation and drawbacks associated with altering the true nature of the data, the NPVS-R scores were left in their original, un-transformed state for subsequent analyses.

Research question two. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on type of pre-licensure nursing program?

H_0 : There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on type of pre-licensure nursing program.

Results. Question two concerned a difference between professional values scores on the NPVS-R based on type of nursing program completed for initial licensure as a nurse. As previously noted, the dependent variable (DV) was total NPVS-R scores. The independent variable (IV) was the type of program grouped by four types - diploma, associate degree, bachelor's degree, and master's degree. To compare means of these

four groups, analysis of variance was an appropriate approach (Field, 2013). Data were analyzed using one-way between-groups ANOVA after checking the following assumptions.

Level of measurement. The variable NPVS-R is measured on a continuous scale and this served as the DV. The IV was a categorical variable comprised of four categories of nursing program types. These measurements allowed the application of the parametric statistical approach of ANOVA to data analysis.

Normality. Normality of the NPVS-R variable was attained as described in question one. Group sizes for program type were unequal as shown in Table 2; however, normality of score distribution within groups was acceptable on examination of histograms (see Appendix I), and a non-significant Levene's test ($p = .25$) demonstrated that the assumption of homogeneity of variance was not violated. One way between-groups ANOVA is relatively robust to unequal group sizes and useful to detect existing differences between groups (Tabachnick & Fidell, 2013).

Table 2

Descriptives for NPVS-R Scores According to Pre-licensure Program Type

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 Diploma	134	106.15	12.62	1.09	103.99	108.30	63	130
2 Associate degree	1013	103.32	12.62	.40	102.54	104.10	34	130
3 Bachelor's degree	1140	103.37	11.93	.35	102.68	104.06	42	130
4 Master's degree	152	103.94	12.87	1.04	101.88	106.00	67	130
Total	2439	103.54	12.33	.25	103.05	104.03	34	130

ANOVA. A one-way between-groups analysis of variance was conducted to explore the impact of type of pre-licensure nursing program on nursing professional values scores as measured by the NPVS-R (see Appendix J). Participants were identified as belonging to one of four groups according to their pre-licensure program type (diploma; associate degree; bachelor's degree; master's degree). There was no statistically significant difference at the $p < .05$ level in NPVS-R scores for the four program groups: $F(3, 2435) = 2.24, p = .08$. The effect size was very small, calculated using eta squared ($\eta^2 = .003$). Post-hoc testing was not indicated due to the non-significant omnibus F statistic.

Summary. Using ANOVA, no statistically significant difference was found between the professional values of practicing registered nurses in the state of Washington based on type of pre-licensure nursing program; therefore, I failed to reject the null hypothesis for research question two. The mean score of each group of nurses based on pre-licensure program type did not differ significantly from any other group.

Research question three. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on nursing ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum?

H_0 : There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum.

Results. Question three concerned whether a difference exists between the professional values of nurses based on inclusion of a standalone nursing ethics course in the pre-licensure curriculum. As noted, the DV was NPVS-R scores. The IV was inclusion of a standalone nursing ethics course. According to Field (2013), comparison of two group means via independent samples *t*-test is useful to identify a significant difference. The two groups were comprised of Group 1 who responded “yes”, they had a standalone course, and Group 2 who responded “no”, they did not have a standalone course in their pre-licensure curriculum. Data were analyzed using independent samples *t*-test after checking the following assumptions.

Level of measurement. The variable NPVS-R is measured on a continuous scale and this served as the DV. The IV was a categorical variable comprised of two groups based on the choice of either a “yes” or “no” answer. These measurements allowed the application of the parametric statistical approach of a *t*-test to data analysis.

Normality. Normality of the NPVS-R variable was attained as described under research question one. The data were examined for normality in each IV group, with acceptable skewness and kurtosis < 1.0 as noted in Table 3. Equality of variances of the two groups was confirmed with a non-significant Levene’s test ($p = .15$).

Table 3

Descriptives of Respondents Who Took a Pre-licensure Standalone Nursing Ethics Course

		Frequency	Percent	NPVS-R		Std.	Skewness	Kurtosis
				Mean	SD	Error		
NPVS-R	1 Yes	1093	44.8	103.71	12.05	.37	-.41	.73
	2 No	1346	55.2	103.40	12.55	.34	-.57	.91
	Total	2439	100.0					

Two-tailed *t*-test. An independent samples two-tailed *t*-test was conducted to compare the professional values scores of nurses who had a standalone nursing ethics course as part of their pre-licensure nursing program and those who did not (see Appendix K). There was no significant difference ($p < .05$) between scores for those who had a standalone course ($M = 103.71$, $SD = 12.05$) and those who did not ($M = 103.40$, $SD = 12.55$; $t[2437] = .61$, $p = .54$). The magnitude of the differences in the means (mean difference = .31, 95% *CI*: -.68 to 1.29) was very small, Cohen's $d = .03$ (Stangroom, 2017).

Summary. Using independent samples two-tailed *t*-test, a statistically significant difference was not found between the professional values of practicing registered nurses in the state of Washington based on whether they had a standalone nursing ethics course in their pre-licensure curricula; therefore, I failed to reject the null hypothesis for research question three.

Research question four. Are the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly

related to hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices?

H_0 : There is no statistically significant relationship between professional values scores, as measured by the NPVS-R instrument, and hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices.

Results. Question four was used to investigate the relationship between two variables, and determine if nurses' professional values are significantly related to how much time they have had in post-licensure nursing ethics education. One variable measuring professional values was the NPVS-R score, as previously described. The other variable was the total number of hours spent by the nurse in post-licensure nursing ethics education (HrsCE). The strength and direction of the relationship between these two variables was investigated using the Pearson product-moment correlation coefficient after checking the following assumptions.

Level of measurement. The variable NPVS-R is measured on a continuous scale. The HrsCE also comprise a continuous variable. Correlation is an appropriate analysis of relationships between two continuous variables (Field, 2013).

Normality. Normality of the NPVS-R variable was attained as described in question one. The HrsCE served as the second variable for correlation analysis in this study, and according to Field (2013), it is important to assure normality of the data prior to conducting inferential statistical analyses in order to decrease bias. Data screening of HrsCE revealed six unreasonably high values ranging from 12,000 to 1,000,000 hours. At the low end of this range, this would equate to a minimum of eight hours of nursing

ethics education per day, every day of the year, for more than four years – a highly unlikely scenario; therefore, those six high values were omitted resulting in $N = 2,433$ for HrsCE. The remaining values ranged from zero to 10,000 hours of education. The high end of this range could reasonably reflect individuals with graduate studies or work positions in which they have accrued many hours of nursing ethics education.

Additional steps were taken to assess normality of the HrsCE variable using descriptive statistics which demonstrated skewness = 9.39 and kurtosis = 115.70. A significant ($p = .000$) Komogorov-Smirnov test confirmed a non-normal distribution. Histogram and boxplot review of the raw data also revealed lack of normality and many extreme outliers (see Appendix L). Field (2013) stated transformation of data is one recommended approach to correct these problems of non-normality; therefore, a log transformation was selected to address the positive skew and outliers. Due to the presence of zero as a viable value in the data, a constant of one was added to the data to enable the log transformation. This resulted in improved normality of the data, including skewness = .47 and kurtosis = .05. Histogram and boxplot review demonstrated improved normality and no extreme outliers (see Appendix M). Q-Q plots done before and after transformation of the scores did not reveal marked differences. The Kolmogorov-Smirnov test remained significant ($p = .000$); however, Field stated that this test is not very useful in large samples and that normality is best determined via the various other assessments described above. The transformed variable HrsCE was subsequently applied to the correlation analysis.

Related pairs. Only data values that were present for both variables were used in this analysis. Six respondents were omitted from correlation analysis due to their unlikely HrsCE values. Descriptive statistics for both variables of interest are noted in Table 4.

Table 4

Descriptives for Correlation Variables

	N	Minimum	Maximum	Mean	Std. Deviation
NPVS-R	2439	34	130	103.54	12.33
HrsCE	2433	0	4	1.33	.81
Valid N	2433				

Independence of observations. Measurements of hours of education and total scores on the NPVS-R were independent of each other.

Linearity and Homoscedasticity. A scatterplot demonstrated no evidence of curvilinearity; however, the shape suggested a violation of the assumption of homoscedasticity (see Appendix N).

Correlation. The relationship between professional values (as measured by the NPVS-R) and hours of post-licensure nursing ethics education was investigated using Pearson product-moment correlation coefficient as seen in Table 5. There was a positive significant correlation between the two variables, $r = .13$, $n = 2433$, $p < .001$, with high professional values scores associated with higher numbers of hours spent in nursing ethics education after licensure. This is a weak relationship (Field, 2013) indicating 2% of variability in professional values is shared with hours of education ($r^2 = .02$).

Summary. Using Pearson product-moment correlation coefficient, a statistically significant relationship was found between the professional values of practicing registered nurses in the state of Washington and the number of hours spent by those

nurses in nursing ethics education post-licensure; therefore, the null hypothesis for research question four was rejected.

Table 5

Pearson Product-moment Correlations Between Professional Values and Hours of Education

		NPVS-R	HrsCE
NPVS-R	Pearson	1	.13**
	Correlation		
	Sig. (2-tailed)		.000
	N	2439	2433
HrsCE	Pearson	.13**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	2433	2433

** . Correlation is significant at the 0.01 level (2-tailed).

Research question five. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on years of nursing experience?

H₀: There is no statistically significant difference between professional values scores, as measured by the NPVS-R instrument, based on years of nursing experience.

Results. Question five concerned a difference between professional values scores on the NPVS-R based on years of nursing experience. As previously noted, the dependent variable (DV) was NPVS-R scores. The independent variable (IV) was the number of years of experience grouped into four categories: (a) less than two years; (b) two to five years; (c) more than five years, but less than 10 years; and (d) 10 years or more. To compare means of these four groups, analysis of variance was an appropriate approach

(Field, 2013). Data were analyzed using one-way between-groups ANOVA and post-hoc testing after checking the following assumptions.

Level of measurement. The variable NPVS-R is measured on a continuous scale and this served as the DV. The IV was a categorical variable comprised of four categories of years of experience. These measurements allowed the application of the parametric statistical approach of ANOVA to data analysis.

Normality. Normality of the NPVS-R variable was attained as described in question one. Group sizes for years of experience were unequal as shown in Table 6; however, normality of score distribution within groups was acceptable on examination of histograms (see Appendix O). Tabachnick and Fidell (2013) also suggest one-way between-groups ANOVA is relatively robust to unequal group sizes and useful to detect existing differences between groups. A significant Levene's test ($p = .02$; see Appendix P) demonstrated that the assumption of homogeneity of variance was violated and Field (2013) recommends addressing this by using the Welch's F statistic (see Appendix P).

ANOVA and post-hoc testing. A one-way between-groups analysis of variance was conducted to explore the impact of years of experience on nursing professional values scores as measured by the NPVS-R (see Appendix P). Participants were identified as belonging to one of four groups according to their years of experience (less than two years, two to five years, more than five years but less than 10 years, and 10 years or more). There was a statistically significant difference at the $p < .05$ level in NPVS-R scores for the four experience groups: Welch's $F(3, 635.27) = 5.13, p = .002$. The effect size was small, calculated using eta squared ($\eta^2 = .01$). Field (2013) suggested the Games-Howell procedure for accurate post-hoc testing in situations where group sizes are

unequal, sample sizes are large, and group variances differ. He describes Games-Howell as offering statistical power (decreasing the likelihood of Type II error) and ability to control reasonably well for Type I error when sample size is large. Post-hoc comparisons using the Games-Howell test indicated that the mean score for nurses with 10 or more years of experience ($M = 104.34$, $SD = 12.72$) was significantly different from that of nurses with two to five years of experience ($M = 102.50$, $SD = 11.19$) and nurses with more than five, but less than 10 years of experience ($M = 102.16$, $SD = 12.37$). The mean score of nurses with less than two years of experience ($M = 102.74$, $SD = 10.72$) did not differ significantly from any other group.

Table 6

Descriptives of NPVS-R Grouped by Years of Experience

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 less than two years	186	102.74	10.72	.79	101.19	104.29	73	129
2 two to five years	369	102.50	11.19	.58	101.35	103.64	67	130
3 more than five years, but less than 10 years	448	102.16	12.37	.59	101.01	103.31	42	130
4 10 years or more	1436	104.34	12.72	.34	103.68	105.00	34	130
Total	2439	103.54	12.33	.25	103.05	104.03	34	130

Summary. Using ANOVA with post-hoc Games-Howell testing, a statistically significant difference was found between the professional values of practicing registered nurses in the state of Washington based on years of experience as a nurse; therefore, the null hypothesis for research question five was rejected. Nurses with 10 or more years of experience scored significantly higher on the NPVS-R than nurses with experience in the range of two to 10 years.

Conclusion

This study measured the professional values of practicing RNs in the state of Washington using the Nurses Professional Values Scale-Revised (NPVS-R; Weis & Schank, 2009), and descriptive statistics revealed the most important and least important value statements among nurses in the sample. Inferential statistical analyses were done to examine relationships between professional values scores and certain other distinctions.

Study analyses and results suggest there is no significant difference in professional values of nurses who graduated from differing types of pre-licensure programs. Additionally, results suggest there is no significant difference between professional values of nurses who experienced a standalone nursing ethics course in their pre-licensure curriculum, and those who did not have a standalone course.

There was a significant relationship between hours of nursing ethics education after obtaining a nursing license and nurses' professional values. More time spent in nursing ethics education post-licensure appears to impact positively on nurses' professional values. Additionally, nurses who have worked for 10 or more years appear to have significantly higher professional values than their colleagues who have worked between two and 10 years.

These findings will be further discussed in Chapter Five, along with limitations of this study and recommendations for future research. Additionally, implications will be discussed as relates to theory, research, and practice in nursing education.

Chapter Five: Discussion

The purpose of this study was to measure the professional values of practicing RNs in the state of Washington and to determine if their values were significantly related to several distinctions. These distinctions included type of nursing degree at time of initial licensure, type of education in nursing ethics prior to initial licensure, amount of ethics education exposure since becoming licensed, and number of years' experience as a RN.

This chapter provides a discussion of the results, beginning with research question one. Answers to question one include which values statements nurses in the sample perceived as most and least important, and what this might mean for the nursing profession in Washington State. This chapter also contains a discussion of the results from inferential statistical analyses to investigate distinctions between nurses in the sample. Four hypotheses were generated and tested to answer research questions two through five. This chapter includes a discussion of these results and possible implications, as well as connections to prior research. Finally, this chapter contains a description of limitations and provides recommendations for future research suggested by findings in this study of nurses in Washington State.

Professional Values of Washington Nurses

Research question one. What are the professional values, as measured by the NPVS-R instrument, of practicing registered nurses in the state of Washington?

Results discussion. This question was answered via descriptives from the NPVS-R instrument, with sample scores ranging from 34 to 130. Overall, nurses in this study scored similarly ($M = 103.54$, $SD = 12.325$) on the professional values scale as other

nurses reported in the literature. In previous studies of practicing nurses, NPVS-R total score means ranged from 99.3 ($SD = 14.8$) to 109.14 ($SD = 11.33$) and item means resulted in similar placements of highest and lowest scored value statements (Brown et al., 2014; Clark, 2009; Devineni, 2008; Gallegos & Sortedahl, 2015). These findings suggest that nurses in this sample have professional values similar to nurses in other studies. The current study adds to knowledge about areas of strength in Washington nurses' professional values and areas needing additional focus and support.

Highest values. Nurses in this study demonstrated priority values through high-scoring values statements as previously noted in Table 1. The highest scoring item was “maintain competency in area of practice” ($M = 4.64$, $SD = .58$), followed by “accept responsibility and accountability for own practice” ($M = 4.60$, $SD = .62$). These results suggest a strong commitment to autonomous and skilled nursing practice, values that are embodied in Provisions 4 and 5 of the ethics code (ANA, 2001; ANA, 2015). The third highest scoring item on the NPVS-R was “act as a patient advocate” ($M = 4.57$, $SD = .64$). Patient advocacy is the focus of Provision 3 in the code of ethics, and the scoring of this statement suggests Washington nurses highly value the responsibility to speak for patients' best interests. These results are consistent with prior findings describing that practicing nurses highly value patient care and nurse accountability; these same three items appeared among top statements described by Clark (2009), and Gallegos and Sortedahl (2015).

Lowest values. The lowest scoring value statement in this study, as seen in Table 1, was “participate in activities of professional nursing associations” ($M = 2.92$, $SD = 1.00$), aligned with Provision 9 of the ethics code (ANA, 2001; ANA, 2015).

Participation in professional nursing associations is typically a voluntary and supplemental aspect of the nurse's professional role. This suggests Washington nurses as a whole may not be highly committed to active support of and engagement with nursing organizations, and not as likely to view nursing associations as a professional priority for their time and energies. The second lowest scoring statement was "refuse to participate in care if in ethical opposition to own professional values" ($M = 3.21$, $SD = 1.29$), related to Provision 5 of the ethics code. The lower mean score suggests that nurses may think it less important to preserve moral self-respect and personal integrity than to provide care, even when care contradicts their professional values. The third lowest statement was "participate in peer review" ($M = 3.28$, $SD = .87$), aligned with Provision 6 of the code. Peer review activities generally are done as a required component of workplace obligations, and nurses may perceive this statement item as task-related rather than as a method to assure a safe and competent nursing workforce. As with the highest scoring statements, these lowest scoring items are consistent with prior research. In studies of practicing nurses, these three statements consistently fall into the bottom of scores (Clark, 2009; Gallegos & Sortedahl, 2015).

Implications. Findings from the NPVS-R in this study have theoretical significance for the understanding of Rest's (1994) moral development theory related to professional values. As proposed by Rest, professional values of nurses appear to be conceptualized through the lens of the profession's code of ethics. It is important to recognize that lower mean scored items do not imply nurses' perceived those statements to be unimportant. Even the lowest scoring values statement mean fell between "somewhat important" and "important" on the scale, while other statement means fell in

the realm of “important”, “very important”, or “most important”. No item mean indicated nurses believed a statement to be “not important”. The nurses in this study appear to add support to Rest’s theory as an authentic representation of nurses’ professional values development. As the NPVS-R instrument was designed to measure professional values orientation based on the *Code of Ethics for Nurses with Interpretive Statements* (ANA 2001; Weis & Schank, 2001), study results lend support to his proposition that professional values are conceptualized through professional codes of ethics.

This study provides additional knowledge about the strength of practicing nurses’ attitudes toward the profession’s code of ethics first introduced in pre-licensure education, and results suggest there may be a disconnect between values held in highest esteem by nurses and values considered less important. For example, while nurses seem to highly value the quality of their own nursing practice, they do not value participation in peer review or professional nursing association activities to the same degree – activities intended to enhance nursing practice quality. These findings are consistent with those of Clark (2009), who described lower means among both practicing nurses and nursing students for the statement related to participation in nursing associations. In addition, Clark reported peer review to be among the lowest statement means. Gallegos and Sortedahl (2015) also reported these two items as having the lowest mean scores in their study. Peer review is generally intended to help nurses identify their areas of strength as well as their areas of need in developing quality nursing practice (ANA, 2015). It may be that nurses view peer review in a negative light, at worst as a tool in disciplinary action or opportunity for workplace harassment, or perhaps less extremely as a waste of time and energy. Like peer review, professional nursing organizations exist to

promote excellence and quality of practice, serve as resources to nurses, and seek to support nurses in their chosen areas of practice (ANA, 2015). Therefore, while nurses desire to be responsible, accountable, and excellent practitioners as suggested by the top scoring statements, they may not recognize mechanisms in place intended to promote the very attributes they seek. This may be a problem of articulation on the part of nurse educators and organizations. It is possible that improved messaging by educators, and support of institutional leaders, about benefits of participating in nursing organizations would help nurses perceive this as a valuable resource for their practice. Peer review efforts may gain more value among nurses if educators and managers articulate positive contributions these mechanisms make to excellent nursing practice.

The statement “act as patient advocate” was highly valued in this sample; however, this contrasts with relatively low scoring items including “engage in on-going self-evaluation” and “participate in nursing research and/or implement research findings appropriate to practice”, suggesting a disconnect between patient advocacy and reflective, evidence-based practice. If nurses are not engaging in self-reflection and assuring that they are following best practices, patient advocacy may be seriously compromised. Nurses scored lower on additional items related to the ability to be effective advocates, such as concerns with “shaping health care policy” or participating “in public policy decisions affecting distribution of resources”. These values are critical to high quality patient care, but may be perceived by nurses as distant from everyday practice and beyond their scope of influence. Other researchers have also reported these same low scoring statements contrasted with high mean scores for patient advocacy (Clark, 2009; Gallegos & Sortedahl, 2015). These lower scores suggest opportunities for educators and

organizational leaders to improve nurses' connections between pride in their roles as patient advocates, ongoing self-evaluation, and importance of evidence-based nursing practice.

The second-lowest scoring item, "refuse to participate in care if in ethical opposition to own professional values", is particularly troubling for its potential threat to well-being of nurses in the form of moral distress which occurs when nurses know the morally right action to take but are unable to do so (Jameton, 1993). This statement scored second to last in order of mean values in this sample, which may mean that nurses do not see conscientious objection as a viable option in their work environment, or may not believe it is appropriate to consider the interface of their own values with patient care. The apparent trend of low scores attached to this statement, seen in prior studies by Clark (2009), and Gallegos and Sortedahl (2015) as well as this current study, are concerning to retention of nurses. Numminen et al. (2015) described the positive connections between supportive ethical climate, nurses' moral integrity, and job persistence. Moral distress was also described by Ulrich et al. (2010) as a common influence in nurses planning to leave a current position, or the profession altogether. Nurses must be educated about their options, resources, and institutional protocols for addressing situations that jeopardize their moral integrity. Likewise, leaders in healthcare organizations may find that an emphasis on ethical climate may decrease moral distress-related work-leaving and improve retention of quality nursing staff.

Pre-licensure Nursing Programs

Research question two. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on type of pre-licensure nursing program?

Results discussion. The purpose of this question was to detect existing differences in NPVS-R scores between groups categorized by type of pre-licensure nursing program. There was no statistically significant difference found between professional values of practicing registered nurses in the state of Washington based on type of pre-licensure nursing program, and I failed to reject the null hypothesis for research question two. The effect size was very small ($\eta^2 = .003$). These results suggest that there is negligible impact on a nurse's professional values due to what type of nursing degree was obtained prior to licensure.

Implications. These results add valuable knowledge to the body of evidence pertaining to differences in nurses' educational preparation. Conflicting results from earlier studies alternately suggest some differences (Fisher, 2014; Gallegos & Sortedahl, 2015; Martin et al., 2003) and negligible differences (Berkow et al., 2009) between nurse values based on pre-licensure program type.

The current study compared nurses across program categories not consistently found in prior studies. The program differences initially identified by Gallegos and Sortedahl (2015) disappeared when they controlled for age; in the current study, the same program categories were utilized and also resulted in non-significant differences. In light of the non-significant findings and very small effect, results suggest that there are factors aside from a nurse's pre-licensure preparation that are responsible for strength of

professional values. This has practical application, as discussions and efforts continue at the state level to encourage, at minimum, the bachelor's degree for entry-to-practice (Washington Center for Nursing, 2014). Though there may be other important distinctions for a bachelor's degree minimum expectation, findings from this study suggest that professional values are not much determined by the type of pre-licensure program. Various other influences on nursing practice, work environments, and nursing experience may be more defining to a nurse's professional values development than the influences of pre-licensure academic educators and program types. This study did not support the existence of measureable significant differences of professional values among nurses who were initially educated in diploma, associate degree, bachelor's degree, or master's degree pre-licensure programs. In future studies of nurses' professional values it may remain interesting to gather demographic data about pre-licensure program type, but may be less important to consider this as a meaningful variable.

Pre-licensure Ethics Curriculum Method

Research question three. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on nursing ethics education delivered via integration-only, or a standalone course, in the pre-licensure curriculum?

Results discussion. This question was answered via a *t*-test analysis to compare means between the two groups of nurses – those who had a standalone course in nursing ethics as a component of their pre-licensure curriculum, and those who did not. The results from the current study did not indicate a significant difference between nurses' professional values based on the presence of a standalone nursing ethics course ($t[2437]$

= .61, $p = .54$). The effect size of the difference in the means was also very small (Cohen's $d = .03$), and nurses who had a standalone course scored marginally higher. These results suggest that practicing nurses are minimally influenced in their professional values based on the curriculum design for nursing ethics they experienced before becoming licensed.

Implications. As professional values education is a required component of accredited nursing programs (AACN, 2016b; ACEN, 2013; NLN, 2016), those nurses who stated in this study that they did not have a standalone course were nevertheless presumed to have had nursing ethics education integrated into their pre-licensure curriculum within other courses. Although the profession's code of ethics document (ANA, 2001) is not a uniformly required component in all programs, the concepts are required. Very little empirical evidence was found in the review of literature prior to this study to indicate whether a standalone course design is superior to an integrated design for delivering nursing professional values content in pre-licensure curricula. Some researchers have reported educator and student opinions regarding curricular differences in terms of frequencies, with conflicting results (Numminen et al., 2009; Parsons et al., 2001). Other researchers have studied student progress over time in a given curriculum design (Duckett & Ryden, 1994; Leners et al., 2006), but have not compared outcomes of differing curricular designs. This study adds empirical evidence to the debate about placement and design of professional nursing ethics in the curriculum.

The current study does not lend support to the favoring of one method of pre-licensure nursing ethics education over another. These findings may be informative to nurse educators involved in curriculum design within nursing programs. Results suggest

that decisions around professional values content could be reasonably made based upon other considerations within the curriculum and program needs, such as educator preference to teach a standalone course or a team approach to integrating concepts across a variety of courses. While it is possible that one method or another may significantly affect professional values among students, findings in the current study of practicing nurses suggest that strength of professional values is equivalent regardless of the presence of a required or elective course dedicated to studying nursing ethics in pre-licensure curricula. It is likely that other influences in the working life of nurses carry more weight in the development of their professional values. Thus, academic nurse educators may have some freedom to tailor timing and placement of concepts of professional nursing values in pre-licensure curricula without notable consequences.

Post-licensure Ethics Education

Research question four. Are the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly related to hours of post-licensure ethics education via academic credits, continuing education, and organizational inservices?

Results discussion. This question aimed to identify the presence and direction of a relationship between nurses' professional values and time spent learning about ethics since becoming a licensed registered nurse. The correlation analysis resulted in findings of a significant, positive relationship between the two variables with a very modest effect size suggesting that a small amount of variability in professional values is due to increased ethics education ($r^2 = .02$).

Implications. These findings support Rest et al.'s (1986) assertion that moral development is progressive in nature and influenced by time and education. Consistent with Rest's (1994) Four Component Model, these results suggest education promotes some growth in the moral decision-making components of sensitivity, judgment, and motivation. The implication is that professional values formation is not static or entirely dependent upon what nurses learn in their prelicensure programs, as amount of time spent immersed in ethics matters via academic credits, continuing education, and organizational inservices impacts positively on this growth.

These findings are consistent with Kubsch et al. (2008), who described increased professional values associated with post-licensure education among RN-BSN nurses. Other findings reported by Dodd et al. (2004) and Grady et al. (2008) also suggested that post-licensure ethics education may serve to increase professional values development of nurses. It is worth noting that large numbers of hours of post-licensure education, as reported by some respondents in this study, denote passage of time to some degree and may also associate with years of professional experience. While years of professional experience was considered as a separate variable in this study, the findings suggest evidence that professional values are improved or strengthened through an increased exposure to ethics education.

Evidence is mounting for robust organizational support towards strengthening of nurses' professional values. As nurses spend more time learning specifically about ethics there are associated increases in contextualization and strength of practicing nurses' attitudes toward professional values (Benner, 2010; Numminen et al., 2015). Organizations that expend resources to promote a culture of support for nurses'

professional values might experience higher retention, improved client and provider satisfaction, and better patient outcomes (Laabs, 2011; Ulrich et al, 2010). Continuing education courses in professional ethics related to nursing care of patients may promote nurse self-efficacy to hold self and peers to high practice standards. Organizational inservices to provide information and processes for resolving perceived ethical dilemmas may contribute to moral courage and decrease moral distress and burnout, especially among the newest nurses (Laabs, 2011). Financial support provided by organizations to help nurses continue academic studies may contribute to greater understanding and implementation of ethical nursing care, as well as evidence-based practice research and improved care for patients.

Experience as a Registered Nurse

Research question five. Do the professional values of practicing registered nurses in the state of Washington, as measured by the NPVS-R instrument, significantly differ based on years of nursing experience?

Results discussion. The purpose of this question was to detect existing differences in NPVS-R scores between groups categorized by years of experience. The groups were formed based on the following timeframes of experience: (a) less than two years; (b) two to five years; (c) more than five years, but less than 10 years; and (d) 10 years or more. There was a statistically significant difference between professional values of practicing registered nurses in the state of Washington based on years of experience, and the null hypothesis for research question five was rejected. The effect size was small ($\eta^2 = .01$). These results suggest that there is some impact on a nurse's professional values related to how many years he/she has been in practice.

In particular, significant differences in mean professional values scores were identified between nurses with 10 or more years of experience ($M = 104.34$) and those having two to five years ($M = 102.50$) or more than five years but less than 10 years ($M = 102.16$) of experience. Nurses who have spent 10 or more years in practice have significantly higher professional values than these other two groups. There was no significant difference in means between novice nurses having less than two years of experience ($M = 102.74$) and all other groups of nurses with two or more years of practice.

The similarity in means between very new nurses and those with the more experience could be due to novice nurses exhibiting their academic knowledge from student days, and reporting what they believe to be the “right answer”, rather than a true expression of attitudes toward professional values. Social desirability bias is a possibility in survey studies of values such as the current study, where respondents may be inclined to answer based on what they think a “good” nurse would believe to be important (Vogt & Johnson, 2011). This phenomenon may also explain why the “less than two years” group has the narrowest range of scores (73-129), as novice nurses may be unwilling to consider some professional values as having lesser importance.

As nurses gain experience, they are more likely to encounter challenges to the idealism of foundational values formed in pre-licensure programs. Ethics-related stress in younger, newer nurses is associated with increased work-leaving (Laabs, 2011; Ulrich et al., 2010). This may explain the drops in mean professional values scores of nurses with experience falling in the two to 10 year range. It may be that some new nurse idealism falls away over the years until experience allows them to reconcile strong professional

values with the realities of everyday practice. It is also possible that nurses who are not able to resolve those differences subsequently leave the profession, and nurses who do reconcile their strong values stay in practice. Nurses who have persisted in the profession for more than 10 years appear to have strongest alignment with the profession's code of ethics. It is perhaps that they know their everyday roles well enough by then and have more time to consider how to best embody high professional nursing values.

It is interesting to note that the range of professional values scores within each group widened with experience (see Table 6) (i.e., the group with least experience had the narrowest range [73-129] and the group with the most experience had the widest range of scores [34-130]). This could be explained by nurses moving into a stage of worklife when they have "settled in" to their professional beliefs and values, consequently with some very experienced nurses adhering to very low professional values. There are nurses who have persisted in the profession despite dissonance between professional values originally learned and what has been internalized by way of other influences, such as work environment or organizational leadership. Although nurses with more than 10 years of experience appear to have the strongest overall alignment with the ethics code of nursing, there may remain some very experienced nurses who are cynical, disillusioned, or burnt out. This possibility was suggested from emails to the researcher by a couple of nurses who received the request for participation in this study. Although it is unknown if these nurses participated in the anonymous survey, they expressed anger and frustration with the profession and their jobs, and voiced doubt about the operationalization of the values described in survey statements.

Implications. Other studies have identified differences in strength of professional values based on years of nursing experience (Gallegos & Sortedahl, 2015; Kubsch et al., 2008), and overall results in this study add strength to Rest's (1994) assertion that moral development is progressive in nature and is influenced by education and time. His view that experience over time is key in development of moral sensitivity, judgment, and motivation is supported by findings here, but there are exceptions among nurses. Although not directly measured in this study, some greatly experienced nurses with low alignment with the profession's code of ethics may exemplify the consequences of longstanding moral distress and burnout. These consequences are not only distressing to the personal life of the nurse, but may place patients and organizations at risk. Safe patient care and healthy, supportive work environments should be of paramount importance to healthcare organizations dedicated to staff retention, patient satisfaction, and reputations of excellence. These organizational objectives may be strengthened through programs and resources directed at supporting nurses in their professional values. These might include such things as incentivizing participation in specialty nursing organizations, providing regular ethics meetings and team discussions, designating an ethics point-person in the work team/unit, paying nurses to attend educational inservices and conferences, and openly articulating procedures to resolve morally distressing situations.

Findings suggest that experience over the long term may be an important determining factor in the strength of nurses' internalized professional values. Contextualized ethics after a nurse begins practice, as described by Benner et al. (2010), may have the most impact for internalization of professional nursing values. Distinctions

in professional values among novice nurses in the first two years of practice may have relatively little, meaningful impact compared to the importance of ongoing moral growth and development throughout a career. Nurse educators working with practicing nurses in clinical settings may serve a critical role in providing ethics education to help nurses with accumulating experience address morally challenging situations. Educational programming specifically directed at newer nurses may help them more successfully navigate circumstances and issues that challenge their professional values.

Limitations

This study was limited to the selected variables of total scores on the NPVS-R, type of pre-licensure nursing program, presence of a standalone nursing ethics course in pre-licensure curriculum, hours of post-licensure ethics education, and years of experience as a nurse. There may exist other variables impacting strength of professional values among practicing nurses, such as quality of role models in practice settings, organization-wide and unit culture differences, and personal values held by individuals prior to entering nursing education. These variables were beyond the scope of the current study; therefore, study results must be interpreted cautiously with these potential other influences in mind.

Decisions about variable measurement may have influenced study results. As discussed previously, social desirability bias may have influenced respondents to score higher on the NPVS-R than they actually believe (Vogt & Johnson, 2011). Intervening variables may have affected the influence in observed differences in groups; for example, there was no control for age or highest degree achievement of the nurse. Respondents were also asked to enter survey answers based on recall of distant events, which may

have been inaccurate. For example, nurses with many years of experience may not have remembered whether their pre-licensure curricula contained a standalone course, or how many hours of post-licensure education they had completed. They may have opted to guess at an answer rather than spend time to validate this information, resulting in varied accuracy. Future studies of post-licensure education might benefit from requesting a report of completed hours in specified timeframes rather than in whole-number entry.

Other limitations are related to methods employed in data gathering. The SurveyMonkey® electronic platform was used to send the request for participation to a large number of email addresses and the settings enabled anonymous responses. This anonymity prevented the researcher from direct comparison of the study sample to the population provided in the state database, beyond the demographic items contained in the survey itself. Additionally, the 2016 list of active, licensed nurses provided by WSDHNCQAC had a large number of missing, inaccurate, and outdated email addresses. The researcher received a few emails from individuals stating they no longer had active Washington licenses, which may be due to the time lapse between reception of the database and launch of the study. Finally, due to the necessity of calculating a total score of the NPVS-R for all study analyses, SurveyMonkey® was programmed to require answers and did not allow respondents to skip any question. This may have eliminated some respondents from the sample and contributed to the limited response rate. Although some similarity of the sample to previously published state and national statistics was noted as in Figure 3, it would be overreaching to suggest equivalency. These various considerations limit ability to draw firm conclusions about representativeness of the study sample and generalizability of results.

Recommendations

Findings in this study suggest that as a whole, Washington nurses have similar professional values as other nurses who have been studied using the NPVS-R. Future research with the objective to compare Washington nurses on state and national levels would ideally include probability sampling methods to decrease error and increase external validity. A wider range of demographic information including age, race, and gender should also be collected to facilitate comparisons with myriad prior studies focused on differing variables of interest.

Sampling of practicing nurses at the state level proved challenging in this study, as well as in national surveys (Budden et al., 2016); all states do not collect the same workforce data from nurses in a uniform manner. Opportunities for more robust studies of practicing nurses exist if systems could be put in place for each state to collect consistent data at the point of annual license renewal.

This study provides findings that support future predictor studies incorporating years of experience and amount of time spent in post-licensure ethics education. Among other possible predictor variables, studies of persistence in the profession of nursing would benefit from inclusion of ethics education amounts and types. It is possible that post-licensure ethics education not only boosts professional values, but also attenuates moral distress and associated work-leaving; if this is so, it strengthens the argument for fiscal investment by hiring organizations to support nurses' ethics education.

By far, the greatest opportunities suggested by findings in this study relate to ethics education of nurses over the course of their careers. While students must learn professional values prior to entering practice, it appears that growth and support of nurses

after licensure is pivotal. Future research to determine most effective nursing ethics education methods may yield important information contributing to retention of experienced and highly ethical nurses. It would be helpful for organizations to know the most effective timing and type of ethics support for nurses. If certain kinds of ethics education are put in place too early in a nurse's career it may be perceived as simply a continuation of the "head knowledge" of schooling during a time of great transition and the massive learning curve common to novice nurses. This might mean that contextualized, internalized professional values remain elusive; however, if targeted, intentional support is designed for the novice nurse it may be possible to influence progressive, linear growth in professional values with ongoing experience. Additional qualitative research to determine the source of drop in professional values scores among nurses with two to ten years of experience may inform health care leaders of problem areas needing their support. In turn, findings from those studies would provide clinical nurse educators with goals to target specific areas of need articulated by nurses themselves.

In sum, findings from this study support an emphasis on continued attention to growth of nurses' professional values once they are licensed and in practice. While novice nurses generally have high professional values, there appear to be factors that negatively impact those beliefs as they gain experience. Professional values of nurses may be strengthened through increased and intentional exposure to carefully timed ethics education opportunities. Clinical leaders and educators are in position to evaluate nursing staff needs, and provide opportunities for nurses to strengthen and internalize professional values in the context of high-intensity health care settings.

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Appendix A

State Lists Application



Application for Approval to Receive Lists/Labels

This is an application for approval to receive lists and labels, not a request for lists and labels. You may request lists and labels after you are approved. Approval can take up to three months.

RCW 42.56.070(9) limits access to lists and labels. Lists of credential holders may be released only to professional associations and educational organizations approved by the disciplining authority.

- A "professional association" is a group of individuals or entities organized to:
 - Represent the interests of a profession or professions;
 - Develop criteria or standards for competent practice; or
 - Advance causes seen as important to its members that will improve quality of care rendered to the public.
- An "educational organization" is an accredited or approved institution or entity which either
 - Prepares professionals for initial licensure in a health care field or
 - Provides continuing education for health care professionals.

We are a "professional association"

We are an "educational organization."

Lorie Wild, PhD, RN, NEA-BC
 Dean, School of Health Sciences wildl@spu.edu
 Primary Contact Name J Phone J 206-281-2608 Fax J 206-281-2767

Heidi Monroe PhD(c), MSN, RN, CPN
 Assistant Professor, Lydia Green Nursing
 Program monroh@spu.edu

Additional Contact Names (Lists are only sent to approved individuals) J

Seattle Pacific University
 Professional Assoc. or Educational Organization J Federal Tax ID or Uniform Business ID number J 910565553

3307 3rd Ave West, Suite 106
 Street Address J City, State, Zip Code J Seattle WA 98119

The lists/labels will be utilized for the purpose of a dissertation research study; anonymous responses will be requested to a survey (NPVS-R attached) and demographic questions (attached) about where and how registered nurses received education in nursing ethics. This research will contribute to nurse educators' understanding of how to best educate registered nurses in our professional values based upon the Code of Ethics for Nurses.

1. How will the lists and labels be used? J

Licensed Registered Nurses (RNs) in the State of Washington

2. What profession(s) are you seeking approval for? J

Please attach information that demonstrates that you are a "professional association" or an "educational organization" and a sample of your proposed mailing materials.

Mail to: PDRC - PO Box 47865 - Olympia WA 98504-7865
 Fax to: PDRC - 360-586-2171
 Email to: PDRC@DOH.Wa.Gov

Lorie Wild
 Signature J

4/28/16
 Date J

Appendix B

State Approval for Use of Lists

Dear Heidi Monroe:

Thank you for your list request received on June 3, 2016 for the following lists which are attached: Registered nurses.

The registered nurse profession list is too large to sent as one file. It was segmented in three files by Counties.

Please be advised that some lists may take up to 10 minutes to open. Since all lists have been provided to you, this request is considered closed.

If you have any questions or need additional information, please contact me via email the contact information listed below.

To ensure future requests are handled in a timely manner, or if you have any questions, please email the Public Disclosure Unit at pdrc@doh.wa.gov, or call (360) 236-4836.

Sincerely,

Sibylle Oatney, Forms & Records Analyst 2
Health Systems Quality Assurance (HSQA)
HSQA/Public Disclosure Unit
111 Israel Road SE, PO Box 47865
Olympia, WA 98504-7865
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Email: Sibylle.Oatney@doh.wa.gov

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Appendix C

NPVS-R Instrument

Nurses Professional Values Scale-R ©

Indicate the importance of the following value statements relative to nursing practice. Please circle the degree of importance.

(A = not important to E = most important) for each statement.

Not Important	Somewhat Important	Important	Very Important	Most Important
A	B	C	D	E

1. Engage in on-going self-evaluation.	A	B	C	D	E
2. Request consultation/collaboration when unable to meet patient needs.	A	B	C	D	E
3. Protect health and safety of the public.	A	B	C	D	E
4. Participate in public policy decisions affecting distribution of resources.	A	B	C	D	E
5. Participate in peer review.	A	B	C	D	E
6. Establish standards as a guide for practice.	A	B	C	D	E
7. Promote and maintain standards where planned learning activities for students take place.	A	B	C	D	E
8. Initiate actions to improve environments of practice.	A	B	C	D	E
9. Seek additional education to update knowledge and skills.	A	B	C	D	E
10. Advance the profession through active involvement in health related activities.	A	B	C	D	E
11. Recognize role of professional nursing associations in shaping health care policy.	A	B	C	D	E
12. Promote equitable access to nursing and health care.	A	B	C	D	E
13. Assume responsibility for meeting health needs of the culturally diverse population.	A	B	C	D	E
14. Accept responsibility and accountability for own practice.	A	B	C	D	E
15. Maintain competency in area of practice.	A	B	C	D	E
16. Protect moral and legal rights of patients.	A	B	C	D	E
17. Refuse to participate in care if in ethical opposition to own professional values.	A	B	C	D	E

OVER \square

Nurses Professional Value Scale-R ©

	Not Important	Somewhat Important	Important	Very Important	Most Important
	A	B	C	D	E
18. Act as a patient advocate.	A	B	C	D	E
19. Participate in nursing research and/or implement research findings appropriate to practice.	A	B	C	D	E
20. Provide care without prejudice to patients of varying lifestyles.	A	B	C	D	E
21. Safeguard patient's right to privacy.	A	B	C	D	E
22. Confront practitioners with questionable or inappropriate practice.	A	B	C	D	E
23. Protect rights of participants in research.	A	B	C	D	E
24. Practice guided by principles of fidelity and respect for person.	A	B	C	D	E
25. Maintain confidentiality of patient.	A	B	C	D	E
26. Participate in activities of professional nursing associations.	A	B	C	D	E

Appendix D

Authors' Permission

4/14/2016

Dear Ms. Monroe,

Thank you for your interest in our work on professional values.

An abstract, as well as The Nurses Professional Values Scale (NPVS-R) are enclosed. You have our permission to use the NPVS-R in your proposed research. We are requesting persons who use the NPVSR to provide the following at the completion of the research:

An abstract of your research findings using the NPVS-R which includes a description of the sample.

Our most recent publication regarding the NPVS-R can be found in the *Journal of Nursing Measurement*:

Weis, D., & Schank, M.J. (2009). Development and Psychometric Evaluation of the Nurses Professional Values Scale—Revised. Journal of Nursing Measurement, 17(3), 221-231.

Best wishes for success with your research.

Sincerely,



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Associate Professor

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u

DW/MJS:bj
Enclosures (3)

Appendix E

Demographic Questionnaire

1. In what type of program did you complete your nursing education when you first became licensed as a registered nurse (RN)?
 - diploma
 - associate degree
 - bachelor's degree
 - master's degree

2. Before you first became licensed as a registered nurse (RN) did you have a standalone course related to professional nursing ethics in your nursing program?
 - Yes
 - No

3. How long have you worked as a registered nurse?
 - less than two years
 - two to five years
 - more than five years, but less than ten years
 - ten years or more

4. After you became a licensed registered nurse, how many total hours have you spent attending courses that provide nursing ethics education (such as continuing education courses, inservice/on-site training, online learning modules, and/or academic classes)?

Please enter nearest whole number _____

Appendix F

NPVS-R Raw Scores Screening

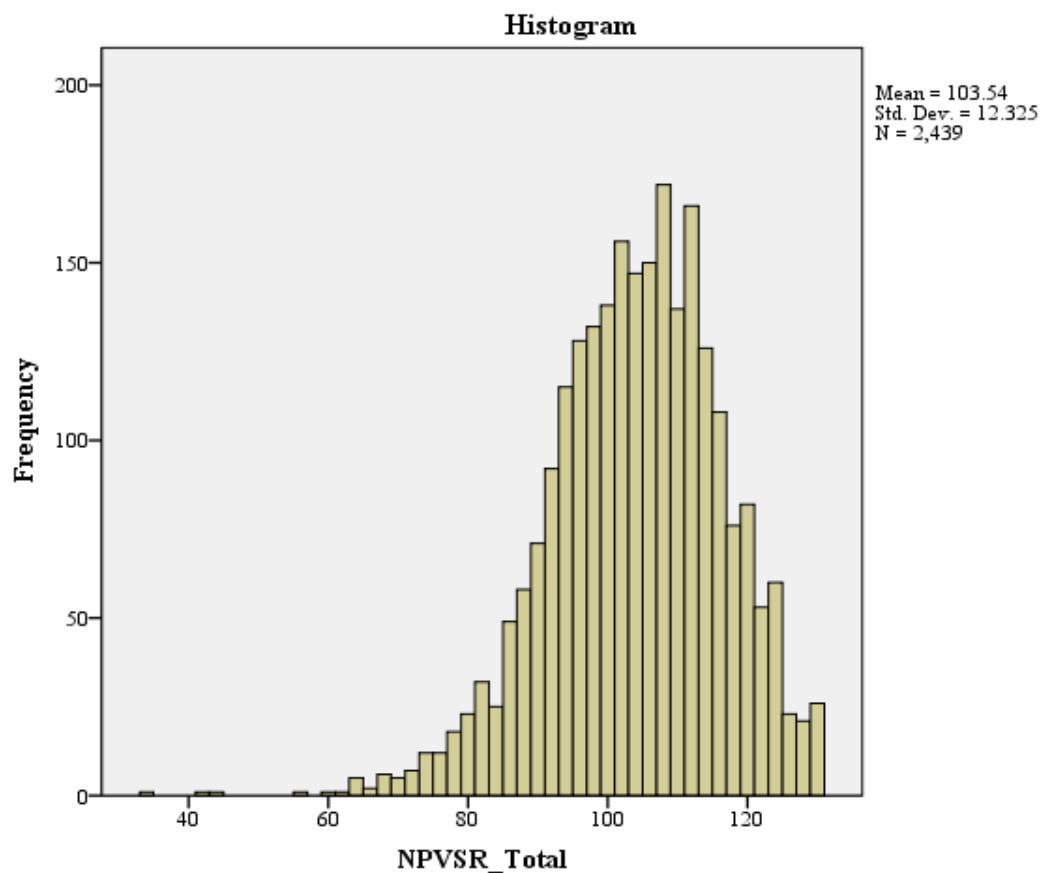


Figure F1. Raw NPVS-R scores histogram demonstrating negative skewness and presence of low-score outliers.

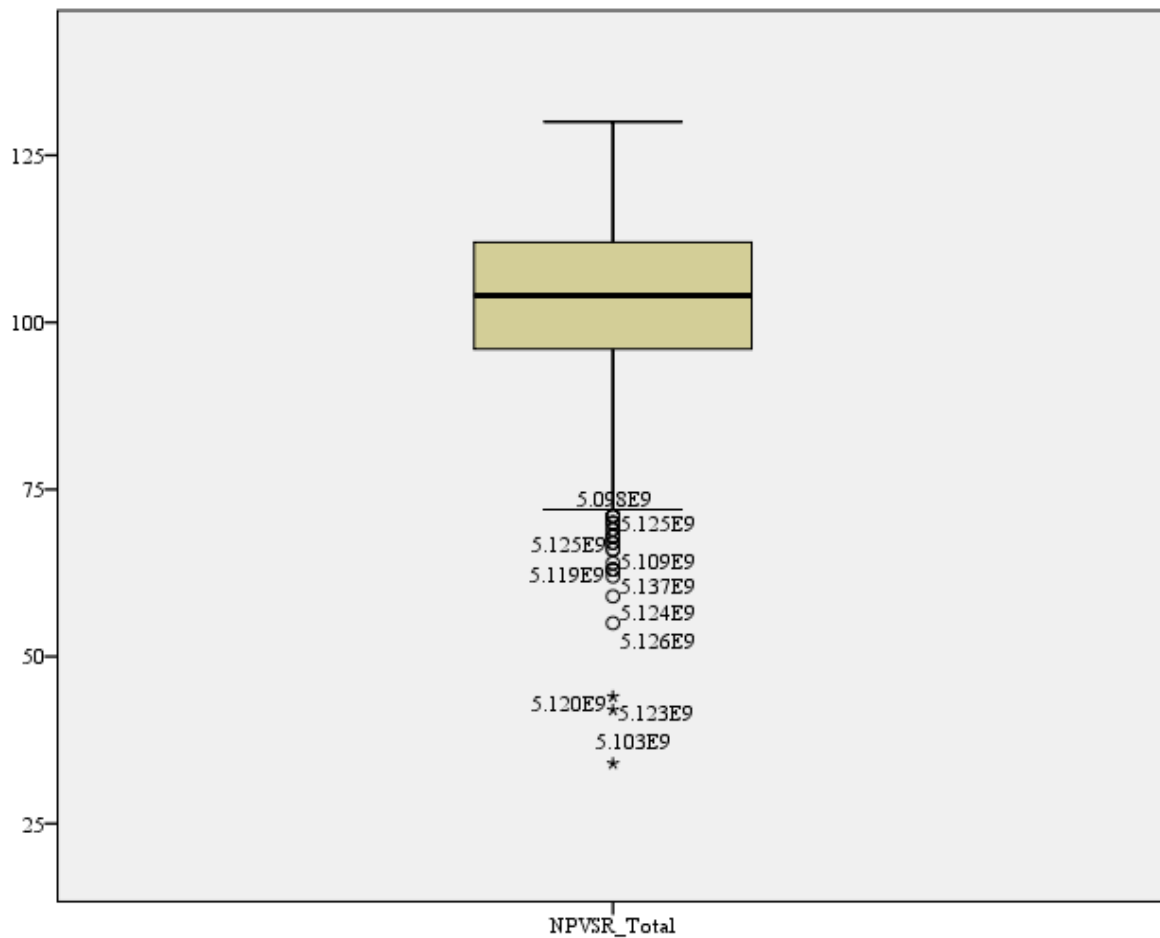


Figure F2. Boxplot of NPVS-R raw scores demonstrating presence of three extreme outliers.

Appendix G

NPVS-R Transformed Scores Screening

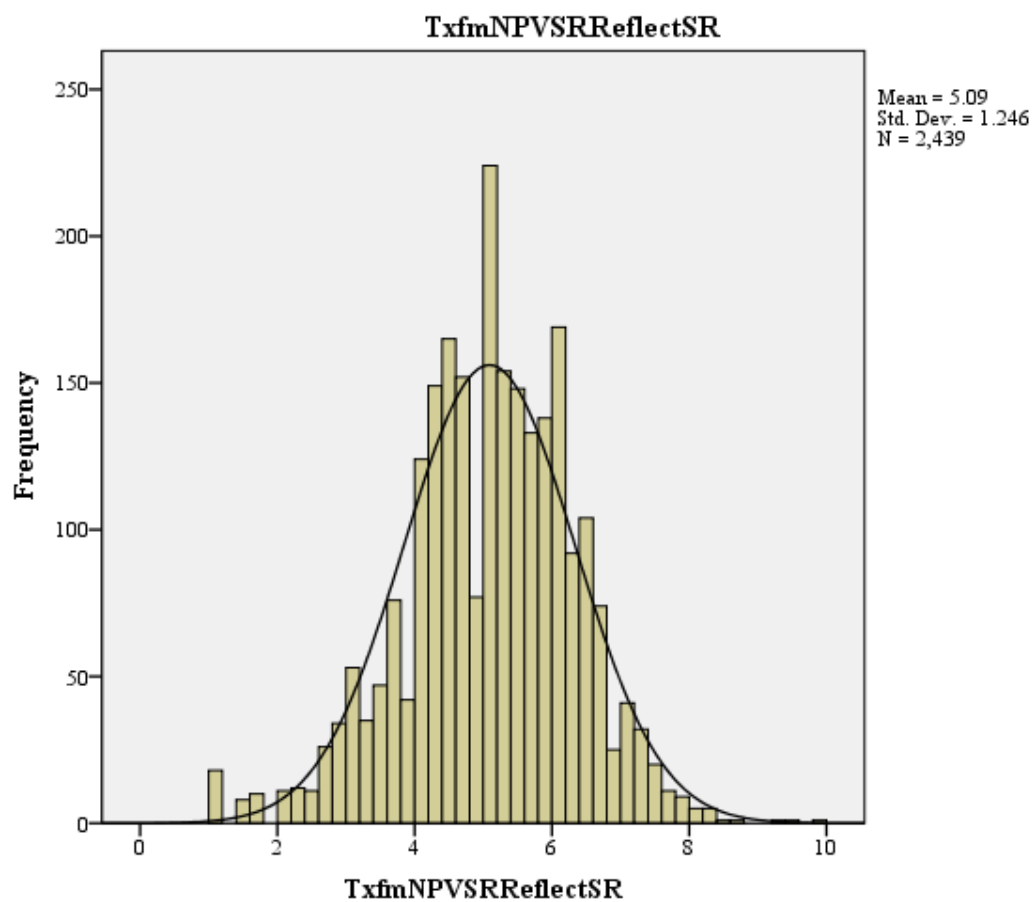


Figure G1. Histogram after transformation of NPVS-R variable.

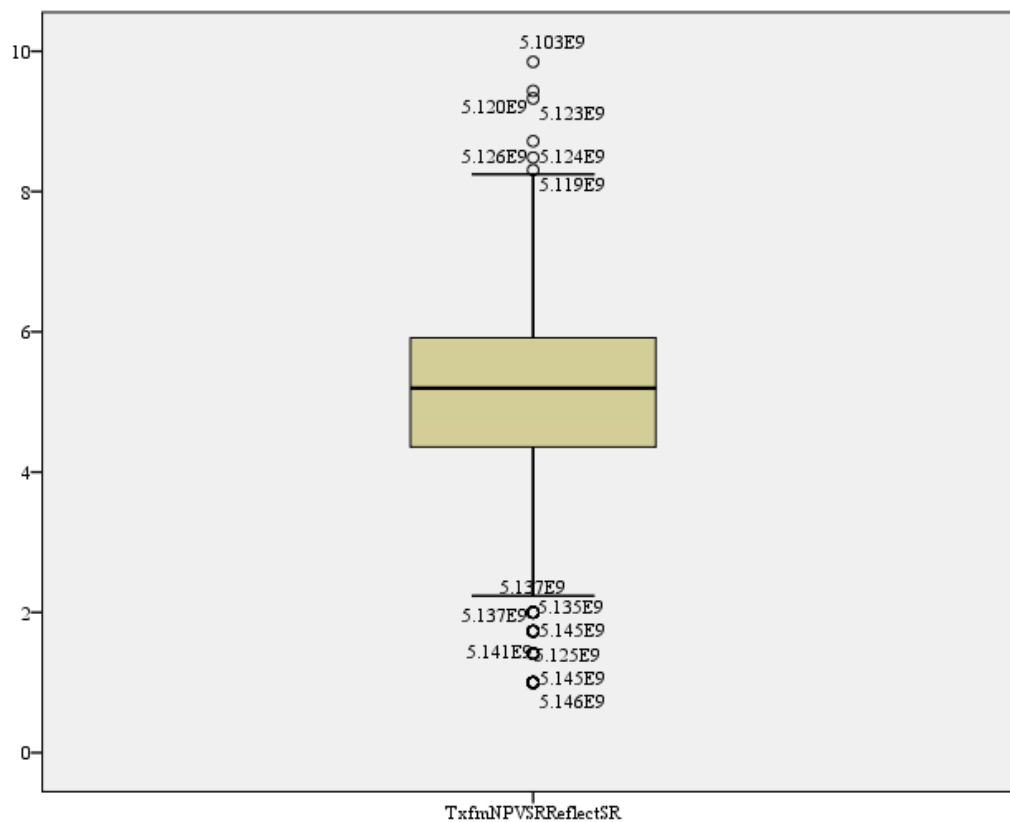


Figure G2. Boxplot of NPVS-R scores after square root reverse score transformation.

Appendix H

Comparison of NPVS-R Q-Q Plots with Raw and Transformed Data

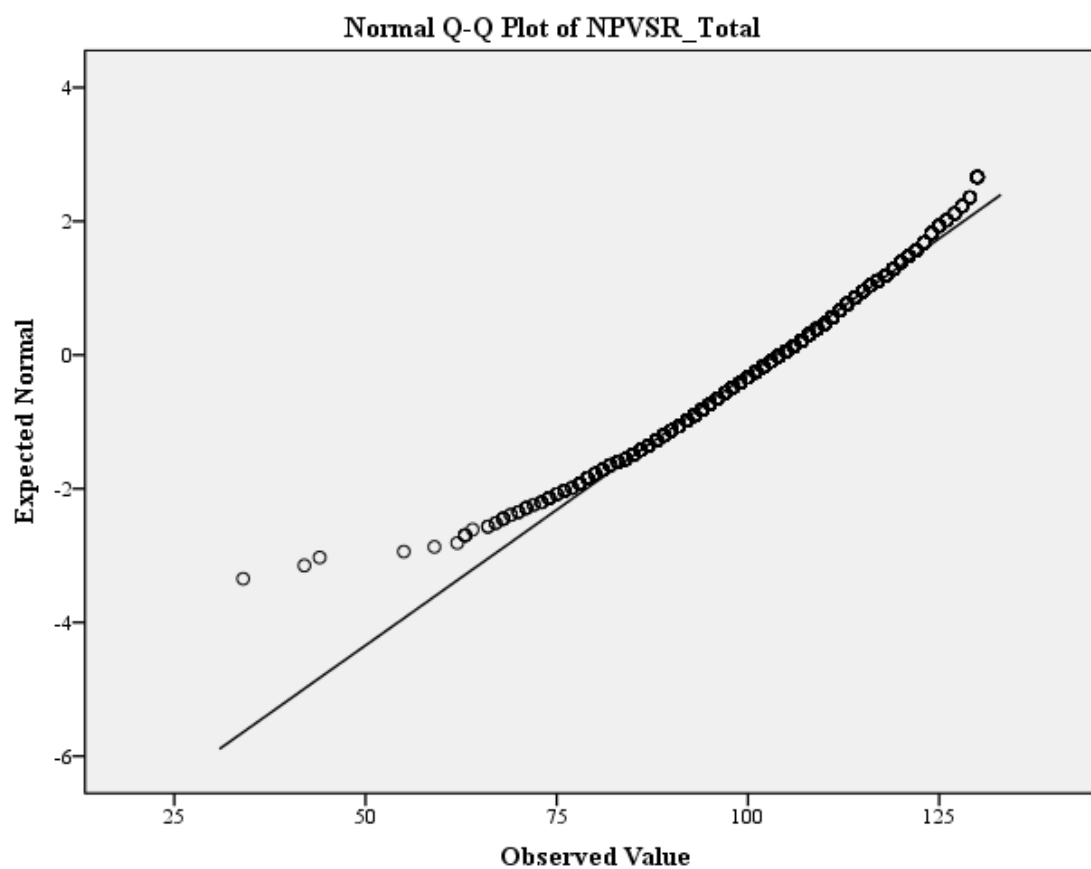


Figure H1. Q-Q plot with NPVS-R variable in raw data form.

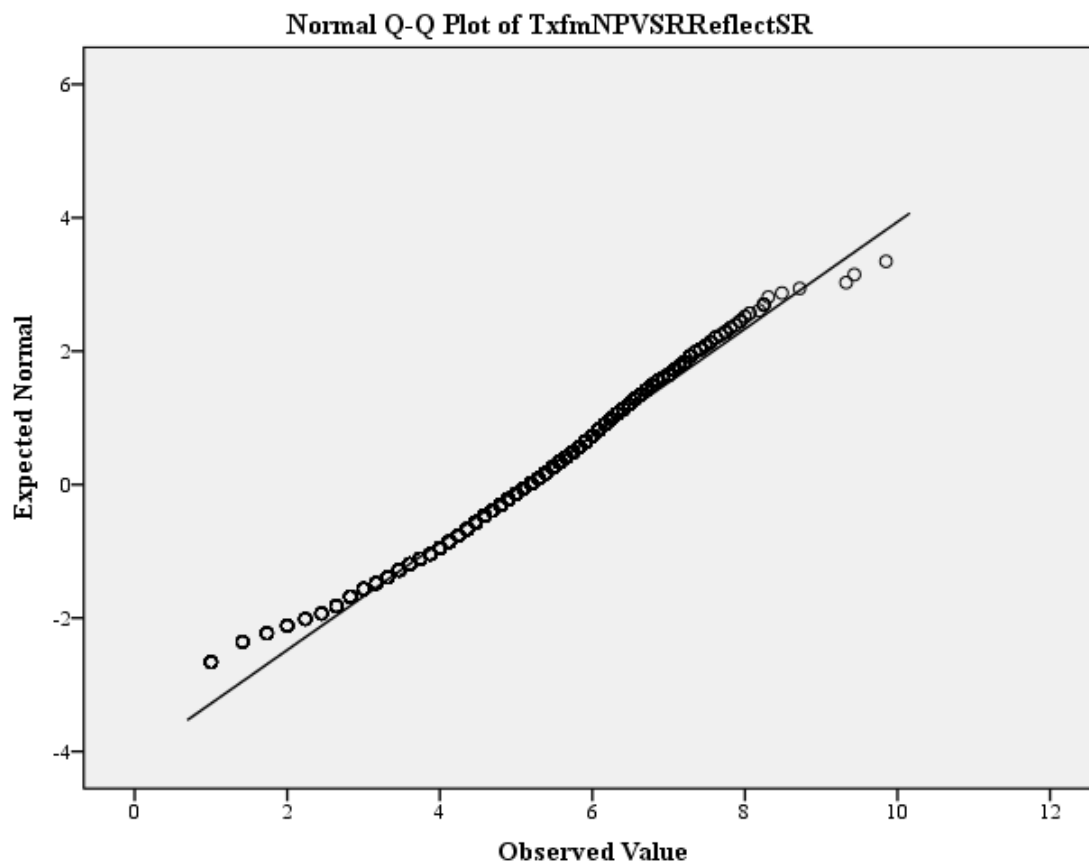


Figure H2. Q-Q plot of NPVS-R data after square root reverse score transformation. No marked difference in plots is seen with transformation of the variable.

Appendix I

Histograms of Pre-licensure Types

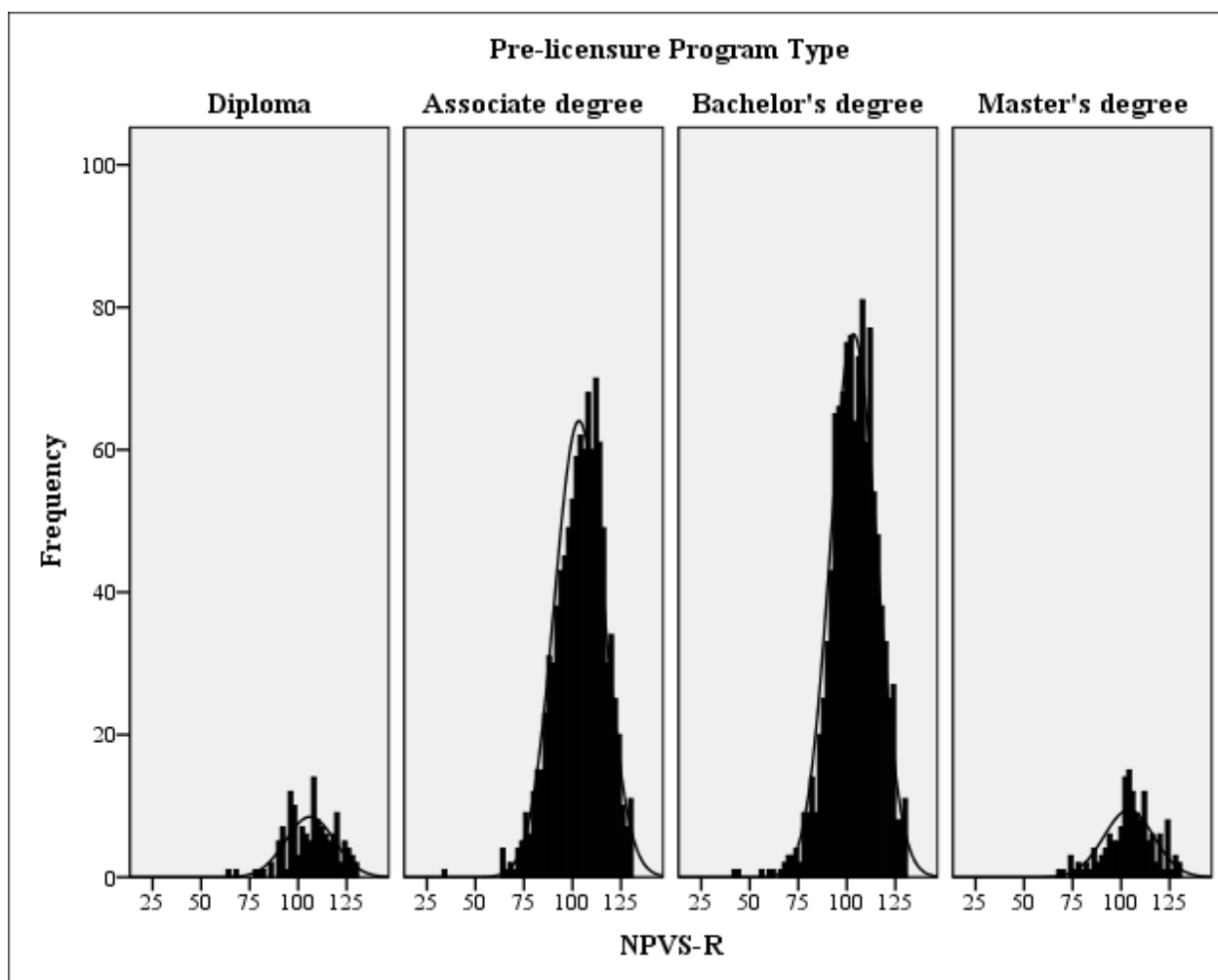


Figure II. Histograms of groups by pre-licensure types demonstrating normality of score distributions.

Appendix J

ANOVA of NPVS-R Grouped by Program Type

Table J1

ANOVA of Program Type

	Sum of				
	Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Between Groups	1018.147	3	339.382	2.238	.082
Within Groups	369336.095	2435	151.678		
Total	370354.242	2438			

Appendix K

Independent Samples *T*-test

Table K1

T-test Between Groups Who Did or Did Not Take Standalone Course

		Levene's Test for Equality of Variances		<i>t</i> -test for Equality of Means						
		<i>F</i>	Sig.	<i>t</i>	<i>df</i>	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
NPVS-R	Equal variances assumed	2.10	.15	.61	2437	.54	.31	.50	-.68	1.29
	Equal variances not assumed			.61	2369.69	.54	.31	.50	-.68	1.29

Appendix L

Histogram of Raw Data HrsCE

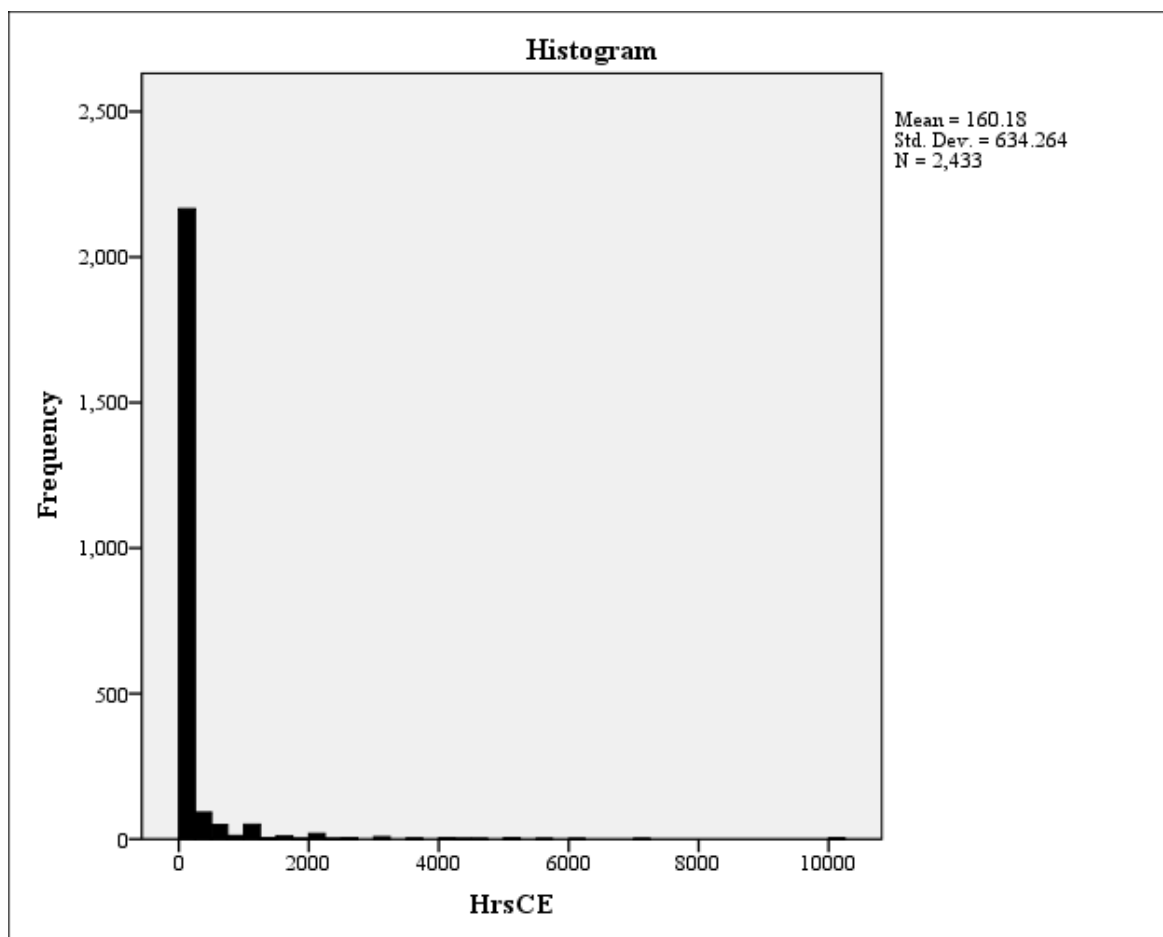


Figure L1. Histogram of raw HrsCE data demonstrates marked positive skewness, kurtosis, and non-normality.

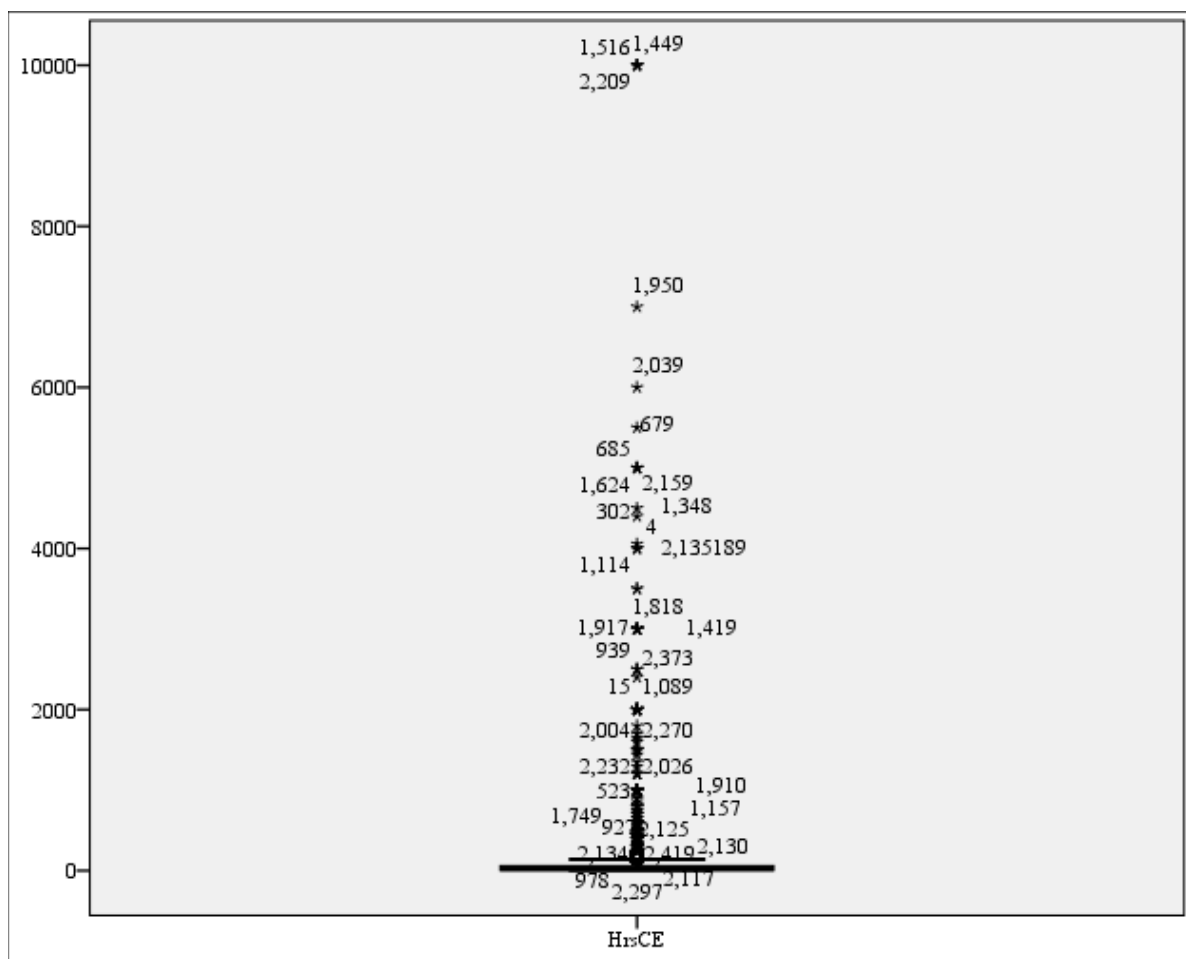


Figure L2. Boxplot of raw HrsCE data illustrates non-normality and multiple extreme outliers.

Appendix M

Graphs of Transformed HrsCE Variable

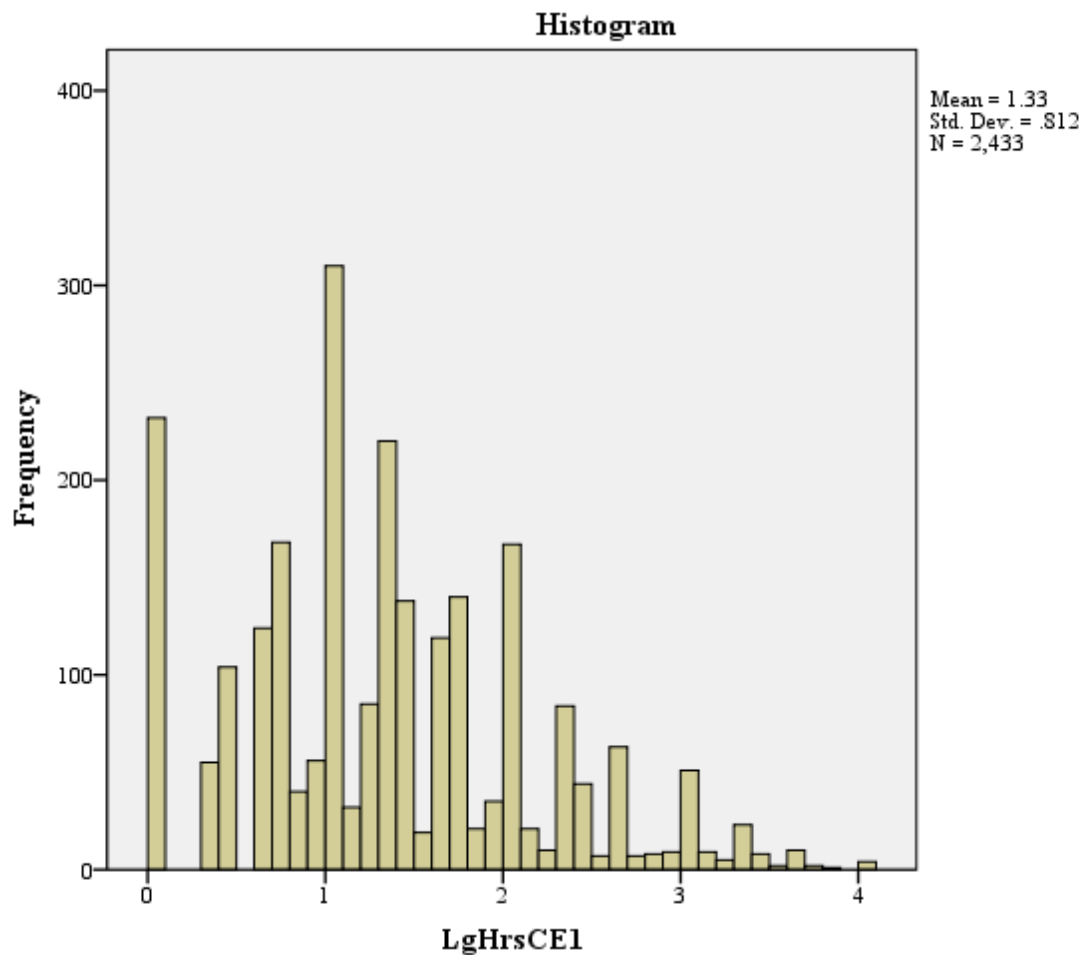


Figure M1. Histogram of log transformation (LgHrsCE1) for HrsCE illustrates improved normality of data.

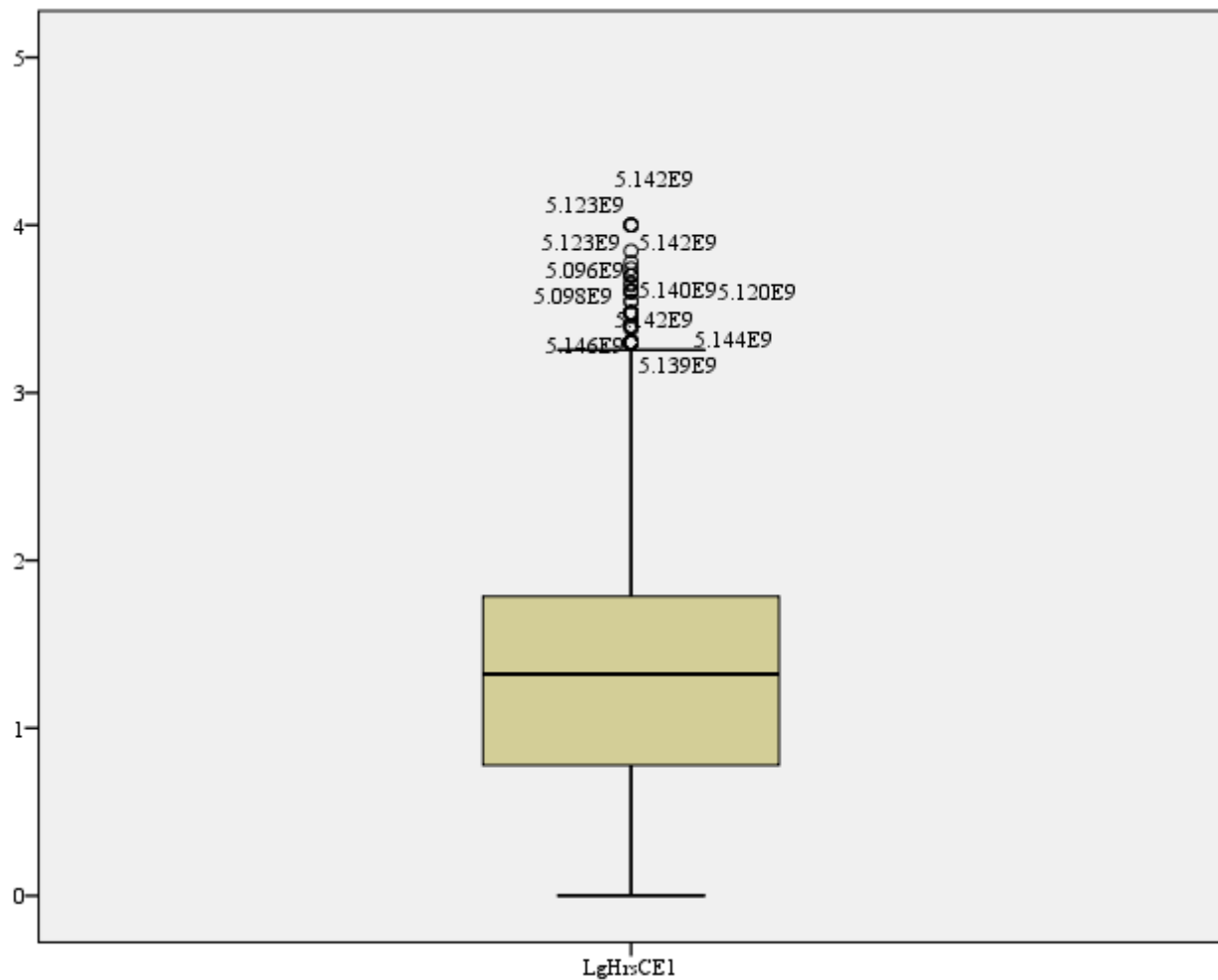


Figure M2. Boxplot of log transformation (LgHrsCE1) for HrsCE illustrates improved normality of data and no extreme outliers.

Appendix N

Scatterplot of Scores from NPVS-R and Transformed HrsCE

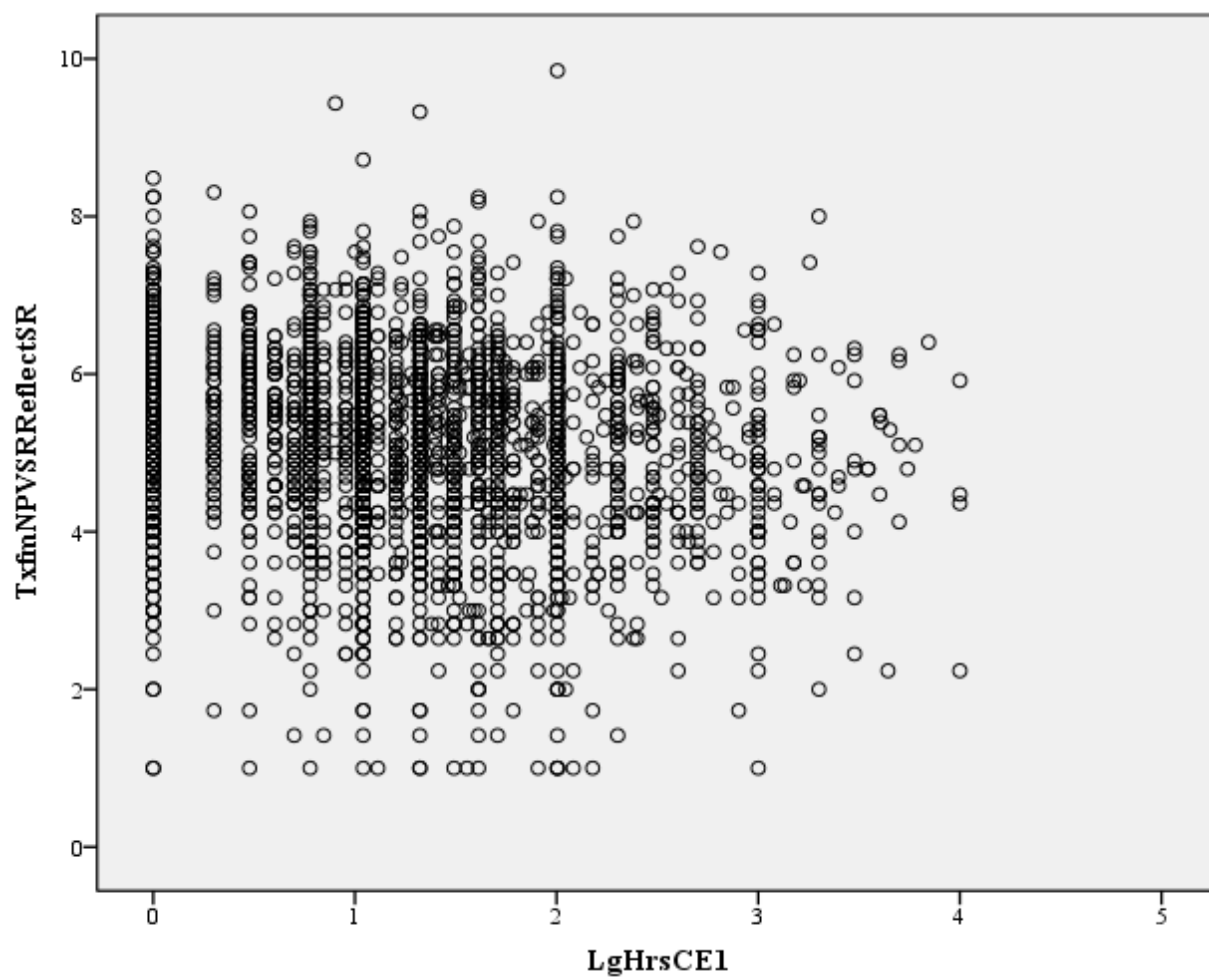


Figure N1. Scatterplot of NPVS-R and transformed HrsCE (LgHrsCE1) suggests no curvilinearity and lack of homoscedasticity.

Appendix O

Normality of Scores Grouped by Years of Experience

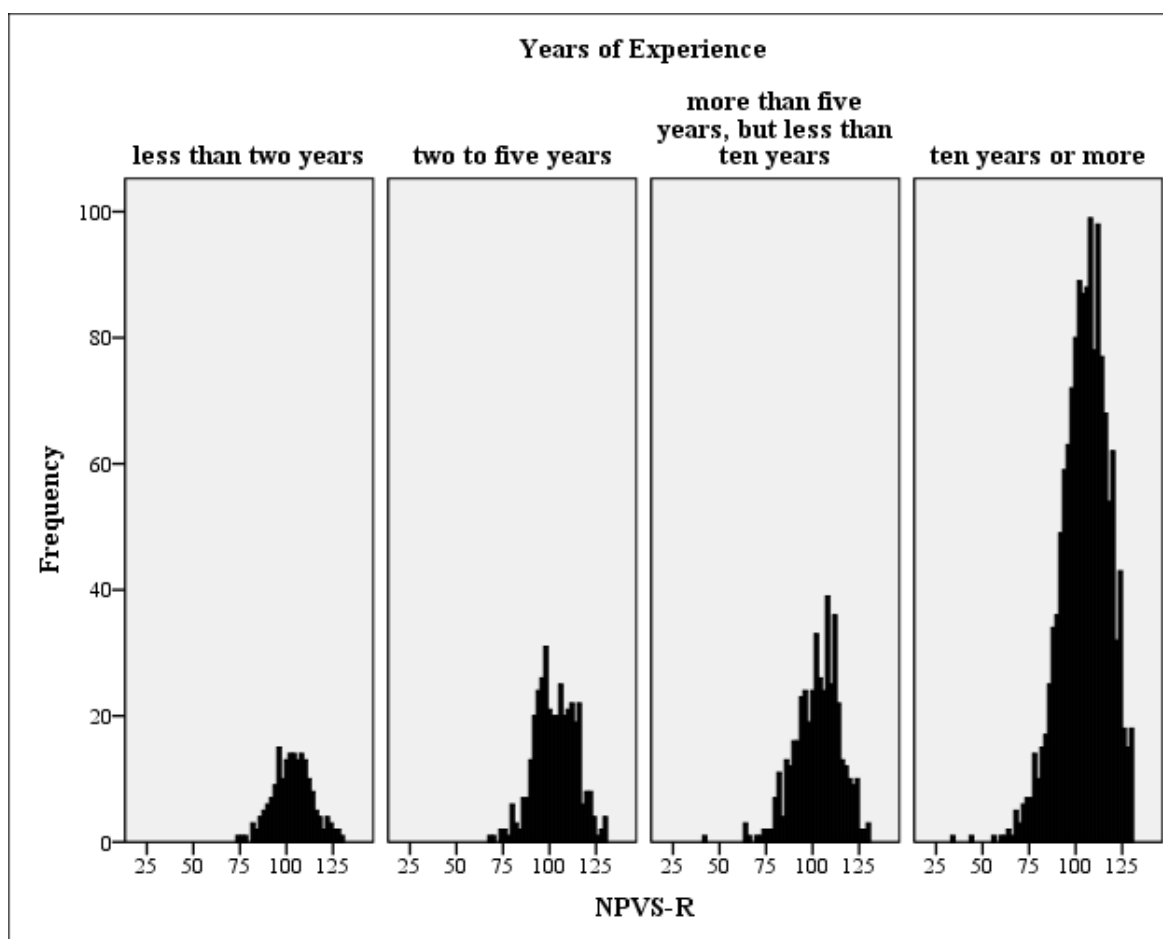


Figure O1. Histogram of scores grouped by years of experience illustrating acceptable normality for analyses.

Appendix P

NPVS-R Grouped by Years of Experience

Table P1

Levene's Test Showing Significant Homogeneity of Variances of Groups by Years of Experience

NPVS-R

Levene Statistic	<i>df1</i>	<i>df2</i>	Sig.
3.324	3	2435	.019

Table P2

ANOVA of Years of Experience

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Between Groups	2297.16	3	765.72	5.07	.002
Within Groups	368057.08	2435	151.15		
Total	370354.24	2438			

Table P3

Robust Equality of Means

NPVS-R				
	Statistic ^a	<i>df1</i>	<i>df2</i>	Sig.
Welch	5.13	3	635.27	.002
Brown-Forsythe	5.69	3	1258.42	.001

a. Asymptotically F distributed.

Table P4

Games-Howell Post-hoc Testing

Dependent Variable: NPVS-R

Games-Howell

(I) Years of Experience	(J) Years of Experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 less than two years	2 two to five years	.25	.98	.99	-2.28	2.77
	3 more than five years, but less than 10 years	.59	.98	.93	-1.94	3.11
	4 10 years or more	-1.60	.86	.24	-3.81	.61
2 two to five years	1 less than two years	-.25	.98	.99	-2.77	2.28
	3 more than five years, but less than 10 years	.34	.83	.98	-1.78	2.46
	4 10 years or more	-1.84*	.62	.03	-3.58	-.11
3 more than five years, but less than 10 years	1 less than two years	-.59	.98	.93	-3.11	1.94
	2 two to five years	-.34	.83	.98	-2.46	1.78
	4 10 years or more	-2.18*	.67	.01	-3.92	-.45
4 10 years or more	1 less than two years	1.60	.86	.24	-.61	3.81
	2 two to five years	1.84*	.67	.03	.11	3.58
	3 more than five years, but less than 10 years	2.18*	.67	.01	.45	3.92

*. The mean difference is significant at the 0.05 level.