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MORAL DEVELOPMENT AND PUBLIC HEALTH NURSING

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Margaret Avila, MSN, MS, PHN, APRN

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Dissertation Committee

Jane M. Georges, PhD, RN, Chairperson

Ann Mayo, DNSc, RN, FAAN

Dan Jordan, PhD

UNIVERSITY OF SAN DIEGO

Hahn School of Nursing and Health Science

DOCTOR OF PHILOSOPHY IN NURSING

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CANDIDATE'S
NAME:

Margaret Avila

TITLE OF
DISSERTATION:

Moral Development and Public Health Nursing

DISSERTATION
COMMITTEE:

[REDACTED]
Jan~~/~~Georges, PhD, RN, Chair

[REDACTED]
Ann Mayo, PhD, RN, FAAN

[REDACTED]
Dan Jordan, PhD

ABSTRACT

Public health nurses (PHNs) have the opportunity and professional obligation to be at the forefront of the fight to eliminate health disparities based on the practice principle of social justice. The overall purpose of this descriptive study was to explore the stage of the moral development in a convenience sample of practicing public health nurses (PHNs) and the differences in moral development stage across selected demographic variables (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California.) The sample consisted of 196 PHNs from four regions in the state of California. A demographic data survey and the Defining Issues Test 2 (DIT-2) developed by Rest et al. (1999) to identify the stage of moral development based on Kohlberg's 6 stages were administered to participants. Descriptive statistics, t-test, one-way and two-way ANOVA were used to achieve the specific aims. Results demonstrated that participants scored at either stage 4 or 5 out of 6 possible stages. The following significant relationships were found between DIT scores and demographic variables. A significant relationship was noted between higher scores on the DIT-2 and being less than 50 years of age, having more liberal political views, and having English a primary language. Future studies are needed to accommodate a larger, more diverse sample size to compare gender and educational differences. Additional longitudinal studies examining the moral development and characteristics of registered nurses who self-select as career PHNs are indicated to examine the complex relationships between these factors.

Key words: moral development, social justice, public health nursing

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DEDICATION

I dedicate this dissertation to:

- My father whose encouragement, humor, and love gave me courage
- My mother whose discipline and straightforwardness gave me strength
- My husband, daughter and siblings whose unconditional support gives me energy to pursue life.

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This journey was possible through the caring and support of my personal network that I am grateful to have in my life:

- My family: spouse, daughter and siblings who unconditionally believe in me no matter the project.
- My friends and colleagues who supported this research by sharing access to their positive energy.
- In particular I am grateful to my public health nursing colleagues for their support and to public health nursing workforce that graciously agreed to participate. It is their dedication to the common good of all in our communities that generated the impetus to pursue this research.

A few years back I was referred to as an example of “ a life long learner.”

However, my motivation for starting this journey is best summarized by the following saying that I encountered a few years ago (author unknown): “Life is not a journey to the grave with the intention of arriving safely in a pretty and well preserved body, but rather to skid in broadside, thoroughly used up, totally worn out, and loudly proclaiming—‘wow...what a ride!’ ”

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CHAPTER 1

Introduction

Background

The principle underlying the commitment to health equity by reducing disparities in health and its determinants is social justice (Satcher, 2008). The Public Health Code of Ethics starts with the statement “the mandate to assure and protect the health of the public is an inherently moral one” (Public Health Leadership Society (PHLS), 2002). Public health workers must function in the spirit of advocating for the disadvantaged, who statistically experience disease, disability, & injury disproportionately. It is expected that public health nurses (PHNs) commit to exercising justice as exemplified in the practice of such pioneers as Florence Nightingale and Lillian Wald, who embraced a social justice approach (Boutain, 2005). A current concern is that unlike the practice of these nursing pioneers, contemporary public health nursing practice may not explicitly be driven by the principle of social justice (Drevdahl, 1999). Public health nurses find themselves practicing in economic and political environments with reduced resources, eroding infrastructure, and emerging new infectious diseases at a global and local level. Public health nurses are expected to advocate for the disenfranchised and question existing care practices as well as take action for the common good (McCurry, Revell, & Roy, 2010). Thus, the question arises regarding the current status of the moral development in PHNs: do contemporary PHNs possess the level of moral development needed to engage actively in a practice directed for the common good? The future of public health nursing depends on the nurses’ ability to recognize social, economic, and political aspects of the

environment as they affect health and to intervene at the community level (Drevdahl, Kneipp, & Dorcy, 2001).

There are several key human rights principles that direct the discussion to health and that are essential to every individual's well being. Health disparities and the determinants of health are used to assess health equity. Gostin (2007) states that "social justice demands more than fair distribution of benefits and burdens . . . A failure to plan and act, in support of the disadvantaged and with equal concern for all citizens harms the whole community by eroding public trust and undermining social cohesion" (2007, p. 225). Public health practice focuses on the population with the intent to act fairly while deliberatively. On both global and national levels "health" is dependent on creating/providing social and physical environments that support healthier lifestyle behaviors on an individual, community and systems levels.

The public health specialty has its roots in history as far back as the early Egyptians. The movement in the United States originated in Massachusetts in the mid 1800's. The Institute of Medicine (IOM) report, titled *For the Public's Health: The Role of Measurement in Action and Accountability* (2010), examines the impact health systems have on the population, and the outcomes. When one considers any of the definitions of public health, one comes to understand that the discussion of health moves from the individual and family to the health of populations. The National Institutes of Health (NIH) defines health disparities as "differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States" (NIH website, 2010). In practice most definitions that have evolved by federal agencies are considered very broad and do not address the

different ethical, philosophical, legal, and cultural aspects that influence many inequalities and inequities that exist in the United States.

Many feel the lack of clarity in defining disparities has resulted in the lack of progress toward reducing racial/ethnic as well as socio-economical disparities in health care. The Center for Disease Control (CDC) states in the Morbidity and Mortality Weekly Supplement “health disparities are differences in health outcomes between groups that reflect social inequalities” (CDC, 2011, p. 4). Public health nurses play a central role serving the needs of the public.

Historically, the specialty of public health nursing began with roles of health provider, educator, and social worker. The Quad Council of Public Health Nursing Organizations is comprised of the Association of Community Health Nurse Educators (ACHNE), the Association of State and Territorial Directors of Nursing (ASTDN), the American Public Health Association Public Health Nursing Section (APHA), and the American Nurses Association’s Congress on Nursing Practice and Economics (ANA). In 2011, the Quad Council updated the competencies for public health nurses to insure that they were in alignment with the competencies for all public health professionals. Eight domains described the expectations of practice for the generalist nurse in the field, the nursing supervisor and public health nursing administrator.

Public health nurses have the opportunity and the obligation to be in the forefront of the fight to eliminate health disparities in society (Drevdahl, 1999). One of the key historical roots for public health nursing practice lies in the concept of social justice. To realize this effort, it can be posited that public health nurses must execute moral judgment based on a value system that treats the claims of all parties in an impartial manner,

respecting the basic dignity of all people as individuals (Drevdahl, et al., 2001). Nurses along with other public health workers are consistently challenged in their practice in dealing with such issues as poverty, substandard housing, poor education, polluted environments, and sanitation. These issues are addressed with actions that are directed at safeguarding the public's health, while simultaneously maintaining respect for individuals and a concern for the needs of the disenfranchised (Gostin, 2006).

Communities are dependent on nurses to assist them through challenging times related to key life events (Drevdahl, 2002). Society depends on nurses to make sound judgments along with other members of the health care team regarding the use of scarce health care resources. Schim and coauthors (2006) assert that the US healthcare system is expected to prioritize efforts and resources based on the conditions that can adversely affect premature death, disability, and quality of life.

Nurses have historically addressed and practiced their profession appreciating the value of the human being and human rights. Public health nursing has a history of practicing justice that is best illustrated in the work of key nursing leaders. Florence Nightingale's work focused on justice, public service and reform. She made significant contributions to hospital administration and its environment in relation to patient care and outcome (Stanley & Sheratt, 2007). Lillian Wald was critical in articulating the practice of nurses within communities. She founded the first community-based agencies to address the need for services among the poor (Abrams, 2008). In doing so she enhanced the societal status of women as well as the nursing profession. Margaret Sanger was pivotal in the fight for reproductive health for women who did not have the means to control their fertility. She was jailed several times for her efforts to distribute information

regarding birth control, which was considered obscene in the early 1900s (Bone, 2010). These women recognized that racial equality, reproductive freedom, and healthy environments had a direct impact on a community's health. It is this legacy that public health nursing claims as its foundation.

Public health nursing has the responsibility of advancing the rights and opportunities of all members of our communities. Experience with diverse communities and vulnerable populations greatly enhance the public health nurses' knowledge base (Abrams, 2010). It is this expertise that allows nurses' participation in the decision-making process and discussions with public health colleagues. Public health nursing practice requires an appreciation and understanding of the concept of social justice (Educational Committee of ACHNE, 2010).

Gostin (2006) asserts the centrality of social justice in relation to health care, particularly to communities or population based health care. Currently, nursing is at a point both nationally and globally to accept the responsibility, but this author feels that it must execute responsibilities from a moral base. To do so is to recognize the current health disparities among the other injustices and inequities. In order to create a value system needed to support such effort, nurses must act, because of nursing's ethical responsibility to its clients (Drevdahl, 2001). In the public health practice setting it is imperative that public health workers, including public health nurses, execute their work using moral judgment that is aligned with the principles of social justice. Social justice can be posited as a basic component of the value systems that public health nurses hopefully have developed making them morally sensitive to the challenges of the communities they serve. However, there currently exists a lack of information regarding

stages of moral development in nurses. While several surveys of various professional groups assessing stage of moral development have been published (Slomka, Quill, desVignes-Kenrick, & Lloyd, 2008), no current published studies regarding nurses have been identified.

In the state of California, there are sixty-one jurisdictions or public health departments, which are configured into four regions, i.e., Northern, Bay Area, Central and Southern regions. The public health nurses (PHNs) in these jurisdictions are currently involved with intense program development related to health disparities. A shared set of moral assumptions among PHNs would enhance cohesiveness in goals and efforts aligned with the mission of public health practice in the US. Determination of the moral stage of public health nurses, who optimally should practice at the highest level of moral operation based on their code of ethics, serves as a starting place for future research into the moral development of registered nurses in the public health nursing field.

Purpose of the Study

The overall purpose of this descriptive study was to explore the stage of the moral development and selected demographic variables and their relationships in a convenience sample of practicing public health nurses (PHNs) in the State of California. Based on Kohlberg's (1966) six stages of moral development, this study identified the stage of moral development for the PHN participants from a convenience sample drawn from various geographic regions of California's public health nursing workforce. Kohlberg (1977) documented that factors such as educational level are correlated with higher levels of moral development. Based upon Kohlberg's (1966, 1975, & 1977) and Rest et coauthors' work (1969), other demographic factors, including age, race/ethnicity, and

self-identified political views also can be posited as related to level of moral development. Thus, the following selected demographic factors were explored in relation to stage of moral development in this study: age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California.

Specific Aims

The specific aims of this study were to:

1. Describe relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California) in a group of PHNs practicing in California;
2. Describe the stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population;
3. Examine the differences in the levels of stages of moral development across relevant demographic variables in this population.

Conceptual Framework

The conceptual framework underlying this study is the work of Lawrence Kohlberg (1966, 1975, & 1977) who developed a model for moral development. Initial research into moral development began with the work of Piaget (Piaget, 1977, p. 159). His work centered on children and their perceptions of rules. Piaget documented a series of changes that occur between certain age groups. Kohlberg (1966, 1975, & 1977) and

coauthors (Rest, Turiel, & Kohlberg, 1969) built upon this work beginning in children, and then expanded it to adults. Rest, Turiel, and Kohlberg (1969) identified specific stages of moral development, with five and (in later work,) six stages of moral development. At stages five and six, people are more concerned with the principles and values that make for a good society and less with maintaining the status quo. In Kohlberg's (1966, 1975, & 1977) and Rest, Turiel, and Kohlberg's work (1969), "moral judgment" is defined as a process by which people determine a course of action in a particular situation as either morally right or wrong. For the purposes of this study, this definition of moral judgment is used.

In this schema, six stages of moral development are posited that are sequential and integrated under three levels as moral development progresses. The first level labeled "pre-conventional" includes the first two stages, which Kohlberg (1966) asserts occur in childhood. These two stages are when rules and an understanding of right or wrong, good and bad along with an understanding of reciprocity and fairness occur. The second level is called "conventional" and includes the next two stages of three and four. The individual is sensitive to the expectations of one's family or group, who are understood to be valuable on the basis of loyalty. It is at this level that authority and rules along with a sense of social order are connected to one's own sense of duty. The last level, "post-conventional" or "principled" level, is one in which individuals develop an individual perspective of moral values, including stages five and six. Individuals at stage five believe that a good society is best conceived as a social contract into which people freely enter to work toward the benefit of all. They recognize that different social groups within a society will have different values, but they believe that all rational people would agree

on two points. The last and sixth stage is referred to as “the universal-ethical-principle orientation.” *In this stage, the decision to act is based on principles that are abstract and ethically driven, not on concrete rules. It is thought to be a level founded on justice and respect for everyone as individual humans. “First they would all want certain basic rights, such as liberty and life, to be protected. Secondly, they would want some democratic procedures for changing unfair law and for improving society”* (Rest, Navarez, Bebeau & Thoma, 1999, p. 295).

Impact of the Study

The current political and economic environments and discussions related to health care reform place a renewed focus on the public health systems within the US. The emphasis has redirected efforts to increase the promotion of primary prevention of disease, disability and preventable injury and reinforce the need for health promotion. The allocated resources and proposed systems are directed at the common good of vulnerable populations while attempting to insure a more equitable system for access to resources for healthier people in healthier communities.

Nursing historically has been the largest discipline in most health care settings, including public health. There is a societal expectation and an express professional code of ethics that has mandated public health nursing be at the forefront of the fight for the common good. The unique social position of nursing professionals within public health systems has equipped them to advocate for system change as a means of improving the health of communities in which they live and serve. Social responsibility imposes a moral obligation on health professionals in general and public health nurses in particular

to be engaged in addressing such issues as access to care, the just allocation of health resources, reduction in poverty, and education of the public about health risks.

This study provided a starting point for the investigation of moral development stage that practicing public health nurses have achieved. A critical gap exists in knowledge of moral development in registered nurses, and this study constitutes an initial step in the development of a body of knowledge regarding this phenomenon. Subsequent chapters contain a review of the literature, the methods used in this study, the findings, and the implications for future research in this area.

CHAPTER 2

Literature Review

Role of Social Justice in Public Health

The specialty practice of public health has historically protected and promoted the health of society at large, through social rather than individual actions while it sought to improve the well being of communities at large (Kass, 2001). In 1998 the American Public Health Association (APHA) chose to commemorate its 150th anniversary with social justice specifically named as the foundation of its practice. It is the concept of social justice that has guided the APHA in focusing on social determinants of health, including the social and economic disparities that lead to poor health and the potential for unfair distribution of benefits and burdens linked to health (Slomka et al., 2008). In the US, the relationship between public health and government has a long and involved history that is beyond the scope of this dissertation. The centrality of public health in affecting individual freedoms has been recognized in numerous legal proceedings up to and including the level of constitutional jurisprudence (Bayer, Gostin, Jennings, & Steinbock, 2007, p. 27). In the later 20th century, an expanded approach to public health incorporated socioeconomic and cultural considerations as integral determinants of health. Public health has represented the voice of social conscience and has served as the key advocate for the disfranchised or vulnerable who have suffered disproportionately from preventable disease, injuries and disabilities (Bayer et al, 2007, p. 29).

At the global health level, the focus on social determinants of health has led to discussions across disciplines, including most recently epidemiology and philosophy. The ethics of the social determinants of health have crossed between public ethics and health

equity, but more specifically between the philosophy of epidemiology and philosophy of health and social justice (Venkatapuram & Marmot, 2009). Social epidemiology has taken into consideration the causes of incidence, which involve lifestyle behaviors and physical and social environments reflective of distribution of health across populations (Burris & Anderson, 2010). Social justice has driven the work of public health workers as they have assessed and addressed limited resources and the distribution of health across populations and communities. A central recent emphasis of public health has been the attempt to improve the function and longevity of target populations/communities. Strategies to reach this goal include the monitoring and evaluation of the health status of communities, while simultaneously taking measures to prevent injury, disease and disability as well as premature death. Congruent with this population-based emphasis, in 2002 the Public Health Leadership Institute proposed separating the Code of Ethics for Public Health from the medical ethics code (Baum et al, p. 369). The primary reasons for this proposed separation were public health's set of unique emerging foci, including populations/communities, resource allocation, political context, and the evolving nature of public health practice (Baum et al, 2009, p. 371).

The Role of Social Justice in Public Health Nursing Practice

Nursing education has focused on the science and art of caring. Nurses have been taught to care about their clients beyond the physical needs by the use of a holistic approach that includes the social, cultural, economic and environmental context (Porr & Egan, 2013; Price, 2013; Sitzman, 2010). On an individual level nurses have advocated, educated and guided clients through complex healthcare systems, thereby facilitating access to resources that addressed effectiveness of the treatment plan (Schim, 2006). This

approach included not only individuals and families but also communities and society as a whole (Woods, 2012). Historically, nursing has embraced a professional ethic and a practice reflective of social justice. Florence Nightingale, Lillian Wald, Margaret Sanger and others recognized the impact nurses could and should have on the social, physical and political environments (Sistom & Hale, 2006). These nurse leaders focused their energies on impacting systems that affect the health of populations by working with communities, as well as individuals and families who live in them.

In their *Statement of Policy 05-08 Education and Recruitment of Public Health Nurses* (2009), the National Association of County and City Health Officials (NACCHO), describes the cornerstone of public health nursing as being grounded in “social justice, compassion, sensitivity to diversity and respect for the worth of all people, especially the vulnerable”. In contrast to other professions, such as social workers who have the words “social justice” specifically stated in their Code of Ethics (National Association of Social Workers, 1999, p. 18), nursing has a marked absence of the concept of social justice in critical documents. Bekemeier and Butterfield (2005) reviewed three key nursing documents, i.e., American Nurses Association Code of Ethics and Interpretative Statements, Nursing Social Policy Statement, and the Nursing Scope and Standards of Practice and found “inconsistent, ambiguous, and superficial conceptualization” of social justice. As described above, the foremothers of public health nursing clearly emphasized social justice in their work and activism to change systems through political action as a means to improve the health of populations and communities. Their practice was directed specifically to the vulnerable and they recognized that social determinants of health gave nursing a unique perspective. Nurses

have continued to practice in settings where they are intimately aware of those factors that contribute to the health behaviors of patients, including the limitations of resources, information, and the stories behind the science of their illness (Bekemeier & Butterfield (2005), p. 160).

The Concept of Social Justice

The concept of social justice and how it affects criteria for clinical decision-making has been thematically inconsistent among the public health disciplines. This inconsistency has complicated the ways in which the concept has been translated into practice for public health workers from multiple disciplines, including nursing. A complex history exists across literatures that explore such foundational concepts as social justice and moral development. The translation of such concepts into practice provides an additional level of complexity in reviewing the literature. While a complete coverage of this topic is beyond the scope of this dissertation, the following review of the literature includes critique of relevant texts from philosophy, the social sciences, behavioral sciences, and, ultimately, psychology.

The Concept of Moral Development

Piaget. Across literatures, the term “morality” is often juxtaposed with the term “ethics,” and both are often used synonymously. Throughout history, philosophers have debated what constitutes a moral decision, how morality is to be evaluated, and how it is developed among people who make decisions based on some criteria of right and wrong. Piaget (1965) was one of the first moral philosophers to have utilized an empiricist perspective. His work centered on children and their perceptions of justice. As he interviewed children regarding justice, Piaget (1965) found responses fitting into four

categories. "Behavior that goes against commands received from the adult...Behavior that goes against the rules of the game...Behavior that goes against equality...Acts of injustice connected with adult society (economic or political injustice)" (pp. 313-314). Piaget's (1965) research asserts that these four categories constitute stages of progression from infancy to adolescence. The last stage moved from the concepts of "equality" to concepts of "equity."

Piaget's (1965) work on the physical, social, and psychological development of children became the foundation for other developmental theories, including that of Kohlberg (1966). Where Piaget's (1965) theory of development was based on the four stages in children's progress to maturation, Kohlberg (1966) built upon Piaget's work by examining the development of boys from adolescence to adulthood.

Kohlberg. In Kohlberg's original theory (1966) the development of right and wrong or morals continued from adolescence to adulthood in three major steps. Within each step there are two stages identified for a total of six stages of moral development. He labeled the first step or level the "pre-conventional," or pre-moral. The second level is called the "conventional" stage of morality, and the final level is labeled "post-conventional." Each step involves a broader and deeper understanding of the moral decision-making.

Based on Kohlberg's subsequent work, (1973) within each level there are two stages. For the first level there is Stage 1: Punishment-avoidance and obedience, and Stage 2: Exchange of favors. At this first level of pre-conventional morality, individuals make decisions based on what is best for them as in the first stage. At the second stage of this first level, individuals start to recognize that others have needs and they are to be

considered in making decisions. The third stage of “interpersonal relationships” has the individual taking into consideration the happiness of others and being “nice” to others because it may impact the relationship. Stage 4 in this second level is the “law and order” stage. The development has reached the point of considering society as a whole and the guidelines of right or wrong. However, Kohlberg (1973) describes the individual’s perception of the law to be inflexible. The last and third level is labeled “post-conventional.” These last two stages are said to be non-evident before college. The fifth stage called “social contract,” and now rules and laws are seen as useful but not absolute. At this stage flexibility is now an option particularly if the law or rules do not serve in the best interest of society and should be changed. It is noted in both Kohlberg’s writing (1977) and of his colleagues who continued his work that the last stage six of this third level is a rarity even in adults but is believed to be the stage when people have internalized the principles of justice, even if in conflict with rules and laws (Rest et al., 1997).

In contrast to Piaget (1965), Kohlberg (1966, 1975, 1977) does not solely base developmental stages on biological development, but is influenced by philosophers such as Kant, Rawls, and Dewey, as well as Plato and Aristotle. A common theme among these philosophers is that there are obligations that rational people universally execute. Kant (2008) asserts that honesty is a moral obligation. For Rawls (1975), justice is based on the premise that all people are entitled to maximum freedom, as long as they do not infringe on the freedom of others, and that freedom must in effect maximize the common good. It was on Rawls’ (1975) theory of justice that Kohlberg based his stage six.

Kohlberg (1977) eventually focuses his research on the concept of justice, which he asserts is the focus of moral reasoning. His theory evolved through interviews he conducted for his doctoral research project. He structured the interviews giving each participant a series of moral dilemmas. The questions in the Moral Judgment Interview (MJI) were scored by comparing them to the types of responses characteristic of each moral stage (Colby et al, 1983). The Defining Issues Test (DIT) was developed by Kohlberg's colleague Rest (1979) as a substitute for the interview, as a means of reducing the resources needed to perform an interview. The details of the DIT instrument will be addressed later in this chapter.

Kohlberg's (1966, 1975, 1977) theory has been critiqued by other researchers for its failure to take into account changes in relationships and faith beliefs over time. One of his most outspoken critics is Gilligan (1998), who argues that Kohlberg's justice ethic was too narrowly defined and biased against caring, a dominant feature she identifies in her research in women's moral development. However, in two separate analyses, Donleavey (2008) and Jorgensen (2006) found no gender bias in Kohlberg's work and assert that neither Gilligan (1998) nor Kohlberg (1966, 1975, 1977) contradict each other.

Nurses and Moral Development

Nurses have been in a unique position of accessibility to diverse communities and have had the opportunity to work with the most vulnerable populations in their most vulnerable moments. Public health nurses experience the barriers to fair and equitable health care for many vulnerable populations on a daily basis. Their practice settings in neighborhoods and community settings reflect the socio-economic and cultural circumstances unique to each area and the residents. According to Woods (2012),

nurses' responses to caring for their clients go beyond individual caring "towards a greater awareness that to care about a given patient's socio-cultural circumstances is to care about the health related needs of society as a whole, and thus care about social justice." Consequently, public health nurses' assessments, plans of action and interventions require that the decision-making process be conducted with a strong sense of social justice. Public health nurses who execute their care with high moral development will practice at a level that assures consideration of the common good. The higher level of moral development as defined by Kohlberg (1966, 1975, 1977) requires that the individual nurse functioning at this level consider the difference between moral and legal rights and recognize that rules should sometimes be broken. It is anticipated that the PHN whose moral development is at this higher stage takes into account the possible views of everyone affected by a moral decision. Thus, this study was undertaken as a starting place for creating a knowledge base regarding the stages of moral development within the PHN population.

Gaps in the Literature

Currently, the relationship between nursing practice and the principle of social justice is an understudied area. The inconsistent and ambiguous discussions of social justice and nursing practice currently in the literature may decrease nurses' ability to address it and apply it to practice (Boutain, 2005, p. 47). Contemporary nursing education appears particularly devoid of the integration of social justice as a major curricular thread, as Vickers (2008) established. In an analysis of undergraduate curricula, Vickers (2008) found that while social justice was explicitly addressed in the

disciplines of sociology, anthropology, women's studies, and English literature, it was missing from descriptions of nursing programs.

Since the 20th century, the metaparadigm for nursing has consistently included the four concepts of person, environment, health and nursing (Fawcett, 2005). In 2006 Schim and colleagues proposed a modified nursing framework with social justice as the central concept for its application to teaching, research and practice. This suggestion was specific to the public health and community health practice environments in which population-based health care must be included with the individual perspective. In these settings nurses must expand their efforts to changing systems in order to address a framework of caring with the focus of social justice (Schim, Myers, Benkert, Bell, Walker & Danford, 2006, p.78). Woods (2012) affirmed the need for the inclusion of social justice in a nursing framework, noting that nurses need a greater awareness to appreciate the social determinants of health on the target population and society as a whole. Reutter and Kuser (2010) proposed that nursing curricula incorporate an understanding of the politics, economy, and the social determinants of health. Nursing education must prepare nursing professionals to engage in policy development, analysis and advocacy (Reutter & Kuser, p. 278). The apparent lack of inclusion of social justice as a central focus in nursing education calls into question the value system(s) used by PHNs to assess, plan, and intervene to impact the social determinants of health that affect communities that they serve. As described above, this review of the literature reveals a very limited discussion of social justice within nursing curricula, in marked contrast to such disciplines such as sociology, psychology, and education. No published studies were

identified that established an empirical basis for the current status of moral development in nurses in any specialty, including public health nursing.

Summary

Given the gaps in current knowledge identified above, this study provides a starting point for the exploration of stages of moral development and relevant demographic variables in a convenience sample of geographically diverse PHNs in a large western state. Data from this study can provide an initial basis for future studies that may explore this content area in more depth and may inform educational interventions to enhance the stage of moral development in the PHN population.

CHAPTER 3

Methodology

The overall purpose of this descriptive study was to explore the stage of moral development and selected demographic variables and their relationships in a convenience sample of practicing public health nurses (PHNs) in the State of California. Using a descriptive design, this survey research described the following selected demographic factors and were explored in relation to stage of moral development: age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California.

Specific Aims

The specific aims of this study were to:

1. Describe relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California) in a group of PHNs practicing in California;
2. Describe the stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population;
3. Examine the differences in the levels of stages of moral development across relevant demographic variables in this population.

Research Questions

The research questions for this study were:

1. What are the characteristics of the relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California) in a group of PHNs practicing in California?
2. What are the levels of stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population?
3. What is the nature of the differences in the levels of stages of moral development across relevant demographic variables in this population?

Research Design

Quantitative designs provide an opportunity to measure variables and subsequently examine the relationships among them. A survey research approach provides a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population. It can include a cross-sectional study using questions for data collection. This study utilized this approach as a way of achieving the specific aims of measuring variables and subsequently examining the relationships between and among them.

Sample

Working PHNs in the State of California were recruited for the study. There are 61 county/city health departments where over three thousand PHNs are employed in the State of California. A convenience sample from a minimum of 12 county/city

jurisdictions of PHNs from among each of the four regions of the state was utilized for this study for a total sample size of 196. A power analysis (Cohen, 1992) was performed for a moderate effect size with $\alpha=0.05$ and revealed that 200 participants were needed. An overall minimum of 200 participants was the goal, and a final 240 participants were recruited. Of these 240, 196 completed the survey.

The following criteria for inclusion in the study were utilized:

- 1) Currently licensed as and employed as a public health nurse in the State of California;
- 2) Able to read and write English.

The sample included urban and rural public health jurisdictional settings. The participant pool size at the various locations ranged from 5 to 50, from which a total of 196 surveys were properly completed.

The sample included all levels of nursing staff that practice within the respective public health departments, i.e., nursing directors, supervisors, public health nurses, and clinic nurses. Two nursing student interns were invited at the request of the local nursing administration since they were currently assigned to the agency and practicing alongside current licensed PHNs and potential future workforce. Twelve local health department nursing directors arranged the meetings and about 240 public health nursing staff who attended were informed of the purpose of the study and the survey instrument. Of the 240 nurses, 196 consented and completed the DIT-2 instrument survey.

Recruitment

Nursing directors from the sixty-one health departments in the state of California received a description of the research study at the semi-annual meetings prior to the start of the project. It was anticipated that the familiarity of the project among the nursing

directors might generate an invitation to present the project to the local PHNs and facilitate the opportunity to recruit participants from among the current PHN workforce from public health departments. The local public health nursing director received an email following the semi-annual meeting. A request to the nursing directors was made to allow this researcher to meet with the PHNs to present the study and recruit participants. Public health nurses (PHNs) currently employed by county/city health departments were invited to participate in the study via the local nursing director. Depending on the initial response from each region of the state, repeated solicitation from the various health departments was made with the goal of securing an equivalent number of participants from each region. Advertisements were disseminated and an intermediary staff person at each of the 12 county/city jurisdictions of PHNs were used to solicit participation from PHNs who appeared to meet the study criteria. Each health department provided a meeting area at a central location within the geographical jurisdiction during the lunch hour. The PHNs were invited to a brief in-service and lunch, followed by the introduction of the research study.

When an opportunity to address the local PHNs was granted, the researcher provided background for the topic and described the study during a lunch meeting with the PHNs. A question and answer session concluded the meeting. At the end of the presentation PHNs who indicated an interest to participate in the survey were asked to stay after the meeting and those who stayed were given the consent form and full instructions as a group.

Setting

Data were collected from each of the four regional areas in the state. The designation of the regions followed the current boundaries used by the Directors of Public Health Nursing (DPHN), who for purposes of carving out the business of the DPHN, are divided into four regions: Bay, Central, North and South.

Study Variables

The variables measured in this study were age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California, and stage of moral development as measured by the Defining Issues Test 2 (DIT2) instrument.

Measurement

Demographic Data. Demographic information was self-reported using a simple survey created by the researcher, the Demographic Data Form (Appendix A). The variables of gender, race/ethnicity, level of entry into professional nursing, years practicing as an RN, and years practicing in a public health department were recorded by participants. In addition, the researcher recorded the region in which the data were collected. The remaining demographic variables of age, highest level of education, self-identified political views, and primary language were recorded on the Defining Issues Test 2 (DIT2) instrument.

Stage of Moral Development. For the purposes of this study, the DIT-2 (Rest et al., 1999), an updated and shortened version of Rest's (1979a) Defining Issues Test (DIT), was used for data collection (Appendix B). The DIT-2 measurement instrument is

based upon extensively evaluated theories and has been used for assessments within numerous groups such as religious communities, correctional systems, and college programs (Good & Cartwright, 1998; Griffore & Samuels, 1978; King & Mayhew, 2002; Myers, McCaulley, Quenk & Hammer, 2003; Rest, 1986; Rest et al., 1999; Sandhu, 1997/1998; Watt, Frausin, Dixon & Nimmo, 2000; Young, Cashwell & Woolington, 1998). The DIT-2 is considered especially valuable for assessing moral development affect in professional educational programs (Rest et al., 2000). The development, reliability and validity of the DIT2 are discussed below.

Development. Moral judgment is a process by which individuals determine what action should be taken in a given situation, determining if the action is morally right or morally wrong (Rest, Thoma & Edwards, 1997). Rest and coauthors (1997) developed the DIT2 in the 1970s for assessing the projected behaviors and thoughts the participant uses to make decisions when presented with certain ethical dilemmas. The original assessment process designed by Kohlberg (1966) was in an interview format, the Moral Judgment Interview (MJJ). It required interviewers to be trained for the structured interview. Additionally, significant training was required for the evaluation and scoring of the interview data. While the structure of the MJJ allowed reasonable inter-rater reliability, the evaluations were still subject to human error. In contrast, the Defining Issues Test (DIT) provided objective scoring. The DITs are scored using a software program by the Center for the Study of Ethical Development, publisher of the DIT (Rest et al., 1999). Data published by Rest and coauthors (1999) demonstrate that the scores produced by the DIT distinguish between groups of individuals who could reasonably be expected to differ on moral judgment development at a significant level. Thus, Rest and

coauthors (1999) assert one can measure moral judgment development without having to interview individuals, interpret and score their verbal protocols.

Description. The Defining Issues Test 2 (DIT-2) is a paper-and-pencil or Scantron instrument. Moreover, it is a copyrighted document that is purchased from the Center for the Study of Ethical Development, at the University of Alabama. The survey was completed within a minimum of 45 minutes (see Appendix (A)). The DIT-2 requires a moderate reading level, which is roughly the literacy level required for successful completion of secondary education (Rest, Narvaez, Thoma, & Bebeau, 2000). The DIT-2 is appropriate for grades 9 through 12 and higher, including all levels of higher education as well as for all ages 13 -65 (Center for the Study of Ethical Development, 2006). The original DIT had been used for more than three decades, and researchers have accumulated results for more than 500,000 participants (Rest et al., 1999). Because the Center for the Study of Ethical Development at the University of Alabama possesses all copyright authority for the DIT-2, all data collected by researchers using it must subsequently be submitted to the Center for analysis. The limitations resulting from this arrangement are discussed in Chapter 5.

The complete DIT-2 consists of five dilemmas presented as stories: (1) a father contemplates stealing food for his starving family from the warehouse of a rich man hoarding food; (2) a newspaper reporter must decide whether to report a damaging story about a political candidate; (3) a school board chair must decide whether to hold a contentious and dangerous open meeting; (4) a doctor must decide whether to give an overdose of pain-killer to a suffering but frail patient; (5) college students demonstrate against U.S. foreign policy. The 12 statements were in the form of multiple-choice

questions that were directly related to Kohlberg's (1984) stages of normal development or of just reasoning. The participant was to read each story and then categorize twelve statements as to their moral relevance for the dilemma. The participant was asked to rate and rank certain related items as to their importance to the dilemma. These items were pieces of the certain lines of reasoning. The items were not complete statements for or against any particular action, and were in the form of questions. By analyzing the patterns of the ratings and rankings, states of thinking for each scenario are derived (Rest, Narvaez, Bebeau & Thoma, 1999). Thus, the questions of assessment address the extent and conditions in which a person manifests a particular state of thinking.

Accumulated evidence in support of validity. Kohlberg's (1966, 1975, 1977) theory asserts that development of moral judgment is age-related. Similarly, early research of the DIT supported its ability to measure moral development as a factor of cognitive maturation. For example, Rest (1986) demonstrated that "age/education accounts for 30 to 50 percent of the variance in DIT scores." Therefore, Rest (1986) asserts, Kohlberg's theory of a cognitive basis for moral development is supported (1986, p. 179). More than 400 studies have been used to validate the DIT in terms of cognitive measurement, longitudinal consistency, age and educational discrimination, and other measures of professional ethics and social issues.

Rest and coauthors (1978, 1997) extensively tested the Defining Issues Test (DIT) and found that longitudinal and sequential studies provided the more consistent supporting data for the instrument's application (Rest, Davison & Robbins, 1978; Rest, Thoma, Narvaez & Bebeau, 1997).

Rest and coauthors (1978, 1997) collected data on several thousand students from

high school, college and graduate students from several regions all over the United States. By grouping the data by age-education levels, data from these studies supported Kohlberg's general model of moral development. As the students progressed through their educational levels, significant changes occurred in level of moral development. An enhanced level of education was positively correlated with a higher stage of moral development. (Rest et al., 1978).

Repeated testing of the DIT has demonstrated that individual demographic information and educational level were significantly related to the DIT scores (Maeda, Thoma & Bebeau, 2009). These researchers more recently demonstrated significant strength in the relationship of the DIT scores to gender and the English language, but the strength in relation to education level and political identity had more variation. These characteristics were collected in the current DIT-2 tool, which was used to survey public health nurses in this research study. Research using the DIT supports Kohlberg's (1966, 1975, 1977) claim that moral judgment is developmental and increases rapidly across high school and college years. Since PHNs in California must possess an undergraduate degree and many do earn a graduate degree, the variable of educational level was of particular interest for this study.

Studies of large composite samples including thousands of subjects showed that 30% to 50% of the variance of DIT scores was attributable to the level of education in samples ranging from junior-high education to doctoral students. DIT scores are significantly linked to many pro-social behaviors and to desired professional decision making, with one study reporting that 37 out of 47 measures were statistically significant (Rest et al., 1999).

Reliability. Researchers have found the DIT sufficiently reliable, with reliability coefficients usually in the .70s and .80s (Rest et al., 2000). The original version of the DIT demonstrated a Cronbach's alpha of .76 for internal reliability, while the shorter DIT-2 increased reliability to .81. The reliability of the DIT and DIT-2 were based upon hundreds of thousands of administrations. Demonstrating equivalence, the DIT and DIT-2 correlated extremely well with each other (Rest et al., 1999).

Thus, the DIT-2 was judged sufficiently reliable to generate valid data for this beginning, descriptive study of moral judgment in PHNs and to produce valid data in this population. This study was designed to provide an initial starting place for research in this area. Future research will provide more broad and in depth evidence that the societal trust assigned to this nursing professional has some foundation based on expected results at the post-conventional level.

Protection of Human Subjects

Written, informed consent was obtained from all participants prior to the survey being conducted. All participants were informed of their rights, including their right not to participate and their right to skip any questions. An informational session conducted by the researcher prior to obtaining informed consent gave an opportunity for all participants to ask questions. The informational session included an explanation of the instrument, i.e., that it would include a series of scenarios followed by questions. All data collection materials were coded by number and contained no personal identifiers. Those PHNs who agreed to participate were asked to complete the DIT-2 instruments along with the demographic survey using paper and pencils. The summary of the results were collected and identified by region, not by local jurisdiction/local health department.

Data Collection

Each participant was handed an envelope containing the DIT-2 instrument and a demographic survey. The instrument was marked with a unique identification number created by the researcher for this study. The researcher personally collected the surveys. This method ensured that proper documents were provided to each participating PHN. Once the materials were returned to the researcher, no one else was provided access to the materials. Participants were not interrupted and a minimum of 45 minutes was allocated. The researcher remained present in the room in order to 1) collect the surveys as the participant left, and 2) to facilitate answering any questions. Participants' surveys were collected at each site by the researcher. Because of the copyright arrangements described above with the Center for the Study of Ethical Development at the University of Alabama, the researcher mailed the collection of 196 surveys back to the Center for the Study of Ethical Development where the scores were summarized using SPSS.

Data Management and Analysis

The Center for the Study of Ethical Development is housed within the Program of Educational Psychology in the Department of Educational Studies under the College of Education at the University of Alabama. Because of copyright arrangements, the Center provides scoring of all uses of the DIT-2. The final summary of the raw scores was returned to the researcher in a paper copy report and a CD file. The researcher using SPSS version 14.0 analyzed the summary score data from the Center, in addition to data from the demographic supplement tool.

Data Analysis

Data analysis was performed to meet each of the specific aims of the study as follows:

Aim 1

In order to describe relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California), appropriate descriptive statistics were performed, including mean, mode, median, range, and standard deviation.

Aim 2

In order to describe the stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population, appropriate descriptive statistics were performed, including mean, mode, median, range, and standard deviation.

Aim 3

In order to examine the differences in the stages of moral development across relevant demographic variables in this population, appropriate inferential statistics, including ANOVA, were performed. Statistical significance was calculated based upon the probability of a type I error of less than 5%.

CHAPTER 4

Results

Introduction

This chapter provides a summary of study results. Results are organized into 3 sections for each of the three specific aims of the study.

Results for Aim 1

The first specific aim of this study was to describe relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California) in a group of PHNs practicing in California.

Demographic Variables

The study sample consisted of 196 respondents (95.4% females). The mean age was 49.0 years ($SD = 10.9$ years; range = 22 – 69 years). About 60% of the respondents were 50 years or older. A majority of respondents had a professional degree (72.4%). All respondents had completed at least two years of college education or equivalent. A total of 82.1% reported their primary language as English. All respondents, but one, reported to be citizens of the United States (99.5%). In terms of the respondents' political view, 48.0% reported to be liberal, 31.6% reported to be conservatives, and 20.4% reported neither to be liberals nor conservatives (see Table 1).

Table 1

Sample Characteristics of Participants.

Characteristics	n (%)
Gender (n = 195)	
Male	9 (4.6)
Female	186 (95.4)
Age (n = 196)	
Mean (SD)	49.0 (10.9)
Less than 50 years old	79 (40.3)
50 years or older	117 (59.7)
Educational Level (n = 196)	
Undergraduate degree	5 (2.6)
Professional degree	142 (72.4)
Graduate degree	49 (25.0)
Primary language (n = 196)	
English	161 (82.1)
Not English	35 (17.9)
Are you a citizen of USA? (n = 196)	
Yes	195 (99.5)
No	1 (0.5)
In terms of your political views, how would you characterize yourself? (n = 196)	
Liberal	94 (48.0)
Neither liberal nor conservative	40 (20.4)
Conservative	62 (31.6)
P Schema Score, mean (SD)	39.7 (16.0)
N2 Schema Score, mean (SD)	35.6 (15.7)

Additional Demographic Variables

The additional variables of race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, and years practicing in a public health department were collected using the researcher developed Demographic Data Form. Unfortunately, data were not collected for all questions on this additional form as a

result of miscommunication. Therefore, the data for these variables is limited and could not be used for inferential statistical analysis or correlational purposes. The percentage of race/ethnicity groups was as follows:

Table 2

Additional Sample Characteristics of Participants (n=x)

Race/Ethnicity	% Of Participant
White or Caucasian	60
Latino/Hispanic	13
Asian	12
African American or Black	7
Pacific Islander	4.5
Other: noted as multi-racial or multi-ethnic	3.5

Of those who responded to the question, 51% have worked in public health for greater than ten years. The remaining 49% have worked less than ten years, and about half of those started within the last five years.

Results for Aim 2

The second specific aim of the study was to describe the stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population. Results revealed a mean P schema score of 39.7 (SD=16), and a mean N2 schema score of 35.6 (SD=15.7).

Scoring. The completed DIT-2 surveys were tabulated by the Center for Ethical Development at the University of Alabama. Their report provided two indicators for moral development: the P score and the N2 score plus demographic data for every participant using a five-digit code.

There are three levels of measured moral development (i.e., pre-conventional,

conventional, and post-conventional) (Rest, Narvaez, Bebeau and Thoma, 1999). Under each level there are stages of moral development. Statistical analysis produces a P-score, which is a percentage of the items ranked as highly important by the participant and those responses that are at the post-conventional level. The P index is based on the participant's ranking of the items written for stages 5 and 6 in making a moral decision. This level includes the fifth and sixth stage where the participant is said to have attained the universal ethical principles or "principle conscience" (Rest, 1978). The practice of PHNs involves addressing the health status of the community at large and more often of vulnerable populations; therefore, it is the post-conventional level responses that are of interest to this research study. One consistent disclaimer is that Kohlberg's scale/stages are related with moral thinking, and not moral action. The final analysis will provide information only on the scoring of the participant's level of thinking, not what would be applied in practice.

Like the P-score, the N2 score is based on acquiring more sophisticated moral thinking, but the N2 score also reflects the extent to which individuals reject ideas because they are simplistic or biased. The score is adjusted so that it is on the same scale as the P-score (Bebeau and Thoma, 2003).

Reliability. Reliability estimates were computed for the P and N2 schema scores for a sample of nurses (n = 196) who had completed the DIT-2. Reliability estimates were calculated on stories 1 through 5 and not on the items within each story. The stories were used rather than items because ranking items is ipsative or a forced choice (i.e., if one item is ranked in first place, then no other item can be ranked in first place). Reliability for these stories' responses was measured using the Cronbach's alpha. The Cronbach's

alpha was 0.734, an indication of strong level of internal consistency for the 12-item (story) scale.

Results for Aim 3

The third specific aim of the study was to examine the differences in the levels of stages of moral development across relevant demographic variables (age, gender, educational level, self-identified political views, primary language, and region) in this population.

Level of Moral Development across Age, Gender, Educational Level, Political Views, Primary Language, and Region

The participants' responses were scored to determine the proportion of items selected that represented their level of moral judgment. Three schemas were used for this analysis; personal interest schema (stage 2/3), maintain norms schema (stage 4P), and the Post Conventional Schema (P score). The N2 Developmental Score (N2 score) was used in comparison with the P score. Table 2 reports mean moral schema scores by demographic variables.

In general, respondents had, on average, higher P scores and N2 scores in comparison to stage 2/3 and stage 4P scores. Female respondents had higher stage 2/3 and stage 4P scores while males had higher P scores and N2 scores. Even though males scored higher on the P score schema, it should be noted that there were only nine male respondents.

Participants who were less than 50 years old scored higher on the post-conventional schema while those 50 years or older scored higher on the stage 2/3 and stage 4P schemas. Participants with an undergraduate education had the highest schema P score but because there were only five participants in this category it was not possible to

make meaningful comparisons with those who had a professional or graduate degree. On average, participants who reported English as their primary language, scored higher on the P and N2 schema scores in comparison to participants who did not have English as their primary language. Only one nurse reported not to be a citizen of the United States of America, so no comparisons of scores were made with respect to citizenship. An examination of the political views of participants indicated that those who reported to be liberal had higher P scores and N2 scores in comparison to those who reported to be conservative. Participants with conservative political views had higher scores in the stage 2/3 and stage 4P schemas. Since respondents had higher post-conventional scores in comparison to stage 2/3 and stage 4P schema scores, it was necessary to further investigate whether there were any significant differences between the means scores. Mean differences were examined for selected demographic variables. A comparison of mean score was not possible between US citizens and non citizens since there was only one non-US citizen.

Table 3

Mean Moral Schema Scores by Sample Characteristics of Participants

	Personal Interest (Stage 2/3) mean (SD)	Maintain Norms (Stage 4) mean (SD)	Post Conventional Score (P Score) mean (SD)	Developmental Score (N2 Score) mean (SD)
Gender				
Male	24.00 (11.09)	26.67 (17.97)	45.11 (16.80)	38.97 (16.16)
Female	21.77 (10.25)	32.93 (13.13)	39.60 (15.01)	35.54 (15.70)
Age				
Less than 50 years old	20.73 (9.86)	31.78 (13.73)	41.49 (16.70)	38.31 (16.73)
50 years or older	22.78 (10.55)	33.32 (13.18)	38.54 (15.48)	33.74 (14.83)
Educational Level				
Undergraduate degree	12.40 (8.65)	30.40 (11.08)	50.80 (23.82)	48.66 (22.16)
Professional degree	22.72 (10.34)	33.33 (14.16)	38.08 (15.70)	34.23 (15.48)
Graduate degree	20.70 (9.92)	31.12 (11.19)	43.37 (15.32)	38.15 (15.25)
Primary language				
English	21.64 (10.54)	32.01 (12.97)	41.09 (16.03)	37.22 (15.62)
Not English	23.37 (9.12)	35.89 (14.99)	33.49 (14.55)	28.06 (14.23)
Arc you a citizen of USA?				
Yes	22.01 (10.29)	32.57 (13.30)	39.77 (16.04)	35.61 (15.77)
No	10.00 (0.00)	58.00 (0.00)	32.00 (0.00)	29.79 (0.00)
In terms of your political views, how would you characterize yourself?				
Liberal	22.40 (10.11)	28.52 (11.53)	44.27 (15.16)	39.83 (15.36)
Neither liberal nor conservative	21.82 (10.51)	33.10 (13.53)	37.03 (16.99)	32.67 (16.39)
Conservative	21.36 (10.60)	38.79 (13.75)	34.59 (14.86)	31.02 (14.36)

Tests of Differences between Groups Analysis

The P and N2 schema were examined to determine if there were any significant differences between the mean scores by gender, age, educational status, language, and political view. The independent sample T-Test and one-way ANOVA were employed to examine mean differences in moral judgment scores across the selected demographic variables of age, gender, level of education, political views, and primary language.

Age. A comparison of the mean scores for the N2 schema was examined for differences on the measure of moral judgment between participants less than 50 years of age and participants 50 years or older. Equal variances were assumed and an independent t-test was employed to compare N2 scores between all participants less than 50 years of age (mean = 38.31, $SD = 16.73$) to those 50 years or older (mean = 33.74, $SD = 14.83$). The significant mean difference of 4.57 was an indication that participants who were less than 50 years old had a higher moral judgment than participants who were 50 years or older, $t(194) = 2.01, p = 0.046$. There was no significant mean difference when examining the post-conventional schema score of participants who were younger than 50 years to those who were 50 years or older.

Primary language. A comparison of the mean P and N2 schema scores were examined for mean differences by primary language. The mean P scores for participants, who reported English as their primary language, was 41.09 ($SD = 16.03$), and 33.49 ($SD = 14.55$) for those who did not report English as their primary language. Equal variances were assumed and an independent t-test was employed to compare the mean difference between the two groups. The mean differences were statistically significant indicating that participants who reported English as their primary language scored higher in

comparison to those who did not report English as their primary language, $t(194) = 2.58$, $p = 0.011$. Similarly there were significant mean differences when examining the N2 schema scores by language. With equal variances assumed and the independent t-test used for analysis, there was a significant differences in the means of participants who reported English as their primary language in comparison to participants who did not report English as their primary language, $t(194) = 3.19$, $p = 0.02$ (see Table 4).

Table 4

Descriptive Statistics and One Sample T-Test for P and N2 Scores, by Selected Demographic Variables

DIT2 Schema	Sample Characteristics	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>P</i>
P Score	Gender			
	Male (n = 9)	45.11 (16.80)	1.01	0.313
	Female (n = 186)	39.60 (15.91)		
	Age			
	Less than 50 Years (n = 79)	41.49 (16.70)	1.27	0.206
	50 years or older (n = 117)	38.54 (15.48)		
Primary language				
English (n = 161)	41.09 (16.03)	0.29	0.011	
Other (n = 35)	33.49 (14.55)			
N2 Score	Gender			
	Male (n = 9)	38.97 (16.16)	0.64	0.524
	Female (n = 186)	35.54 (15.70)		
	Age			
	Less than 50 Years (n = 79)	38.31 (16.73)	2.01	0.046
	50 years or older (n = 117)	33.74 (14.83)		
Primary language				
English (n = 161)	37.22 (15.62)	3.19	0.002	
Other (n = 35)	28.06 (14.23)			

Political views. An analysis of variance (ANOVA) was used to examine any differences in the P and N2 schema scores of participants with respect to their political views. For the post conventional schema score, 94 participants reported to have liberal political views and scored an average of 44.27 ($SD = 15.16$), 62 participants reported to have conservative political views (mean = 34.59, $SD = 14.86$), and 40 participants reported they did not have liberal or conservative views (mean = 37.03, $SD = 16.99$). The effect of political view was highly significant, $F(2,193) = 8.09, p < 0.001$. There was a significant mean difference between participants who reported to have liberal political views and those who had conservative views ($MD = 9.68, p = 0.001$). In addition, there was a significant mean difference between participants who reported liberal political views and those who did not have liberal or conservative views ($MD = 7.24, p = 0.037$).

Table 5

ANOVA for P and N2 Schema Scores, by Education Level and Political View

DIT2 Schema	Sample Characteristics	mean (<i>SD</i>)	<i>F</i>	<i>p</i>
P Score	Education			
	Undergraduate studies (n = 5)	50.80 (23.82)	3.29	0.039
	Professional degree (n = 142)	38.08 (15.70)		
	Graduate degree (n = 49)	39.73 (16.01)		
	Political view			
	Liberal (n = 94)	44.27 (15.16)	8.09	< 0.001
Neither liberal nor conservative (n = 40)	37.03 (16.99)			
Conservative (n = 62)	34.59 (14.86)			
N2 Score	Education			
	Undergraduate studies (n = 5)	48.66 (22.16)	2.96	0.054
	Professional degree (n = 142)	34.23 (15.47)		
	Graduate degree (n = 49)	38.15 (15.25)		
	Political view			
	Liberal (n = 94)	39.83 (15.36)	7.12	0.001
Neither liberal nor conservative (n = 40)	32.67 (16.39)			
Conservative (n = 62)	31.02 (14.36)			

Mean scores were compared for the N2 schema. The 94 participants who reported to have liberal political views scored an average of 39.83 ($SD = 15.36$); the 62 participants who reported conservative political views had an average score of 31.06 (SD

= 14.36), and the 40 participants who reported they did not have liberal or conservative views had an average score of 32.67 ($SD = 16.39$). The effect of political view was highly significant, $F(2,193) = 7.12, p = 0.001$. There was a significant mean difference between participants who reported to have liberal political views and those who had conservative views ($MD = 8.80, p = 0.002$). In addition, there was a significant mean difference between participants who reported liberal political views and those who did not have liberal or conservative views ($MD = 7.15, p = 0.037$). Participants with liberal political views had higher moral judgment scores. There were no significant differences between the mean (P and N2) schema scores of nurses by educational status (see Tables 5 and 6).

Table 6

Multiple Comparison of Mean Differences (MD) from the ANOVA for P and N2 Scores, by Education Level and Political View

DIT2 Schema	Sample Characteristics		MD	p
P Score	Education			
	Undergraduate studies	Professional degree	12.72	0.184
		Graduate degree	7.43	0.578
	Political view			
	Liberal	Neither liberal nor conservative	7.24	0.037
		Conservative	9.68	0.001
N2 Score	Education			
	Undergraduate studies	Professional degree	14.43	0.107
		Graduate degree	10.51	0.324
	Political view			
	Liberal	Neither liberal nor conservative	7.15	0.037
		Conservative	8.80	0.002

There were two significant interactive effects of age and political view, $F(2,196) = 3.26, p = 0.041$, and of age, language, and political view, $F(2,196) = 3.81, p = 0.024$. The effect sizes were 0.034 and 0.040, respectively; indicating that even though the effect was significant, the actual difference in the mean P score values was small. There was a significant mean difference between PHNs who reported liberal political views and those who had conservative views ($MD = 9.68, p < 0.001$). In addition, there was a significant mean difference between PHNs who reported liberal political views and those who did not have liberal or conservative views ($MD = 7.24, p = 0.030$). Participants with liberal political views had higher moral judgment scores (see Tables 7 and 8 and figures 1 through 4).

Table 7

Two-Way ANOVA for the P Score, by Age, Language, and Political View

In terms of your political views, how would you characterize yourself?	Age	Is English your primary language?	<i>n</i>	mean (<i>SD</i>)
Liberal	Less than 50 years	Yes	32	47.19 (16.29)
		No	8	43.75 (11.18)
	50 years and older	Yes	48	44.36 (14.43)
		No	6	28.67 (12.37)
Neither Liberal nor Conservative	Less than 50 years	Yes	20	42.60 (17.85)
		No	2	23.00 (9.90)
	50 years and older	Yes	12	29.25 (14.16)
		No	6	38.67 (15.06)
Conservative	Less than 50 years	Yes	12	35.00 (11.14)
		No	5	20.00 (11.66)
	50 years and older	Yes	37	36.56 (15.66)
		No	8	34.00 (14.70)

Table 8

Tests of Between-Subjects Effects for P Scores, by Age, Language, and Political View

Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Corrected model	11	3.464	0.000	0.172
Intercept	1	503.850	0.000	0.733
Political view	2	4.616	0.011	0.048
Age	1	<0.001	0.998	0.000
Language	1	6.187	0.014	0.033
Political view * Age	2	3.263	0.041	0.034
Political view * Language	2	0.160	0.853	0.002
Age * Language	1	2.401	0.123	0.013
Political view * Age * Language	2	3.808	0.024	0.040
Error	184			
Total	196			
Corrected total	195			

$p \leq 0.05$

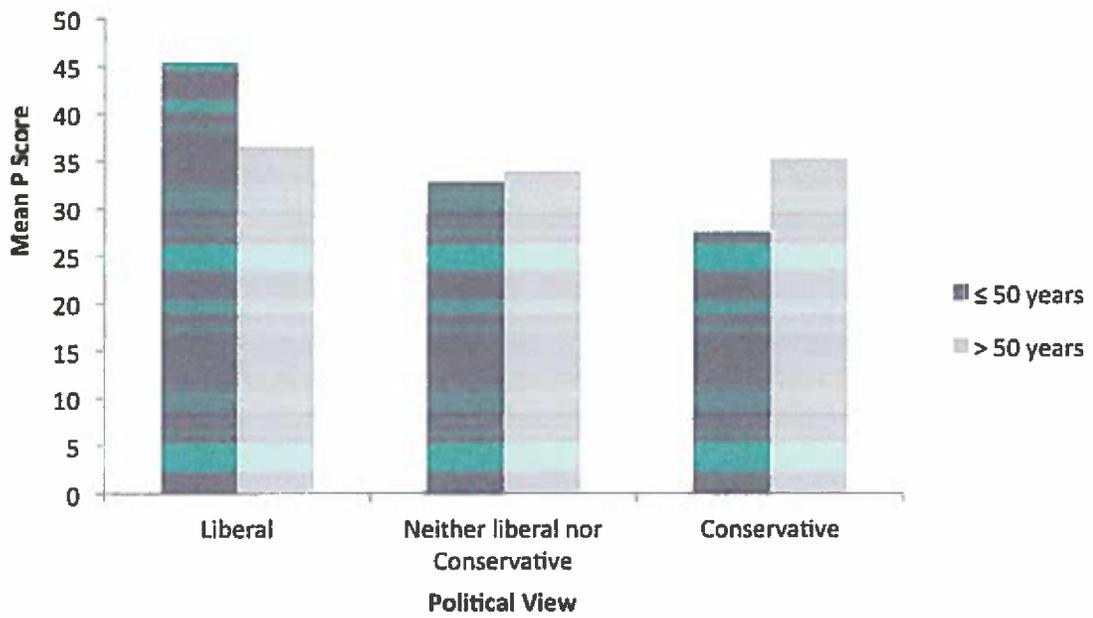
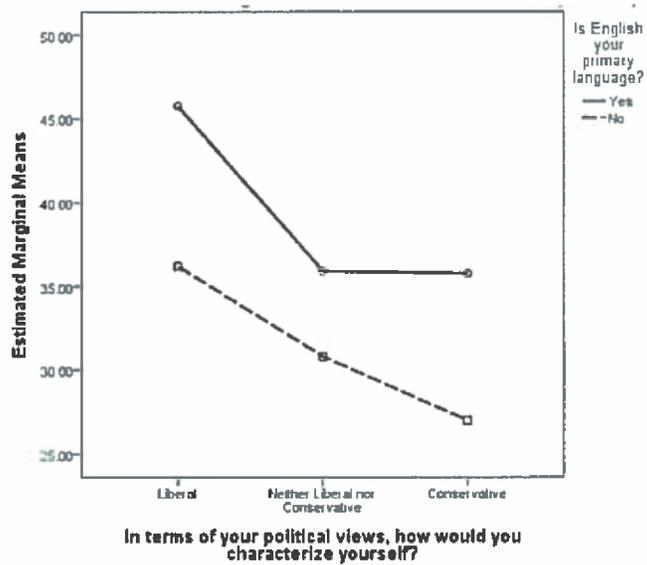


Figure 1: Estimated marginal means of post-conventional score, by political view and age.



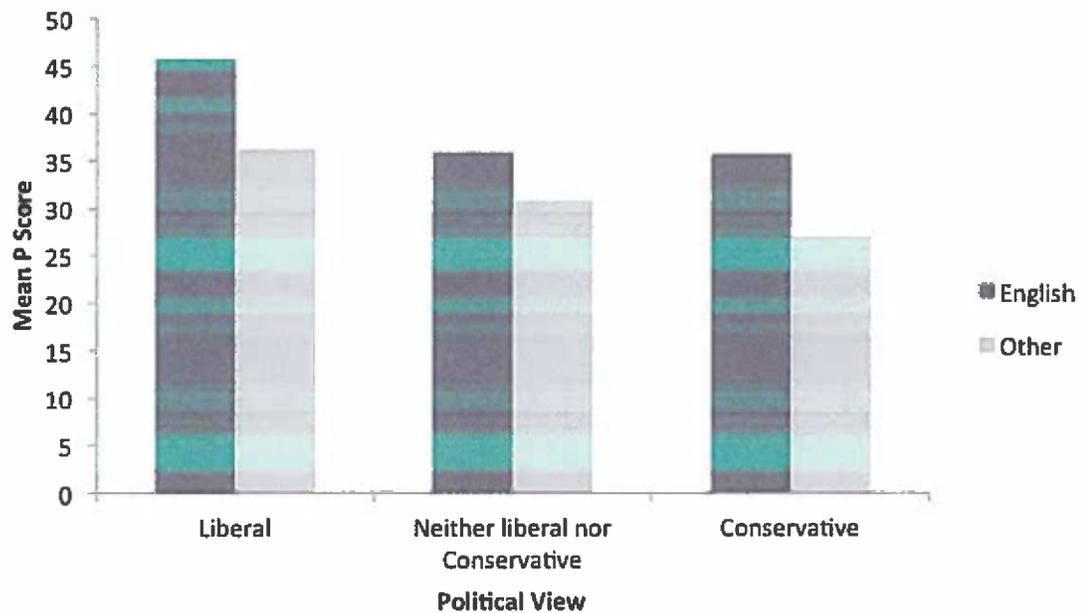


Figure 2: Estimated mean P score by political view and primary language.

For the N2 score, there were significant main effects for language, $F(1,196) = 9.95, p = 0.002$, and political view, $F(2,196) = 3.91, p = 0.022$, on the N2 schema score. The effect sizes were 0.051 and 0.041, respectively; indicating that even though the effect was significant, the actual difference in the mean N2 score values was small. There was a significant interactive effect of age and political view, $F(2,196) = 3.73, p = 0.026$. The effect size was 0.039; indicating that even though the effect was significant, the actual difference in the mean P score values was small. There was a significant mean difference between nurses who reported to have liberal political views and those who had conservative views ($MD = 8.80, p = 0.001$). In addition, there was a significant mean difference between nurses who reported to have liberal political views and those who did not have liberal or conservative views ($MD = 7.15, p = 0.028$). Nurses with liberal political views had higher moral judgment scores (see Table 9 and figures 3 and 4).

Table 9

Tests of Between-Subjects Effects for N2 Score, by Age, Language, and Political View

Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Corrected Model	11	3.78	<0.001	0.184
Intercept	1	405.27	<0.001	0.688
Political view	2	3.91	0.022	0.041
Age	1	0.12	0.731	0.001
Language	1	9.95	0.002	0.051
Political view * Age	2	3.73	0.026	0.039
Political view * Language	2	0.14	0.866	0.002
Age * Language	1	2.91	0.090	0.016
Political View * Age * Language	2	2.70	0.070	0.029
Error	184			
Total	196			
Corrected Total	195			

$p \leq 0.05$

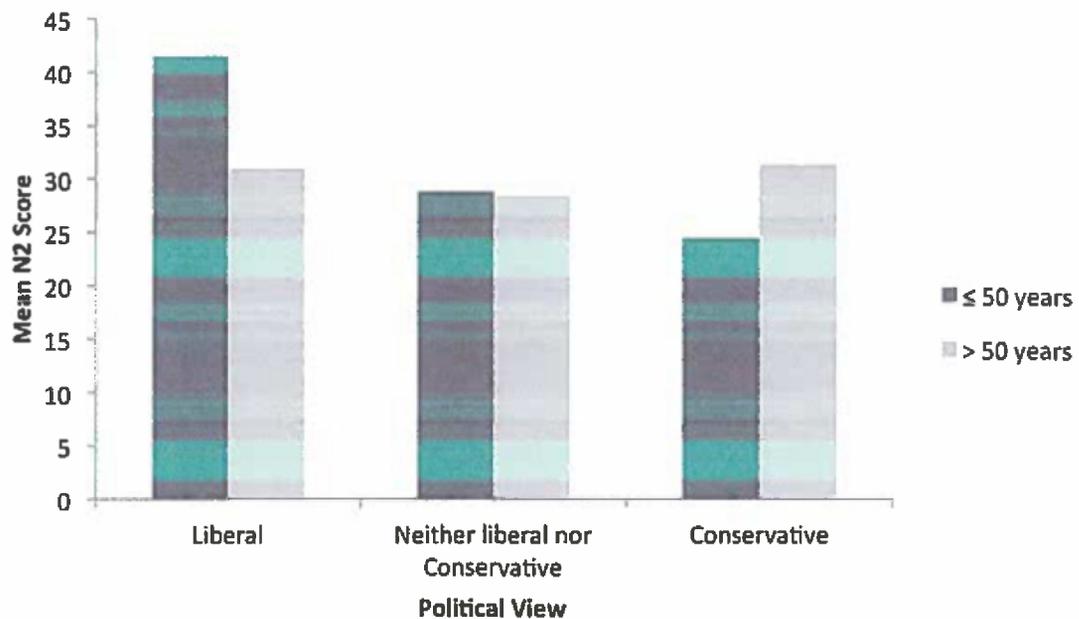


Figure 3: Estimated means N2 score, by political view and age.

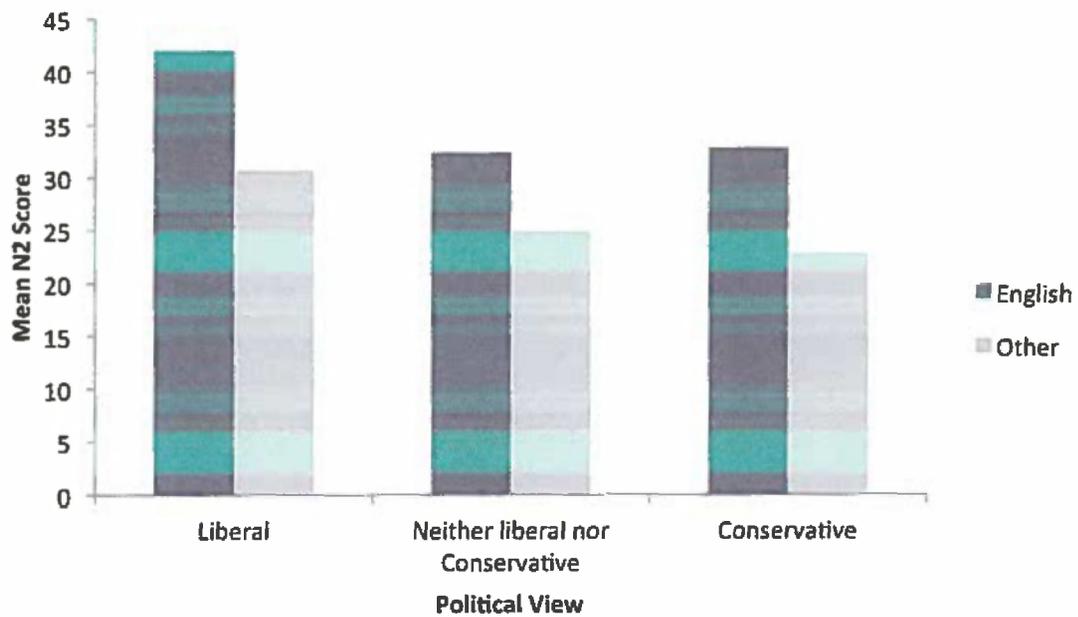


Figure 4: Estimated mean N2 score, by political view and primary language.

Comparison by Regions

Data were collected from nurses located in four regions: (1) Southern, (2) Bay, (3) Northern, and (4) Central. Differences in the mean scores of the P and N2 schemas were examined using a one-way analysis of variance (ANOVA). For the post conventional schema score, 69 nurses were from the southern region and scored an average of 36.81 ($SD = 15.91$), 54 nurses were from the bay region (mean = 46.06, $SD = 14.96$), 33 nurses were from the northern region (mean = 37.55, $SD = 16.39$), and 40 nurses were from the central region (mean = 38.02, $SD = 15.42$). The effect by region was highly significant, $F(3,1008.33) = 4.13, p = 0.007$. There was a significant mean difference between nurses based in the southern region and those who based in the bay region ($MD = -9.25, p = 0.007$). There were no significant differences among the other regions. For the N2 schema score, 69 nurses were from the southern region and scored an average of 32.46 ($SD = 15.59$), 54 nurses were from the bay region (mean = 40.05, $SD = 14.66$), 33 nurses

were from the northern region (*mean* = 36.39, *SD* = 15.59), and 40 nurses were from the central region (*mean* = 34.27, *SD* = 16.63). The effect by region was not significant, $F(3,614.19) = 4.13, p = 0.058$. There was a significant mean difference between nurses based in the southern region and those who based in the bay region (*MD* = -7.59, $p = 0.039$), (see Tables 10 and 11).

Table 10

One-Way ANOVA for P and N2 Scores, by Region

DIT2 Schema	Sample Characteristics	mean (<i>SD</i>)	<i>F</i>	<i>P</i>
P Score	Southern (n = 69)	36.81 (15.91)	4.13	0.007
	Bay (n = 54)	46.06 (14.96)		
	Northern (n = 33)	37.55 (16.39)		
	Central (n = 40)	38.02 (15.42)		
N2 Score	Southern (n = 69)	32.46 (15.59)	2.54	0.058
	Bay (n = 54)	40.05 (14.66)		
	Northern (n = 33)	36.39 (15.59)		
	Central (n = 40)	34.27 (16.63)		

$p \leq 0.05$

Table 11

Multiple Comparison of Mean Differences (MD) from the One-Way ANOVA for P and N2 Scores, by Region

DIT2 Schema	Sample Characteristics		MD	p
P Score	Southern	Bay	-9.25	0.007
		North	-0.73	0.996
		Central	-1.20	0.980
N2 Score	Southern	Bay	-7.59	0.039
		North	-3.29	0.932
		Central	-1.81	0.937

$p \leq 0.05$

With sufficient evidence that there were significant differences in the mean scores for the P and N2 schemas at the regional level, it was necessary to examine any potential significant differences by demographic variables: age, sex, education, language, and political view. Age was examined for any interactive effects on the P and N2 schema scores. Age was categorized into 2 groups: (1) Less than 50 years, and (2) 50 years or older. For the P score, there was a significant main effect for region, $F(3,196) = 3.61, p = 0.014$, on the P schema score but no main effect of age on the P schema score, $F(1,196) = 3.72, p = 0.055$. The effect sizes were 0.054 and 0.019, respectively; indicating that even though the effect was significant, the actual difference in the mean P score values were small. There was no significant interactive effect of age and region, $F(3,196) = 1.98, p = 0.119$. For the N2 score, there were significant main effects for region, $F(3,196) = 2.76, p = 0.044$, and age, $F(3,196) = 7.83, p = 0.006$, on the N2 schema score. There was no significant interactive effect of age and region, $F(3,196) = 2.28, p = 0.081$. The effect sizes for age and region were 0.040 and 0.042, respectively; indicating that even though

the main effects were significant, the actual difference in the mean N2 score values were small (see Tables 12 and 13).

Table 12

Two-Way ANOVA for the P and N2 Scores, by Age and Region

Score	Region	Age	<i>n</i>	mean (<i>SD</i>)
P Score	Southern	Less than 50 years	33	36.79 (15.39)
		50 years and older	36	36.83 (16.57)
	Bay	Less than 50 years	22	45.18 (18.97)
		50 years and older	32	46.67 (11.74)
	North	Less than 50 years	12	41.83 (14.26)
		50 years and older	21	35.10 (17.34)
	Central	Less than 50 years	12	47.33 (16.37)
		50 years and older	28	34.03 (13.39)
N2 Score	Southern	Less than 50 years	33	32.43 (15.53)
		50 years and older	36	32.48 (15.87)
	Bay	Less than 50 years	22	41.44 (18.41)
		50 years and older	32	39.09 (11.65)
	North	Less than 50 years	12	41.76 (11.70)
		50 years and older	21	33.32 (16.93)
	Central	Less than 50 years	12	45.29 (17.64)
		50 years and older	28	29.54 (13.98)

Table 13

Tests of Between-Subjects Effects for P and N2 Scores, by Age and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
P Score	Corrected Model	7	2.913	0.006	0.098
	Intercept	1	1136.253	0.000	0.858
	Region	3	3.605	0.014	0.054
	Age	1	3.717	0.055	0.019
	Region * Age	3	1.975	0.119	0.031
	Error	188			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	7	2.785	0.009	0.094
	Intercept	1	973.323	0.000	0.838
	Region	3	2.755	0.044	0.042
	Age	1	7.827	0.006	0.040
	Region * Age	3	2.276	0.081	0.035
	Error	188			
	Total	196			
	Corrected Total	195			

 $p \leq 0.05$

Language was examined for any interactive effects on the P and N2 schema scores. Primary language was categorized into 2 groups: (1) English as a primary language and (2) English as not a primary language. For the P score, there were significant main effects for region, $F(3,196) = 4.08, p = 0.008$, and language, $F(1,196) = 5.81, p = 0.017$, on the P schema score. The effect sizes for region and language were 0.061 and 0.030, respectively; indicating that even though the effects were significant, the actual difference in the mean P score values was small. There was no significant interactive effect of language and region, $F(2,196) = 0.12, p = 0.887$. For the N2 score, there were significant main effects for region, $F(3,196) = 3.41, p = 0.019$, and language, $F(1,196) = 3.29, p = 0.071$, on the N2 schema score. There was no significant interactive effect of age and region, $F(2,196) = 0.775, p = 0.472$. The effect sizes for region and language were 0.051 and 0.017, respectively; indicating that even though the main effects were significant, the actual difference in the mean N2 score values were small (see Tables 14 and 15).

Table 14

Two-Way ANOVA for the P and N2 Score, by Language and Region

Score	Region	English is primary		
		language	n	mean (SD)
P Score	Southern	Yes	53	38.98 (15.65)
		No	16	29.63 (15.02)
	Bay	Yes	37	49.93 (13.82)
		No	17	37.65 (14.20)
	North	Yes	31	38.10 (16.75)
		No	2	29.00 (4.24)
	Central	Yes	40	38.02 (15.42)
		No	0	0.00 (0.00)
N2 Score	Southern	Yes	53	35.29 (14.83)
		No	16	23.08 (14.75)
	Bay	Yes	37	43.95 (13.75)
		No	17	31.58 (13.25)
	North	Yes	31	36.28 (16.10)
		No	2	38.01 (2.12)
	Central	Yes	40	34.27 (16.63)
		No	0	0.00 (0.00)

Table 15 Tests of Between-Subjects Effects for P and N2 Scores, by Language and Region

Schema	Source	df	F	p	Partial Eta Squared
P Score	Corrected Model	6	4.130	0.000	0.120
	Intercept	1	329.327	0.000	0.635
	Region	3	4.076	0.008	0.061
	Language	1	5.808	0.017	0.030
	Region * Language	2	0.120	0.887	0.001
	Error	189			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	6	4.014	0.001	0.113
	Intercept	1	292.013	0.000	0.607
	Region	3	3.405	0.019	0.051
	Language	1	3.292	0.071	0.017
	Region * Language	2	0.755	0.472	0.008
	Error	189			
	Total	196			
	Corrected Total	195			

$p \leq 0.05$

Some researchers have often been interested in measuring social justice using the DIT-2 scores and political orientation. An examination of the impact of political view on the moral judgment of nurses was conducted using the P score schema and the N2 schema. The political view of nurses was categorized into 3 groups: (1) Liberal, (2) Neither liberal nor conservative, and (3) Conservative. For the P score schema, there were significant main effects for political view, $F(2,196) = 8.93, p < 0.001$, and region, $F(3,196) = 3.78, p = 0.012$, on the P schema score. The effect sizes were 0.089 and 0.058, respectively; indicating that even though the effects were significant, the actual difference in the mean P score values was small. There was no significant interactive effect of political view and region, $F(6,196) = 0.89, p = 0.502$. Similarly, interactive effects were examined for the political view of nurses on the N2 schema. There were significant main effects for political view, $F(2,196) = 8.35, p < 0.001$, on the P schema score. The effect sizes were 0.083; indicating that even though the effect was significant, the actual difference in the mean P score value was small. There was no significant interactive effect of political view and region, $F(6,196) = 1.47, p = 0.191$ (see Tables 16 and 17).

Table 16

Two-way ANOVA for the P and N2 Scores, by Political View and

Region

Score	Region	Political View	<i>n</i>	mean (<i>SD</i>)
P Score	Southern	Liberal	31	38.90 (15.88)
		Neither Lib. nor Con.	14	34.30 (16.12)
		Conservative	24	35.58 (16.11)
	Bay	Liberal	27	51.75 (11.97)
		Neither Lib. nor Con.	10	45.39 (14.65)
		Conservative	17	37.41 (15.92)
	North	Liberal	17	42.82 (17.32)
		Neither Lib. nor Con.	6	29.50 (11.10)
		Conservative	10	33.40 (15.44)
	Central	Liberal	19	43.68 (12.57)
		Neither Lib. nor Con.	10	37.00 (21.48)
		Conservative	11	29.16 (8.93)
N2 Score	Southern	Liberal	31	33.51 (15.62)
		Neither Lib. nor Con.	14	30.09 (14.20)
		Conservative	24	32.48 (16.78)
	Bay	Liberal	27	45.53 (12.59)
		Neither Lib. nor Con.	10	38.63 (16.50)
		Conservative	17	32.18 (13.55)
	North	Liberal	17	41.50 (17.50)
		Neither Lib. nor Con.	6	26.34 (10.12)
		Conservative	10	33.73 (11.79)
	Central	Liberal	19	40.52 (13.83)
		Neither Lib. nor Con.	10	34.13 (21.55)
		Conservative	11	23.59 (10.77)

Table 17

Tests of Between-Subjects Effects for P and N2 Scores, by Political View and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
P Score	Corrected Model	11	3.167	0.001	0.159
	Intercept	1	1013.428	0.000	0.846
	Region	3	3.780	0.012	0.058
	Political View	2	8.934	0.000	0.089
	Region * Political View	6	0.892	0.502	0.028
	Error	184			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	11	2.813	0.002	0.114
	Intercept	1	830.273	0.000	0.819
	Region	3	1.983	0.118	0.031
	Political View	2	8.351	0.000	0.083
	Region * Political View	6	1.470	0.191	0.046
	Error	184			
	Total	196			
	Corrected Total	195			

$p \leq 0.05$

Summary

A comparison of the mean scores for the P and N2 schemas indicated that there were significant differences by age, primary language, and political view. Participants less than 50 years of age observed significantly higher N2 scores in comparison to nurses 50 years or older. Participants who reported English as their primary language scored significantly higher in both the P and N2 scores in comparison to those who did not have English as their primary language. In both the P and N2 schema scores, participants who reported to have liberal political views scored higher than those who reported either conservative political views or those who were neither liberal nor conservative.

Mean differences for the P score and N2 schema score were examined at the regional level. There were significant mean differences on nurses' scoring of moral judgment between the Southern region and the Bay region by age, language, and political view. There were significant main effects but no significant interactive effects of the selected demographic variables (age, language, and political view) on the P score and N2 schema score.

CHAPTER 5

Discussion of Findings

Discussion

This chapter provides a discussion of the study results and conclusions derived from these data. This discussion is organized into three sections: 1) discussion of the findings for each of the specific aims; 2) discussion of the study's limitations; and 3) implications for nursing practice and research.

This study was designed to provide an initial exploration of the stage of moral development of PHNs currently practicing in the state of California. Nursing has been and continues to be perceived by the general public as one of the more trusted professions. Americans have been asked in annual Gallup polls to rate the honesty and ethics of various professions annually since 1990, and periodically since 1976. Nurses were first included in 1999 and have topped the list each year with the exception of 2001. That year firefighters were included in response to their work during and after the 9/11 attacks and were ranked first. Since 2005, at least 80% of Americans have said nurses have high ethics and honesty.

Public health nursing reaches more people than any other practice setting in the profession. Nurses are expected to have close relationships with the clients from vulnerable populations as well as increased knowledge of social determinants of health. This practice setting gives PHNs a unique perspective of the complexities affecting communities reaching good health (ACHNE, 2010, p. 373). The PHN practice roles include, but are not limited to, social roles that direct social action. One key intervention is client advocacy where the most consistent behavior of speaking up on behalf of others

(ANA, 2001). The ideal advocate is someone who is non-judgmental and whose practice is founded on social justice.

This study was conceived after multiple discussions with nurse managers in the public health arena. There were concerns that with generational differences and new accelerated entry opportunities into nursing education and training, the selection of nursing as a vocation may not be a “calling” to help or care for others, but that the profession was attracting a new workforce whose primary motivation was steady employment and a reasonable salary to make a living. These outcomes may be on a list of benefits for joining the nursing profession, but many nursing practice leaders have expressed hope that these benefits were not the primary reasons. Consequently, the study was undertaken as an initial step in creating a knowledge base regarding moral development and demographic variables in a limited population of PHNs.

Aim 1. Describe relevant demographic variables in this population (age, gender, race/ethnicity, level of entry into professional nursing, highest level of education, years practicing as an RN, years practicing in a public health department, self-identified political views, primary language, and region of California) in a group of PHNs practicing in California.

Key findings for specific aim #1 indicate that the ratio of PHN participants to the overall number of PHNs in each of the four regions was appropriately represented. Given that each region of the four regions in California are unique in population size, physical environment, industries, the degree of diversity of races and ethnicities, this study is posited to accurately represent the number practicing in public health departments in the state at the time of the data collection. This accurate representation of numbers of PHNs

has significance for future comparative studies conducted in other states. This study had a sample of 196 participants that consisted of 187 females and 9 males. The number of males does not reflect the current increase of men in the nursing profession at a national or regional level. In large metropolitan areas such as Los Angeles county area it is thought to be closer to 20% of the nursing workforce. Consequently, gender comparisons were not possible from these data. Future studies would need to be conducted assuring the sample of male nurses better represent the male gender reflect of the current practicing men in nursing. The mean age of study participants was 49.0 years and 60% were 50 years or older. This disproportionate number of participants who self-identified their age at 50 years or older is consistent with the current nursing workforce nationally. In addition, the composition of the sample as 60% Caucasian is also consistent with national levels.

During the last two decades, the number of people of color who obtained baccalaureate level education in nursing has increased, with a parallel increase in PHN certified nurses. According to the Department of Education, National Center for Education Statistics (2011), the percentage of American college students who are Hispanic, Asian/Pacific Islander, Black, and American Indian/Alaska Native has been increasing. Statistics from 1976 to 2011 showed the percentage of Hispanic students rose from 4 percent to 14 percent, the percentage of Asian/Pacific Islander students rose from 2 percent to 6 percent, the percentage of Black students rose from 10 percent to 15 percent, and the percentage of American Indian/Alaska Native students rose from 0.7 to 0.9 percent. During the same period, the percentage of White students fell from 84 percent to 61 percent. These educational trends indicate that the nursing workforce in the

future will become increasingly diverse. While this study sample had a 60% white percentage, congruent with contemporary American nursing, future studies of a more diverse nursing workforce may yield more rich data regarding the relationship between level of moral development and racial/ethnic background.

Of the 196 participants in this study, 52% had ten years or more practicing in public health as nurses. Participants who have worked five to ten as well as participants who have worked less than five years each totaled 24%. While it is anticipated that a large percentage of older PHNs (i.e., the “Baby Boomer” generation) will retire in the next decade, it is also anticipated that nurses will continue to select public health as their practice setting in sufficient numbers to insure an adequate number of nurses in this practice setting. Since the enactment of the Affordable Care Act in March of 2010, emphasis has been placed on the provision of primary care by nurse practitioner-directed clinic services. In addition the focus of healthcare delivery is now directed to health promotion and disease/injury prevention or delay. This direction requires that primary prevention lead the healthcare services as opposed to tertiary prevention of chronic diseases. Public health workers are key in executing this goal, and public health nurses are expected to be the center of this healthcare delivery system. Thus, such issues as access to equitable care will continue to be the focus of PHN practice, which will need to be informed by a cohesive approach to moral judgment.

Public health is focused on the concept of population-based practice. Included in the many definitions unique to public health nursing are such terms as “social determinants of health,” “health promotion,” and the “prevention of disease, injury, preventable disability and premature death” (Truglio-Londrigan & Lewenson, 2013). The

concept of caring for populations can be difficult to understand. Public health workers must function in the spirit of advocating for all, especially the vulnerable populations, who suffer disproportionately from disease, disability and injury. However, there is no mention of the basic principle of social justice in the Quad Council's PHN competencies (2011). Bekemeier and Butterfield (2005) critically reviewed the American Nursing Association Code of Ethics, the Nursing Social Policy Statement and the Nursing Scope and Standards of Practice. They found the concept of social justice was inconsistent and ambiguous among the three key professional nursing documents.

Aim 2. Describe the stages of moral development as measured by the Defining Issues Test 2 (DIT2) instrument in this population.

Key findings for specific aim #2 indicate that this convenience sample of PHNs had a mean P schema score of 39.7 (SD=16), and a mean N2 schema score of 35.6 (SD=15.7). It is difficult to reach any specific conclusions based on these mean values. However, these scores are indicative of those levels that Kohlberg (1969) asserts represent a more open view of communities beyond rules and regulations. Further research in larger populations of registered nurses across practice areas is needed to interpret these data in a larger context.

Aim 3. Examine the differences in the levels of stages of moral development across relevant demographic variables in this population.

Key findings for specific aim #3 include significant differences in level of moral development across age, primary language, and political view. Participants less than 50 years of age demonstrated significantly higher N2 scores in comparison to nurses 50 years or older. Participants who reported English as their primary language scored

significantly higher in both the P and N2 scores in comparison to those who did not have English as their primary language. In both the P and N2 schema scores, participants who reported to have liberal political views scored higher than those who reported either conservative political views or those who were neither liberal nor conservative.

Age. The finding of younger participants demonstrating higher levels of moral development is incongruent with Kohlberg's model of moral development increasing with age. This finding is particularly interesting when one considers that this older age group comes from the post-WWII generation (born 1945-1965) that was characterized by such movements as civil rights, women's rights, access to abortion, etc. During the formative years of this generation, such initiatives as Medicare and Medicaid were instituted by the Johnson administration as a form of social safety net for vulnerable populations. Intuitively, this generation that came of age during a time of rapid social change would be expected to demonstrate higher levels of moral development than their younger counterparts. Further study is needed to determine this group ages 50 years or older have had life experiences that subsequently have influenced their perception of rules, equity, and need for order, thus rendering Kohlberg's assumptions regarding moral development in older persons inaccurate.

Language. Similarly there were significant mean differences when examining N2 schema for language. Participants reporting English as a primary language scored higher than participants who did not report English as their primary language. The meaning of this finding is also difficult to discern from these limited data. While it could be posited intuitively that persons for whom English is a second language might have been expected to have increased awareness of issues related to marginality, and, therefore, moral

development, these data seem to suggest otherwise. The meaning of this finding will require a great deal of future research across multiple, diverse populations.

Political views. Participants with more liberal political views had higher moral judgment scores. While the limited sample renders the generalizability of this finding limited, it is congruent with the intuitive correlation between a more liberal viewpoint and a less rule-driven moral viewpoint. A more detailed study to capture data a clearer definition of “liberal” and “conservative” viewpoints is warranted. In addition, future research is needed to determine if changes over one’s lifetime influence political viewpoint and if such changes result in subsequent moral conflicts in the practice setting.

Limitations

One of the inclusion criteria for the study was that participants must currently be practicing as PHNs in one of the county or city public health departments within the state of California, thus excluding PHNs practicing in community based agencies or school settings. In addition, when the data collection began in 2012, only 12 of the 61 public health nursing departments agreed to participate in recruitment efforts, thus limiting access to a broader sample of PHNs.

Compounding the limitation in the recruitment process was the lack of availability of funds to travel the state to personally conduct the data collection. At one point an electronic survey system was considered as an option. However, obtaining email addresses from with the various public county and city systems proved to be a greater challenge. The paper and pencil system was selected to simplify the securing of informed consent, distribution of surveys, and collection. Had an electronic version of the distribution of the tool been more feasible, a larger sample of PHNs might have been

accessed. However, most California PHN practice settings have union representation, a factor that sometimes renders electronic collection of data more complex.

Another limitation was the availability of the PHNs to take the survey during a non-working allocation of time, i.e., lunch hour. In California, all public health system workers are represented by unions and under contract for working conditions and hours. The period at the end of the lunchtime was selected to share the details of the study, recruit participants and explain the process of the survey. After the meal was concluded, those interested in participating stayed to complete the informed consent and complete the survey. Although data collection using this system was not impossible, it complicated the process of obtaining a larger sample. Had one or two larger systems provided a larger pool of participants, with the possibility of a follow-up interview on the participant's own time, a mixed methods research study might have been possible and yielded richer data.

The geographical size of the state was challenging to secure participation from all four regions. The researcher personally performed the distribution and collection of the surveys of all sites with the exception of two locations that participated electronically via webcam. The researcher with the local nursing director coordinated the collection and delivery of the surveys. Despite researcher oversight of the process, there were a number of surveys that were incomplete and could not be included in the total analyzed. This decreased the number of participant surveys from about 240 to 196. The Center for Moral Development has since developed an online version of the DIT-2. However, its future use in PHN work settings will continue to be limited by restricted access to email systems within public or government agencies.

The study was initially designed to separate those surveys completed by managers/supervisors for a comparison with the staff PHNs by region, to assess the public health nursing leadership and their subordinates for the stage of moral development as well as the demographic variables. However, the number of nursing directors completing the survey was extremely low, rendering tests of statistical significance impossible. Therefore, surveys were not separated by job position, rendering a more in depth analysis impossible.

Due to copyright issues, the researcher was required to return the DIT-2 surveys to the Center for Moral Development at the University of Alabama for analysis using SPSS. The researcher received already summarized data on a compact disc containing SPSS files. Thus, the opportunity for more in depth analyses using raw data might have been possible. Exploration of the future use of the DIT-2 is needed in which there is a more collaborative approach to data analysis.

The collection of data from the Demographic Data Form was impacted by miscommunication. The total of each RN years was determined to be inaccurate because the form did not have written instructions to facilitate each participant's understanding of the difference between the time as an RN and that of a PHN. It was later determined that a significant number of participants counted their years in each role twice. Thus, it was not possible to perform any correlational statistics between the variables of educational level at entry into professional nursing, years as an RN, and years in public health nursing. In future studies, more definitive instructions with examples should be included so that nurse respondents can provide more accurate, complete data. Pilot testing the demographic form might be also warranted.

Implications for Nursing Practice and Research

The data from this study suggest that the moral development of the current PHN workforce is at the stage of post-conventional morality. Thus, PHNs recognize the flexibility of rules while noting that when rules no longer serve in the best interests of society the rules can and should be changed. This level of values should facilitate the current expectation society has for all public health workers, especially for public health nursing.

The practice setting of public health requires public health workers to advocate for the common good of all. Given current health disparities, contemporary public health nursing practice must include an ability to consider whether current systems are functioning in the best interests of the communities served by PHNs. If an assessment reveals that systems are not functioning in this manner, nurses must take action to change the system through advocacy. The results of this study suggest that the current PHN workforce in this sample has reached the stage of moral development to assume the responsibility to promote justice and promote human values of equity and equality.

Kohlberg's model (1966, 1975, 1977) identifies the stage of moral thinking of an individual. It does not identify the moral action one would take. To protect and promote the population's health, the public health nursing workforce must engage in public discussions and actions aimed at clarifying what constitutes justice in addressing the social determinants of health for the populations they serve. It is anticipated that with the implementation of increased access to health care provided by Affordable Care Act, public health nursing will renew its commitment to a practice centrally shaped by social justice (Buettner-Schmidt & Lobo, 2012).

The goal for the future is to assure that the future nursing workforce be educated and trained with social justice as the center of the nursing paradigm. Nursing education's role is to prepare future nursing leaders, especially in public health, for a practice founded on social justice and equity. As stated in the Essentials of Baccalaureate Education for Professional Nursing Practice (October 20, 2008, VIII, p. 29), "Professionalism and the inherent values of altruism, autonomy, human dignity, integrity and social justice are fundamental to the discipline of nursing." An enhanced emphasis is needed on reducing health inequities, which requires professional competency in policy and system level interventions. Courses that focus on policy development and analysis are critical. Since the BSN level of education is mandatory for public health nursing practice in this state, policy development and analysis should be included in the required public health nursing focused coursework at this curriculum level. However, given the ongoing existence of multiple entry levels to registered nursing, future research also should be directed at enhancing the moral development of pre-RN licensure students at all levels.

Future Research

A longitudinal, cross sectional study of nursing students from all program types (i.e., A.D.N., B.S.N, and masters entry level) is a possible next step in developing a knowledge base regarding moral development in nursing. Comparisons of moral development could be made between students upon entry and exit of the program for each cohort. This would provide an opportunity to note whether students entering one type of nursing program enter with a lower level of moral development when compared with students entering a higher level of pre-licensure program. Additional studies comparing nursing students from public education programs, religiously affiliated

programs, and the growing number private proprietary nursing programs may also be indicated. Continued testing of the DIT-2 would further documentation of its reliability and across populations would to advance our understanding of validity. Longitudinal cohort studies in which new graduates are subsequently followed to measurement at 5-year and 10-year time points would be helpful in exploring the relationships between factors such as length of time as an RN, practice specialty, and level of moral development.

A second potential study is to survey the nursing faculty across diverse programs. One of the best ways for students to develop higher levels of moral judgment is to be exposed to teaching for moral imagination (Benner, Sutphen, Leonard, & Day, 2010). By “moral imagination,” Benner and coauthors (2010) are referring to those abilities that allow a learner to enlarge his/her repertoire of ethical comportment in different contexts. A study in which faculty are given structured preparation in teaching for moral imagination as suggested by Benner et al (2010), including strategies for enhancing moral imagination in students, would provide a beginning point. However, before embarking on such an interventional study, it would be essential to gain more insight regarding moral imagination in nursing with in depth qualitative study of both nursing faculty and students. Given the variety of entry programs into the profession in this dynamic healthcare environment for which the future nursing workforce is being prepared, such a qualitative approach would provide a valuable starting point in expanding the knowledge base in this area.

Conclusion

This study provided a beginning exploration of the moral development of current practicing PHNs in the state for all four regions in the state of California. The principal finding of this study that this sample consistently demonstrated the post-conventional stage of moral development is a starting place for future research. Future studies that examine more completely the context in which public health nursing is taught and practiced with social justice as a central component are needed. It is clear that the public health department systems must encourage and support advocacy for vulnerable populations and develop policy to support this goal. Moreover, the current public health nursing workforce has the potential to play a leadership role in improving the future health of all Americans based upon a cohesive, shared moral paradigm informed by social justice.

APPENDICES

Appendix A

Additional Demographic Data

Appendix – A

Additional Demographic Data

What is your gender?

- Female Male

What is your race/ethnicity?

- Alaska Native/American Indian
 Asian
 Black/African-American
 Hispanic/Latino
 Pacific Islander
 White
 Multiracial
 Other- please specify: _____

At what level did you receive your first nursing training?

- Diploma program
 Associate Degree of Nursing
 Bachelor of Science in Nursing
 Master-level entry

How many years practicing as an RN?

- Less than 5 years
 Between 5-10 years
 More than 10 years

How many years of practice have you had in a public health department?

- Less than 5 years
 Between 5-10 years
 More than 10 years

Appendix B

DIT-2

Appendix DIT-2

DIT-2

Defining Issues Test

Version 3.1

University of Minnesota

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University of Alabama

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Center for the Study of Ethical Development

Instructions

This questionnaire is concerned with how you define the issues in a social problem. Several stories about social problems will be described. After each story, there will be a list of questions. The questions that follow each story represent different issues that might be raised by the problem. In other words, the questions / issues raise different ways of judging what is important in making a decision about the social problem. You will be asked to rate and rank the questions in terms of how important each one seems to you.

This questionnaire is in two parts: one part contains the **INSTRUCTIONS** (this part) and the stories presenting the social problems; the other part contains the questions (issues) and the **ANSWER SHEET** on which to write your responses.

Here is an example of the task:

Presidential Election

Imagine that you are about to vote for a candidate for the Presidency of the United States. Imagine that before you vote, you are given several questions, and asked which issue is the most important to you in making up your mind about which candidate to vote for. In this example, 5 items are given. On a rating scale of 1 to 5 (1=Great, 2=Much, 3=Some, 4=Little, 5=No) please rate the importance of the item (issue) by filling in with a pencil one of the bubbles on the answer sheet by each item.

Assume that you thought that item #1 (below) was of great importance, item #2 had some importance, item #3 had no importance, item #4 had much importance, and item #5 had much importance. Then you would fill in the bubbles on the answer sheet as shown below.

<p>GREAT MUCH SOME LITTLE NO</p>	<p>Rate the following 12 issues in terms of importance (1-5)</p>
<p><input checked="" type="radio"/> ② <input type="radio"/> ③ <input type="radio"/> ④ <input type="radio"/> ⑤</p>	<p>1. Financially are you personally better off now than you were four years ago?</p>
<p><input type="radio"/> ① <input type="radio"/> ② <input checked="" type="radio"/> ④ <input type="radio"/> ⑤</p>	<p>2. Does one candidate have a superior moral character?</p>
<p><input type="radio"/> ① <input type="radio"/> ② <input type="radio"/> ③ <input type="radio"/> ④ <input checked="" type="radio"/> ⑤</p>	<p>3. Which candidate stands the tallest?</p>
<p><input type="radio"/> ① <input checked="" type="radio"/> ③ <input type="radio"/> ④ <input type="radio"/> ⑤</p>	<p>4. Which candidate would make the best world leader?</p>
<p><input type="radio"/> ① <input checked="" type="radio"/> ③ <input type="radio"/> ④ <input type="radio"/> ⑤</p>	<p>5. Which candidate has the best ideas for our country's internal problems, like crime and health care?</p>

Further, the questionnaire will ask you to rank the questions in terms of importance. In the space below, the numbers 1 through 12, represent the item number. From top to bottom, you are asked to fill in the bubble that represents the item in first importance (of those given you to choose from), then second most important, third most important, and fourth most important. Please indicate your top four choices. You might fill out this part, as follows:

Rank which issue is the most important (item number).

Most important item ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Note that some of the items may seem irrelevant to you (as in item #3) or not make sense to you—in that case, rate the item as “No” importance and do not rank the item. Note that in the stories that follow, there will be 12 items for each story, not five. Please make sure to consider all 12 items (questions) that are printed after each story.

In addition you will be asked to state your preference for what action to take in the story. After the story, you will be asked to indicate the action you favor on a three-point scale (1 = strongly favor some action, 2 = can't decide, 3 = strongly oppose that action).

In short, read the story from this booklet, and then fill out your answers on the answer sheet. Please use a #2 pencil. If you change your mind about a response, erase the pencil mark cleanly and enter your new response.

[Notice the second part of this questionnaire, the Answer Sheet. The Identification Number at the top of the answer sheet may already be filled in when you receive your materials. If not, you will receive instructions about how to fill in the number. If you have questions about the procedure, please ask now.]

Please turn now to the Answer Sheet.]

Famine— (Story #1)

The small village in northern India has experienced shortages of food before, but this year's famine is worse than ever. Some families are even trying to feed themselves by making soup from tree bark. Mustaq Singh's family is near starvation. He has heard that a rich man in his village has supplies of food stored away and is hoarding food while its price goes higher so that he can sell the food later at a huge profit. Mustaq is desperate and thinks about stealing some food from the rich man's warehouse. The small amount of food that he needs for his family probably wouldn't even be missed.

[If at any time you would like to reread a story or the instructions, feel free to do so. Now turn to the Answer Sheet, go to the 12 issues and rate and rank them in terms of how important each issue seems to you.]

Reporter— (Story #2)

Molly Dayton has been a news reporter for the *Gazette* newspaper for over a decade. Almost by accident, she learned that one of the candidates for Lieutenant Governor for her state, Grover Thompson, had been arrested for shop-lifting 20 years earlier. Reporter Dayton found out that early in his life, Candidate Thompson had undergone a confused period and done things he later regretted, actions which would be very out-of-character now. His shop-lifting had been a minor offense and charges had been dropped by the department store. Thompson has not only straightened himself out since then, but built a distinguished record in helping many people and in leading constructive community projects. Now, Reporter Dayton regards Thompson as the best candidate in the field and likely to go on to important leadership positions in the state. Reporter Dayton wonders whether or not she should write the story about Thompson's earlier troubles because in the upcoming close and heated election, she fears that such a news story could wreck Thompson's chance to win.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

School Board— (Story #3)

Mr. Grant has been elected to the School Board District 190 and was chosen to be Chairman. The district is bitterly divided over the closing of one of the high schools. One of the high schools has to be closed for financial reasons, but there is no agreement over which school to close. During his election to the school board, Mr. Grant had proposed a series of "Open Meetings" in which members of the community could voice their opinions. He hoped that dialogue would make the community realize the necessity of closing one high school. Also he hoped that through open discussion, the difficulty of the decision would be appreciated, and that the community would ultimately support the school board decision. The first Open Meeting was a disaster. Passionate speeches dominated the microphones and threatened violence. The meeting barely closed without fist-fights. Later in the week, school board members received threatening phone calls. Mr. Grant wonders if he ought to call off the next Open Meeting.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Cancer— (Story #4)

Mrs. Bennett is 62 years old, and in the last phases of colon cancer. She is in terrible pain and asks the doctor to give her more pain-killer medicine. The doctor has given her the maximum safe dose already and is reluctant to increase the dosage because it would probably hasten her death. In a clear and rational mental state, Mrs. Bennett says that she realizes this; but she wants to end her suffering even if it means ending her life. Should the doctor give her an increased dosage?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Demonstration — (Story #5)

Political and economic instability in a South American country prompted the President of the United States to send troops to "police" the area. Students at many campuses in the U.S.A. have protested that the United States is using its military might for economic advantage. There is widespread suspicion that big oil multinational companies are pressuring the President to safeguard a cheap oil supply even if it means loss of life. Students at one campus took to the streets, in demonstrations, tying up traffic and stopping regular business in the town. The president of the university demanded that the students stop their illegal demonstrations. Students then took over the college's administration building, completely paralyzing the college. Are the students right to demonstrate in these ways?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

School Board -- (Story #3)

Do you favor calling off the next Open Meeting?

- ① Should call off the next open meeting ② Can't decide ③ Should have the next open meeting

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Is Mr. Grant required by law to have Open Meetings on major school board decisions?
- ① ② ③ ④ ⑤ 2. Would Mr. Grant be breaking his election campaign promises to the community by discontinuing the Open Meetings?
- ① ② ③ ④ ⑤ 3. Would the community be even angrier with Mr. Grant if he stopped the Open Meetings?
- ① ② ③ ④ ⑤ 4. Would the change in plans prevent scientific assessment?
- ① ② ③ ④ ⑤ 5. If the school board is threatened, does the chairman have the legal authority to protect the Board by making decisions in closed meetings?
- ① ② ③ ④ ⑤ 6. Would the community regard Mr. Grant as a coward if he stopped the open meetings?
- ① ② ③ ④ ⑤ 7. Does Mr. Grant have another procedure in mind for ensuring that divergent views are heard?
- ① ② ③ ④ ⑤ 8. Does Mr. Grant have the authority to expel troublemakers from the meetings or prevent them from making long speeches?
- ① ② ③ ④ ⑤ 9. Are some people deliberately undermining the school board process by playing some sort of power game?
- ① ② ③ ④ ⑤ 10. What effect would stopping the discussion have on the community's ability to handle controversial issues in the future?
- ① ② ③ ④ ⑤ 11. Is the trouble coming from only a few hotheads, and is the community in general really fair-minded and democratic?
- ① ② ③ ④ ⑤ 12. What is the likelihood that a good decision could be made without open discussion from the community?

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

Cancer -- (Story #4)

Do you favor the action of giving more medicine?

- ① Should give Mrs. Bennett an increased dosage to make her die ② Can't decide ③ Should not give her an increased dosage

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Isn't the doctor obligated by the same laws as everybody else if giving an overdose would be the same as killing her?
- ① ② ③ ④ ⑤ 2. Wouldn't society be better off without so many laws about what doctors can and cannot do?
- ① ② ③ ④ ⑤ 3. If Mrs. Bennett dies, would the doctor be legally responsible for malpractice?
- ① ② ③ ④ ⑤ 4. Does the family of Mrs. Bennett agree that she should get more painkiller medicine?
- ① ② ③ ④ ⑤ 5. Is the painkiller medicine an active hallucinogenic drug?
- ① ② ③ ④ ⑤ 6. Does the state have the right to force continued existence on those who don't want to live?
- ① ② ③ ④ ⑤ 7. Is helping to end another's life ever a responsible act of cooperation?
- ① ② ③ ④ ⑤ 8. Would the doctor show more sympathy for Mrs. Bennett by giving the medicine or not?
- ① ② ③ ④ ⑤ 9. Wouldn't the doctor feel guilty from giving Mrs. Bennett so much drug that she died?
- ① ② ③ ④ ⑤ 10. Shouldn't God decide when a person's life should end?
- ① ② ③ ④ ⑤ 11. Shouldn't society protect everyone against being killed?
- ① ② ③ ④ ⑤ 12. Where should society draw the line between protecting life and allowing someone to die if the person wants to?

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

Demonstration -- (Story #5)

Do you favor the action of demonstrating in this way?

- ① Should continue demonstrating in these ways ② Can't decide ③ Should not continue demonstrating in these ways

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- | | |
|-----------|---|
| ① ② ③ ④ ⑤ | 1. Do the students have any right to take over property that doesn't belong to them? |
| ① ② ③ ④ ⑤ | 2. Do the students realize that they might be arrested and fined, and even expelled from school? |
| ① ② ③ ④ ⑤ | 3. Are the students serious about their cause or are they doing it just for fun? |
| ① ② ③ ④ ⑤ | 4. If the university president is soft on students this time, will it lead to more disorder? |
| ① ② ③ ④ ⑤ | 5. Will the public blame all students for the actions of a few student demonstrators? |
| ① ② ③ ④ ⑤ | 6. Are the authorities to blame by giving in to the greed of the multinational oil companies? |
| ① ② ③ ④ ⑤ | 7. Why should a few people like Presidents and business leaders have more power than ordinary people? |
| ① ② ③ ④ ⑤ | 8. Does this student demonstration bring about more or less good in the long run to all people? |
| ① ② ③ ④ ⑤ | 9. Can the students justify their civil disobedience? |
| ① ② ③ ④ ⑤ | 10. Shouldn't the authorities be respected by students? |
| ① ② ③ ④ ⑤ | 11. Is taking over a building consistent with principles of justice? |
| ① ② ③ ④ ⑤ | 12. Isn't it everyone's duty to obey the law, whether one likes it or not? |

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
- Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Please provide the following information about yourself:

1. Age in years:
- | | |
|---|---|
| 0 | 0 |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |
| 8 | 8 |
| 9 | 9 |
2. Sex (mark one): Male Female
3. Level of Education (mark highest level of formal education attained, if you are currently working at that level [e.g., Freshman in college] or if you have completed that level [e.g., if you finished your Freshman year but have gone on no further].)
- Grade 1 to 6
 - Grade 7, 8, 9
 - Grade 10, 11, 12
 - Vocational/technical school (without a bachelor's degree) (e.g., Auto mechanic, beauty school, real estate, secretary, 2-year nursing program)
 - Junior college (e.g., 2-year college, community college, Associate Arts degree)
 - Freshman in college in bachelor degree program.
 - Sophomore in college in bachelor degree program.
 - Junior in college in bachelor degree program.
 - Senior in college in bachelor degree program
 - Professional degree (Practitioner degree beyond bachelor's degree) (e.g., M.D., M.B.A., Bachelor of Divinity, D.D.S. in Dentistry, J.D. in law, Masters of Arts in teaching, Masters of Education [in teaching], Doctor of Psychology, Nursing degree along with 4-year Bachelor's degree)
 - Masters degree (in academic graduate school)
 - Doctoral degree (in academic graduate school, e.g., Ph.D. or Ed.D.)
 - Other Formal Education. (Please describe: _____)
4. In terms of your political views, how would you characterize yourself (mark one)?
- Very Liberal
 - Somewhat Liberal
 - Neither Liberal nor Conservative
 - Somewhat Conservative
 - Very Conservative
5. Are you a citizen of the U.S.A.?
- Yes No
6. Is English your primary language?
- Yes No

Thank You.

PLEASE DO NOT WRITE IN THIS AREA

Appendix C

List of Tables

LIST OF TABLES

Table 1

Sample Characteristics of Participants

Characteristics	n (%)
Gender (n = 195)	
Male	9 (4.6)
Female	186 (95.4)
Age (n = 196)	
Mean (SD)	49.0 (10.9)
Less than 50 years old	79 (40.3)
50 years or older	117 (59.7)
Educational Level (n = 196)	
Undergraduate degree	5 (2.6)
Professional degree	142 (72.4)
Graduate degree	49 (25.0)
Primary language (n = 196)	
English	161 (82.1)
Not English	35 (17.9)
Are you a citizen of USA? (n = 196)	
Yes	195 (99.5)
No	1 (0.5)
In terms of your political views, how would you characterize yourself? (n = 196)	
Liberal	94 (48.0)
Neither liberal nor conservative	40 (20.4)
Conservative	62 (31.6)
P Schema Score, mean (SD)	39.7 (16.0)
N2 Schema Score, mean (SD)	35.6 (15.7)

Table 2

Additional Sample Characteristics of Participants (n=x)

Race/Ethnicity	% Of Participants
White or Caucasian	60
Latino/Hispanic	13
Asian	12
African American or Black	7
Pacific Islander	4.5
Other: noted as multi-racial or multi-ethnic	3.5

Table 3

Mean Moral Schema Scores by Sample Characteristics of Participants

	Personal Interest (Stage 2/3) mean (SD)	Maintain Norms (Stage 4) mean (SD)	Post Conventional Score (P Score) mean (SD)	Developmental Score (N2 Score) mean (SD)
Gender				
Male	24.00 (11.09)	26.67 (17.97)	45.11 (16.80)	38.97 (16.16)
Female	21.77 (10.25)	32.93 (13.13)	39.60 (15.01)	35.54 (15.70)
Age				
Less than 50 years old	20.73 (9.86)	31.78 (13.73)	41.49 (16.70)	38.31 (16.73)
50 years or older	22.78 (10.55)	33.32 (13.18)	38.54 (15.48)	33.74 (14.83)
Educational Level				
Undergraduate degree	12.40 (8.65)	30.40 (11.08)	50.80 (23.82)	48.66 (22.16)
Professional degree	22.72 (10.34)	33.33 (14.16)	38.08 (15.70)	34.23 (15.48)
Graduate degree	20.70 (9.92)	31.12 (11.19)	43.37 (15.32)	38.15 (15.25)
Primary language				
English	21.64 (10.54)	32.01 (12.97)	41.09 (16.03)	37.22 (15.62)
Not English	23.37 (9.12)	35.89 (14.99)	33.49 (14.55)	28.06 (14.23)
Are you a citizen of USA?				
Yes	22.01 (10.29)	32.57 (13.30)	39.77 (16.04)	35.61 (15.77)
No	10.00 (0.00)	58.00 (0.00)	32.00 (0.00)	29.79 (0.00)
In terms of your political views, how would you characterize yourself?				
Liberal	22.40 (10.11)	28.52 (11.53)	44.27 (15.16)	39.83 (15.36)
Neither liberal nor conservative	21.82 (10.51)	33.10 (13.53)	37.03 (16.99)	32.67 (16.39)
Conservative	21.36 (10.60)	38.79 (13.75)	34.59 (14.86)	31.02 (14.36)

Table 4

Descriptive Statistics and One Sample T-Test for P and N2 Scores, by Selected Demographic Variables

DIT2 Schema	Sample Characteristics	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>
P Score	Gender			
	Male (n = 9)	45.11 (16.80)	1.01	0.313
	Female (n = 186)	39.60 (15.91)		
	Age			
	Less than 50 Years (n = 79)	41.49 (16.70)	1.27	0.206
	50 years or older (n = 117)	38.54 (15.48)		
	Primary language			
English (n = 161)	41.09 (16.03)	0.29	0.011	
Other (n = 35)	33.49 (14.55)			
N2 Score	Gender			
	Male (n = 9)	38.97 (16.16)	0.64	0.524
	Female (n = 186)	35.54 (15.70)		
	Age			
	Less than 50 Years (n = 79)	38.31 (16.73)	2.01	0.046
	50 years or older (n = 117)	33.74 (14.83)		
	Primary language			
English (n = 161)	37.22 (15.62)	3.19	0.002	
Other (n = 35)	28.06 (14.23)			

Table 5

ANOVA for P and N2 Schema Scores, by Education Level and Political View

DIT2 Schema	Sample Characteristics	mean (SD)	F
P Score	Education		
	Undergraduate studies (n = 5)	50.80 (23.82)	3.29
	Professional degree (n = 142)	38.08 (15.70)	
	Graduate degree (n = 49)	39.73 (16.01)	
	Political view		
	Liberal (n = 94)	44.27 (15.16)	8.09 <
	Neither liberal nor conservative (n = 40)	37.03 (16.99)	
	Conservative (n = 62)	34.59 (14.86)	
N2 Score	Education		
	Undergraduate studies (n = 5)	48.66 (22.16)	2.96
	Professional degree (n = 142)	34.23 (15.47)	
	Graduate degree (n = 49)	38.15 (15.25)	
	Political view		
	Liberal (n = 94)	39.83 (15.36)	7.12
	Neither liberal nor conservative (n = 40)	32.67 (16.39)	
	Conservative (n = 62)	31.02 (14.36)	

Table 6

Multiple Comparison of Mean Differences (MD) from the ANOVA for P and N2 Scores, by Education Level and Political View

DIT2 Schema	Sample Characteristics		MD	p	
P Score	Education	Undergraduate studies	Professional degree	12.72	0.184
			Graduate degree	7.43	0.578
	Political view	Liberal	Neither liberal nor conservative	7.24	0.037
			Conservative	9.68	0.001
N2 Score	Education	Undergraduate studies	Professional degree	14.43	0.107
			Graduate degree	10.51	0.324
	Political view	Liberal	Neither liberal nor conservative	7.15	0.037
			Conservative	8.80	0.002

Table 7

Two-Way ANOVA for the P Score, by Age, Language, and Political View

In terms of your political views, how would you characterize yourself?	Age	Is English your primary language?	n	mean (SD)
Liberal	Less than 50 years	Yes	32	47.19 (16.29)
		No	8	43.75 (11.18)
	50 years and older	Yes	48	44.36 (14.43)
		No	6	28.67 (12.37)
Neither Liberal nor Conservative	Less than 50 years	Yes	20	42.60 (17.85)
		No	2	23.00 (9.90)
	50 years and older	Yes	12	29.25 (14.16)
		No	6	38.67 (15.06)
Conservative	Less than 50 years	Yes	12	35.00 (11.14)
		No	5	20.00 (11.66)
	50 years and older	Yes	37	36.56 (15.66)
		No	8	34.00 (14.70)

Table 8

Tests of Between-Subjects Effects for P Scores, by Age, Language, and Political View

Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Corrected model	11	3.464	0.000	0.172
Intercept	1	503.850	0.000	0.733
Political view	2	4.616	0.011	0.048
Age	1	<0.001	0.998	0.000
Language	1	6.187	0.014	0.033
Political view * Age	2	3.263	0.041	0.034
Political view * Language	2	0.160	0.853	0.002
Age * Language	1	2.401	0.123	0.013
Political view * Age * Language	2	3.808	0.024	0.040
Error	184			
Total	196			
Corrected total	195			

$p \leq 0.05$

Table 9

Tests of Between-Subjects Effects for N2 Score, by Age, Language, and Political View

Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Corrected Model	11	3.78	<0.001	0.184
Intercept	1	405.27	<0.001	0.688
Political view	2	3.91	0.022	0.041
Age	1	0.12	0.731	0.001
Language	1	9.95	0.002	0.051
Political view * Age	2	3.73	0.026	0.039
Political view * Language	2	0.14	0.866	0.002
Age * Language	1	2.91	0.090	0.016
Political View * Age * Language	2	2.70	0.070	0.029
Error	184			
Total	196			
Corrected Total	195			

$p \leq 0.05$

Table 10

One-Way ANOVA for P and N2 Scores, by Region

DIT2 Schema	Sample Characteristics	mean (<i>SD</i>)	<i>F</i>	<i>p</i>
P Score	Southern (n = 69)	36.81 (15.91)	4.13	0.007
	Bay (n = 54)	46.06 (14.96)		
	Northern (n = 33)	37.55 (16.39)		
	Central (n = 40)	38.02 (15.42)		
N2 Score	Southern (n = 69)	32.46 (15.59)	2.54	0.058
	Bay (n = 54)	40.05 (14.66)		
	Northern (n = 33)	36.39 (15.59)		
	Central (n = 40)	34.27 (16.63)		

$p \leq 0.05$

Table 11

Multiple Comparison of Mean Differences (MD) from the One-Way ANOVA for P and N2 Scores, by Region

DIT2				
Schema	Sample Characteristics		MD	p
P Score	Southern	Bay	-9.25	0.007
		North	-0.73	0.996
		Central	-1.20	0.980
N2 Score	Southern	Bay	-7.59	0.039
		North	-3.29	0.932
		Central	-1.81	0.937

$p \leq 0.05$

Table 12

Two-Way ANOVA for the P and N2 Scores, by Age and Region

Score	Region	Age	n	mean (SD)
P Score	Southern	Less than 50 years	33	36.79 (15.39)
		50 years and older	36	36.83 (16.57)
	Bay	Less than 50 years	22	45.18 (18.97)
		50 years and older	32	46.67 (11.74)
	North	Less than 50 years	12	41.83 (14.26)
		50 years and older	21	35.10 (17.34)
	Central	Less than 50 years	12	47.33 (16.37)
		50 years and older	28	34.03 (13.39)
N2 Score	Southern	Less than 50 years	33	32.43 (15.53)
		50 years and older	36	32.48 (15.87)
	Bay	Less than 50 years	22	41.44 (18.41)
		50 years and older	32	39.09 (11.65)
	North	Less than 50 years	12	41.76 (11.70)
		50 years and older	21	33.32 (16.93)
	Central	Less than 50 years	12	45.29 (17.64)
		50 years and older	28	29.54 (13.98)

Table 13

Tests of Between-Subjects Effects for P and N2 Scores, by Age and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
P Score	Corrected Model	7	2.913	0.006	0.098
	Intercept	1	1136.253	0.000	0.858
	Region	3	3.605	0.014	0.054
	Age	1	3.717	0.055	0.019
	Region * Age	3	1.975	0.119	0.031
	Error	188			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	7	2.785	0.009	0.094
	Intercept	1	973.323	0.000	0.838
	Region	3	2.755	0.044	0.042
	Age	1	7.827	0.006	0.040
	Region * Age	3	2.276	0.081	0.035
	Error	188			
	Total	196			
	Corrected Total	195			

$p \leq 0.05$

Table 14

Test of Between Subjects Effects for P and N2 Scores, by Age and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
P Score	Corrected Model	6	4.130	0.000	0.120
	Intercept	1	329.327	0.000	0.635
	Region	3	4.076	0.008	0.061
	Language	1	5.808	0.017	0.030
	Region * Language	2	0.120	0.887	0.001
	Error	189			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	6	4.014	0.001	0.113
	Intercept	1	292.013	0.000	0.607
	Region	3	3.405	0.019	0.051
	Language	1	3.292	0.071	0.017
	Region * Language	2	0.755	0.472	0.008
	Error	189			
	Total	196			
	Corrected Total	195			

 $p \leq 0$

Table 15

Tests of Between-Subjects Effects for P and N2 Scores, by Language and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
P Score	Corrected Model	6	4.130	0.000	0.120
	Intercept	1	329.327	0.000	0.635
	Region	3	4.076	0.008	0.061
	Language	1	5.808	0.017	0.030
	Region * Language	2	0.120	0.887	0.001
	Error	189			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	6	4.014	0.001	0.113
	Intercept	1	292.013	0.000	0.607
	Region	3	3.405	0.019	0.051
	Language	1	3.292	0.071	0.017
	Region * Language	2	0.755	0.472	0.008
	Error	189			
	Total	196			
	Corrected Total	195			

 $p \leq 0.05$

Table 16

Two-Way ANOVA for the P and N2 Scores, by Political View and Region

Score	Region	Political View	<i>n</i>	mean (<i>SD</i>)
P Score	Southern	Liberal	31	38.90 (15.88)
		Neither Lib. nor Con.	14	34.30 (16.12)
		Conservative	24	35.58 (16.11)
	Bay	Liberal	27	51.75 (11.97)
		Neither Lib. nor Con.	10	45.39 (14.65)
		Conservative	17	37.41 (15.92)
	North	Liberal	17	42.82 (17.32)
		Neither Lib. nor Con.	6	29.50 (11.10)
		Conservative	10	33.40 (15.44)
	Central	Liberal	19	43.68 (12.57)
		Neither Lib. nor Con.	10	37.00 (21.48)
		Conservative	11	29.16 (8.93)
N2 Score	Southern	Liberal	31	33.51 (15.62)
		Neither Lib. nor Con.	14	30.09 (14.20)
		Conservative	24	32.48 (16.78)
	Bay	Liberal	27	45.53 (12.59)
		Neither Lib. nor Con.	10	38.63 (16.50)
		Conservative	17	32.18 (13.55)
	North	Liberal	17	41.50 (17.50)
		Neither Lib. nor Con.	6	26.34 (10.12)
		Conservative	10	33.73 (11.79)
	Central	Liberal	19	40.52 (13.83)
		Neither Lib. nor Con.	10	34.13 (21.55)
		Conservative	11	23.59 (10.77)

Table 17

Tests of Between-Subjects Effects for P and N2 Scores, by Political View and Region

Schema	Source	<i>df</i>	<i>F</i>	<i>P</i>	Partial Eta Squared
P Score	Corrected Model	11	3.167	0.001	0.159
	Intercept	1	1013.428	0.000	0.846
	Region	3	3.780	0.012	0.058
	Political View	2	8.934	0.000	0.089
	Region * Political View	6	0.892	0.502	0.028
	Error	184			
	Total	196			
	Corrected Total	195			
N2 Score	Corrected Model	11	2.813	0.002	0.114
	Intercept	1	830.273	0.000	0.819
	Region	3	1.983	0.118	0.031
	Political View	2	8.351	0.000	0.083
	Region * Political View	6	1.470	0.191	0.046
	Error	184			
	Total	196			
	Corrected Total	195			

$p \leq 0.05$

Appendix D
Institutional Review Board (IRB) Study Approval



**Institutional Review Board
Project Action Summary**

Action Date: July 23, 2015 *Note: Approval expires one year after this date.*

Type: New Full Review New Expedited Review Continuation Review
 Exempt Review
 Modification

Action: Approved Approved Pending Modification Not Approved

Project Number: 2015-05-296

Researcher(s): Margaret Avila Doc SON
Dr. Jane Georges Fac SON

Project Title: Moral Development and Public Health Nursing

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

Modifications Required or Reasons for Non-Approval

None

The next deadline for submitting project proposals to the Provost's Office for full review is N/A. You may submit a project proposal for expedited review at any time.

Dr. Thomas R. Herrinton
Administrator, Institutional Review Board



Office of the Executive Vice President and Provost
Hughes Administration Center, Room 214
5998 Alcalá Park, San Diego, CA 92110-2492



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