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# Professional Nursing Value Development in Nursing Students Who Participate in International Service Learning

Heather Ferrillo-Diulio  
*Nova Southeastern University*

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PROFESSIONAL NURSING VALUE DEVELOPMENT IN NURSING STUDENTS  
WHO PARTICIPATE IN INTERNATIONAL SERVICE LEARNING

Presented in Partial Fulfillment of the  
Requirements for Degree of  
Doctor of Philosophy in Nursing Education

Nova Southeastern University

Heather Ferrillo-DiIulio

2017

**NOVA SOUTHEASTERN UNIVERSITY  
HEALTH PROFESSIONS DIVISION  
COLLEGE OF NURSING**

This dissertation, written by Heather Ferrillo-DiIulio under the direction of her Dissertation Committee and approved by all members, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF PHILOSOPHY IN NURSING EDUCATION

**DISSERTATION COMMITTEE**

*Lynne Bryant EdD, RN, CNE*  
Lynne Bryant EdD, RN, CNE  
**Chairperson of Dissertation Committee**

4/24/17  
Date

*W. Alex Edmonds*  
William Alex Edmonds, PhD, BCB  
**Dissertation Committee Member**

4/24/17  
Date

*Denise S. Walsh PhD, RN*  
Denise S. Walsh, PhD, RN  
**Dissertation Committee Member**

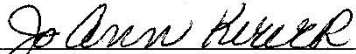
5/23/17  
Date

**NOVA SOUTHEASTERN UNIVERSITY  
HEALTH PROFESSIONS DIVISION  
COLLEGE OF NURSING**


**Certification**

We hereby certify that this dissertation, submitted by Heather Ferrillo-DiIulio, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirement for the Doctor of Philosophy in Nursing Education degree.

**Approved:**

  
\_\_\_\_\_  
Jo Ann Kleier, PhD, EdD, ARNP, ACNP-BC  
Professor  
Associate Dean of Research and Compliance  
Interim Director PhD Program  
College of Nursing

4/24/2017  
Date

  
\_\_\_\_\_  
Marcella Rutherford, PhD, MBA, MSN  
Dean, College of Nursing

4/26/2017  
Date

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## Abstract

**Background:** International Service Learning (ISL) is becoming widely used in nursing education as a means to provide global learning opportunities. Concrete outcomes for these experiences have not been clearly supported in previous research. Determining if ISL experience facilitate the development of Professional Nursing Values (PNV) can support the use of ISL as a viable pedagogy. **Purpose:** The purpose of the study was to determine if there were a difference in PNV development in students who participate in ISL as part of their clinical experiences compared to those who do not. The hypothesis was that there was a difference in the two groups. **Theoretical framework:** The study utilized Kolb's experiential learning theory, which has a focus on the experiences of students as an impetus for learning. **Methods:** The research was a quasi-experimental study with a pretest, posttest design. Consecutive sampling was utilized for the experimental group and stratified random sampling for the control group. **Results:** Pretest analysis did not demonstrate any significant difference in the two groups at baseline. Post-test analysis indicated that while the mean PNV of the ISL group was higher, the results were not statistically significant. However, the difference in the pretest and posttest scores across all participants was statistically significant. **Conclusions:** While the findings were not significant in determining a difference between the two groups, the findings indicated that experiential learning in itself does support the development of PNV. Further research using a larger sample size may support the difference in these two groups and support the use of ISL as a viable pedagogy.

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I would like to dedicate this dissertation to my husband Jeff and my two daughters, Marissa and Ashley. The sacrifices they made for me to complete this project and my doctoral education did not go unnoticed. They provided unwavering support even when it meant that I needed to stay home and write instead of spending a day with them. And last, but not least to my parents, who instilled in me from a young age the importance of education. I hope through this process I have instilled in my own children the lessons I have learned from them about life-long learning.

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## **Chapter 1**

### **The Problem and Domain of Inquiry**

International service learning (ISL) has become a part of clinical experiences for nursing students in many schools throughout the country. The popularity of these experiences among faculty and students has prompted the need for research into the utility and feasibility of ISL in nursing education (Smith & Curry, 2011). Various qualitative studies have evaluated The experiences of students who participate in ISL have been evaluated in qualitative studies, but only a few of the outcomes of these experiences have been the focus of other studies. While global learning has been linked with personal and professional development (Kollar & Ailinger, 2002), quantitative data is needed related to specific outcomes in this area. Focusing on the evaluation of specific outcomes of these experiences for students will better clarify the role of ISL in nursing education.

Nursing education emphasizes The attainment of clinical competency is emphasized in nursing education. With clinical competency, the focus is on the behavior needed for capable performance as a nurse, which requires bridging the gap between theory and practice (Tilley, 2008). The development of clinical competency has a strong basis in ethical conduct (Memarian, Salsali, Vanaki, Ahmadi, & Hajizadeh, 2007) and the presence of professional ethics is one indicator that clinical competency is obtained (Vanaki & Memarian, 2009). Ethical conduct in the nursing profession is guided by the Code of Ethics as set forth by the American Nurses Association (ANA, 2015). The code

of ethics is foundational to nursing practice and informs the values designated by the American Association of Colleges of Nurses (AACN; Shaw & Degazon, 2008). While the AACN requires that ethics be integrated into curriculum of baccalaureate nursing programs (AACN, 2008), these professional values are often incorporated into nursing curriculum in an unstructured manner (Vezeau, 2006). Numminen, van der Arend, and Leino-Kilpi (2009) identified that research was needed that focused on the integration of the ANA code of ethics into nursing education. It is important to determine which methods are the most effective in incorporating professional values into nursing education. The impact of ISL on value development was explored.

### **Professional Nursing Values**

Nurses are caring for increasingly challenging and ethically complex patients in various health care settings, and nurses must maintain a strong professional value system. As technology advances, a tendency toward overlooking the importance of professional values has been seen (Sellman, 2011). Students begin to develop a professional value system during the nursing education process, and their professional identity as practicing nurses is shaped by these values (Iacobucci, Daly, Lindell & Griffin, 2013; Weis & Schank, 2000). The American Association of Colleges of Nurses (2008) includes professional values in its *Essentials of Baccalaureate Education For Professional Nursing Practice*. These values include altruism, autonomy, human dignity, integrity, and social justice (AACN, 2008). In addition, the American Nurses Association (2015) maintains a code of ethics for nurses in practice, which clearly outlines the professional values inherent in the profession. While maintaining a code of ethics is important, Numminen et al. (2009) found that practice guides nurses ethical decision making more

than the presence of professional codes. As nurse educators, it is important to help students develop a strong foundation of professional values in order to be able to practice ethically (Iacobucci et al., 2013). Offering experiences that facilitate the development of these values can help students to meet these goals.

The development of professional nursing values (PNV) is the basis for a student's practice and ethical decision making (Iacobucci et al., 2013). Nursing students tend to begin with a strong value base as they have chosen a profession based in altruism (Sellman, 2011). In order to act ethically, students must internalize these values (Iacobucci et al., 2013). The ANA code of ethics helps students to determine the proper professional behavior required to practice within these values. While PNV have been found to increase in baccalaureate students from the beginning to the end of their nursing education, it is unclear which experiences or learning opportunities facilitate this change (Leners, Roehrs, & Piccone, 2006). According to Vezeau (2006), value development is not a conscious choice by the person but rather requires new experiences and knowledge to build these values. Brown (2013) asserted that service learning often is the impetus for a change in student views. Determining which experiences are the most instrumental in facilitating value development is important in designing a value-based curriculum.

There are many factors that can influence the development of PNV. Rassin (2008) identified two factors that pertain to the dissertation study: culture and educational training. International service learning combines an immersion into culture with an educational learning experience. Another important factor in PNV development is the presence of role models for professional behaviors (Eddy, Elfrink, Weis, & Schank, 1994). Faculty participating in ISL should be prepared to role model professional and

ethical behaviors. The combination of role modeling, didactic learning, and clinical experiences are integral to incorporating value development into nursing curriculum (Vezeau, 2006).

According to Moyo, Goodyear-Smith, Weller, Robb, and Shulruf (2015), professional values are not always correlated with personal values, especially in the clinical setting. The considerations that constitute a professional nursing value may differ from person to person. Because of these factors, measuring PNVs can be challenging. The ANA (2015) maintains a professional code of ethics, which delineates professional values for nursing and provides a guidelines for determining the professional values necessary for nursing practice

### **International Service Learning**

Service learning began in the early 1900s. Since then various programs in higher education have integrated it into the curriculum in a variety of ways (Bailey, Carpenter, & Harrington, 2002). Modern service learning is defined as “a teaching pedagogy that connects service to academia in a reciprocal educational relationship” (Bailey et al., 2002, p. 433). This pedagogy lends itself well to utilization in service professions, such as nursing. Service learning is a means to offer credit to students for providing service in disadvantaged communities (Wilcox, 2012). The key factor that distinguishes service learning from other forms of experiential learning is the reciprocal relationship that takes place among students, faculty, and communities (Wittmann-Price, Anselmi, & Espinal, 2010).

More recently, service learning has expanded to include international experiences through which students develop a global perspective. Schools of nursing are choosing to



include ISL into their programs with the anticipation of preparing students to care for patients within a global society (Kollar & Ailinger, 2002). International service learning supports a reciprocal relationship by helping students develop their clinical practice by providing care for the international community that they are serving (Smit, Delpier, Giordana, & Tremethick, 2012). These international experiences also promote significantly higher levels of cultural competency compared with cultural experiences that are near their own communities (St. Clair & McKenry, 1999). According to Tomlinson-Clarke and Clarke (2010), “immersion in a different culture heightens an individual’s personal, racial and cultural awareness and encourages examining thoughts, feelings, values and behaviors that might be ignored or denied in a familiar culture” (p.169). With the influx of these programs, it is important to be able to identify and quantify specific learning outcomes for students who participate.

In addition to the term international service learning, other terms are used to describe ISL experiences or experiences that are similar to the concept. Pechak and Black (2014) looked at the difference between ISL and international clinical education. While related in some ways, the focus of international clinical education is on the educational component instead of a reciprocal relationship between the student and the community (Pechak & Black, 2014). Conversely, the term medical mission more closely focuses on the service aspect instead of an opportunity for student learning (Chapman, 2007). It is important to understand the difference in terms to fully explore and understand the impact of ISL on student outcomes. In contrast to these experiences, ISL includes both service and student learning.

The international experiences that occur as part of the dissertation study program have an equal focus on both service and learning objectives. Therefore, the program fits well into the basic definition of ISL. The dissertation study program provides opportunities for undergraduate nursing students to participate in ISL programs. Junior and senior students are given the opportunity to spend one week caring for impoverished communities in Guatemala and Jamaica. Students are awarded clinical hours for participation and are evaluated on the same clinical criteria as if they were in a clinical rotation in the United States. The patient population focus differs among the experiences, but the overall objectives for the experiences are the same. All students participate in pre-trip orientation, daily debriefing, and post trip debriefing to facilitate learning and meeting the objectives. At this time, participation in these experiences is optional and students are expected to pay all associated expenses. Determining if these experiences are instrumental in facilitating the development of professional nursing values can be important in supporting the use of these programs in nursing education.

### **International Service Learning and Professional Nursing Values**

Research linking ISL and PNV is present in the nursing literature as well as in the literature of related disciplines. While a strong relationship between ISL and PNV has yet to be empirically established, a framework for the dissertation study can be provided by these studies.

Much of the research in the area of ISL has focused on the development of cultural competence (Amerson, 2010; Green, Comer, Elliott, & Neubrandner, 2011; Lipson & Desantis, 2007; St. Clair & McKenry, 1999). As cultural competence is centered in the value of social justice (Clark et al., 2011), these studies help to support the

development of professional values. Aside from studies in cultural competence, the majority of research into ISL has focused on qualitative studies of the meaning of these experiences to students. Student self-reporting of personal and professional growth are pervasive themes in several of these studies (Clark et al., 2011; Evanson & Zust, 2004; Kollar & Ailinger, 2002; Wright, 2011). Additionally, an increased understanding of differing cultures, the importance of reciprocal relationships and a commitment to continued service were described (Clark et al., 2011; Kollar & Ailinger, 2002). Quantitatively measuring these values is important in understanding the full scope of the effect of these experiences. In a recent quantitative study, Curtin, Martins, and Schwartz-Barcott (2015) did find that ISL affected the professional nurse role by student report; however, the effect of this finding on specific outcomes was not explored.

While to date there are no quantitative studies that specifically have evaluated the development of professional values in nursing students who participate in ISL, studies have been performed in different populations and settings that are relevant to the dissertation study. Hayward and Charrette (2012) found that participating in ISL significantly improved core values in physical therapy students. The core values assessed were similar to the core values endorsed by nursing professional organizations (AACN, 2008; ANA, 2015). They also supported the fact that these core values lasted into practice with a follow-up longitudinal study (Hayward, Li, Venere, & Pallais, 2015). While these findings cannot be generalized to nursing students, it is possible to find similar findings in other student populations, including nursing students.

Although not in the international setting, PNV have been evaluated in local service learning experiences. Fowler (2013) evaluated the impact of a three-hour, local

service learning project for the development of PNV. These results did not show a significant difference in value development of those who participated in the local service learning project as compared with those not involved with service learning. Extending this research to an international experience of a significantly longer length may show differing results. Comparing students who participate in ISL with students who do not is imperative in determining the value of ISL as a clinical experience.

### **Problem Statement**

International service learning has gained popularity as an effective pedagogy in health care education over the last several years. With the increasing use of this pedagogy, it is imperative that specific outcomes are established and supported. PNV are an integral part of nursing education and strategies for development of these values are important to identify. Determining if ISL can effectively improve PNV in nursing students can provide support for the use of this pedagogy in nursing curriculum.

### **Purpose of the Study**

The use of ISL experiences and their utility in developing professional values in participating students were evaluated by the dissertation study. A comparison was made with students who did not participate in ISL as part of their clinical experience in relation to development of these values. Development of values was measured by a change between professional value scores before and after the experience. The aim of the study was to determine if there is a difference between the development of professional values between those students who participated in ISL and those who did not.

## **Research Questions and Hypothesis**

### **Research Question**

What is the difference in the development of professional nursing values between nursing students who participate in ISL and nursing students who participate in traditional local clinical experiences?

### **Research Hypothesis**

Nursing students who participate in ISL have a different level of development of professional nursing values than those who do not participate.

### **Significance of the Study**

Exploring whether ISL is a viable means for helping students to develop a professional value system can be beneficial to nursing, nursing education and to the global community.

### **Nursing Education**

It is important that nurses continue to value caring in nursing and maintain an ethical practice. Development of professional values in nursing school is the groundwork for this practice (Weis & Schank, 2009). Ensuring that students are well prepared to practice ethically can be facilitated by offering experiences that help students to develop PNV prior to entering practice. Determining if ISL is a method to improve professional value development can be a benefit to nursing education. The aim of the dissertation study was to identify a valid means for facilitating professional nursing value development in students.

By supporting the viability of ISL within the nursing curriculum, the dissertation study could facilitate support by nursing faculty and administration. Support of

administration is imperative to providing credibility to the experiences (Kaddoura, Puri, & Dominick, 2014) and thereby an impetus to providing financial resources and support for students who would like to participate. Faculty must also value the importance of a global educational experience (Daly, Baker, & Williams, 2014). Findings from the dissertation study that support The viability of the pedagogy in the development of PNV was supported by the findings from the dissertation study, which, could also be a means to procure grants that can also be instrumental in giving students the opportunity to participate.

Nurse educators carry the role of ensuring that students are prepared for patient advocacy in the face of often challenging ethical situations (Iacobucci et al., 2013). By supporting the development of professional values, faculty can help students to prepare for this role. It is important to understand the process by which nurse educators are able to prepare students to make ethical decisions in order to identify the areas students are lacking in their ethical decision making (Iacobucci et al., 2013). The dissertation study has identified gaps in nursing education that can facilitate curricular change.

In order to prepare students for ethical practice, nurse educators must pay attention to the integration of PNV development within the curriculum (Leners et al., 2006). Professional nursing values can be separated into various subcategories and can be measured using the study instrument. Identifying which subcategories of PNV are the most changed with ISL experiences could be helpful in determining the gaps in value development within the curriculum (Leners et al., 2006). Identifying these gaps can focus other experiences and pedagogy on those values not supported through ISL.

As leaders in nursing, nurse educators need to be prepared to provide creative learning experiences for students in a changing health care world (Patterson & Krouse, 2015). Providing opportunities for students to gain professional skills in diverse communities could prepare students for the realities of the current health care system. Findings from this dissertation study could help to gain support from faculty leaders for ISL as a viable pedagogy in nursing education.

### **Nursing Practice**

Outcomes from the dissertation study could be relevant for not only nursing education but nursing practice in general. Patients stand to benefit from nurses who have strong professional values (Iacobucci et al., 2013). Smith and Curry (2011) found that participating in international learning experiences has an effect on the professional development of students when they enter practice. This extension of the effects of international learning can have a profound effect on nursing practice and competency. In fact, professional ethical behaviors have been linked in several studies to competency in nursing (Kangasniemi, Pakkanen, & Korhonen, 2015; Memarian et al., 2007; Vanaki & Memarian, 2009). Germaine to this study was also the importance of cultural understanding in the development of clinical competency (Memarian et al., 2007). All of these factors are intertwined and an important part of providing exceptional clinical care.

Shaw and Degazon (2008) noted that graduates are finding it difficult to acclimate to the current culture of professional nursing. The abilities of nurses to develop strong relationships with their patients have been challenging because of changes within the hospital system, such as shortened hospital stays (Brown, 2013). The opportunity to engage with their patients through immersion is provided by service learning, which also

provides an understanding of the issues of social justice (Brown, 2013). Both of these factors are important in developing caring nursing professionals who are well acclimated into the nursing profession.

### **Nursing Research**

The National League for Nursing (NLN) periodically publishes a document that details the research priorities in nursing education (NLN, 2012). The current priorities include the evaluation of educational models that support care to diverse patient populations (NLN, 2012). The evaluation of ISL as an innovative pedagogy is in line with this research priority and findings that support ISL will add to the body of research in this area.

An important aspect of the dissertation study is the short-term nature of the experience. The study aimed to determine the effects of ISL on value development over the short term. It is important to determine whether these findings translate into long-term effects as well (Daly et al., 2014). The utility of short-term ISL experiences can provide the basis for research in the area of long-term effects.

Beginning the process of identifying specific outcomes for ISL experiences can open the door to more research in this area. The determination of the role of ISL experiences in the development of PNV can then begin to focus on specific aspects of ISL that provide the most benefit. In addition, research about whether ISL can meet other specific outcomes can provide support for the multifaceted benefits to these experiences.



## **Public Policy**

Within our changing society, opportunities for nursing students to develop a global perspective can be valuable in the area of public policy. ISL not only provides opportunities for clinical education but also provides sustainable care for global communities in need (Kollar & Ailinger, 2002). Providing opportunities for students to understand the importance of sustainable global care early in their careers can allow students to effect change in public policy in order to facilitate global health awareness and strategies for change.

In the case of service learning, a reciprocal relationship between students and the communities that serve is required (Bailey et al., 2002). Inherent in this relationship is the need to understand the regulations and scope of practice in the country that is being served (Wright, 2011). The development of PNV can support the understanding by students of the importance of providing care within the legal scope of the country. Nilsson et al. (2014) found that students who participated in international learning experiences reported a high level of competence in the area of “legislation in nursing and safety planning,” which is an important aspect of nursing policy.

## **Philosophical Underpinnings**

As a quantitative research study in nursing, this dissertation study is based in positivist/postpositivist perspective. One of the important tenants of post-positivism is the requirement for critical evaluation and challenging of the research claims (Cody, 2006). Quantitative research evaluates the hypothesis and challenges the fact that there is truth in the assertion of the hypothesis. Positivism dates back to Aguste Comte who was one of the original founders of science (Dahnke & Dreher, 2011). One of his major ideas was

the law of three phases. The three phases included theological, metaphysical, and scientific. The third stage applies to quantitative research as it asserts the importance of rational and empirical inquiry (Dahnke & Dreher, 2011). The basis of the scientific method began here.

More applicable to current thinking about quantitative inquiry are the works of Thomas Kuhn who asserted that science was not as pure as the positivists before him believed. Kuhn asserted that simply observing a phenomenon was not enough to make a conclusion (Dahnke & Dreher, 2011). There are other variables that need to be investigated that come into play during hypothesis testing to ascertain their effect on the outcomes. In addition, falsifiability as described by Karl Popper indicates that investigators should always look for possible alternative explanations (or a means to falsify the theory) in order to add support to the theory (Dahnke & Dreher, 2011). Positivism in this dissertation study is based on the importance of objectivity, validity, and generalizability (Crotty, 2011). Positivism is achieved through the use of valid and reliable tools, methods that limit bias, effects of extraneous variables on the outcome, and the use of samples and methods that allow the results to be generalized to more than just the population being tested.

### **Theoretical Framework**

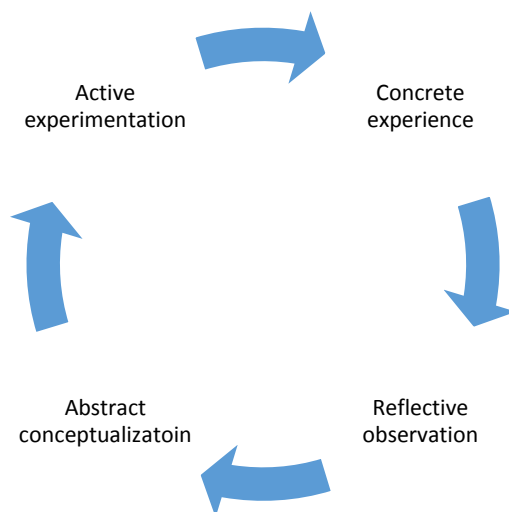
Kolb's (1984) experiential learning theory is based in the constructivist orientation, and the focus on the pivotal role of experiences in student learning. The premise of the theory is that the experience itself is the focus of learning instead of the outcomes. Through experiential learning, students develop an understanding of concepts that are modified and adapted to future experiences (Kolb, 1984). Knowledge

development is a continuous process that changes depending on the experiences of the learner.

Two dimensions are the basis for Kolb's learning theory: involvement by the student and the role that the student takes on in the experience (Sugarman, 1985). Kolb (1984) separated the experiential learning process into four modes: concrete experience, reflective observation, abstract conceptualization, and active experimentation (see Figure 1). This learning model is a cycle in which students move through specific phases in succession. The first stage (concrete experience) is when the student is actively involved in a relevant experience. The next stage (reflective observation) includes the student reflecting on these experiences in order to advance to the third stage (abstract conceptualization) at which time the student uses his/her reflection to develop new concepts. Finally, active experimentation is when the student applies his or her learning through the first three stages to a new situation and tests the new concepts. The cycle then begins again utilizing the new experience as the starting point (Merriam, Sharan, Caffarella, & Baugartner, 2007).

Each of these stages requires that the student apply different skills in order for learning to take place. All of these modes are interrelated but occur in a cyclical pattern in which the final phase of active experimentation becomes the experience that resets the cycle (Merriam et al., 2007). The various modes are integral to learning, but learners often have a propensity for some more than others. Therefore, equal time and effort is often not spent in each mode, depending on the learner (Lisko & O'Dell, 2010). The preferred mode of learning for each person indicates their particular learning style (Sugarman, 1985). Transformation is an important part of experiential learning, and it

occurs through the processes of reflection and active experimentation (Lisko & O'Dell, 2010). Transformation in the form of PNV development was evaluated by the study.



*Figure 1:* Diagram of Kolb's experiential learning theory. Adapted from *Experiential Learning: Experience as the Source of Learning and Development*, by D. A. Kolb, 1984, Englewood, NJ: Prentice Hall. Copyright 1984 by Prentice Hall.

### **Theoretical Assumptions**

In order to apply a theory, one must understand the epistemological assumptions of the theory. The major assumption involved in Kolb's theory is that learning is based in experiences (Sugarman, 1985). These experiences are used as a basis for knowledge that can be adapted to future experiences. Another assumption of Kolb's theory is that successful learning is progressive and occurs in the order that is described in the model (Sugarman, 1985). In order to apply this theory to education, each phase must be accomplished in the specific order delineated. The final epistemological assumption is that students must participate in order for the experience to be an impetus for learning (Yardley, Teunissen, & Dornan, 2012b). Students who do not participate in the experience will not be able to move effectively through the phases.

### **Application of the Framework to the Study**

Kolb's experiential learning theory can be applied to research in various ways (Sugarman, 1985) and has been used extensively to evaluate the learning that occurs when students take part in different experiences (Gilboy, 2009; Kolb & Kolb, 2005; Levine, 2009). There have been more than 63 studies in nursing alone that have utilized experiential learning theory to address problems in the field (Kolb & Kolb, 2005). Kolb's experiential learning model was used in the dissertation study as basis for the development of PNV through ISL. Kolb described learning as an interaction between the learner and the environment (Kolb & Kolb, 2005). ISL is applicable to this process as students are immersed in the experience and interact with their environment as part of the learning process. The focus of the dissertation study was on this interaction as a means to determine relevant outcomes in nursing students.

Development of nursing professional values is a process that occurs during nursing education and is the framework for the nurse's professional identity as a practicing nurse. According to Iacobucci et al. (2013), professional values are "learned and internalized to varying strengths through environmental and social exposure" (p. 482). Experiences within the nursing curriculum can affect the rate and extent of professional nursing value development. ISL as an experience has the potential to help students to develop PNV. Measurement of values before and after ISL can help to determine the rate and extent of value development from these experiences.

In experiential learning, the emphasis is placed on the process of learning instead of the outcomes (Kolb, 1984). The process of ISL is the facilitating factor in the development of these professional values. Whether the development of these values in

students who participate in ISL exceeds those of students who do not participate in ISL is important to determine. Learning is a continuous process, which integrates new experiences into existing knowledge and allows the application of this new knowledge to future situations (Kolb, 1984). The development of professional values is also shaped by experiences that in turn facilitate the application of these values to future experiences (Thorpe & Loo, 2003). In the experiential learning theory, students use reflection to adapt the values to future experiences. Thus, the development of professional values is applicable to the process outlined in experiential learning theory.

### **Correlation of Theory and Method**

The experiential learning model is centered on a progression that students undergo during specific experiences that lead to the acquisition of knowledge. Following this progression is important in assuring that the dissertation study was able to support the theory in the implementation of ISL experiences. Experiential learning involves not only the attainment of specific knowledge but the development of a professional identity (Yardley et al., 2012a). As identity development is shaped by professional values, the utilization of experiential learning theory to evaluate professional nursing value development is appropriate. The outcomes in the dissertation study are the development of PNV as measured by the Nursing Professional Values Scale–Revised (NPVS-R), an instrument that measures professional nursing values. In order for a comparison to be made, both the ISL group and the control group must follow the same steps set forth in experiential learning theory. Kolb (1984) asserted that since knowledge is a continuous process, “all learning is relearning” (p. 29). Therefore, the assessment of previous knowledge of the learner is important in the learning process. Nursing professional

values were assessed prior to the ISL experience in both the experimental and the control groups to document the baseline professional value levels in both groups of the dissertation study.

Kolb (1984) emphasized the importance of the experience above all else in the learning process. As the focal point of the study, ISL correlates with the pivotal importance of the experience. The first step in experiential learning is the experience itself. Students in the ISL group were immersed in the experience for a week of intensive learning, replacing hours in their traditional clinical experiences. Students in the control group were involved in experiences in traditional settings over the semester. Both groups of students participated in the same amount of hours in total. As experiential learning indicates that students need to be participants and not simply observers (Kolb & Kolb, 2005), the experiences of both groups were participatory in nature.

The reflection utilized during immersion experiences indicated the meaning of student experiences as well as facilitated professional development of students (St. Clair & McKenry, 1999). Students in both groups participated in reflective journaling and debriefing exercises after each clinical day in order to make sense of the experiences (Lisko & O'Dell, 2010a). This reflection was a precursor to the next stage (conceptualization) in which the students utilized this information to make critical judgments about the experiences and plan further application of their learning (Deeley, 2010). Ethical challenges that are present within nursing require the acquisition of PNV through experiences that allow the student to make decisions in unpredictable situations. According to Kolb (1984) experiential learning prepares students for these unexpected situations. Within the stages of reflection and conceptualization learning occurs within

the mind of the student (Yardley et al., 2012a). Transformation occurs in these stages when students test their prior beliefs and expectations of a situation (Deeley, 2010).

St. Clair & McKenry (1999) found that the application of positive experiences into their practice was facilitated by international immersion experiences. The application process of the experiential learning model occurs during the active experimentation stage (Lisko & O'Dell, 2010a). Students have had the opportunity to process the knowledge gained from the previous experiences and can then apply it to new experiences through experimentation. Depending on the student, this situation may occur immediately during the immersion experience, during another immersion experience, or when he/she returns to his/her traditional clinical experiences at home. The active experimentation phase starts the cycle back at the beginning as the new experience.

There are varying skill levels at each stage as required by different experiences, and students may spend varying amounts of time in each phase, depending on their learning style (Kolb, 1984). It may be that some situations may require additional reflection or several concrete experiences before a student is able to assign meaning to the experience and apply the learned knowledge. According to Tomlinson-Clarke and Clarke (2010) cultural immersion is a means to stimulate students to examine their values and beliefs more than they would in a familiar setting. This personal development may occur at varying rates and to varying degrees, depending on the student and the situation (Deeley, 2010). Because experiential learning focuses on the process instead of the outcomes, it is important in the learning process to allow students the freedom to move through the stages at their own pace.



Development of professional values is an important aspect of the learning that takes place during undergraduate nursing education. Identifying specific experiences that foster the development of these values is important in preparing nursing students for professional practice. Kolb's experiential learning theory presents a foundation for determining whether adding ISL to traditional clinical methods enhances the development of professional values. Findings from the dissertation study could be instrumental in planning ISL trips that are effective in helping students to develop a professional nursing identity.

### **Definition of the Terms**

According to Polit and Beck (2012), it is important for the researcher involved in quantitative research to clearly define concepts early in the process in order to identify how these concepts will be measured within the study.

### **International Service Learning**

**Theoretical definition.** International service learning was the independent variable in the dissertation study. It is important to differentiate between ISL, study abroad, and medical/clinical tourism (Levi, 2009). Bailey et al. (2002) defined ISL as “structured, reciprocal learning experiences that combines and connects the service experience to academic coursework with reflection opportunities” (p. 434). This definition clearly separates these entities based on the concepts of reciprocity and service. Reciprocity entails a shared relationship between the students and the community that they are serving. Goals and needs are determined by both parties, and both parties' gain from the interaction (Bailey et al., 2002). This concept is not present in study abroad or medical tourism.

**Operational definition.** International service learning was measured through the documented participation of students in ISL activities. International clinical experiences lasting one week or longer will be considered an ISL experience and utilized in the study; however, the length of the trip were considered in the analysis. To differentiate ISL from service learning, ISL included experiences outside of the United States only.

### **Professional Nursing Values**

**Theoretical definition.** Professional nursing values were the dependent variables in the dissertation study. According to Schank and Weis (2001) “professional values are standards for action that are accepted by the practitioner and/or professional group and provide a framework for evaluating beliefs and attitudes that influence behavior” (p. 226).

**Operational definition.** Professional nursing values can be operationalized through the use of the Nursing Professional Values Scale–Revised. The scale measures professional nursing values congruent with the ANA Code of Ethics (Weis & Schank, 2009).

### **Chapter Summary**

Exploring whether ISL is a viable means for helping students to develop a professional value system could be beneficial to nursing, nursing education and to the global community. It is vital that nurses continue to value caring in nursing and maintain an ethical practice. Development of professional values in nursing school is the foundation for this practice (Weis & Schank, 2009). Ensuring that students are prepared to practice ethically can be facilitated by offering experiences that help students to develop professional nursing values prior to entering practice. The aim of the dissertation

study was to support the use of ISL as a viable pedagogy in nursing education by evaluating whether participating in ISL experiences will facilitate the development of PNV in students. Kolb's experiential learning theory was utilized as the theoretical framework and used to guide the methods for the study.

## **Chapter 2**

### **Review of the Literature**

International service learning has gained popularity as an effective pedagogy in health care education over the last several years. Implementation of these experiences varies depending on the schools and communities involved. Various qualitative studies have evaluated The experiences of students who participate in ISL have been evaluated in various qualitative studies, but there have only been a few studies that have focused on the outcomes of these experiences. While global learning has been linked with personal and professional development (Kollar & Ailinger, 2002), quantitative data is needed related to specific outcomes in this area. The outcomes of these experiences for undergraduate nursing students were evaluated in the dissertation study.

In this literature review, the focus is on the research in ISL to date and its feasibility as a pedagogy. The application and use of Kolb's experiential learning theory in this setting was also explored as implementation of ISL is important to establishing outcomes. In addition, the development of professional nursing values in undergraduate nursing students and the factors that affect this development are important to understand when evaluating value development in ISL.

A review of the published literature was undertaken utilizing the CINAIL, PubMed, Academic OneFile, Proquest Educational Journals, Applied Social Science Index and Abstracts, ERIC, Global Issues in Context, Educational Research Complete and Google scholar search engines. The search was conducted using combinations of the

following search terms: international service learning, service learning, nursing students, students, professional nursing values, nursing values, values, ethics, and NPVS. Further articles were obtained through a review of the references used in relevant articles.

### **Experiential Learning Theory in the Literature**

Kolb's experiential learning theory (ELT) can be applied to research in three different ways: identifying learning styles, effectiveness of learning styles, and supporting the learning model (Sugarman, 1985). The use of Kolb's experiential learning theory as a means to develop professional nursing values in ISL was an aim of the dissertation study. ELT has been used extensively in nursing education and to evaluate learning that occurs when nursing students take part in different experiences. Lisko and O'Dell (2010b) evaluated the use of ELT in the development of critical thinking through the use of simulated learning activities. Kolb's assertion that learning is a transformational experience was supported by the study. St. Onge, Hodges, McBride, and Parnell (2013) further expanded this transformational approach in their use of ELT in the development of pocket guides to facilitate the learning of Quality and Safety Education for Nurses (QSEN) competencies for nursing students. ELT plays an important role in the development of learning experiences for nursing students.

Kolb (2005) described learning as an interaction between the learner and the environment. The premise of service learning activities are largely based in the ELT (Mc Menamin, Mc Grath, Cantillon, & Mac Farlane, 2014). Gilboy (2009) described the use of ELT to develop a service learning course in the area of clinical nutrition. Students found that the service learning experience utilizing this theory improved their critical thinking, problem solving, and communication. By adding an international component,

Crossman (2010) utilized ELT to support the use of international experiences in university business courses and also supported the importance of the phases of observation, thinking, and reflecting throughout these experiences. Finally, in integrating nursing with internationalization, Levine (2009) utilized the concepts of ELT in the evaluation of long-term effects of nursing students who participated in international immersion experiences. Students identified the effects that this experiential learning had on their professions and personal lives as “life-changing” (Levine, 2009).

The ELT is centered on a progression that students undergo during specific experiences that lead to the acquisition of knowledge. It is imperative to follow this progression to ensure that the dissertation study is able to support the theory in the implementation of ISL experiences. Experiential learning involves not only the attainment of specific knowledge but the development of a professional identity (Yardley et al., 2012a). As identity development is shaped by professional values, the utilization of experiential learning theory to evaluate professional nursing value development is appropriate. In order for a comparison to be made, both the ISL group and the control group must follow the same steps set forth in experiential learning theory. Kolb asserted that because knowledge is a continuous process, “all learning is relearning” (1984, p. 29). Therefore, previous knowledge of the learner is important in the learning process.

### **Professional Nursing Values**

According to Sellman (2011), “a professional code reflects the values of the group for whom it is written” (p. 205). The American Nurses Association first developed the Code of Ethics for Nurses in 1950 and subsequently revised the code several times to reflect the current state of professional values in nursing (ANA, 2015). As nursing has

advanced from a vocation to a profession, the values of the profession have also evolved (Begley, 2010), substantiates the importance of updating the code of ethics as this evolution takes place. The current code includes nine provisions, which outline the standards for the profession. Specifically stated in the provisions is the importance of addressing international health needs through collaboration with other health disciplines (ANA, 2015). In addition, the expectation of the code is that nurses begin to expand their practice to include a global perspective (White, 2001). These expectations can be the basis for extending curriculum to include an international focus.

Accordingly, the American Association of Colleges of Nursing has reinforced the values identified by the ANA (2008) in its document entitled *The Essentials of Baccalaureate Education for Professional Nursing Practice*. The purpose of the document is to outline the expectations for graduates of baccalaureate nursing programs. Professionalism and professional values are one of the seven main essentials that are described. Specifically, the professional values that are stressed in the *The Essentials of Baccalaureate Education for Professional Nursing Practice* are altruism, autonomy, human dignity, integrity, and social justice (AACN, 2008). The ANA code of ethics and the AACN *Essentials of Baccalaureate Education for Professional Nursing Practice* have become the basis for values in nursing practice.

### **Importance of Evaluating Professional Nursing Values**

The need for strong professional values is evident in the expectations for practicing nurses today. The ethical challenges faced by nurses require a strong set of professional values. Sellman (2011) identified modern technology as the impetus to waning importance of professional values in today's society, which is based in the

discrepancy between the values of the institutions and that of the nurse. Nursing values have been weakened by institutional focus on the bottom line (Sellman, 2011). As these values have a profound effect on the actions of nurses, it can be an important influence on patient care (Horton, Tschudin, & Forget, 2007). While professional values were found to be important to all of the nurses surveyed in a study by Schank and Weis (2001), they also found that the application of these values into practice varied significantly. Additionally, professional values can differ depending on educational level, job, experience, and age group (Gallegos & Sortedahl, 2015).

Numminen et al. (2009) identified that the professional codes described above were not as important to ethical decision making as clinical practice. In addition, nurses often use values of their specific culture rather than codes in ethical decision making (Numminen et al., 2009), which may explain the findings of Rassin (2010) who postulated that values can change with a substantial exposure to a novel experience in undergraduate nursing students. In the study, there was no difference in values between different student levels. The study was conducted in Israel, which may reflect the pivotal role of societal norms on ethical behavior as described by Numminen (2009). Further supporting the role of culture, Rassin (2008) found that differences in values existed in different cultural groups within the same country. Specifically, Israeli nurses who emigrated from the Soviet Union placed high value on family security, happiness, excellence, and salvation while native born nurses valued ambition, cheerfulness, and honesty the most. In addition, the two professional values that showed the biggest difference between the two groups was trusting relationships of patients and caregivers and excellence in nursing. Both of these were significantly higher in native born nurses.



As nurse educators, it is essential to assist students in developing a strong foundation of values in order to support ethical practice (Iacobucci et al., 2013). When considering the basis for student values, whether in the presence of codes, experience, or societal norms, it can be instrumental in assisting students in beginning the value development process.

### **Professional Nursing Value Development in Students**

The evolution of values in students and the differences in value development among different program levels are vital concepts to consider when defining the population for the study. Thorpe and Loo (2003) explored the values of undergraduate nursing students and determined that professional development and altruism were the most relevant values. Koomey, Osteen, and Gray (2015) evaluated the professional values of 222 online RN-to-bachelor-of-science-in-nursing (BSN) students and found that these students identified professional nursing values as an extremely important aspect of nursing. Specifically, the highest ranking values were confidentiality, human dignity, and patient rights. While these students had a range of experience from 1 to 15 years, no significant difference was found with regard to years in practice. Because students at different phases of the programs were included but not identified, it is unclear whether the educational process made a difference in the scores. In addition, value development may be contingent upon the values of students when they enter nursing (Vezeau, 2006).

The process of developing professional values is important to understand as strategies for development are planned. Students begin to develop a professional value system during the nursing education process and these values help shape their professional identity as practicing nurses (Iacobucci et al., 2013; Weis & Schank, 2000).

Schank and Weis (2001) compared the professional nursing values of senior nursing students to practicing nurses. Statistically significant differences were found in overall value scores as well as subscales, including protecting clients from incompetent practices, competence, development of nursing knowledge, and implementing and improving standards of nursing. In all of these areas, practicing nurses were found to have higher levels of value development than nursing students. The years of experience was not delineated, so it was unclear whether experience affected the results. The researcher supported the premise that professional development begins during nursing school and develops with professional practice.

Both Leners et al. (2006) and Lin, Wang, Yarbrough, Alfred, and Martin (2010) studied whether the values of baccalaureate nursing students changed over time from initiation of the program through graduation. Both groups of researchers used a pretest posttest design to determine differences over time. Leners et al. (2006) found a significant increase in professional values overall from sophomore to senior year. The items most valued on both the pretests and the posttests were competence, responsibility and accountability, privacy, increased quality of care, care without prejudice, and protection of patients' rights. All of these subscales increased from pretest to posttest, except competency, which decreased, and advocacy had the most significant increase from pretest to posttest. Similarly, Lin et al. (2010) found a significant increase in professional values from entrance to nursing school through graduation. The most significant increase was found in the areas of activism and professionalism. These researchers both found that values did change significantly, but the impetus for change was unclear as they did not include intervention groups.

In contrast, Fisher (2014) compared the professional nursing values of Associate Degree in Nursing (ADN), diploma and BSN students and found that time and experience were not the only factors in value development, but exactly which factors contributed was unclear in the study. While differences in PNV were found between ADN and diploma students, no difference was found among levels of students within the programs. In addition no significant difference was found in relation to demographic variables, leaving the researchers to postulate that active engagement of students may be an important factor in value development (Fisher, 2014). Similarly and more concerning was the finding by Rassin (2010) that the two important values of equality and altruism actually regressed in the students in the sample as students progressed in school. Simply moving through nursing school is not sufficient for significant development of values. Particular activities, specifically engagement activities, need to be evaluated for their role in this process.

### **Factors Affecting Professional Nursing Values**

Understanding the factors that affect PNV are important in the implementation of activities that foster the development of PNV. A number of these factors have been explored in the literature. One of these factors is the experience level of the student and/or nurse. In the study previously described, Leners et al. (2006) examined the professional values of 159 undergraduate nursing students using pretest-posttest methodology and determined that values developed over time in nursing school. These findings were similar to the findings of Schank and Weis (2001) who evaluated the professional nursing values of senior nursing students and practicing nurses. They found that practicing nurses had a higher level of professional values than nursing students.

However, the sample size was small ( $n = 22$ ) and one-time testing was utilized, which made it difficult to support the concept of value development. Conversely, in a larger study of 227 participants, LeDuc and Kotzer (2009) found no significant difference in the professional values of students, new graduates, and practicing nurses. Martin, Yarbrough, and Alfred (2003) found similar results when evaluating the difference between ADN and BSN students. No significant difference was found in professional value scores.

Professional values have also been correlated with various types of personal development traits. According to Vezeau (2006), students come to the nursing field with a personal value set that may or may not be in alignment with nursing professional values. Koch, Proynova, Paech, and Wetter (2014) aimed to determine if personal values correlated with motivation in terms of preference for nursing tasks. Using a sample of 265 nurses working in the inpatient setting, they determined that the personal value of benevolence correlated with a high level of motivation. As motivation is a factor in job satisfaction (Koch et al., 2014), identification and development of the value of benevolence can have an effect on future job performance of students. Additionally, Hidle (2011) found that a high level of professional values correlated with intrinsic motivation of associate-prepared nurses to pursue an advanced nursing degree. Self-esteem was also found to be positively correlated with professional nursing values in a study of senior nursing students that aimed to identify variables related to professional identity development (Iacobucci et al., 2013). The importance of developing professional values in nursing students was supported by the identified link between positive personality traits.

### **Professional Values and Competency**

The basis for nursing education is the attainment of clinical competency. Clinical competency demonstrated the student's ability to link theory and practice (Tilley, 2008). While clinical competency is a challenge to assess, Vanaki and Memarian (2009) used grounded theory to determine the process for attaining clinical competency. The participants were nurses, nursing instructors, nurse managers, and nurse executives. One of the pertinent findings of the researchers was the identification of professional ethics as a main factor in acquiring clinical competency (Vanaki & Memarian, 2009). Memarian et al. (2007) utilized a similar grounded theory for a similar population and also found that ethical conduct and professional commitment were instrumental in attaining clinical competency. The investigator also identified other factors related to clinical competency pertinent to professional values and the dissertation study, including respect for others, responsibility/accountability, and interest in the profession. The professional values outlined by the ANA and ANCC were clearly related to many of the findings from the researchers. Identifying strategies for the development of professional values can be instrumental in helping students attain clinical competency.

### **Curricular Strategies for Value Development**

Vezeau (2006) identified the importance of a structured approach to value development in nursing students. A structured approach often poses a challenge for educators who find values a difficult concept to teach (Vezeau, 2006). Identifying the importance of professional values is a critical first step in developing strategies for value development. Eddy et al. (1994) evaluated the difference between professional nursing values in senior nursing students ( $n = 656$ ) as compared with their faculty ( $n = 350$ ). The

researchers found that professional values of faculty were significantly higher than those of the students. Based on findings of this study, recommendations were made to include role modeling along with value development strategies into nursing curriculum (Eddy et al., 1994). More specifically, Tuckett (2015) explored which values were found to have the most meaning for new nursing graduates in an attempt to foster these values in nursing curriculum. Findings determined that traditional values, including contributing to the greater good, personal satisfaction, a sense of self-worth, and person-centeredness, held the most meaning for these students.

The core professional values of the AACN include altruism, autonomy, human dignity, integrity, and social justice (AACN, 2008). Shaw and Degazon (2008) evaluated the specific integration of these core values in a stepwise fashion into nursing curriculum. The program included both a didactic component and an experiential component. There was positive feedback from students in the areas of creating a shared nursing culture, developing strong connections with faculty and students, and participation in professional organizations (Shaw & Degazon, 2008).

### **Instrument to Measure Professional Nursing Values**

The Nurse Professional Values Scale (NPVS) was originally based on the tenets of the 1985 ANA Code of Ethics (ANA, 2015) and was revised to the NPVS-R when the Code of Ethics was revised in 2001 (Weis & Schank, 2009). These two instruments are the only known tools that measure professional nursing values as delineated in the ANA Code of Ethics (Weis & Schank, 2009).

Initially the ANA Code of Ethics included eleven provisions, six of which were related to the obligation of the nurse and five to social aspects of the profession (Weis &

Schank, 2000). The updated Code of Ethics in 2001 included a total of nine provisions and the most recent update (2015) preserved these. The current form of the tool is based on these latest provisions.

The NPVS-R was designed for use in all areas of nursing practice and education (Weis & Schank, 2009). In the psychometric analysis study by Weis and Schank (2009), the participants consisted of baccalaureate nursing students, graduate nursing students, and practicing nurses. Most studies using the tool have focused on nursing students of various program levels (Iacobucci et al., 2013; Lin et al., 2010; Martin et al., 2003), and several researchers also compared different populations of nursing students utilizing the tool. Fisher (2014) used the scale to compare the professional values of associate, diploma, and baccalaureate students while Martin et al. (2003) compared associate and baccalaureate students. Reliability and validity have been tested through psychometric analysis (Weis & Schank, 2009), and there was further support through acceptable Chronbach's alpha coefficients in subsequent studies using the tool (Fowler, 2013; Iacobucci et al., 2013).

### **Service Learning**

Service learning began in the early 1900s and has been used in a variety of disciplines throughout higher education to meet a variety of goals since its inception (Bailey et al., 2002). The definition of service learning is "a teaching pedagogy that connects service to academia in a reciprocal educational relationship" (Bailey et al., 2002, p. 433). As service learning is based on a reciprocal relationship, Wittmann-Price et al. (2010) described service learning as a "holistic model." One key concept in service learning is that the service experience be associated with the course work and outcomes

of the course (Deeley, 2010). Nursing has utilized this pedagogy as a means to provide clinical learning experiences as it aligns well with the discipline and its goals.

### **Service Learning as a Pedagogy**

Service learning has been used to integrate experiential learning into various disciplines in higher education. Musolino and Feehan (2004) used mentoring as a strategy when implementing a service-learning experience for physical therapy students. Program evaluation showed that students exhibited “social responsibility, citizenship and advocacy” (Musolino & Feehan, 2004, p. 40). Deeley (2010) evaluated the use of service learning in an undergraduate Public Policy course and identified both positive and negative effects on students. Positive effects included deeper learning, personal development, and confidence while negative effects included unpredictability, uncertainty, and confusion (Deeley, 2010). Relevant to the dissertation study, Wise and Yuen (2013) found that physical therapy students who participated in service learning experiences along with classroom learning demonstrated a higher level of core values as compared with those who participated in classroom learning alone. The seven core values in physical therapy include “accountability, altruism, compassion, excellence, integrity, professional duty, and social responsibility” (Wise & Yuen, 2013, p. 58) and are similar to those found in the nursing profession. The importance of appropriate implementation of service learning in order to achieve the development of professional values was supported by the findings from these studies of service learning.

Research in the use of service learning in nursing has also been pursued from various avenues. Several positive outcomes have been identified through the use of service learning in nursing. Loewenson and Hunt (2011) found that attitudes toward



homelessness changed significantly in students who participated in service learning involving this population. Barnes (2016) found a change toward attitudes of social justice and leadership in RN-to-BSN students who participated in service learning. While the effect size was small, this change was not identified in the control group who did not participate in the service learning. Looking at leadership from the standpoint of behaviors, Foli, Karagory, Gibson, and Kirkpatrick (2013) found a statistically significant improvement in leadership behaviors in baccalaureate students who participated in service learning as part of a leadership course. This strong quantitative study is an addition to the research in support of service learning in nursing.

### **Reflection in Service Learning**

As discussed previously, service learning is based in experiential learning. An important part of experiential learning is reflection on the experiences in order to facilitate transformational learning (Kolb & Kolb, 2005). According to Brown and Schmidt (2016), many reports of service-learning experiences in the literature do not place emphasis on the importance of reflection in achieving outcomes. Curtin, Martins, Schwartz-Barcott, DiMaria, and Ogando (2015) supported the importance of reflection in service learning by evaluating the use of critical reflective inquiry in evaluating outcomes for ISL. Utilizing a specific reflective model assisted students in not only identifying personal growth from the experience but also in linking this growth with effects on their practice. In another study in which the process of learning through service learning was evaluated, Afriyie Asenso, Reimer-Kirkham, and Astle (2013) used observation and interviews to identify themes in the learning process. One of the major themes identified was that critical reflection enhanced learning (Afriyie Asenso et al., 2013). Crabtree

(2011) also supported the importance of structured reflection in service learning in a study that aimed to identify both the intended and the unintended consequence of ISL. With structured reflection, these learning experiences can become transformational for students (Crabtree, 2011). The importance of structured reflection in service learning is evident, and educators must ensure that it is clearly delineated in both local and international service learning experiences.

### **International Service Learning**

Over the last several years, the importance of global awareness, especially in health care, has emerged. Global issues, such as communicable disease and increased global travel and migration, have an effect on the health of the world's people in general (Carlton, Ryan, Ali, & Kelsey, 2007). Global learning experiences can help prepare health care providers to address these issues. In a qualitative study, Main and Kerby (2013) described ISL as a means for helping students to find their role in the global society. Nursing schools incorporate global health and learning to various degrees in their curriculum. Carlton et al. (2007) evaluated the level of integration of global health concepts into a nursing school curriculum. At the time of the study, only 21% of schools defined global health in their curricula; however, the majority of the respondents identified that global learning strategies were incorporated into their curricula. Strategies included laboratory activities, local service learning, and ISL activities. While the setting for service learning can be local or distant, ISL has emerged as a means for expanding service learning into the global setting. The focus of this dissertation study was specifically on ISL as a strategy for implementing global learning into the curriculum.

### **Differences between Service Learning and ISL**

The difference in service-learning and ISL is the setting in which it takes place. The international setting provides a different experience than the experience the students acquire in local service learning. Wros and Archer (2010) compared the outcomes of international versus local service learning. Outcomes of the study were based on meeting the objectives for the course. The researchers found that while most of the objectives could be met by both groups, some international experiences were impossible to replicate locally. The witnessed lack of resources, such as running water, food and medical supplies, were part of the experience internationally and was not locally. International experiences require students to focus fully on the experience instead of having the ability to go home at the end of the day and re-enter at will (Wros & Archer, 2010). Haloburdo and Thompson (1998) compared international experiences in developing versus developed countries and had similar findings. While findings showed that the experience itself was more important than the country visited, differences in personal and professional growth were evident in the students who traveled to developing countries as they experienced the same challenging living situations as their patients did.

It is important to be able to compare the learning outcomes in local service learning and ISL. Amerson (2010) evaluated the effects of both local and international service learning on cultural competency. The group as a whole had a significant increase in perceived cultural competency, but it is unclear whether one group had more of a change than the other due to a small sample size in each group. Further evaluation in these separate groups would be important to understanding the outcomes of the groups.

ISL differs from service learning not only in the setting but in some aspects of the implementation. ISL involves an immersion piece either short or long term. “Cultural immersion engages individuals in meaningful, direct cross-cultural interactions, thereby increasing the likelihood of developing cultural understanding and empathy” (Tomlinson-Clarke & Clarke, 2010, p. 167). Some outcomes related to ISL can be attributed directly to the immersion aspect of the experience. Both Larsen and Reif (2011) and Allen, Smart, Odom-Maryon, and Swain (2013) identified immersion as the best way for students to develop transcultural self-efficacy. Immersion was also found to be instrumental in improving identification of ethical and social justice issues (Larsen & Reif, 2011) and cultural competency (Allen et al., 2013). These experiences consisted of 2 to 3 weeks immersed in the culture of study. Because ISL experiences often consist of only one week of immersion, the length of the trips may play a role in the outcomes and needs to be considered. Learning requires having time to traverse the “culture shock” with the length of immersion an imperative to success. Tomlinson-Clarke and Clarke, (2010) identified that the length of the immersion is imperative to success.

Service learning (SL) literature outside of health care includes several studies that compare the experiences of students who participate in local versus international service learning. Niehaus and Crain (2013) used results from the National Survey of Alternate Spring Breaks to compare the outcomes of ISL versus local SL in students from a variety of majors. The researchers identified that students who participated in international trips had more emotionally intense experiences, higher level of community engagement, better identification of the differences between self and the host community, and learning about social issues. These variables are linked with positive student outcomes (Niehaus &

Crain, 2013). The superiority of ISL compared with SL was also supported by two studies in pre-service teachers. In two different studies, Miller and Gonzalez (2009, 2010) studied students who participated in ISL in China and those who participated in SL in Southern California and found that while the development of professional skills were supported in both experiences, the ISL groups also had a profound difference in personal development that was not seen in the SL group. As professional values are a form of personal development, the use of ISL for value development was supported by these studies.

### **Factors Affecting Outcomes**

An important factor in the outcomes of ISL may be related to the students that participate in these experiences. ISL is often optional in most curricula, resulting in self-selection bias (Crabtree, 2011). There were only two studies from the literature search in which the reasons for student participation in ISL was explored. In both studies, the strongest factor identified was a strong perceived value for ISL, which was often related to previous experiences abroad or family experiences (Burgess, Reimer-Kirkham, & Astle, 2014; Kent-Wilkinson, Dietrich Leurer, Luimes, Ferguson, & Murray, 2015). If students already value the experience coming into it, these expectations may affect their outcomes. Harrowing, Gregory, O'Sullivan, Lee, and Doolittle (2012) evaluated immersion experiences in Malawi and found that self-selection had a profound effect on the outcomes of these experiences for students and that such findings could not be generalized to the general student population. This factor is important to consider when deciding whether pedagogies such as these should be considered mandatory instead of optional.

The length of time for ISL experiences varies, depending on the institution and the country being visited. Studies about ISL have included time frames ranging from one week (Amerson, 2010; Evanson & Zust, 2004; L. M. Hayward & Charrette, 2012; Wilcox, 2012) to several weeks (Ailinger, Zamora, Molloy, & Benavides, 2000; Caffrey, Neander, Markle, & Stewart, 2005; Curtin et al., 2013; Kaddoura et al., 2014; Kollar & Ailinger, 2002; St. Clair & McKenry, 1999). Significant differences in the outcomes of the trips of varying lengths were not evident although no study was identified that compared outcomes in trips of different lengths.

The population participating in the experience can also have an effect on outcomes. ISL has been used in various health care disciplines. Abedini, Gruppen, Kolars, and Kumagai (2012) explored the benefits of ISL with medical students and found that it was an effective method for improving clinical skills along with language acquisition and understanding of global health care systems. Wittmann-Price et al. (2010) described a program in which physician assistant students were involved in ISL as part of the curriculum. Evaluation of the program showed that the experience contributed to the student's professional development. Similarly, Puri, Kaddoura, and Dominick (2013) evaluated the use of ISL in the curriculum for dental hygiene students and also found that students identified cultural and professional growth as positive outcomes. For studies in the area of physical therapy (Hayward & Charrette, 2012; Pechak & Thompson, 2009), researchers have specifically assessed value development in ISL and will be described in detail later in the review. While these studies were in health care areas other than nursing, support for these experiences found within the study findings are relevant to ISL experiences in nursing.

## **International Service Learning Outcomes**

**Short-term outcomes.** Outcomes research in the area of ISL in nursing education has largely focused on the development of cultural competence (Allen et al., 2013, 2013; Amerson, 2010; Caffrey et al., 2005; Green et al., 2011; Lipson & Desantis, 2007; Smith & Curry, 2011; Smith-Miller, Leak, Harlan, Dieckmann, & Sherwood, 2010). Similarly, cultural competence is also seen as a frequent outcome in studies about ISL outside of the health care discipline (Bamber & Pike, 2013; Craigen & Sparkman, 2014; Le, Raven, & Chen, 2013; Mbugua, 2011). In many of these studies, cultural self-efficacy was also an outcome of the experiences (Allen et al., 2013; Larsen & Reif, 2011; St. Clair & McKenry, 1999). Students not only developed the knowledge of other cultures but also developed a comfort level delivering culturally relevant care (Allen et al., 2013). As cultural competence is part of the core value of social justice (Clark et al., 2011), these studies can be used to support the development of professional values in students. In fact, social justice was specifically identified as a factor in cultural competence development in studies by Afriyie Asenso et al., (2013) and Ailinger, Molloy, and Sacasa (2009). Simply put, “cultural competence has emerged as an ethical imperative” (Smith-Miller et al., 2010), which necessitates the need for nurses to attain and maintain cultural competence to ethically care for clients from different cultural backgrounds.

The majority of research for the outcomes of ISL has been through qualitative reports of experiences from students and faculty. Student self-reporting of personal and professional growth are pervasive themes in several of these studies (Clark et al., 2011; Evanson & Zust, 2004; Kollar & Ailinger, 2002; Wright, 2011). A prevalent theme in

many of these studies with findings of professional growth is a broader “world view” by participants. Walsh and DeJoseph (2003) described this world view as opening their minds to the world and seeing things differently than before. Larson, Ott, and Miles (2010) identified it as “expanding students’ awareness, knowledge, skills and encounters with another culture” (p. 49). Other researchers found that ISL promoted students feelings of “global citizenship” (Main & Kerby, 2013; Tuckett, 2015). Specifically evaluating the meaning of professional and personal growth and the extent of this growth is a challenge without quantitative measures.

Personal growth is related to professional value development. Kaddoura et al. (2014) evaluated students who participated in a two-week ISL experience identified ethical awareness as one of the major personal outcomes for them as individuals. Also related to values, Curtin et al. (2013) found that students developed increased empathy when traveling to the Dominican Republic for an ISL experience. ISL experiences have been found to have profound effects on personal growth, which can be instrumental in developing a student’s professional nursing values.

Outside of health care, ISL has also been explored as a viable pedagogy. Budny and Gradoville (2011) described an ISL experience, which was instituted with engineering students as part of their senior project. Students who participated identified gains in teamwork, clear communication, and sound judgement. Factors that they determined to be most valuable in the experiences included humanistic elements, such as the understanding of local lifestyles. In a highly technical field, such as engineering, this finding was unexpected (Budny & Gradoville, 2011) yet important in supporting the ability of ISL to foster values in students.



The idea that the college major does not change the outcomes is evident in studies that included college students in general, regardless of major. Gaines-Hanks and Grayman, (2009) determined that an ISL experience in South Africa resulted in personal change, including a pull toward civic engagement and social action. Similarly, Monard-Weissman (2003) found that ISL promoted social justice in the students who participated in ISL during a 1 to 2 month trip to Ecuador. In addition, students in this study also developed a commitment to continuing service in their careers. While specific core values for each group were not identified, the qualities that were developed in students were similar to those found in nursing professional values.

**Long-term outcomes.** While the vast majority of studies related to ISL evaluate immediate outcomes of the experiences, there were several studies in the literature that assessed long-term outcomes for participants. According to Tonkin and Quiroga (2004), in many instances, the effects of the experience are not immediately evident. It is possible that long-term effects can be used to identify these outcomes that might not be recognized at first. Levine (2009) evaluated effects over the longest period of time and explored the effects of ISL in participants 3 to 13 years post experience. The researcher found that the effects on the participants' professional and personal lives persisted into their current practice. Evanson and Züst (2004) found similar results in students 2 years post ISL experience. Evanson and Züst had more specific findings were more specific than Levine's (2009) findings, and they identified and included the themes of "coming to understand, unsettled feelings, and advocating for change" (Evanson & Züst, 2004, p. 412). Specifically, students identified the persistence of a global perspective, and many had become advocates for social change. Callister and Cox (2006) audiotaped interviews

with 20 former nursing students who had participated in ISL trips in the previous 9 years. There were several themes identified in the interviews regarding how the trips had affected their practice. These themes included increased cultural understanding, increased understanding of global health issues, improved interpersonal communications, and personal and professional growth. In a similar descriptive study, Smith and Curry (2011) used a tool that measured the impact of international experiences to evaluate the long-term effects of ISL on nursing graduates who had participated in trips during a 10-year period. There was a gain in all four areas that the tool evaluated: professional role, international perspective, personal development, and intellectual development. These studies are instrumental in supporting the long-term effects of ISL and in providing a basis for developing experiences that stand to be relevant far beyond a nurse's educational years.

### **Professional Nursing Values and ISL**

There are no quantitative studies evaluating the development of professional values in undergraduate nursing students who participate in ISL. Qualitative studies have identified factors that contribute to professional values, such as cultural competence (Allen et al., 2013; Amerson, 2010; Smith-Miller et al., 2010), ethical awareness (Kaddoura et al., 2014), self-efficacy (Allen et al., 2013; Larson et al., 2010; St. Clair & McKenry, 1999), and personal and professional growth (Clark et al., 2011; Evanson & Zust, 2004; Kollar & Ailinger, 2002; Wright, 2011).

While there are no specific studies in which professional nursing values were evaluated in ISL in the undergraduate nursing student, there are some studies in other disciplines that support this relationship. Hayward and Charrette (2012) evaluated the

effects of ISL on the core values of physical therapy for their students and found a significant improvement in these values. These values were similar to the values identified as core values in nursing (AACN, 2008; ANA, 2015). In a follow-up study about the long-term effects of the experience, they identified that as practitioners, the experience continued to influence their appreciation of these core values (Hayward et al., 2015).

Fowler (2013) evaluated the relationship between a local service learning experience and professional nursing values. Fowler (2013) utilized a three-hour local service learning project as an experience. Comparison using the NPVS-R was made to a control group of students who participated in a project that did not include a service learning component. Fowler (2013) determined that the students who did not participate in the service learning component actually scored higher on the NPVS-R. An important factor was that the researcher did not include a pretest in order to determine the baseline level of values in the students. In addition, the length of the service learning experience did not coincide with the standard length of service-learning experiences noted in the literature. Specifically, Amerson, (2010) identified positive outcomes in service learning experiences spanning a full clinical rotation.

ISL has been supported as a viable means for meeting various practice outcomes for nursing students. There is qualitative data that has exposed the meaning and value of the experiences for students. It is important to determine whether specific professional value development is quantitatively significant in ISL.

### **Chapter Summary**

The focus of this literature review was on the pertinent findings in the literature related to the two variables in the study. The important factors of each that were necessary to understand and apply when planning and evaluating ISL experiences when used as experiential learning strategies were delineated. In addition, the factors relevant in designing the study to provide useful outcomes have been explored and identified. A basis for planning the dissertation study methods and interpreting the data were provided by the literature review.

## **Chapter 3**

### **Methods**

The purpose of this dissertation study was to determine if ISL is an effective method for developing PNV in undergraduate nursing students who participate in the experiences. The change in PNV after participation in ISL was compared with the change in PNV of students who did not participate in the experiences.

### **Research Design**

The design of this dissertation study was quasi-experimental, utilizing a between subjects approach with a pretest and posttest control group design. A quasi-experimental design was necessary because random assignment of the groups was not possible (Edmonds & Kennedy, 2013). The design of the dissertation study has both weaknesses and strengths that must be considered.

A significant weakness in this design was the quasi-experimental method. Nonrandom assignment of groups can produce confounding variables that can affect the ability of the results to predict causality (Edmonds & Kennedy, 2013). Therefore, a pretest, posttest design was chosen in order to evaluate the homogeneity of the groups and to determine the effect of the intervention through evaluating the variance between the pre and posttest (Edmonds & Kennedy, 2013). Kent-Wilkinson et al. (2015) determined that students who choose to participate in ISL have a higher level of professional values prior to the experience than those who do not. Therefore, it was important to compare each participant's pretest and posttest experience values. In

addition to the inclusion of a pretest, the inclusion of a control group added strength to the design. The use of a control group was important in order to manage threats to internal validity (Edmonds & Kennedy, 2013). It was important to determine if PNV development differs in students who participate in ISL from those who do not. The control groups allowed this comparison to be made.

### **Research Assumptions**

In order to pursue quantitative research, the researcher must accept certain assumptions as truth. Quantitative research is based in positivist/post-positivist perspective, which guides the research methods (Cody, 2006). The use of quantitative methods for hypothesis testing is part of this process (Dahnke & Dreher, 2011). Positivism encourages the use of objectivity in research along with reliability and validity (Crotty, 2011). The use of an instrument that is both reliable and valid in collecting accurate data is an important assumption in quantitative research. There is assurance through exploration of previous use of the tool in similar settings (Iacobucci et al., 2013; Weis & Schank, 2009; Yu-Hua Lin et al., 2010).

By using self-report tools, there were basic assumptions that must be considered in the research study. Participants were assumed to be truthful and noble in their completion of the instrument. An ultimate goal of providing truthful information without ulterior motive was assumed. In addition, because the tool was developed for use in the research population, it was assumed that the questions asked were understandable by each participant.

With the use of statistical analysis, there were also some assumptions that were necessary in interpreting the data. It was assumed that the statistical software was

accurate in the analysis of data and that results were clearly portrayed by the findings of the study. It was also assumed that the investigator was ethical and accurate in reporting and interpretation of the findings.

### **Setting**

The setting for the dissertation research was a small private university located in the Northeastern United States. The College of Nursing within the university includes programs ranging from the baccalaureate level to the doctoral level. The College of Nursing sponsors three to four ISL trips yearly to various countries. Approximately 10 to 20 junior and senior nursing students participate in each trip. Participation is optional, and students must be in good academic standing to participate. There is a fee associated with participating. Students receive clinical credit for participation, and the objectives for undergraduate students are the same regardless of the ISL location.

### **Sampling Plan**

With quantitative research, it is required that the researcher develop a sampling plan in order to support validity of the results (Polit & Beck, 2012). The process of sampling was utilized to select participants that represented a population (Polit & Beck, 2012). The population sampled was junior and senior nursing students, participating in ISL.

### **Sampling Strategy**

The sample utilized for the experimental group was consecutive sampling, which is a type of non-probability sampling (Polit & Beck, 2012). All students participating in ISL during the research interval were invited to participate in the research until an appropriate sample size was reached. According to Polit and Beck (2012), consecutive

sampling is a better choice than convenience sampling in ensuring a representative sample. However, because participation in ISL is optional, there may have been other variables present that affect the self-selection of the group, which was evaluated through the analysis of the demographic data.

Because the population for the control group was much larger than the experimental group, stratified random sampling was used in determining the students who were asked to participate in the research. Stratified random sampling was a means to ensure that the population was appropriately represented in the group while still including a random sample (Polit & Beck, 2012). Stratified random sampling was used to ensure that the control groups consisted of both junior and senior students. Class sections from both junior and senior levels were randomly chosen to participate. Students in the randomly chosen groups were asked to participate. One of the drawbacks of using stratified random sampling is the possibility of having unequal groups in both strata that are being pulled from (Polit & Beck, 2012), which was not an issue in the dissertation study as the junior and senior classes were similar in size.

### **Eligibility Criteria**

Eligibility for the study was assured through data obtained by the demographic instrument. According to Polit and Beck (2012), it is important that the inclusion and exclusion criteria be clearly delineated in order to ensure external validity of the findings.

**Inclusion criteria.** For the inclusion criteria, there were junior and senior nursing students enrolled in clinical nursing courses at the research university. All students in these courses were given the opportunity to participate in several ISL experiences during their two years.



**Exclusion criteria.** Students sometimes participate in successive ISL trips to either the same or different locations. Students who have previously attended an ISL trip during which they were enrolled in the proposed study either in the research or control group were excluded from participating a second time. Students who had participated in the past but did not participate in the dissertation study were eligible and were identified in the demographic data.

### **Determination of Sample Size**

Sample size was based on a power ( $1-\beta$ ) of .80 and an  $\alpha$  level of .05, which are standard in behavioral science research (Plichta & Kelvin, 2013). The power of .80 means that there is a 20% chance of committing a Type I error (Plichta & Kelvin, 2013). According to Plichta and Kelvin (2013), it was recommended to use previous studies utilizing the instrument to determine effect size instead of utilizing an arbitrary moderate effect size. While there were no studies in which the same two variables were evaluated, the original instrument had been used in the same population (undergraduate nursing students) to measure differences in PNVs. In a study in which the difference of PNV of baccalaureate nursing students and practicing nurses was evaluated, an effect size of 0.70 was identified (Shank & Weis, 2001). Use of the scale to evaluate service learning activities in undergraduate nursing students showed an effect size of 0.51 (Fowler, 2013). Considering the effect size in these two studies, a sample size between 33 and 64 was sought for each group based on the use of two-tailed *t*-test for analysis (Plichta & Kelvin, 2013). The sample size was also supported through the “rule of 30,” which asserts that in the absence of previous studies that identify effect size, a sample of at least 30 participants per group should be sought (Boswell & Cannon, 2014).

## **Protection of Human Subjects**

When conducting research using human subjects, the investigator must ensure the protection of subjects with regard to the five ethical principles of autonomy, beneficence and nonmaleficence, justice, trust, and fidelity and scientific inquiry (Christensen, Johnson, & Turner, 2011). In order to ensure protection of human subjects, permission for research was sought from both the Nova Southeastern University Institutional Review Board (IRB) and the IRB of the research-setting institution.

The premise of autonomy and trust in human subject research is supported by the use of the informed consent (Christensen, Johnson, & Turner, 2011). Students were given information regarding the goals, benefits, and risks of the study and asked to sign a consent form prior to participating in the study. Participants were assured that their willingness/unwillingness to participate would not affect their grades or standing in the program, and they could drop out of the study at any time without repercussions. Because the investigator is involved in the courses and ISL experiences of some of these students, a research assistant was used to gather and deidentify the data and manage the participant list so that the researcher would not know which students participated or declined to participate. This procedure ensured that students did not feel coerced to participate in the study. Students were assured that the investigator would not have any information regarding the participant's choice to participate in the study.

**Risks and benefits of participation.** In order for justice, beneficence, and nonmaleficence to be assured, the risk must be minimized and the benefit maximized for the participants (Christensen et al., 2011). The risks and benefits were delineated on the consent form. The risk associated with the dissertation study was minimal to the

participants. Less than 15 minutes was required to complete the instrument each time it was administered. The confidentiality of the collected data was maintained. By employing the research assistant, any concerns that the student's decision to participate/not participate may have an impact on grades or standing in the program was alleviated. The completion of the survey may have caused students to reflect on their practice, which may have caused some unknown feelings to surface. Students were encouraged to discuss any feelings or concerns with their advisors should they occur.

Benefits to the students were the opportunity to reflect on their professional values, and upon receipt of the findings, the ability to apply the findings to practice. Providing a small gift card to students who completed both pretest and posttest was utilized as compensation for their time to complete the survey.

**Data storage.** With fidelity and scientific inquiry, it requires honest reporting of the research (Christensen et al., 2011). This process begins with ensuring the protection and integrity of the data. Students were assigned a participant number upon completion of the pre-test, which was used to ensure correlation of pretests and posttests. The list of names/numbers was managed by the research assistant, and the investigator did not have access to this list. The list of participant names and numbers was maintained in a locked cabinet in the assistant dean's office at the College of Nursing. The research assistant had sole possession of the key to the locked box. The list was destroyed upon completion of the dissertation study. Raw data collected by the research assistant was deidentified prior to being entered into the computer. Data was stored on a password-protected computer in the investigator's possession. No identifiable information was present on the

computer. After data was entered, the signed consent forms and completed surveys were stored in the locked box. All forms were destroyed at the completion of the study.

### **Procedures**

Upon receiving approval from both IRBs, permission was obtained from the Dean of Nursing as well as any involved course faculty. Recruitment of participants was then begun. Random course sections for the control group were determined through computer software for participation as the control group. Both junior and senior course sections were chosen to participate. The number of groups was dependent on the size of the course section in relation to the sample size needed. An email explaining the study was sent to all junior and senior nursing students who were in the chosen course sections, and those who were participating in the ISL trips. Students registered to participate in the ISL programs were approached at the preparation meeting before the trips.

The independent variable was the ISL trips in which students had the opportunity to participate. The ISL trips are offered three times a year and involve travel to either Guatemala or Jamaica. The trip to Jamaica included senior nursing students and the trip to Guatemala included both junior and senior nursing students. All trips were one week in length. Experiences at both locations included providing care for patients in clinics each day. Each trip included adult, pediatric, and woman's health experiences. The procedures involved in both trips were the same and included pre-trip preparation meetings with cultural discussions, nightly debriefing, reflective journaling and final reflection, and debriefing after reentry into the United States. Fidelity of the independent variable in each experience was assured through the presence of standardized objectives for all trips as well as the consistency of the trip coordinators for each experience. The

application for both programs was the same, and the criteria utilized for choosing participants was standardized for both experiences.

As a participant in the Jamaica ISL, the investigator assured that objectives and standard procedures were followed on that trip and confirmed the fidelity of the experience with the trip coordinators for the trip to Guatemala. A meeting was held with the coordinators of the two trips prior to collecting data. This meeting served to ensure that both trips were implementing the objectives in the same way, procedures during the trip were standardized, and expectations for students and assignments were equivalent. Each objective was reviewed and strategies for meeting the objectives were discussed in order to determine equality of the experiences. In addition, the times for the pre-trip meetings were synchronized so that data would be collected from both the control group and the experimental group (from both experiences) on the same week. Synchronization of the post-trip debriefing and data collection were also discussed. Another means to ensure equality of these trips was for the investigator to attend the pre-trip meeting to ensure that expectations and objectives were equivalent. Following the trip, a meeting was held with the coordinators to ensure that objectives were met in both experiences. Again, each objective was reviewed to ensure that the experiences were equivalent in meeting these objectives. Post-trip debriefings were attended by the investigator in order to again ensure that experiences and learning occurred as per the objectives in both experiences similarly from the student perspective.

The investigator explained the study and answered any questions about the study during the pre-trip meeting. The investigator then left and the research assistant provided consent forms and collected the data at that time. Upon completion of the initial survey,

the student's names were permanently removed from the form and replaced with a non-identifiable participant number. A list of random numbers was prepared prior to data collection and participants were randomly assigned to one number. Numbers followed by an E were used for the experimental group and numbers followed by a C were used for the control group. A list of names and numbers was maintained throughout the study in a secure locked box in the dean's office with access only by the research assistant. During the same time frame, the investigator and the research assistant attended class for the sections chosen for the control group, and the same process for collecting data was followed as was implemented with the experimental group. Students in the chosen course sections who were participating in the ISL experiences during the current semester were eligible to be part of the control group.

As clinical hours were allocated for participation in the ISL trips, equality in clinical time was not achieved until the end of the clinical experience. Therefore, the posttest was administered at the end of the scheduled clinical experience for both the experimental and the control groups. The research assistant again collected the data following class and during scheduled debriefing meetings for the ISL participants. Pretest and posttest data were linked utilizing the participant number to ensure the ability to correlate the participant data. Students were recruited from two ISL trip scheduled in the same semester and an adequate sample size was achieved.

### **Instrumentation**

Quantitative research involves the collection of objective data for analysis. Measurement of the dependent variable includes the use of valid and reliable instruments

(Christensen et al., 2011). The instruments that were utilized in the study are presented below.

### **Instrument 1**

**Demographic survey.** The demographic instrument was used to gather data for the descriptive analysis and to ensure the eligibility of the participants (Christensen et al., 2011). This survey included information regarding student participation in ISL experiences and the dissertation study conducted during a previous semester to determine the eligibility of the student. The level of the student was needed to ensure that the sample was homogenous with regard to the numbers of students at each level for the control and the experimental groups. This information was also used for secondary analysis to determine if there were a difference related to level. Participation in international service learning either with the nursing department or the university was ascertained in order to determine if it had an effect on the results in secondary analysis. Martin et al. (2003) found that cultural background had an influence on professional nursing values; therefore, the ethnic background was included in the demographic survey for secondary analysis. Conflicting evidence regarding the influence of gender on professional values was identified. While Martin et al. (2003) identified a difference in professional values among male and female students in secondary analysis, further in other research, which was aimed directly at gender difference, there was no significant difference found between in the two groups (Alfred, Yarbrough, Martin, & Garcia, 2011). Therefore, gender was collected to describe the sample but was not utilized as a variable in secondary analysis. Age group was collected in order to better describe the sample. Finally, because perceived value for ISL can have an effect on participation of students in

ISL experiences (Burgess et al., 2014; Kent-Wilkinson et al., 2015), students were asked if they had traveled abroad previously and the reason for their trip.

## **Instrument 2**

**The Nurses Professional Values Scale–Revised.** The NPVS was originally based on the tenets of the 1985 ANA Code of Ethics (ANA, 2015) and was revised to the NPVS-R when the Code of Ethics was revised in 2001 (Weis & Schank, 2009). These two instruments are the only known tools that measure professional nursing values as delineated in the ANA Code of Ethics (Weis & Schank, 2009).

Initially the ANA Code of Ethics included eleven provisions, six of which were related to the obligation of the nurse and five to social aspects of the profession (Weis & Schank, 2000). The updated Code of Ethics in 2001 includes a total of nine provisions and the most recent update (2015) preserved these. The current form of the tool is based on these latest provisions.

The NPVS-R was designed for use in all areas of nursing practice and education (Weis & Schank, 2009). In the psychometric analysis, Weis and Schank (2009) recruited baccalaureate nursing students, graduate nursing students, and practicing nurses. For most of the studies using the tool, the focus was on nursing students of various program levels (Iacobucci et al., 2013; Lin et al., 2010; Martin et al., 2003), and several researchers compared different populations of nursing students utilizing the tool (Fisher, 2014; Martin et al., 2003).

**Validity.** The original NPVS was examined for content validity by experts in the area of nursing ethics (Weis & Schank, 2000). The NPVS-R was evaluated for construct



validity through the use of factor analysis (Weis & Schank, 2009), which was supported through “overall factor loading range of 0.46 to 0.79” (Weis & Schank, 2009, p. 221).

**Reliability.** Reliability of the instrument was assessed through item-to-total correlation with an average correlation of 0.56 (Weis & Schank, 2009). According to Plichta and Kelvin (2013), a correlation of  $\pm 0.50$  was a sufficient finding of correlation. Internal consistency was evaluated through the use of Cronbach’s alpha. In the initial psychometric testing of the revised total tool, Cronbach’s alpha was 0.92 (Weis & Schank, 2009). Researchers using the tool supported the reliability with strong Cronbach’s alphas of 0.90 (Yu-Hua Lin et al., 2010) and 0.93 (Iacobucci et al., 2013). These findings indicated a high level of internal consistency (Polit & Beck, 2012).

**Scoring.** The NPVS-R is a 26-item instrument utilizing a five-point Likert scale instrument with 1 being *not important* and 5 being *most important* (Weis & Schank, 2009). Data obtained from the instrument were ordinal data because a Likert scale was utilized (Plichta & Kelvin, 2013). All of the items from the instrument were a reflection of one the statements in the ANA code of ethics, and all were phrased in a positive manner (Weis & Schank, 2009). Scoring was done by totaling the numeric response to each question. Scores may have ranged from 26 to 130. A higher total indicated stronger professional values (Weis & Schank, 2009). There were no subscale scores within the instrument, but it included five factors related to professional value development: caring, activism, trust, professionalism, and justice. Confirmatory factor analysis was used to delineate which questions fall into which factor (Weis & Schank, 2009). A difference in professional values in both the experimental and control groups was calculated by determining the numerical difference between the pretest and posttest scores of each

participant. In addition, subanalysis was performed to determine which factors affected the variances in total scores.

### **Statistical Strategy**

Data from completed instruments were entered into Statistical Package for Social Sciences (SPSS) version 23. An alpha level of .05 was utilized for all data analysis (Christensen et al., 2011). Prior to analysis, the data were reviewed for errors in data entry and for missing data. Because parametric tests were utilized in the data analysis, it was necessary to ensure that the sample data met the basic assumptions to ensure validity of the tests (Plichta & Kelvin, 2013). Data tables were analyzed to determine the appropriateness of the variables for the testing, and a stem-and-leaf plot was reviewed in order to identify the normal distribution of the dependent variable (Plichta & Kelvin, 2013).

### **Data Cleaning**

Prior to data analysis, the data were reviewed for accuracy and completeness. Missing data in the form of pretests or posttests were removed from the analysis as both tests were needed to identify a change in the dependent variable in relation to the independent variable. The data were screened for outliers through the use of a frequency table and bar charts (Plichta & Kelvin, 2013). Outliers were analyzed for possible error in data entry and invalidated if necessary (Plichta & Kelvin, 2013). Outliers that were not explainable were deleted in order to avoid inaccurate measures of central tendency (Meyers, Gamst & Guarino, 2013). Demographic data was analyzed for the variability, which supported the validity of its use as a variable in the study (Plichta & Kelvin, 2013).

## **Descriptives**

Descriptive analysis was used to describe the data obtained, support the basic assumptions of the parametric analysis, and display the measures of central tendency for the variables, including mode, median, mean range, and standard deviation. In addition to describing the data, these tests were used to identify the distribution and skewness of the dependent variable (Plichta & Kelvin, 2013). The demographic data was used to describe the sample as well as determine the relevant confounding variables that could be used for secondary analysis. Demographic data were displayed in table format for ease of the reader.

## **Reliability Testing**

The quality of the data obtained from the use of an instrument was supported by the reliability of that instrument (Polit & Beck, 2012). Cronbach alpha is the most commonly used method for determining the internal consistency of an instrument (Polit & Beck, 2012). The NPVS has consistently shown adequate Cronbach alpha values when utilized with nursing students (Iacobucci et al., 2013; Weis & Schank, 2009; Yu-Hua Lin et al., 2010). Cronbach alpha was calculated in the dissertation data set to further validate the reliability of the instrument in the current population. A Cronbach coefficient alpha of greater than 0.70 was considered acceptable (Meyers, Gamst & Guarino, 2013) and was utilized as the standard for reliability in this study. Findings lower than a 0.70 required removal of items and retesting until an acceptable result was obtained (Meyers et al., 2013).

## Hypothesis Testing

The purpose of hypothesis testing is to determine if there is a relationship between the groups (Polit & Beck, 2012). The hypothesis of the study was the following: Nursing students who participate in ISL have a different level of development of professional nursing values than those who do not participate.

In order to support this hypothesis, the statistical test used was the independent  $t$  test. The independent  $t$  test is useful when looking for the difference in the means of two groups (Plichta & Kelvin, 2013), which in this case was the experimental and the control groups. The difference in the pretest/posttest score was calculated for each participant, and this number was used in the data set for analysis. For this study, as there was only one independent variable and two sets of means that represent the dependent variable, the independent  $t$  test was the appropriate statistical test (Meyers et al., 2013). The calculated differences in the pretest and posttest scores in the experimental and control groups were the two means utilized for statistical analysis.

The independent  $t$  test is a parametric statistical test, and thus, it required that certain assumptions be met for its use. These assumptions included a dichotomous grouping variable in which both groups were independent of each other and a normally distributed dependent variable (Plichta & Kelvin, 2013). Normal distribution was assessed through frequency distribution and the use of a stem-and-leaf plot (Plichta & Kelvin, 2013). The remaining assumptions were supported through the research design and instrument use. The grouping variable of participation in ISL was dichotomous and whether students participated or not were mutually exclusive of each other.

Prior to the use of the independent  $t$  test, it needed to be determined whether the pooled or separate version of the  $t$  test would be utilized (Plichta & Kelvin, 2013). The formula for a pooled  $t$  test is utilized when there is equal variance among the two groups, and the formula for a separate sample  $t$  test is utilized when there is significant variance to the data within the groups (Plichta & Kelvin, 2013), which was determined through frequency testing prior to analyzing the data with the independent  $t$  test. Subanalysis of the five factors within the scale was utilized to determine if any factor(s) provided the most variance in total scores.

### **Chapter Summary**

The dissertation study is a quasi-experimental study, utilizing a pre test/posttest design with a control group. Permission from the IRB at both NOVA and the research setting institution was obtained prior to beginning the data collection process. ISL was the independent variable in the study, and the dependent variable was the development of professional nursing values. Professional nursing values were measured utilizing the PNVS-R, a valid and reliable tool, which has been used in the undergraduate nursing population in previous studies. Students were evaluated through the use of a pretest prior to the ISL experience and a posttest at the end of the semester. A control group of peers who were not participating was utilized to compare the results. Application of the results to current practice was evaluated.

## **Chapter 4**

### **Results**

International service learning has become a popular pedagogy in nursing education over the last several years. The utility of integrating ISL as a means to meet outcomes of nursing education is important to explore. Professional nursing values are an important outcome in nursing education and have been found to develop in nursing school (Weis & Schenk, 2000), and determining which experiences facilitate this development is important in providing the appropriate experience to students through their nursing preparation. The purpose of this study was to determine if the development of professional nursing values was different in students who participated in ISL as part of their clinical hours versus those who participated in traditional clinical local experiences.

After approval by the IRB from the research institution, students were recruited to participate in the study. All students who were registered to participate in the ISL experiences for the semester were approached for participation in the study at the pre-experience meeting. There were two ISL trips scheduled for the semester, and both experiences took place in the second month of the semester. The total number of students eligible to participate in the experimental group was 31. Thirty students agreed to participate, and the remaining student was not present at the pre-meeting in which students were recruited and completed the pretest. The number of students eligible for the control group was 215 (103 seniors and 112 juniors). Because the population was much larger than the experimental group, two sections, one junior section and one senior

section, were randomly chosen to be approached to participate. After permission from the course faculty, students were approached during their class time. Students present were eligible to participate. Forty-nine students were eligible, and 48 of those agreed to participate. Information on why the one student declined is not available.

### **Data Cleaning**

A total of 78 students (30 in the experimental and 48 in the control group) completed the pre-experience form, and 76 (30 in the experimental and 46 in the control group) completed the post-form. Two students were not present at the class when the posttests were administered, so they were unable to participate. These data were deemed ineligible because both a pretest and posttest were necessary to compute the difference in scores used for analysis. The data from these participants were removed from the data set. The data set was reviewed by hand for accuracy for inputting the data. Three data sets were found to have missing data. Because the accuracy of the final score was contingent on a score for each question, these data sets were removed from the final data set. Computation of the difference in score from pretest to posttest was calculated for each participant using excel formulas. The data were then uploaded into SPSS, and the data points were labeled and coded.

In order to screen for outliers, a bar graph was developed using the differences in the pretest/posttest scores, which is the dependent variable. Figure 2 shows the bar graph with distribution of the independent variable data. The mean of this data was 3.38 with a *SD* of 10.559. The bar graph did not identify any significant outliers, so all of the data were utilized in the analysis.

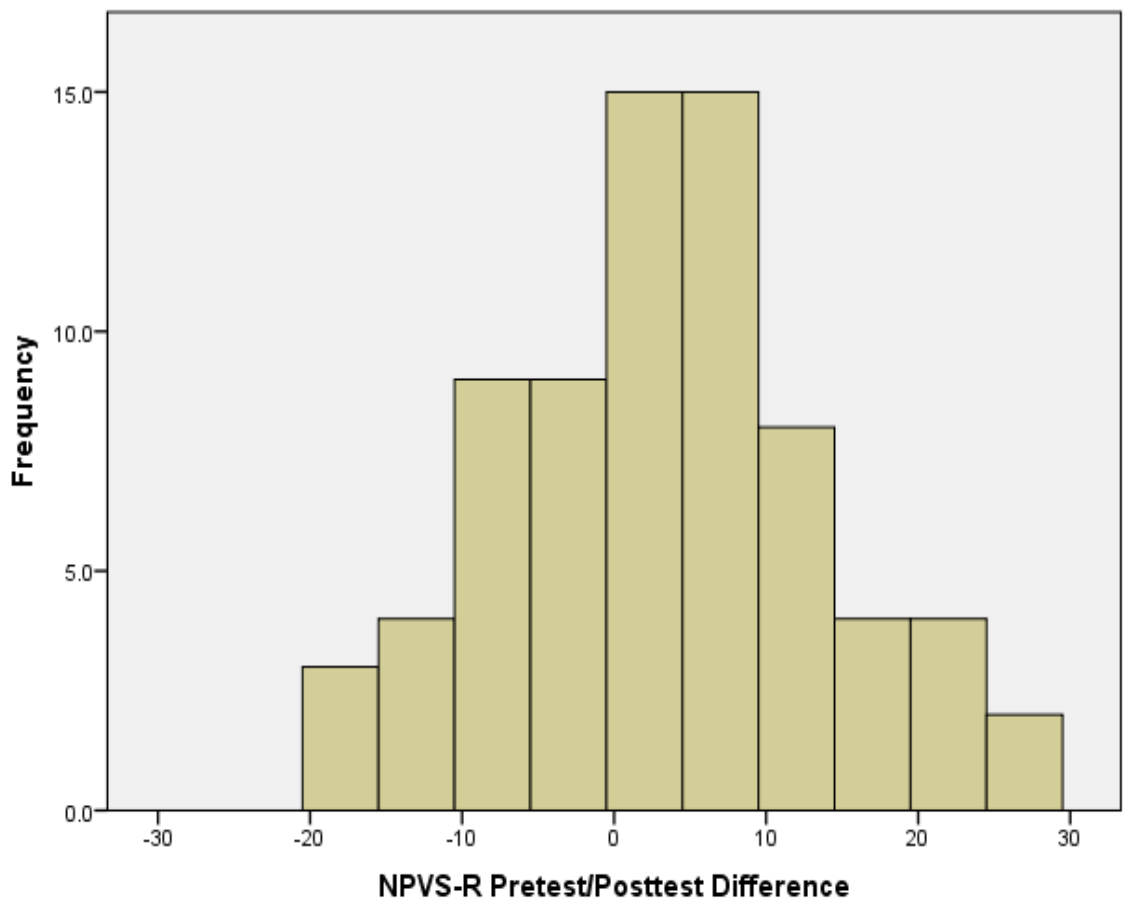


Figure 2. Distribution of the change in Nursing Professional Values Scale.

In addition to evaluating the histogram for outliers, a test of normality was performed to determine if the dependent variable was normally distributed across the two groups (Meyers et al., 2013). The Kolmogrov-Smimov and Shapiro-Wilk were not significant, which supports the normality of the distribution (Table 1).



Table 1  
*Test of Normality*

	ISL	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig	Statistic	df	Sig
NPVS-R pretest/posttest	Yes	.070	30	.200	.981	30	.863
Difference	No	.068	43	.200	.979	43	.617

Similarly, the normality of the dependent variable was supported by the Q-Q plots shown in Figure 3 and 4 across both the experimental and control groups.

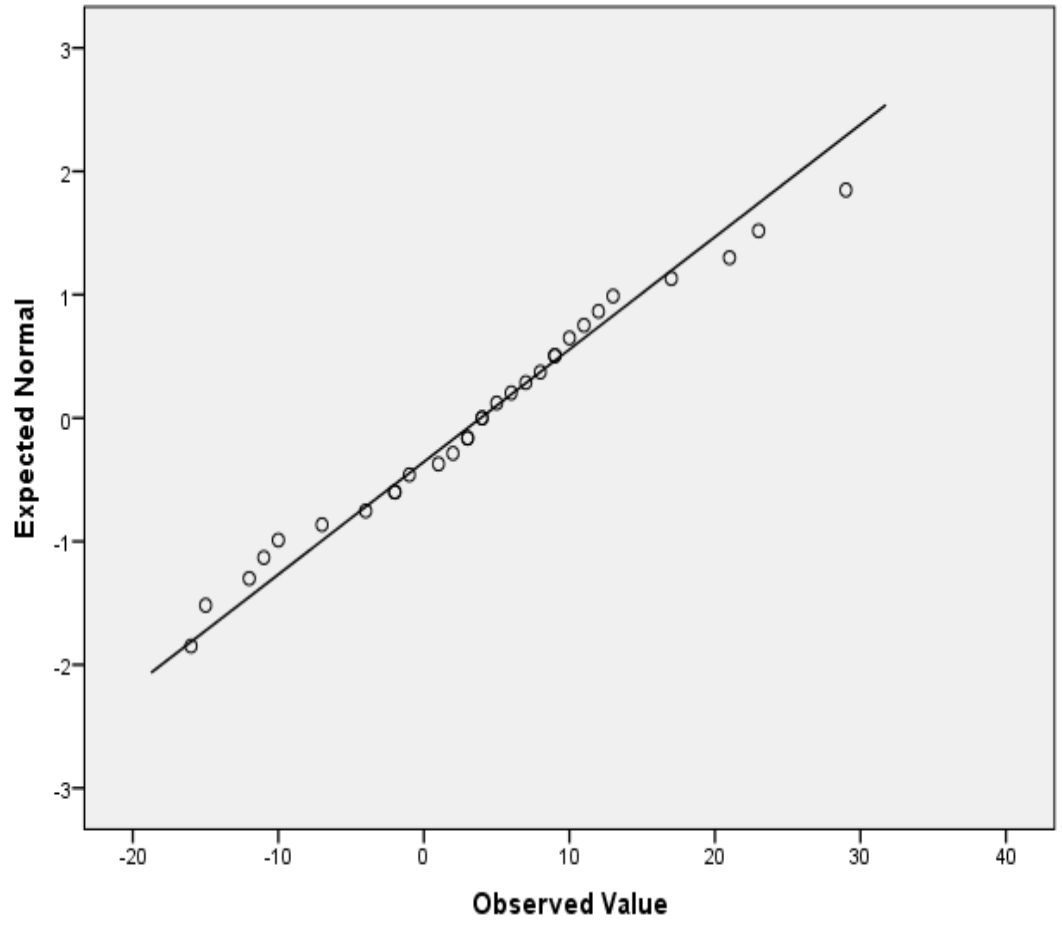
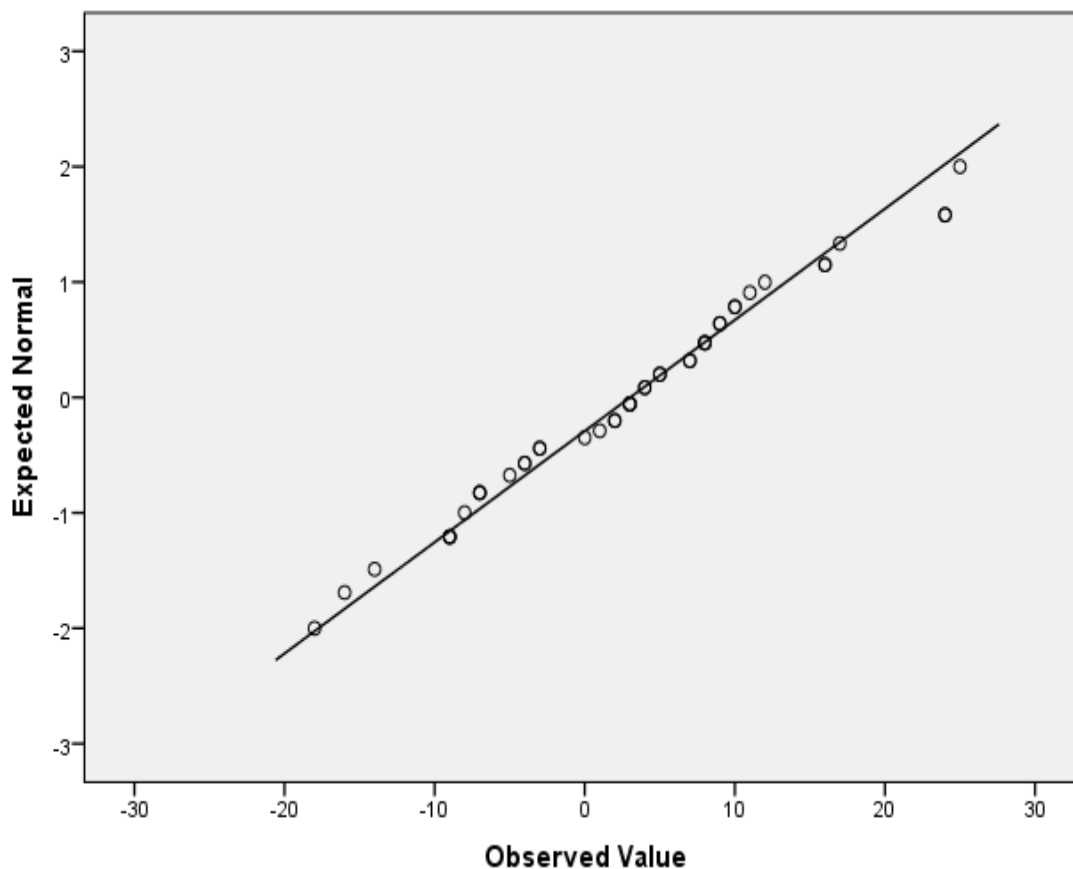


Figure 3. Normal Q-Q plot of the difference in pretest and posttest scores for the ISL experimental group.



*Figure 4.* Normal Q-Q plot of the difference in pretest and posttest scores for the non-ISL control group.

### **Descriptives**

Descriptive statistics were used to describe the sample, the data, and the dependent variable data in which the basic assumptions of the analysis were supported.

### **Description of the Sample**

A descriptive analysis was first run to describe the sample. Table 2 presents the characteristics of the sample in both the control and the experimental groups. The sample ( $N = 73$ ) was primarily White (86%) females (99%). The age range was between 19 and 22 with the majority (90%) being 20 and 21 years of age. Participants were approximately evenly divided between juniors (47%) and seniors (53%). The majority of

students had not had previous ISL experience (86%), but a strong majority had traveled abroad previously (85%). The majority of this travel was for vacation (62%). The experimental group ( $N = 30$ ) was made of students that traveled to both Jamaica (37%) and Guatemala (63%).

Table 2  
*Demographic Characteristics of Participants*

Characteristic	ISL group	Non-ISL	Total
ISL Country			
Jamaica	11	0	11
Guatemala	19	0	19
Previous ISL experience	2	3	5
Previous abroad travel	25	37	62
Reason for travel			
Vacation	15	30	45
Service	3	1	4
Work	3	2	5
Academic status			
Junior	10	24	34
Senior	20	19	39
Ethnic background			
African-American	0	1	1
Asian/Pacific Islander	1	1	2
White	26	37	63
Hispanic	3	4	7
Age			
19	1	4	5
20	8	19	27
21	19	20	39
22	1	0	1
Sex			
Female	30	42	72
Male	0	1	1

*Note.*  $N = 73$

### **Responses to the Measurements**

The independent variable in the study was the ISL experience in which students had the opportunity to take part in as part of clinical hours. The dependent variable was the development of professional nursing values as measured by the NPVS-R. Table 3

presents the data obtained from the NPVS-R. The table includes the total measures of central tendency as well as those of the two groups. The mean of the combined dependent variable was 3.38, the median was 4.0, and the mode was 3.0. The skewness and kurtosis were not significant (.151 and -.222, respectively) as they were within the standard of  $\pm 1.0$  (Meyers et al., 2013), which was also supported through visualization of the histogram as shown in Figure 1.

The mean of the control group was 3.02 with a standard deviation of 10.380, and the mean of the experimental group was 3.90 with a standard deviation of 10.968. The skewness and kurtosis were within the standard of  $\pm 1.0$  (Meyers et al., 2013).

Table 3  
*Mean Differences in Pretest and Posttests of the NPVS-R for the ISL and Non-ISL Groups*

ISL	<i>M</i>	<i>SD</i>	Kurtosis	Skewness	<i>n</i>
Yes	3.90	10.968	-.061	.148	30
No	3.02	10.380	-.232	.149	43
Total	3.38	10.559	-.222	.151	73

## **Reliability Testing**

### **Instrument Reliability**

The NPVS-R has been found to be reliable in previous studies through adequate Cronbach's alpha, but evaluation of reliability of the instrument in this study is warranted. Cronbach's alpha was performed on the instrument as utilized both for the pretest and the posttest. On the pretest, data Cronbach's alpha was shown to be .912, which correlates with a high level of reliability of the tool. Table 4 presents the alpha scores if items were to be removed. Because the Cronbach's alpha met the criteria set for .70, no items were deleted from the instrument. In addition, the deletion of any of the items would not significantly increase the Cronbach's alpha score.

Table 4  
*Item Total Statistics by Question for the NPVS-R Pretest*

	Scale mean if item deleted	Scale variance if item deleted	Corrected item- total correlation	Cronbach's alpha if item deleted
Pre 1	106.877	115.971	.380	.911
Pre 2	106.438	116.389	.453	.909
Pre 3	106.103	118.562	.378	.911
Pre 4	107.342	111.228	.547	.908
Pre 5	107.274	112.007	.615	.906
Pre 6	106.555	111.636	.673	.905
Pre 7	106.603	110.409	.751	.904
Pre 8	106.397	113.604	.626	.906
Pre 9	106.233	116.681	.477	.909
Pre 10	106.329	113.446	.640	.906
Pre 11	106.589	110.162	.728	.904
Pre 12	106.384	113.406	.574	.907
Pre 13	106.425	113.025	.621	.906
Pre 14	106.000	118.861	.491	.909
Pre 15	105.986	117.986	.490	.909
Pre 16	105.918	119.160	.443	.910
Pre 17	107.377	115.068	.275	.917
Pre 18	105.918	119.938	.395	.911
Pre 19	107.247	110.966	.572	.907
pre 20	106.075	118.220	.377	.911
Pre 21	105.973	119.444	.446	.910
Pre 22	106.342	115.256	.555	.908
Pre 23	106.356	113.732	.577	.907
Pre 24	106.192	114.296	.627	.907
Pre 25	105.890	119.349	.477	.910
Pre 26	106.644	112.955	.467	.910

Cronbach's alpha was also determined on the posttest data to ensure reliability in this setting. While slightly lower than the pretest alpha, the alpha of the posttest was .888, which still remained above the level of the identified .70. Table 5 presents the alpha score if items were to be removed. Similar to the pretest, item removal did not significantly increase the Cronbach's alpha of the scale.

Table 5  
*Item Total Statistics by Question for the NPVS-R Posttest*

	Scale mean if item deleted	Scale variance if item deleted	Corrected item- total correlation	Cronbach's alpha if item deleted
Post 1	109.70	75.019	.402	.885
Post 2	109.60	75.326	.344	.886
Post 3	109.32	75.413	.463	.884
Post 4	110.38	70.212	.620	.879
Post 5	110.16	71.084	.614	.880
Post 6	109.77	71.153	.606	.880
Post 7	109.78	72.618	.576	.881
Post 8	109.85	70.463	.691	.878
Post 9	109.77	72.681	.440	.885
Post 10	109.86	71.009	.551	.881
Post 11	110.04	71.818	.593	.880
Post 12	109.68	71.441	.602	.880
Post 13	109.70	71.741	.616	.880
Post 14	109.37	75.681	.336	.886
Post 15	109.37	75.597	.363	.886
Post 16	109.21	77.277	.329	.887
Post 17	110.51	70.503	.370	.891
Post 18	109.18	77.898	.251	.888
Post 19	110.45	72.668	.394	.886
Post 20	109.26	77.223	.285	.887
Post 21	109.25	76.772	.365	.886
Post 22	109.58	74.137	.483	.883
Post 23	109.75	73.911	.401	.885
Post 24	109.47	74.891	.415	.885
Post 25	109.22	76.257	.431	.885
Post 26	109.84	71.973	.483	.883

### Subscale Reliability

In addition to evaluating the reliability of the total instrument, subscales have been identified that correlate to five factors of professional nursing values. Table 6 presents the Cronbach's alpha for each of the subscales. Of the five subscales identified, two were found to have adequate reliability for both the pretest and posttest data. The subscales of activism and professionalism exceeded the standard Cronbach's alpha of 0.7 and were suitable for use in subscale analysis.

Table 6  
Cronbach's Alpha of the Five Factors of the NPVS-R

Factor	Cronbach's alpha	
	Pretest	Posttest
Caring	.726	.633
Activism	.774	.761
Trust	.622	.641
Professionalism	.841	.741
Justice	.741	.657

### Hypothesis Testing

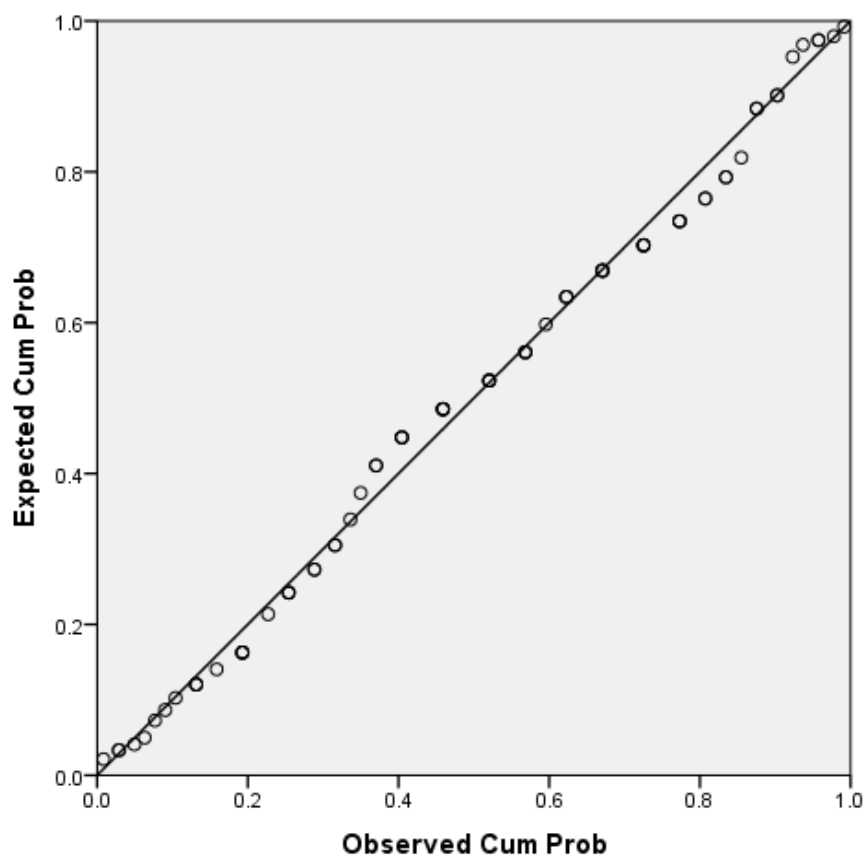
#### Assumptions

In comparing the means of two groups, a *t* test was the most appropriate statistical test to use as long as most of the assumptions were met. The assumptions for a *t* test was that the independent variable was dichotomous and independent and the dependent variable was normally distributed (Plichta & Kelvin, 2013). The stem and leaf plot in Table 7 presents the normal distribution of the dependent variable across groups. In addition to the stem and leaf plot, the linear distribution was also supported by the P-P plot shown in Figure 5.

Table 7  
Stem and Leaf Plot of the Pre-test/Post-test Difference of the NPVS-R

Frequency	Stem and leaf
4.00	-1.5668
4.00	-1.0124
9.00	-0.577778999
8.0	-0.12233444
15.00	0.011222333334444
15.00	0.555677788889999
8.00	1.00011223
4.00	1.6677
4.0	2.1344
1.0	2.5
1.0	Extremes $\geq 29$

Note. Stem width 10.00. Each leaf 1 case.



*Figure 5.* Normal P-P plot of the difference in pretest and posttest scores for all participants.

While the values for the variables represented an independent sample, the groups were not randomized, which can affect the results of a *t* test (Shadish, Cook, & Campbell, 2002). The use of a pretest can help to determine if there is a difference in the groups at baseline. An independent samples *t* test showed that pretest scores were not significantly different in the ISL group ( $M = 111.13$ ,  $SD = 11.691$ ) than in the non-ISL control group ( $M = 110.40$ ,  $SD = 10.863$ ),  $t(71) = .277$ ,  $p = .783$ . Levene's test indicated equal variance ( $F = .473$ ,  $p = .494$ ).



## Hypothesis Testing

The hypothesis of the study was the following: Nursing students who participate in ISL have a different level of development of professional nursing values than those who do not participate. Mean scores for both groups on the pretest and posttest were calculated and utilized for hypothesis testing (see Table 8). As previously described, there was no significant difference in the means of the two groups on the pretest. Subsequently a paired  $t$  test was performed in order to determine if a statistically significant difference in pretest and posttest scores was identified across all participants. The scores for the entire sample on the posttest were significantly higher ( $M = 114.08$ ,  $SD = 8.905$ ) than the pretest scores ( $M = 110.70$ ,  $SD = 11.136$ ),  $t(72) = -2.738$ ,  $p = .008$ . A low to moderate practical significance was supported by Cohen's effect size value ( $d = .32$ ).

Table 8  
*Mean Scores of the Pre and Post NPVS-R Scores*

	ISL		No-ISL		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
NPVS-R Pretest	111.13	11.691	110.40	10.863	110.70	11.136
NPVS-R Posttest	115.03	7.699	113.42	9.691	114.08	8.905

While there was a significant increase in the posttest scores compared with the pretest, in order to test the hypothesis, the posttest results for the two groups needed to be compared. The descriptives of the NPVS-R posttest are displayed in Table 9. The mean score for the experimental group was 115.03 ( $SD = 7.699$ ), and the mean score for the control group was 113.42 ( $SD = 9.691$ ).

Table 9  
*Comparison of the Mean Scores of the NPVS-R Posttest for the Two Groups*

ISL	<i>N</i>	Mean	<i>SD</i>	Median	Minimum	Maximum
Yes	30	115.03	7.699	116	103	127
No	43	113.42	9.691	113	94	103
Total	73	114.08	8.905	114	94	130

An independent *t* test to compare these means was performed, and the results are depicted in Table 10. The Levene's test ( $F = 2.398, p = .126$ ) showed that the two groups have equal variances, and thus a pooled sample *t* test was utilized. The findings of the independent *t* test showed that the mean difference in the scores between the experimental group and the control group were not statistically significant,  $t(71) = .760, p = .450$ . The null hypothesis was not rejected.

Table 10  
*Independent t-Test Results for the Post-NPVS-R Scores*

	ISL		No-ISL		<i>t</i> ( <i>df</i> )	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
NPVS-R	115.03	7.699	113.42	9.691	.760 (71)	.450

### Post-Hoc Analysis

Following the testing of the hypothesis, further post-hoc analysis was performed to determine if there were a difference in the means, considering different subgroups or characteristics of the subgroups. Two-way ANOVAS were performed to evaluate if there were a difference in the means, considering academic level and whether the students had previously traveled internationally. Gender and the ethnic group were not amenable to analysis due to the inequality of the groups. The majority of students were Caucasian females. Table 11 shows that there was no significant difference in the means considering any of the subgroups.

Table 11

*Two-way ANOVAS to Evaluate Effects of Subgroup Characteristics and ISL on Difference in Pretest/Posttest NPVS-R*

Source	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Academic level x ISL	17.879	17.879	.158	.692
Previous travel x ISL	21.235	21.235	.182	.671

Reason for travel and age had more than two levels and required analysis through one-way ANOVA. The subanalysis of these variables was used to evaluate the variable in relation to the NPVS-R posttest results. Table 12 and 13 present the results of the ANOVA for these two variables. Neither of the variables had statistically significant effect on the NPVS-R posttest scores.

Table 12

*One-Way ANOVA to Evaluate Effects of Travel Reason on NPVS-R Posttest Results*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	2	176.037	88.019	1.099	.341
Within-group	51	4086.111	80.120		
Total	53	4262.148			

Table 13

*One-Way ANOVA to Evaluate Effects of Age on NPVS-R Posttest Results*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	3	284.136	94.712	1.187	.321
Within-group	68	5425.364	79.785		
Total	71	5709.500			

Because both juniors and seniors were part of the sample, post-hoc analysis was performed to determine if there were a difference in the two levels with regard to professional nursing values across the entire sample irrespective of the independent variable. Independent *t* tests were performed on both pretest and posttest data. Pretest analysis identified that juniors ( $M = 114.32$ ,  $SD = 9.315$ ) had statistically significant higher pretest scores than seniors ( $M = 107.54$ ,  $SD = 9.460$ ),  $t(71) = 2.709$ ,  $p = 0.008$ . However, posttest differences between juniors ( $M = 115.97$ ,  $SD = 9.460$ ) and seniors ( $M$

= 112.44,  $SD = 8.159$ ) was not statistically significant,  $t(71) = 1.714$ ,  $p = 0.91$ .

Similarly, matched difference in pretest and posttest scores for juniors ( $M = 1.65$ ,  $SD = 9.406$ ) and seniors ( $M = 4.90$ ,  $SD = 11.374$ ) were not statistically significant,  $t(71) = -1.319$ ,  $p = .192$ ).

Because the ISL group was split between students traveling to Jamaica and those traveling to Guatemala, an independent  $t$  test was performed, comparing the two groups and their NPVS-R pretest and posttest scores (see Table 14). Pretest analysis showed that NPVS-R scores for students traveling to Guatemala ( $M = 114.58$ ,  $SD = 9.506$ ) were significantly higher than those traveling to Jamaica ( $M = 105.18$ ,  $SD = 13.121$ ),  $t(28) = 2.268$ ,  $p = .031$ . However, posttest scores were not significantly different between those traveling to Guatemala ( $M = 115.74$ ,  $SD = 7.078$ ) and Jamaica ( $M = 113.82$ ,  $SD = 8.897$ ),  $t(28) = .651$ ,  $p = .520$ ). Because the pretest scores were noted to be significantly different, a  $t$  test was performed on the matched differences between pretest and posttest scores in the two groups. The students who traveled to Jamaica ( $M = 8.64$ ,  $SD = 11.767$ ) had a larger increase compared with students traveling to Guatemala ( $M = 1.16$ ,  $SD = 9.760$ ), but the difference was not statistically significant  $t(28) = -1.876$ ,  $p = 0.71$ .

Table 14  
*NPVS-R Pretest and Posttest Scores in Students Traveling to Jamaica versus Guatemala*

	Jamaica		Guatemala	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
NPVS-R Pretest	105.18	13.121	114.58	9.506
NPVS-R Posttest	113.82	8.897	115.74	7.078
NPVS-R Difference	8.64	11.767	1.16	9.760

Because there was a significant difference on the pretest scores between the two countries, a two-way ANOVA was performed to determine if other factors had an effect on this difference. Table 15 presents the two-way ANOVAs for academic status and

previous travel. While academic level was not a factor in the differences in pretest results for the two countries, previous travel was a significant factor in the results.

Table 15

*Two-way ANOVAs to Evaluate Subgroup Effects of Group Characteristics and Country Traveled on NPVS-R Pretest Scores*

Source	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Academic level x country	657.830	328.915	2.687	.086
Previous travel x country	950.066	475.033	4.256	.025

Final post-hoc analysis showed whether there were a difference in the means of the two groups on the two subscales that were found to have strong reliability, activism, and professionalism. Independent *t*-test analysis (see Table 16) showed that the mean differences were small and not statistically significant for either subscale. In addition, paired sample *t* tests (see Table 17) were computed on the pretest and posttest scores for each subscale. While the differences were small, caring, trust and professionalism were statistically significant; however, Cronbach's alpha for the caring and trust scales were slightly less than the required level of .7 for reliability.

Table 16

*Differences Between Subscales of the NPVS-R Pretest and Posttests in ISL and Non-ISL Groups*

Subscales	ISL		Non-ISL		<i>t(df)</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Activism	.2000	2.88157	.6977	3.12086	-.692(71)	.492
Professionalism	.8833	2.81524	.7442	2.48896	.223(71)	.824

Table 17  
*Paired Samples t-Test for Subscales of the NPVS-R Pretest to Posttest*

	<i>M</i>	<i>SD</i>	<i>t (df)</i>	<i>p</i>
Caring	1.08219	3.85772	2.397 (72)	.019
Activism	.49315	3.01442	1.398 (72)	.166
Trust	.64384	2.40584	2.286 (72)	.025
Professionalism	.80137	2.60973	2.624 (72)	.011
Justice	.36301	1.78586	1.737 (72)	.087

### Chapter Summary

The focus of this research study was to evaluate whether students who participate in ISL have a different level of professional nursing values development than students who do not participate in ISL as part of their clinical experience. A comparison was made, utilizing students that participated in two ISL experiences in the same semester and students who did not participate during the same semester. Both junior and nursing students participated in both the experimental and the control group. The groups were somewhat diverse as far as ethnic background but consisted overwhelmingly of female students, all between the ages of 19 and 22.

The independent *t* test was utilized to compare the mean posttest scores for both groups because the means of the pretest scores were found to be comparable. The analysis using a *t* test indicated that there was no significant difference in the means of the experimental and the control groups, and the null hypothesis was retained. Further testing did not determine that there was any difference in the groups, considering the demographics of the group. However, some of the characteristics of the groups did have an effect on the pretest results, especially when comparing pretest results from the two countries visited. Analysis of the two subscales was found to be reliable but also did not show a significant difference in groups.

## Chapter 5

### Discussion and Summary

Professional nursing values are integral to the nursing profession and an important focus of nursing educational programs. Experiences that help students in the development of PNV are important to identify in order to enhance the development of this important facet of nursing throughout the students nursing education. International service learning has gained popularity as a nursing pedagogy in nursing schools across the country. The purpose of the dissertation study was to determine if ISL is a viable means for assisting students to develop PNV during their undergraduate nursing education. In addition, specific characteristics of the participants were evaluated in order to assess whether the characteristics were significant in the development of the PNVs.

Kolb's (1984) experiential learning theory was used as the theoretical framework for the dissertation study. The focus of this theory is on the experiences rather than the outcomes as an impetus to student learning (Kolb, 1984). The dissertation study utilized this theory as a basis to develop the independent variable (ISL experiences) and the control experience (standard clinical experiences). Both the ISL and the standard clinical experiences included the four stages that Kolb includes in the experiential learning process: concrete experiences, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). While the results of the dissertation study did not show a difference in the PNVs between the two experiences, a significant difference was found from the beginning to the end of the experiences when both groups were

combined, which supports that experiential learning in the form of clinical learning experiences can lead to the development of PNV in nursing students.

### **Summary of the Finding**

The aim of the dissertation study was to determine if there was a difference in PNV development between students that participated in ISL experiences as part of their clinical hours versus those with traditional clinical experiences. PNV development was measured through a pretest/posttest design using the NPVS-R to measure PNV. This scale was found to be reliable and valid in previous studies and also was determined to be reliable in this study population through acceptable Cronbach's alpha.

As noted previously, the differences in the pretest and posttest findings on the entire sample were significantly increased. While the effect size of the difference was small to moderate, there was support for the fact that students' clinical experiences do play a role in PNV development (Schank & Weis, 2001). While the groups were not randomly chosen, the group means on the pretest were not significantly different, which supported the equivalence of the two groups at baseline, in which there was a comparison of the two group means on the posttest and an evaluation of the difference in the two groups. While a comparison of the two groups showed that students participating in ISL had higher mean levels of PNV on the posttest than those who did not participate, the results were not statistically significant and, therefore, inconclusive. Similar to the findings above, subscale analysis of the two groups did not show any significant difference in the subscales that were shown to be reliable for this dissertation study.

While the findings related to the hypothesis were not conclusive, the study showed some important information on the development of PNV in general as well as the



influence of specific participant characteristics on the development of PNV. In general, PNV did increase from the pretest to the posttest, supporting the development of PNVs through experiential learning. In addition, the five subscales of caring, activism, trust, professionalism, and justice all increased from the beginning to the end of the experiences. These changes were statistically significant in caring, trust and professionalism. While only the subscale of professionalism was found to be statistically reliable in this study, the significant improvement in these areas can support the areas of growth that are evident through experiential learning.

One of the participant characteristics that was relevant to PNV development was student academic level. The dissertation study included both junior and senior nursing students, and while the student level did not influence the results of the difference in the two groups, there were some other interesting findings related to student level. Pretest analysis of the entire sample showed that juniors had a statistically significantly higher level of PNV at baseline compared with seniors. While the posttest findings in these two groups were not statistically significant, the mean posttest scores were also higher in the juniors compared with the seniors. The reason for these findings will be explored later in relation to previous literature.

The only other characteristics amenable to analysis between the two groups were previous travel, age, and reason for travel. Previous travel has been identified as a motivation for participation in voluntary ISL experiences (Burgess et al., 2014; Kent-Wilkinson et al., 2015). While there was no significant difference in the experimental and control groups considering previous travel, when a comparison was made between students who traveled to Guatemala versus Jamaica, previous travel was a significant

factor in the results of the pretest. This factor is discussed further below. The reason for previous travel and age did not have any effect on the development of PNV in the group as a whole.

Students traveled to either Guatemala or Jamaica, and analysis of the two groups showed that students who traveled to Guatemala had a significantly higher pretest score than those traveling to Jamaica. The posttest scores were not significantly higher although the actual mean was slightly higher in the Guatemala group. As the Guatemala group consisted of a mixture of juniors and seniors versus only seniors in the Jamaica group, the academic level may have had a significant a role in the findings. In addition, the effect of previous travel on the findings between the two groups may also be a factor when comparing the groups traveling to Jamaica versus Guatemala.

The findings from the dissertation study will be further analyzed considering previous literature as well as their implications for practice.

### **Integration of the Findings with Previous Literature**

PNV development is an important aspect of nursing education. Determining specific experiences that help students to develop PNV is important in planning the curriculum. The aim of the dissertation study was to determine if PNV development was different in students who participated in ISL experiences as part of their clinical education versus those who participated in traditional clinical experiences alone. While the ISL group had a higher level of professional value development, the results were not statistically significant. In previous literature, qualitative methods have been used to evaluate professional nursing values in the area of ISL. There are no previous studies that quantitatively evaluated PNV development in ISL in nursing students; therefore, the

results are not amenable to direct comparison with previous literature. However, several studies are related and can be evaluated in relation to the dissertation study.

### **International Service Learning and Professional Values**

The development of PNV in nursing students who participate in ISL experiences has not been quantitatively explored previous to this study. However, other health care disciplines have evaluated the relationship between values and ISL. The findings of Hayward and Charrette (2012) in the area of physical therapy actually were supported in the development of core values from ISL experiences, which was not supported by the dissertation study. However Hayward and Charrette (2012) did not include a control group, so changes following the ISL component may have been due to maturation, making their results similar to the dissertation results. In addition, Hayward and Charrette (2012) included an intensive pre-ISL academic portion that included increasing awareness of core values. Similarly, Wise and Yuen (2013) also identified the importance of combining an strong academic piece with the service learning when aiming to develop core values. While the ISL evaluated in the dissertation study included pre-ISL learning experiences, these pre-trip meetings were focused on logistics of the trip and orientation to the clinic experience. Core values were not included as a distinct focus in these meetings. Including more extensive pre-trip learning experience focusing on values may improve the PNV development in future ISL trips.

In another study that is relevant to the dissertation study, Fowler (2013) evaluated the effects of local service learning on PNV as measured by the NPVS-R. The results from this study are similar to the dissertation study results in that the service learning group did not have a significant increase in PNV compared with the control group; in

fact, scores on the NPVS-R were higher in the control group. However, Fowler (2013) did not include a pretest; therefore, it was difficult to determine if the levels of PNV were similar at baseline. The dissertation study did find that the pretest NPVS-R scores were not significantly different, which made the posttest scores more reliable in measuring the difference in the two groups after the experience.

### **Professional Nursing Value Subscales**

While there were studies that evaluated overall PNV development in ISL, they were not prevalent in the research, and there are studies that found that specific values were relevant in relation to nursing education.

Several researchers have found that service learning can affect social justice in nursing students (Barnes, 2016; Monard-Weissman, 2003). In the dissertation study, the subscale of justice did find a slight increase from the pretest to the posttest, but the change was not statistically significant. The subscale included only three questions from the entire NPVS-R; further evaluation with an instrument that can better measure this construct should be pursued in order to make a judgement.

Curtin et al. (2013) found that ISL helped students develop empathy. As empathy is an important facet of caring, the caring subscale results can further support this. While the difference in the caring subscale was not significant comparing the ISL and non-ISL groups, it was found to be statistically significant when evaluating the change from pretest to posttest in the entire group, which may support the development of caring behaviors related to experiential learning as a whole.

### **Professional Nursing Value Development in Students**

PNVs develop as students are exposed to experiences through nursing school (Iacobucci et al., 2013; Weis & Schank, 2000). These findings were supported by the dissertation study in that PNVs developed over the semester during which the study took place. All of the students took part in clinical experiences during the time between the pretest and the posttest and the increase in PNV development was statically significant. While the effect size was small to moderate, it still represents relatively strong practical significance as the time frame was less than one semester. With value development being a process occurring over years (Iacobucci et al., 2013), large changes in short periods of time are not expected. Rather, small incremental changes initiated by specific experiences are likely. In addition, baseline PNV levels were significantly higher in the junior students than the senior students as found by this dissertation study. These findings were contrary to previous findings by Leners et al. (2006) and Lin et al. (2010) who found higher levels of PNV as student progressed through nursing programs. Conversely, Fisher (2014) found that there was no difference in PNV simply due to academic level, and the researcher postulated that active engagement was an important factor in PNV development. This assertion is supported by findings from the dissertation study, which found a significant change between pretests and posttests during a time in which active engagement occurred. Simply the fact that students were seniors did not support a higher level of PNV at baseline. Evaluation of previous experiences of both groups would need to be explored to determine the reason behind the difference on the pre-test. It is also important to note that although the juniors started with a higher mean

PNV level than the seniors, there was no statistically significant difference in the posttest scores.

Other factors are relevant when discussing PNV development in students. One such factor is cultural background and social norms. Rassin (2008) found that values are related to different cultural backgrounds, but it was not supported through the dissertation study as the participants were not vary diverse and consisted mostly of White females. Age and reason for travel were not found to be a factor in the outcomes, and previous researches did not evaluate the relevance of these variables for comparison.

Researchers who evaluated the development of specific values in nursing students are also relevant to the dissertation study results. Similar to the findings of Thorpe and Loo (2003) who identified that nursing students valued professionalism and altruism the most, there was a statistically significant increase in the subscale that measures professionalism in all participants in the dissertation study. Because leadership is related to professionalism, the findings by Foli et al. (2013) that supported the relationship between leadership behaviors and service learning are also similar to the findings of the dissertation study. Lin et al. (2010) also found an increase in activism and professionalism as students progressed through school. In the dissertation study, activism was not found to have significantly improved in the sample as a whole. As the activism subscale was found to be reliable, these results were relatively robust. The findings may be explained by Cermak et al. (2011) who actually found service and activism to be at odds with each other.

### **Curricular Strategies for Value Development**

Determining if ISL is an effective means to encourage development of PNV is important in determining curricula in nursing schools. Vezeau (2006) identified that value development requires structured teaching methods. The ISL experiences to both countries were structured in the same way by means of similar pre-trip and post-trip experiences and objectives for the trip. The fact that the study did not find a significant difference in PNV development between the two experiences was helpful in supporting the equality of the experiences. However, something may have been lacking in the organization of both trips that led to the results of the study being inconclusive. As noted earlier, a more rigorous pre-trip experience may be necessary in order to ensure students have a good foundation, including core value education prior to participating in the ISL experience. This idea also goes along with the findings of Shaw and Degazon (2008) who identified the importance of integrating core values in a step-wise fashion into nursing curriculum.

### **International Service Learning**

ISL was the independent variable in the study and consisted of two trips: one to Jamaica and one to Guatemala. As noted previously, there was no significant difference in PNV development when the two experiences were compared. Haloburdo and Thompson (1998) identified that the country visited was not as important as the experience itself as long as the country was a third world country; therefore, the use of two different countries should have had a significant effect on the outcomes. The distinction in regard to conditions was also described by Wros and Archer (2010) who compared ISL to local service learning. Items like lack of resources and running water

and living conditions were difficult to replicate in local service learning and thus had an effect on meeting the objectives of the experience. The objectives and structure of both experiences were the same and were verified to assure fidelity of the independent variable. Deeley (2010) identified the importance of the experience being closely tied to the course work and objectives.

Immersion is also an important aspect of ISL. Immersion is noted above in the importance of immersing in the third world experience in order to meet the objectives of the experience (Wros & Archer, 2010). However, the length of the immersion may play a role in the effectiveness of the experience in meeting outcomes (Tomlinson-Clarke & Clarke, 2010). While both experiences lasted one week, it may not have been enough time to see the effects. Several researchers who provided positive results consisted of 2 to 3 week immersion experiences (Allen et al., 2013; Larsen & Reif, 2011). However, in order to verify the difference in outcomes from trips of different lengths, a study would be needed to compare trips of varying lengths. There were no studies in the literature that compared trips of varying lengths. In addition, according to Harrowing et al. (2012), participants are not immediately transformed through short-term international immersion. The lack of immersion not only speaks to the importance of longer or repeated immersions to find outcomes but also the possible use of longitudinal testing to evaluate the effects over time.

Another factor that may have affected the outcome was related to the demographics of the students that participated. As in most ISL experiences, in this study, self-selection of the experimental group was a function of the independent variable. Researchers have found that a major determinant of participation in ISL is the students'



value in the experience. Hidle (2011) and Koch et al. (2014) both found that values were correlated with motivation. This value is often related to previous travel abroad experiences (Burgess et al., 2014; Kent-Wilkinson et al., 2015). Previous travel was measured in the participants, and while it was not a factor in the development of PNV, it was a statistically significant factor when comparing the students who traveled to Guatemala versus Jamaica. This finding may account for the significant difference in scores on the pretest when comparing both groups. Because there was no significant difference in the pretest scores for students who had previously traveled when looking at the entire population of the study, the relationship found solely within the ISL group may be supportive in that it is a factor in students who do decide to participate in the ISL experiences.

### **Implications of the Findings**

It was an aim of the dissertation study to determine if ISL experiences were instrumental in providing opportunities for PNV development in undergraduate nursing students as opposed to traditional clinical experiences. The findings from this study have implications for nursing education, nursing practice, nursing research, and public policy.

#### **Nursing Education**

As the purpose of this dissertation study was to evaluate the outcomes of a pedagogy, nursing education may gain the most from the findings. PNV is an important outcome for nursing education. This dissertation study was supportive in the fact that experiential learning in general can be instrumental in the development of PNV as evidenced by the significant change in PNV of the entire sample from pretest to posttest. Both groups participated in experiential learning experiences whether it be through

completely traditional clinical experiences or a combination of traditional clinical experiences and ISL. Maintaining ethical practice is imperative in nursing education. Weis and Schank (2009) identified that professional nursing value development is paramount to maintaining such practice. These findings were supportive of continuous development throughout experiences in nursing school.

While the dissertation study did not show a significant difference between ISL and standard clinical experiences, it did not show inferiority, and therefore, it can be assumed that ISL is as effective as traditional experiences in the development of professional nursing values. ISL was also supported because the change in the pretest to posttest in the entire population of the study was statistically significant. Support by administration is an important aspect in continuing to provide ISL experiences (Kaddoura et al., 2014), and the ability to support non-inferiority of the experiences to standard clinical is important to gaining this support. Non-inferiority can mean that ISL can be used in place of local clinical sites, which are becoming increasingly difficult to secure.

Haloburdo and Thompson (1998) found that the country visited was not as important as the experience itself in regard to outcomes. This dissertation study was supportive in this fact as the difference in the pretest and posttest scores in the two countries visited were not significantly different. However, the findings that the pretest scores were significantly different in the Guatemala group compared with the Jamaica group means another factor affected the PNV scores of the two groups. When previous travel was combined with the country visited, there was a statistically significant relationship meaning that previous travel may have an impact on PNV and whether students choose to participate in ISL experiences. Applying this information when

recruiting students to participate may be instrumental in determining students who are likely to value the experience and thus gain from it.

When evaluating the difference in pretest and posttest scores in the subscales, gaps in the particular area of values can be identified and thus targeted in other ways. The areas of activism and justice were not significantly changed from pretest to posttest in the group at large. Similarly, Barnes (2016) did not find a measurable effect of service learning on social justice. This finding may mean that service learning may not be the best way of developing this facet of professional values. Finding other experiences for development of these areas can be helpful in increasing overall PNV development in students.

### **Nursing Practice**

PNV are the basis of ethical practice (Weis & Schank, 2009). Values can also affect patient care quality (Leners et al., 2006). Patients and families deserve a nurse who practices ethically and with strong professional values (Iacobucci et al., 2013). Because professional nursing values have been linked to competency in nursing (Kangasniemi et al., 2015; Memarian et al., 2007; Vanaki & Memarian, 2009), the finding in this study that PNVs improve in nursing students regardless of clinical experience can provide some support for the development of competency as well. Support for competency comes from Puri et al. (2013) who found that ISL can be instrumental in bridging the gap between theory practice thereby providing more competent care.

Brown (2013) identified the challenges that nurses face in developing relationships with their patients, and while the dissertation study did not explore this concept, some of the findings may be relevant. The caring subscale had the largest

increase from pretest to posttest in the aggregated study population and was found to be a statistically significant increase. The more students have the opportunity to interact with patients through clinical experiences, whether international or local, the more they value caring. Caring can have a profound effect on patient relationships and nursing practice.

### **Nursing Research**

The findings of this study have added to the body of research that has been identified as a priority by the National League for Nursing. Current NLN research priorities include educational methods that support care to the diverse patient populations (NLN, 2012). While there was no statistically significant difference between the experimental and the control groups, the ISL group did have a higher score on the posttest. The dissertation study met the criteria for the NLN research priorities, and while not statistically significant, may be a basis for further studies in this area on a larger scale. In addition, these findings can add support for grant funding in order to pursue larger scale studies in which the sample size may be more conducive to statistically significant results.

Also relevant to nursing research is the short-term versus long-term effects. Harrowing et al. (2012) identified that international experiences do not provide immediate transformation in students. As the change in the dissertation study was evaluated only over only a few months, it may not have been long enough to appreciate a transformation in student values. As part of experiential learning, students need to have time to apply their learning through their experiences (Kolb, 1984), and it is possible that it was not achieved in that short period of time. This finding can also explain the small-to-moderate effect size seen in the pretest/posttest difference. The short time frame may

not have afforded the students time to fully apply their learning. Hayward et al. (2015) found that core value development persisted into practice for physical therapy students. Further research on the long-term effects of ISL on student PNV development may provide information on whether PNVs are developed beyond the immediate time frame that was assessed in this study.

Finally, the results can be instrumental in helping to identify how to develop ISL experiences that provide the opportunity for PNV development. It is possible that the lack of a significant difference in PNV between the ISL and the traditional group was due to the implementation of the independent variable. Petersen, Harrison, and Wohlers, (2015) were clear in supporting the importance of the curricular content when developing ISL experiences. In addition, Wise and Yuen's (2013) identified that core values were increased when the ISL was combined with a strong academic portion, which may be something that can be implemented and then evaluated to determine if it could add significance to the findings.

### **Public Policy**

With ISL, students have the opportunity to provide sustainable care to needy international communities (Kollar & Ailinger, 2002). Students who had previous travel experiences value ISL and, therefore, are more likely to participate (Kent-Wilkinson et al., 2015). The fact that previous travel was a factor in the difference in the pretest results that differed between the two countries can be supportive of the value that students already exhibited prior to beginning the experience. According to Monard-Weissman (2003), when planning for social action, it is a requirement that the students first value the experience. This value may later translate to support for public policy

change, but at this point, change in the activism subscale did not differ between the ISL and the non-ISL group and was not a significant change from the pretest to the posttest in the sample as a whole.

Also related to public policy is the importance of students understanding the scope of nursing practice within the host country. While outcomes related to this area were not evaluated, the investigator took part in pre-trip and post-trip meetings for both trips, and it was an area that was clearly covered by both experiences. While activism did not differ between groups, understanding the importance of legal issues is an important first step in affecting change in public policy, which can be an area for further research.

### **Limitations**

It is important that the investigator be aware of the limitations of the research study in order to correctly evaluate and interpret the findings. The limitations of the dissertation study could affect the application of the findings to the clinical/academic setting (Polit & Beck, 2012). Limitations include the sample size as well as threats to both internal and external validity. All of these are discussed below.

### **Sample Size**

While the entire sample size was within the total sample size desired based on previous effect size, the sample size may not have been large enough to reach statistical significance. Sample size was a limitation in that there were limited spaces for students to attend the experiences, and a convenience sample does not allow additional students to be recruited. Extending the study another year would have added more students, but may have affected the outcomes because the experiences likely would have been different as they would have been a year apart. The results did show that the ISL group had higher

posttest mean scores than the non-ISL group but did not have enough power to detect statistical significance. A larger sample size may have had an effect on the outcomes of the dissertation study and should be considered if possible if this study were to be replicated in the future.

### **Threats to Internal Validity**

Internal validity denotes the fact that the findings actually represent the effects of the independent variable and not the other extraneous variables. A strong research design is the best way to avoid this threat (Polit & Beck, 2012). While the use of a control group mitigated the threats to internal validity, the nonrandom assignment of groups had a strong effect on the internal validity of the findings.

**Selection bias.** An important threat to internal validity in the dissertation study was selection bias. Because students self-selected for the experience of ISL, the differences in the findings may have been a product of differences in the group characteristics instead of as result of the independent variable (Polit & Beck, 2012). Differences in the characteristics of the groups were collected as part of the demographic survey in order to further investigate the relevance of this threat. Kent-Wilkinson et al. (2015) found that students who chose to participate in ISL have higher baseline values. This threat was addressed through the use of a pretest to identify if there were a change in PNV from before the experience to after the experience. Pretest PNV scores were not found to be significantly different between the groups. Even though students who participated may have had higher level of professional values at baseline, utilizing the difference in values diminished the importance of the baseline level in both groups. The

dissertation study was aimed at determining the change in PNV versus the actual level achieved.

**Maturation effect.** The threat of a maturation effect is related to whether passage of time has an effect on the outcome that cannot be attributed to the independent variable (Polit & Beck, 2012). In order to reduce this effect, the posttest was administered at the end of the semester for both groups in order to equalize the maturation effect. Students who participated in ISL received clinical hours in place of a number of the regular clinical hours, which were spread out through the semester. The equality of clinical hours did not occur until the end of the semester at which time the two groups were compared. The fact that the sample as a whole did have a significant increase in PNV from the pretest to the posttest demonstrated the maturation effect that took place in the study.

**Testing effects.** According to Polit and Beck (2012), another threat to the internal validity is the testing effect due to the use of the same instrument as a pretest and posttest. The use of the same instrument can sensitize the students to questions being asked and affect the responses on the posttest; therefore, use of a control group was used to mitigate the threat to the outcomes. In addition, the time between the pretest and posttest was somewhat prolonged at approximately 3 months, which may have had an effect on the recall of the test questions.

**History.** According to Polit and Beck (2012), the history threat can occur when other concurrent events during the time of the experiment have an effect on the results. During the dissertation study, all students took part in clinical experiences with the experimental group taking part in ISL as part of these hours. While the study was



designed so that both groups had similar numbers of clinical hours, the threat cannot be totally eliminated due to varying clinical experiences among participants. As is the nature of nursing clinical experiences, each student's clinical experience is different based on the site, the patients, and the exposure to occurrences. It is possible that any one of these experiences could have had an effect on students in either group that was not measurable in the results.

### **Threats to External Validity**

External validity relates to the extent to which the findings can be applied to various populations in practice (Polit & Beck, 2012). One of the threats to external validity in the dissertation study resulted from the use of one site and, therefore, a specific population of students. In addition, the different countries utilized provide a clearly unique cultural experiences for the students. Because ISL may be implemented differently in other institution, including the use of different countries, the findings are not applicable to all ISL programs. In fact, the findings may have been related to the application of ISL within the program instead of the implementation of the program itself. A different design may show to be more successful in the development of PNV. A clear description of the ISL program utilized in the study was necessary in order for the reader to be able to determine whether the findings are applicable to his/her specific program. The use of a narrow population involving baccalaureate undergraduate nursing participants also limited the applicability to similar populations. Another threat to external validity was the participation in one of the ISL trips by the investigator. Because role modeling has been found to have a positive effect on PNV development in previous

studies (Eddy et al., 1994), participation by the investigator may have affected the experience of the students for that trip.

According to Polit and Beck (2012), researchers must often choose whether to sacrifice internal or external validity. The goal of the investigator was to strike a balance between internal and external validity without sacrificing a significant amount of either component.

### **Recommendations for Future Research**

This dissertation study was the first to evaluate the difference in PNV in students who participated in ISL as part of their clinical experiences and those who did not. While the study did show a higher level of PNV in students who participate in ISL, the results were not statistically significant. Further research in this area should aim for significant results by augmenting the design of the study. Much can be learned from the dissertation study about how to design subsequent studies to obtain significant results.

Increasing the sample size would be an important aspect of finding significance. Because the sample was limited by the size of the program in the dissertation study, utilizing an ISL program or a consortium with larger participants may be helpful in obtaining significant results. However, if multiple schools were used, it would be important to ensure that the programs were similar and that both the experimental and control group had similar experiences. Maintaining the fidelity of the independent variable is crucial to the application of the results.

In a large scale trial, ideally all of the participants would be at the same level in the program. Having a sample size large enough that includes students all at the same level would make the experiences more congruent between the two groups. In addition,

having similar concurrent clinical experiences at least in relation to their clinical site would be ideal although not always feasible. In the location where the research took place, it was necessary to use a variety of institutions and sites for the same clinical rotation. Thus, it was difficult to completely control for the experiences that may affect the results.

Another facet in the design that may be changed to obtain significant results is the utilization of the Likert scale instrument. In reviewing the results on the pretest, many students rated themselves high on the scale at the outset. This rating left little room for improvement on the posttest. The fact that students at a lower level (juniors) also had higher pretest scores may have meant that they did not understand the depth of the questions and may have had little experience thus far to base it on. A possible recommendation would be to have a short review of the meaning of the questions and the definition of PNV for all students participating in both the experimental and control groups prior to completing the pretest. This recommendation may help students to provide a more realistic assessment of their actual level of values at both the pretest and the posttest point in the experiment. In addition to a different introduction to the instrument, it is possible that including a qualitative aspect with specific questions about experiences may also add to the results. Utilizing a mixed methods approach may also help to diminish the effects of a history threat through identifying outside variables that would have an effect on the results.

As discussed, it is important that the clinical experiences are similar as a whole, and it is equally important that the ISL experiences are congruent as well. In this study, there were two different experiences that students took part in. Fidelity of the

independent variable was assured to the best extent possible using the resources available. In addition, there were no significant differences between the two groups. However, because the experiences took place in two distinctly different countries, the cultural differences may have played a role in the outcomes, especially because the constructs that were sensitive to differences in culture and cultural experiences were clearly evaluated by the tool. In utilizing more than one ISL experience, it would be helpful if both ISL experiences were observed first hand to ensure similar experiences, the fidelity of the independent variable, and the effect that cultural experiences may have had on the experience. In future studies with large enough sample sizes, the aim should be to use one ISL experience in order to better align the experiences of the students.

The results of the study may open the door for further refinement of studies that evaluate these two variables. Subtle changes in the design may be able to determine if the results from this study do support an increase in value development in students who participate in ISL or if there truly is no change in PNV utilizing this pedagogy.

### **Chapter Summary**

The aim of the dissertation study was to determine whether ISL is a viable option for PNV development in undergraduate nursing students. While the hypothesis was not supported with statistical significance, there was an increase in PNV levels in the ISL group as compared with the control group. Further research with a larger sample may provide a better understanding of whether this finding actually represented that ISL does improved PNV or whether there really is no significant difference.

While the null hypothesis was not rejected, other important findings did come from the study in regard to non-inferiority of the ISL in providing opportunities for PNV

in nursing students and the fact that experiential learning in general does increase PNV in undergraduate students. Through evaluation of pretest data, it also provided information about the characteristics of students who participate in ISL as well as how experiences and characteristics may affect students PNV levels.

While there were several limitations to the dissertation study, efforts were made to minimize the threats to internal and external validity. The findings should be considered in the context of the setting and the sample and may not be universally applicable to all ISL experiences.

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## Appendix A

### Institutional Review Boards' Approvals



NOVA SOUTHEASTERN UNIVERSITY  
Institutional Review Board

#### MEMORANDUM

**To:** Heather Ferrillo-Diulio  
College of Nursing

**From:** Jo Ann Kleier, Ph.D., Ed.D.,  
Center Representative, Institutional Review Board

**Date:** July 12, 2016

**Re:** IRB #: 2016-284; Title, "Professional Nursing Value Development In Nursing Students Who Participate In International Service Learning"

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review under **45 CFR 46.101(b) (Exempt Category 1)**. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

- 1) **CONSENT:** If recruitment procedures include consent forms, they must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.
- 2) **ADVERSE EVENTS/UNANTICIPATED PROBLEMS:** The principal investigator is required to notify the IRB chair and me (954-262-5369 and Jo Ann Kleier, Ph.D., Ed.D., respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.
- 3) **AMENDMENTS:** Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

**Cc:** Lynne Bryant, EdD

Dear Ms. Ferrillo,  
Thank you for your submission to the IRB and thank you for the additional materials from Nova Southeastern University. Based on the documents you have submitted and in accord with the decision of the IRB reviewers, the IRB is pleased to approve your application and we wish you great success in your research and in the completion of your doctoral studies.

All the best,  
June-Ann Greeley, PhD  
Chair, IRB

*June-Ann Greeley, PhD*  
Associate Professor  
Department of Theology and Religious Studies  
HC 132  
Sacred Heart University  
5151 Park Avenue  
Fairfield, CT 06825

203-371-7713 (office) // 203-371-7730 (department)  
[greeleyj@sacredheart.edu](mailto:greeleyj@sacredheart.edu)

*Wonder rather than doubt is the root of all knowledge.*  
- Abraham Joshua Heschel



## Appendix B

## Letter of Approval from Dean

Sacred Heart  
UNIVERSITY

College of Nursing  
Office of the Dean

August 22, 2016


  
Heather Ferrillo, MSN, APRN, FNP-BC, PhD(c)  
22 Oakcrest Road  
Oxford, CT 06478

Dear Ms. Ferrillo,

I have reviewed your research proposal. It is with pleasure that I concur with the decision of the Sacred Heart University and Nova Southeastern University IRBs to approve your proposal and support your data collection with students in the College of Nursing.

If I can be of assistance during the process, please let me know.

Sincerely,

  
Mary Alice Donius, EdD, RN  
Dean

## Appendix C

## Demographic Form

1. Are you participating in a Nursing International Service Learning trip this semester?	Yes	No
2. If Yes to question 1, Which one?	Guatemala Jamaica	
3. Have you participated in this study in a previous semester?	Yes	No
4. Have you participated in a nursing international service learning trip in the past?	Yes	No
5. If Yes to question 4, which Semester did you participate?	Fall Jr Jr	Spring Fall Senior
6. Have you traveled out of the United States previously?	Yes	No
7. If Yes to question 6, what was the reason for your travel?	Vacation	Service Work
8. If Yes to question 6, where did you travel?		
9. Which year of nursing are you currently in?	Junior	Senior
10. What is your gender?	Male	Female
11. What is your age?		
12. What is your ethnic background?		

## Appendix D

## Letter of Permission to use NPVS-R

7/17/2014

Dear Mrs. Ferrillo,

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

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

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

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

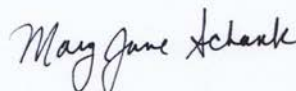
Weis, D., & Schank, M.J. (2009). Development and Psychometric Evaluation of the Nurses Professional Values Scale—Revised. *Journal of Nursing Measurement*, 17(3), 221-231.

Best wishes for success with your research.

Sincerely,



Darlene Weis, PhD, RN  
Associate Professor  
414-288-3819  
414-288-1597 (fax)  
darlene.weis@marquette.edu



Mary Jane Schank, PhD, RN  
Professor Emeritus  
414-288-3858  
414-288-1597 (fax)  
maryjane.schank@marquette.edu

DW/MJS:bj

Enclosures (3)