Assessment Technologies Institute Test Results and Blended Experiences for Senior Community Health Nursing Students

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Assessment Technologies Institute Test Results and Blended Experiences for Senior Community Health Nursing Students

by

Linda LaComb-Williams

An Applied Dissertation Submitted to the Abraham S. Fischler College of Education in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

Nova Southeastern University
2019
Approval Page

This applied dissertation was submitted by Linda LaComb-Williams under the direction of the persons listed below. It was submitted to the Abraham S. Fischler College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

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Statement of Original Work

I declare the following:

I have read the Code of Student Conduct and Academic Responsibility as described in the Student Handbook of Nova Southeastern University. This applied dissertation represents my original work, except where I have acknowledged the ideas, words, or material of other authors.

Where another author’s ideas have been presented in this applied dissertation, I have acknowledged the author’s ideas by citing them in the required style.

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Linda LaComb-Williams
Name

May 14, 2019
Date
Abstract

Assessment Technologies Institute Test Results and Blended Experiences for Senior Community Health Nursing Students. Linda LaComb-Williams, 2019: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education. Keywords: senior nursing students, assessment technologies institute tests, community health nursing, out-of-country nursing experience, and in-country nursing experience

The purpose of the study was to examine the relationship between senior community health nursing students’ ATI test scores and their clinical community health nursing experiences, either in-country or out-of-country. The ATI test results are a reliable predictor of whether the student will pass their nursing board exams (NCLEX-RN). The study also examined whether the two groups of students reported any similarities and differences in their sense of confidence or transcultural self-efficacy and conceptual knowledge and their clinical experiences.

ATI test scores were reviewed for the two groups. Focus groups were held to discuss any similarities or differences in the students’ community health nursing experiences. Cultural competency was evaluated using Jeffreys’ (2016) Transcultural Self- Efficacy Tool.
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Chapter 1: Introduction

Bachelor of Science Nursing Students (BSN) at an urban university in southern Florida receive their training in community health nursing in the last year of their undergraduate nursing training. BSN Senior Nursing Students typically learn the importance of relating to community as a health care professional (LaComb-Williams, 2015). Hunt (2013) pointed out that nursing care benefits from nurses’ knowing more about the community that helps them provide holistic and quality care. The nurse’s ability to deliver culturally competent care may be compromised due to the nurse’s lack of value for the community clinical experience (Luthy, Beckstrand, & Callister, 2013). Luthy et al. reported that their students sometimes indicated that the acute care clinical experiences were valued more than the community clinical experiences. According to Luthy et al., the lack of value for the community clinical experiences by some students may indeed interfere with their ability to deliver culturally competent care.

Cultural competence has been defined as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enable the system, agency, or professionals to work effectively in cross-cultural situations” (American Nurses Association, 2013, p. 66). The art of public health nursing and practice includes evidenced-based practice that focuses on health promotion for populations and prevention of premature death, injury, and disease (American Nurses Association). Cultural competency is one of eight competencies and domains that public health nurses need to understand (QUAD Council of Public Health Nursing Organizations, 2011; American Nurses Association, 2013).

Jeffreys (2010) has defined cultural competence as “a multidimensional learning
process that integrates transcultural skills in all three dimensions (cognitive, practical, and affective), involves transcultural self-efficacy (confidence) as a major influencing factor, and aims to achieve culturally congruent care” (p. 46). Jeffreys further defined transcultural self-efficacy as “the perceived confidence for performing or learning general transcultural nursing skills among culturally different clients” (p. 46). Jeffreys also utilized Bandura’s (1986) definition of the construct of self-efficacy as “the individuals’ perceived confidence for learning or performing specific tasks or skills necessary to achieve a particular goal” (p. 24). Ansuya (2012) wrote that cultural competence in nursing care is “obtaining cultural information and then applying that knowledge” (p. 5). A nurse needs to be culturally competent in providing care but needs to also understand his/her particular world views, including those of the patients and the need to avoid stereotyping or misuse of scientific knowledge (Ansuya).

Nursing school faculty do need to be able to predict with confidence that students will be able to complete the nursing program and then pass the NCLEX-RN (Registered Nurse) exam upon graduation (Herrera & Blair, 2015). By successfully passing the Assessment Technologies Institute (ATI) tests, students see their progress in subject matter and see positive reinforcement (Newman & Williams, 2003). The ATI tests can provide the students with feedback on their mastery of the topic content and for any areas of improvement (Newman & Williams).

The Community Health Nursing Laboratory course at the researcher’s university is a fundamental nursing course that is designed to help the students utilize their knowledge of community health nursing. The course includes four hours of clinical hours per week and a class seminar. The seminar meets for two hours every other week. For the
students who have completed a travel section of the course, 40 to 80 clinical hours are credited for educational experiences abroad. Also, the students are required to complete any additional hours that are needed at the local level and complete the course seminar (Department of Nursing, 2015a).

Course objectives include that the student will have the knowledge and skills to complete several tasks related to community health nursing, including discussing the relevance of community health assessments in identifying vulnerable populations, community resources, environmental hazards, and community needs (LaComb-Williams, 2016). Additionally, the students need to learn how to interact with patients and families as a health unit and assess the health status of both an individual family and a community (LaComb-Williams).

Assessment Technologies Institute (ATI) Testing is a requirement of the institution, Department of Nursing, as part of the NCLEX-RN (National Council Licensure Examination for Registered Nurses) Predictor Exam for nursing students who are applying to become Registered Nurses (Department of Nursing, 2015a). The National Council Licensure Examination for Registered Nurses (NCLEX-RN) is a requirement for practicing professional nursing in the United States. Also, the student is to be a graduate from a nursing education program at an accredited school of nursing (McCarthy, Harris, & Tracz, 2014). An NCLEX review must be taken by all students before they can take the ATI Comprehensive Exam, which occurs during the last semester of the nursing student’s senior year (Department of Nursing, 2015a). If the student does not reach the benchmark on the ATI Comprehensive Predictor test, then the student will be required to take another study course. Moreover, the student will be compelled to retake the test
before the student can graduate (Department of Nursing, 2015a). The nursing students in their last semester of their senior year are not only completing all their required hours for community health, but also all their other study requirements, and studying for the ATI Comprehensive Exam.

The National Council of State Boards of Nursing (NCSBN) develops licensure exams (the National Council Licensure Examination for Registered Nurses exams—NCLEX-RN) to be administered to candidates for licensure, (NCSBN, 2015b). Board members are from states, commonwealths, and territorial boards of nursing (NCSBN, 2015b). The exam is required to help ensure public protection, and it measures the applicant’s competencies in performing safely and effectively (NCSBN, 2015b). The NCLEX-RN examination results are used by “member board jurisdictions to assist in making licensure decisions” (NCSBN, 2015b, p. 1).

**Background and Justification**

Community health nursing occurs in a wide variety of surroundings and has many different roles (Hunt, 2013). Community health nurses practice in many levels of health care, including schools, day surgery centers, corporations, churches, ambulatory care centers, and even long-term care facilities (Hunt). Because patient care is moving from acute care facilities to community surroundings, a change in community health nursing is also occurring (American Nurses Association, 2013). All students can benefit from understanding many aspects of global health, particularly when dealing with new Americans, immigrants, refugees, and people from out of the country (Hunt).

The researcher’s university had 7,752 students enrolled for Fall 2014. Approximately 50% of the students were from Florida, with a cost of $35,954 for tuition
and room and board annually (About UT/University Profile, 2014). The nursing school is accredited by the Accreditation Commission for Education in Nursing and serves basic BSN students and Master of Science in Nursing students. Community health activities are also part of the culture of the university (Department of Nursing, 2015b).

Historically, the nursing students the researcher has trained are Caucasian females, early 20s in age, English-speaking, with backgrounds in urban areas of the eastern part of the United States. Several students each semester in 2014 and 2015 have already completed a majority of their clinical hours in community health in a previous semester by participating in a study abroad. Nonetheless, these students are required to attend the lab discussion class and participate in some community health activities. The students have a wide variety of responsibilities for their hospital clinical hours during the same semester and voice concern that they do not have enough time to get all their hours completed. The students’ evaluations have indicated a lack of interest in community nursing and lack of motivation for community health nursing (University of Tampa, 2014a, 2014b, 2015a).

The researcher’s university does require that prospective nursing students take the Test of Essential Academic Skills (TEAS) test and submit the test results to the university as part of the admissions process (The University of Tampa Department of Nursing, 2016). Prospective students are to take all four sections, which are reading, mathematics, science, and English (The University of Tampa Department of Nursing, 2016). All scores are considered; however, scores “greater than 80% in reading; 72% in math; 62% in science; and 70% in English” (p. 10) are considered as more competitive in the admissions process.
Assessment technologies institute. In the spring, the nursing students study for the ATI comprehensive predictor exam, along with carrying out all their other required activities and clinical/laboratory hours. In the spring semester, the students typically have 220 hours of hospital experience to complete as well as up to 80 hours of community health laboratory experience (University of Tampa, 2015b). The students are required to have also completed an NCLEX review prior to taking the ATI exam (Department of Nursing, 2015b). The results of the exams are often seen as a predictor of the students’ passing the NCLEX licensure exam. The students must pass the exams before graduating. In both the fall and spring semesters, the senior community health nursing students take an ATI Mastery Exam at the end of the semester and must score at least 74% benchmark for a passing grade (R. White, January 11, 2019). Beeman and Waterhouse (2001) stated that there is great value in predicting NCLEX-RN success, as “Accurate predictions of NCLEX-RN success become valuable because they can heighten faculty and student awareness, reduce anxiety, and foster productive study behaviors” (p. 158).

The results of the Florida licensure exams first time pass rates for the university’s Bachelor of Science in Nursing Program graduates who have taken the National Council of State Boards of Nursing’s NCLEX-RN examination in 2011, 2012, 2013, 2014, 2015, 2016, and 2017 have been well above the average for the BSN programs in Florida (Table 1). In fact, out of the 136 RN programs in Florida, the University of Tampa’s Nursing Program was named the top nursing program in the state (“Florida RN Programs,” 2017). A recent publication from the University of Tampa pointed out that for at least three years in a row, all nursing graduates passed the NCLEX-RN test on the first try (The University of Tampa, 2017).
Table 1

**Number and Rate of Students Passing the NCLEX-RN Exam for University of Tampa Nursing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Exam Takers</th>
<th>Number Passed</th>
<th>Percentage Passed</th>
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<tbody>
<tr>
<td>2011</td>
<td>39</td>
<td>38</td>
<td>97</td>
</tr>
<tr>
<td>2012</td>
<td>37</td>
<td>36</td>
<td>97</td>
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<td>2013</td>
<td>40</td>
<td>39</td>
<td>98</td>
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<tr>
<td>2014</td>
<td>43</td>
<td>43</td>
<td>100</td>
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<tr>
<td>2015</td>
<td>46</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>2016</td>
<td>48</td>
<td>48</td>
<td>100</td>
</tr>
<tr>
<td>2017</td>
<td>50</td>
<td>48</td>
<td>96</td>
</tr>
</tbody>
</table>

*Note. Information from (OPPAGA, 2014, 2015, March 2017, June 2017, Florida Center for Nursing, 2018).*

**Statement of the Problem**

For graduation, one expectation that senior nursing students need to meet is to take and successfully pass the Assessment Technologies Institute (ATI) testing. A second expectation is that senior nursing students in the program are to take community health nursing in their senior year. Cultural competency of graduates is needed to help meet the health care needs of the increasing number of people in a culturally diverse population (Jeffreys, 2010; Luthy et al., 2013). Culturally diverse communities and local communities can provide students opportunities to enlarge their cultural competence (Luthy et al.).

The identified problem was lack of understanding whether nursing students who participated in an out-of-country community health clinical work experienced a significantly different impact on their ATI scores than the students who participated in a
local clinical community health experience. An ancillary question was a lack of understanding whether the students who attended the out-of-country clinical experience and the students who attended in-country clinical experience had different or similar feelings of self-efficacy and cultural competency to practice community health nursing.

Senior BSN nursing students complete both their community health nursing experience and their ATI Predictive Exam during their final semester of nursing school. The students who have completed between 40 and 80 hours of community health nursing experience overseas have historically not been interested in the course, as evidenced by their course evaluations (University of Tampa, 2014a, 2014b, 2015a). Cultural competence in nursing students could be benefited by abroad community health nursing experience (Long, 2014). Long tested the hypothesis that there might be an increase in Associate Degree Nursing (ADN) students’ self-efficacy toward cultural competence when the students have participated in a two-week community health nursing experience in Belize. Long described that there were 34 students who participated in the study, with 17 in the control group and 17 in the international intervention group. Self-efficacy, self-confidence, skills, and self-awareness in the group of students (17) who traveled to Belize and worked with a Hispanic ethnic group improved, as shown through statistical significance. In addition, the same students’ data exhibited a moderate statistical significance in self-efficacy scores when dealing with other ethnic categories including Asians, Native Americans, and African Americans (Long). Qualitative data gathered from reflective journals had a common theme of an increase in all students’ self-awareness of diverse groups (Long). Additionally, the students who did not travel abroad did express efforts to address the needs of the different cultures but did not describe any
“personal discomfort, gratitude, or growth” (Long, 2014, p. 477). The students who traveled out of country expressed “fear and discomfort of not being able to communicate adequately with patients” even with translators being available; the nursing students expressed a wide variety of emotions including surprise and dismay with various health beliefs of the population, and even anger and embarrassment with their peers whom they felt “as being culturally insensitive on several occasions” (Long, 2014, p. 477). Implications for nursing practice and education included the need to continue teaching cultural competence and to utilize a wide variety of methods to do so, including both traveling abroad for community health nursing experiences and clinical experiences with diverse residents of nearby communities, including veteran groups, HIV centers, and prison population (Long). The study concluded that “a two-week medical service-learning experience in Belize significantly improved self-efficacy, self-confidence, skills, and self-awareness among ADN students in working with the Hispanic culture and developing cultural competence” (Long, 2014, p. 478). Further studies would be desired “to generalize the findings to all ADN students and for other ethnic groups” (Long, 2014, p. 478).

**Problem statement.** The problem addressed in this dissertation is that senior community health nursing students from the researcher’s university have displayed a lack of interest in learning about and experiencing community health nursing within the United States. The university is in an urban area in the southern United States. The students who have traveled abroad for community health activities and have completed a majority of their hours of required training (between 40 and 80) have been resistant to attending class and completing all assignments during three previous semesters
Course evaluations disclosed that the students did not have an increased appreciation of the class topic of community health nursing. The evaluations disclosed that the students did not learn much more about the subject after they took the class and that their skills improved only slightly (University of Tampa, 2014a, 2014b, 2015a). Student comments included the need for more opportunities for medical experiences in community health nursing. Other comments indicated that activities seemed redundant and a waste of time, and often students did not feel challenged (University of Tampa, 2014a, 2014b, 2015a).

The nursing students who do travel out of country take a 3.00 credit undergraduate program, NUR 392 T-B, Transcultural Health Care. The course “allows students to study and travel to a selected Latin American country to apply community health promotion and disease prevention concepts in a transcultural environment” (University of Tampa Nursing, 2016, para. 4). Traveling to the selected country includes tours of the country that cover both the culture and history of the country the students are visiting (University of Tampa Nursing). Historically, the students have kept journals of their activities, which they have shared with the researcher as well as the NUR 392 T-B faculty.

Community health nursing is also called public health nursing. Kulbok, Thatcher, Park, and Meszaros (2012) emphasized that public health nursing involves focusing on populations as opposed to individuals and on working with members of the community and community organizations. Community health nursing also relates to populations in a wide variety of settings in a community, including school health programs, housing developments, health departments, occupational sites, and faith-community-based
nursing (Kulbok et al.). Community health nursing practice also examines “surveillance and assessment of the multiple determinants of health with the intent to promote health and wellness; prevent disease, disability, and premature death; and improved neighborhood quality of life” (American Nurses Association, 2013, p. 2).

**Deficiencies in the Evidence**

Coates and Gilroy (2012) worked with students who were enrolled in a program for Specialist Community Public Health Nurses (SCPHN). The students’ perceptions of public health and themselves in their roles as health visitors, school nurses, and sexual health advisors were reviewed. The nursing educators recruited 44 SCPHN students who came from a wide range of nursing backgrounds and were enrolled in a postgraduate public health nursing program. The instructors used art as a medium for students to express their ideas. In conclusion, the instructors noted that “the use of art to support students in considering their future role has proved an enjoyable classroom experience and an effective tool to use within the delivery of the SCPHN programme [sic]” (Coates & Gilroy, 2012, p. 30). However, the conclusion also indicated that the program could benefit from additional studies of the students’ proficiencies and further perceptions, values, and beliefs regarding their future roles (Coates & Gilroy).

Leh (2011) reviewed preconceptions of the nursing students prior to their clinical community health experience but not in relation to a preconceived disinterest of the students. Leh selected a convenience sample that included 42 students, predominately White women, with approximately 50% of the participants living in a suburban area. All participants were senior baccalaureate nursing students (Leh). The author concluded that community health practice is perceived as “less interesting, less dynamic, and less
rigorous than hospital based nursing” (Leh, 2011, pp. 626-627).

Marshall and Shelton (2012) studied the effects of an extended community health nursing experience over a 12-month period. A large community health organization serving an extensive variety of ethnic and socioeconomic clients in both urban, inner city, and semirural areas was chosen for the students’ experiences. The study occurred in the United Kingdom, with two sample groups. The first group had 11 nursing students who were in the advanced diploma nursing program. The second group had 20 students from two separate degree programs, who went through the program eight months later. All students were self-selected and acknowledged their interest in going through the program. The results indicated that the students had a greater understanding of the community-based services and health care delivery. The students also voiced that they felt better prepared to work in a community-based program (Marshall & Shelton). Although the study did show that the students had an improved self-efficacy and sense of preparedness for future nursing practice, the sample size was small (31) and the authors did not discuss how nonvolunteer students completed their community health nursing rotations.

The literature in the field has not addressed the issues of lack of interest relating to students who have traveled abroad for some of their hours. No literature was found on the ATI predictive test results and the students’ community health nursing experience, either abroad or in the United States. In literature reviews, the researcher did not find any studies connecting any ATI pass rates with cultural competency (self-efficacy) studies or whether or not the students received their community health nursing experience in-country or out-of-country.
Audience

The audience that would benefit from the study would be nursing administrators, nursing scholars, nursing faculty, nursing students, adjunct faculty, and community health partners. The nursing administrators may want to review the curriculum for the community health nursing students who have traveled abroad, emphasizing more engagement in local activities. The benefit could be that the newly trained nurses have better knowledge of cultural competency, which could enhance positive postacute care outcomes. The aim of the dissertation has been to contribute scholarly information on community health nursing students, self-efficacy, and results of the ATI testing.

About the Researcher

The researcher received a Bachelor of Science Nursing degree and Master’s Degree in Public Health/Health Education. The researcher has served as a community health nurse and supervisor of nursing for the State of Florida for 40 years, including clinical activities, providing care for medically-complex children, orienting new community health nurses, and activities associated with supervision. The researcher transitioned to a nursing program specialist in 2006, which included mentoring new community health nurses, performing administrative duties, and providing education for continuing education for nurses, both RNs and LPNs, on the staff of Florida Department of Health. While employed full time with the Florida Department of Health, the researcher also was adjunct faculty at two universities, including, from 2007, the university where the study will take place. The researcher is currently adjunct faculty at two universities.
Purpose Statement

Nursing students enrolled in a baccalaureate degree program in community/public health nursing at the researcher’s site have two options for field experience in community health nursing. One option is to participate in an out-of-country community health clinical experience. The second option is to participate in a local clinical experience in a community in Florida. The purpose of this study was to examine the relationship between the students’ ATI test results representing an indication of cultural competency and their clinical experiences. For more current students who had not taken the ATI exams, the second part was to identify what similarities and differences in their sense of confidence or transcultural self-efficacy and conceptual knowledge and their clinical experiences that the two groups reported.

Definitions of Terms

The terms used in the study are reflective of the terminology used by senior BSN students in their community health nursing experience.

**Community health nursing.** The definitions of public health nursing and community health nursing are the same. Public health nursing is defined as nursing that focuses on the “population health through continuous surveillance and assessment of the multiple determinants of health with the intent to promote health and wellness; prevent disease, disability, and premature death; and improve neighborhood quality of life” (American Nurses Association, 2013, p. 2).

**ATI.** The Assessment Technologies Institute has developed standardized testing, such as the assessment tests, to help show objective information on the nursing students’ readiness to take the licensure exam (Assessment Technologies Institute, LLC, 2013).
**OPPAGA.** The Office of Program Policy Analysis and Government Accountability, through the Florida Legislature, has been in existence in Florida since 2009 and has the task of reviewing the Florida Board of Nursing’s administration program (OPPAGA, 2014).

**NCLEX-RN.** The National Certification Licensure Examination for Registered Nurses is a computerized test given to “test knowledge, skills, and abilities essential to the safe and effective practice of nursing at the entry level” (NCSBN, 2015a, p. 4). The test is required in all states.

**Agentic perspective.** Bandura (2001) defined the core qualities of personal agency as focusing on being human that include intentionality, forethought, self-reactiveness, and self-reflectiveness. Further, Bandura defined agency as referring to acts that are done intentionally such that by self-motivation, they can affect the possibility of future actions. Forethought involves the future actions as relating to “current behaviors and regulators of behavior” (Bandura, 2001, p. 7). Self-reactiveness for the agent entails self-motivation and self-regulation in helping the agent perform (Bandura). According to Bandura, people (or agents) have actions and self-examination of their actions that include self-reflectiveness. Bandura suggested that the agentic perspective can help to allow additional research in the functional structure of the brain as proposed by Eisenberg. Eisenberg (1995) provided discussion that the human brain is “constructed socially” (p. 1563) and that “socialization shapes the essential human attributes” (p. 1563).

**TEAS.** The TEAS test, Test of Essential Academic Skills, is a predictor of early nursing program accomplishment and tests potential students on reading, mathematics,
science, English, and language (ATI, 2016). The ATI TEAS test has proven to be a “statistically significant predictor of early and on-going nursing program success” (ATI, 2019, para 1.) Wolkowitz & Kelly (2010) described that “science is both a statistically significant predictor and the strongest of the four content areas in the prediction of early nursing program success” (p. 498).

**Pedagogy.** Horsfall, Cleary, and Hunt (2012) incorporate the following in the definition of pedagogy in nursing teaching and learning: Pedagogy “includes considerations about the nature of knowledge; what is taught; how it is taught, what is learning; and how students and teachers learn” (p. 930).

**The Joint Commission.** The Joint Commission (2016a) is an independent and not-for-profit organization that provides accreditation and certification for over 20,000 health care programs and organizations in the United States. The vision statement for The Joint Commission states that “all people always experience the safest, high quality, best-value health care across all settings” (2016a, para 3).
Chapter 2: Literature Review

Introduction

Home care provided by public health nurses began in the 1890s in the United States in New York at the Henry Street Visiting Nurse Service, founded by Lillian Wald and Mary Brewster (Fee & Bu, 2010). Many wealthy women and humanitarians provided donations to the Henry Street Visiting Nurse Service (Fee & Bu). The nursing service offered health care to many who could not afford care (Fee & Bu). Hunt (2013) stated that Wald recognized that nurses could influence their clients by utilizing diversity, cultural beliefs, and demands placed on them by society. In the middle of the 20th century, a majority of nursing care was transferred to the acute care settings in the hospitals. Hunt explained that nursing care of nonacute patients had been transferred back into the home settings as well as the community settings due to cost containment issues. Hunt concluded that nurses involved in community health and community-based nursing benefit from an awareness of the community where they practice and that by understanding the community, nurses could offer holistic and quality care. Students in the Community Health Nursing Laboratory class are to “provide culturally competent care to individuals, families, and groups in a variety of community settings” (LaComb-Williams, 2016). Long (2014) argued that self-efficacy and cultural competency are important for community health nursing students to acquire.

The literature review begins with the importance of social cognitive theory as it applies to nursing education. Adult learning theories will be discussed. Information on experiential learning theory, pedagogy, and self-efficacy will be reviewed. The theoretical perspectives will include social cognitive theory, self-efficacy theory, and
meaningful learning theory.

**Theoretical Perspectives**

The theoretical framework of the study is comprised of three of Albert Bandura’s social learning theories to explain nursing students’ interest in community health nursing, whether or not they have travelled abroad or received local community health nursing experiences. One theory involves social cognitive theory of self-regulation (Bandura, 1991). The second theory relates to self-efficacy in changing societies (Bandura, 1995). The third also relates to social cognitive theory, an agentic perspective (Bandura, 2001). Main categories include self-regulation, reflective thinking, observation, cognition, storytelling, and modeling. Meaningful learning theory (Huang & Chiu, 2015) can be used to describe the students’ previous life experiences, especially with community health, including the results of the ATI testing. The theories will also assist in identifying measures utilized to improve students’ transcultural care and self-regulation during transcultural care.

Campinha-Bacote (2002) described a model of healthcare in which workers utilized a process of cultural competence in delivering healthcare services. Campinha-Bacote defined the model as viewing “cultural competence as the ongoing process in which the health care provider continuously strives to achieve the ability to effectively work within the cultural context of the client (individual, family, community)” (p. 181). Campinha-Bacote described the five constructs of cultural competence: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. All the constructs have a mutually dependent relationship with each other, including in an educational setting (Campinha-Bacote). Campinha-Bacote proposed that the more the
healthcare providers integrate the constructs into their practices, then the more the providers can “internalize the constructs on which cultural competence is based” (p. 184). Campinha-Bacote developed a “model of cultural competence in health care delivery” (p. 181) called the Inventory of Assessing the Process of Cultural Competence Among Healthcare Professionals (IAPCC). The instrument includes 20 items that measure the constructs of the model, including cultural awareness, cultural skill, and cultural knowledge. The area that needs to be developed is an addition to the tool that measures the construct of cultural desire, as cultural desire has not been addressed in the IAPCC inventory (Campinha-Bacote).

**Social Cognitive Theory Applied to Nursing**

Social learning theory posits that one’s behavior is considered an interacting determinant, rather than an outcome of a “person-situation interaction” (Bandura, 1977, p. 9). Bandura elaborated in defining psychological functioning “in terms of a continuous reciprocal interaction of personal and environmental determinants” (p. 11). By using the reciprocal interaction approach, “symbolic, vicarious, and self-regulatory processes assume a prominent role” (Bandura, 1977, p. 12). Bandura (1986) has differentiated between efficacy and outcome expectations. The efficacy expectation is a belief that one can complete the required behavior successfully, whereas outcome expectation is one’s estimation that one can produce the certain outcome by utilizing a certain behavior (Bandura, 1986).

**Nursing Students and Social Cognitive Theory**

Bandura’s (1977, 1986, 1991) theories will be discussed in relation to studying the problem of lack of interest by nursing students in required lab experiences. Bandura’s
(1986) social cognitive theory of self-regulation was primarily used to study self-directed change. Social cognitive theory of self-regulation indicated that in human motivation, factors that are in operation include affective self-reaction, self-appraisal, evaluative judgment, standard setting, and self-monitoring (Bandura, 1991). An important additional issue in the self-regulation process has been how the individual values the activities (Bandura, 1991). Burke and Mancuso (2012) found positive results from studying outcomes of nursing students who were training in simulated scenarios. The results indicated that “successful outcomes in the simulation laboratory foster self-esteem” (Burke & Mancuso, 2012, p. 543). The activities of simulation care of patients require the students to intervene with their patients at a time when there may be other activities going on (Burke & Mancuso, 2012). Bandura (1991) specified that decisions made to exercise control over one’s environments can be learned through explorative experiences.

The theory, self-efficacy in changing societies, was developed by Bandura (1995) and was primarily used to study how to create and enhance human efficacy. Bandura (1995) proposed that efficacy beliefs are important in human actions through cognitive, selection, motivational, and affective processes. The theory of self-efficacy in changing societies indicated that personal control is linked to powerful incentives for seeking positive outcomes rather than undesirable results (Bandura, 1995). Bandura explained that effective ways of building a strong sense of self-efficacy are through mastery experiences, vicarious experiences, and social persuasion. Curran (2014) reported that the use of the theory had positive outcomes in teaching nurses by demonstration.

Bandura’s (2001) social cognitive theory—an agentic perspective—was primarily used to study self-efficacy in areas of human agency features: intentionality, forethought,
self-reactiveness, and self-reflectiveness. Burke and Mancuso (2012) stated that nursing students who participated in simulated clinical experiences and then engaged in critical self-reflection after the scenarios were complete gained skills in self-esteem. Bandura’s theory of social cognitive theory—an agentic perspective—indicated that three modes of agency exist: direct personal agency; a proxy agency that depends on others to act on one’s request to find the desired outcomes; and collective agency that works through interdependent and socially coordinated effort (Bandura, 2001).

Burke and Mancuso (2012) explained social cognitive theory, metacognition, and simulation learning in nursing education as teaching methods utilized in various nursing education programs. Simulation activities can be done either by role-playing or with standardized manikins. The focus discussed by the authors included a review of ideas by Bandura (1991) in defining social cognitive theory as related to self-regulation. The ideas included behavior, environment, and intellectual factors and how the factors influence each other, including the individual involved. The authors reported that simulation exercises had been shown to increase self-esteem for students. The simulation experiences, according to Burke and Mancuso, supported the idea that students can develop anticipatory control of similar situations in the future. Having an anticipatory control of certain situations accomplished in the simulated situations can lead to the student’s increase in self-esteem. Intellectual factors in social cognitive theory can be influenced during simulation learning experiences, such as practicing procedures and communication skills in small groups, receiving feedback from group members and professors, and increasing specific skills for procedures (Burke & Mancuso).

The authors provided theory-based implementation of simulation learning
experiences for nursing students (Burke & Mancuso, 2012). The activities were built on the characteristics of human agency, self-reaction, forethought, self-reflection, and intentionality as mentioned in Bandura’s (2001) social cognitive theory from an agentic perspective.

Burke and Mancuso (2012) claimed that nursing education tools, when used to apply the principles of social cognitive theory, can help nursing students learn to master technical skills, enhance assessment skills, intervene responsively even if there are other needs of the patient, and assist with communication skills. The purpose of simulation exercises has been to have situational concepts used during the simulated encounters followed by having students engage in self-reflection during the group’s debriefing. Other purposes included having the students learn to self-monitor practice, use anticipatory control in new scenarios, adapt responses in expanding patient care environments, and self-regulate their behavior (Burke & Mancuso). Activities involved in simulation experiences for nursing students can and do utilize Bandura’s (2001) social cognitive theory from an agentic standpoint with these factors: self-reflectiveness, intentionality, forethought, and self-reaction (Burke & Mancuso). By utilizing simulation exercises and self-reflection, adjunct faculty may be able to engage nursing students’ interest.

Bandura, Jeffery, and Gajdos (1975) related that people who self-reported as having high self-efficacy were able to generalize or transfer that confidence to cope “with fear-provoking situations” (p. 141). The indications of the study also were that the “successful transfer effects resulted from stimulus generalization and enhancement of self-adequacy” (Bandura et al., 1975). Generalizability of high self-efficacy in one
situation could indicate a transfer of that skill to another situation (Bandura et al., 1975).

In a meta-analysis in adherence to PRISMA standards Franklin and Lee (2014) examined the question, “What is the impact of simulation on Self-efficacy?” (p. 608). Franklin and Lee (2014) proposed that self-efficacy among new (novice) nurses can improve through simulation activities. The influence of simulation on self-efficacy for new nurses has not been reported consistently in the literature. Franklin and Lee’s analysis measured “the overall effect of simulation on self-efficacy with a meta-analysis to understand the appropriateness of measuring self-efficacy alongside behavioral performance and other outcomes of simulation” (p. 608). Studies analyzed included claims that simulation is an effective way of increasing self-efficacy in new nurses as opposed to traditional control groups. The authors pointed out that generalizability, as described by Bandura, Jeffery, and Gajdos (1975), could be one reason that nurse educators adopt the concept of self-efficacy as “an outcome of simulation education” (p. 607). Also, Franklin and Lee proposed that nurse educators do have a significant “interest in seeing the results of simulation outcomes transfer to other situations of clinical nursing practice” (p. 607).

Franklin and Lee’s (2014) methodology included a review of published nursing education intervention studies that included four general group-designs: one-group, posttest-only design; two-group, posttest-only design; one-group pretest and posttest design; and two-group, pretest and posttest design. Two types of effect sizes were evaluated. The first included the use of point estimates of self-efficacy as described next. The studies having a one-group, posttest-only design counted points on the answers of participants who “agree or strongly agree to statements that simulation increased their
self-efficacy” (p. 608). Secondly from the studies that included “two-group, posttest-only; one-group, pretest and posttest; and two-group, pretest and posttest design, point estimates of means and standard deviations were extracted and mean change and the variance of the mean change were calculated where appropriate” (p. 608).

During the meta-analysis of the 811 manuscripts, Franklin and Lee (2014) noted that the words self-efficacy, self-concept, and confidence were used interchangeably. Of those manuscripts, 738 were identified using the search strategy and 73 from review of the reference lists. Retained were 43 studies of 38 manuscripts. Three thousand five hundred novice nurses had been enrolled in the studies that were selected for review. The studies were published between 2004-2013, investigating novice nurses’ self-efficacy after simulation, in the context of nursing care for both adults and nursing care for pediatrics. Twenty-two studies reviewed involved high-fidelity manikins and five involved medium-to-high-fidelity manikins. Six studies did not specify the type of manikin used, and one study involved manikins with different levels of fidelity (Franklin & Lee). In other cases reviewed, five of the studies used patient actors, and two studies used patient actors as family members. One group did use standardized patient actors. Pretest and posttest designs were used in measuring self-efficacy. Twelve studies utilized posttest-only design. A group of 11 studies showed two-group, posttest-only design, with six studies favoring simulation and five studies showing that simulation experiences were negative on self-efficacy. Further, pretest and posttest designs were utilized for evaluation in 20 studies. Nine of the studies indicated self-efficacy outcomes with pretesting and posttesting, seven studies described self-efficacy after simulation, and two favored self-efficacy prior to the simulation experience (Franklin & Lee). The final two-
group pretest and posttest designed studies pointed out self-efficacy in all groups after simulation experience. Franklin and Lee noted that “conclusions made about self-efficacy outcomes using tools without psychometric support contribute to between-study heterogeneity and limit our confidence in conclusions from this meta-analysis” (p. 612).

Limitations of the study included measurement errors, lack of reliability of testing, which is common in nursing education research according to the authors, and a lack of a uniform measure of self-efficacy (Franklin & Lee, 2014). Despite the limitations of the study, the authors recommended that there was a chance to combine self-efficacy with other dependent variables, such as behavioral performance, and then measure any changes in self-efficacy with changes in other interesting variables. Franklin and Lee concluded that simulation could be considered helpful in increasing novice nurses’ self-efficacy and in assisting novice nurses to improve their skill sets.

Service-Learning and Nursing Students

Service-learning has been defined by Cooke, Ash, Nietfeld, Folgeman, and Goodell (2015) as “a pedagogy that combines academic learning with service in the community” (p. 28). Jacoby (1996) defined service-learning as “a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and experience” (p. 5). Amerson (2010) identified the concept of service-learning as “an excellent pedagogy for introducing students to clients of different cultural backgrounds, helping students become aware of the issues these clients face related to culture and health care, and teaching culturally appropriate care” (p.18). Amerson (2014) reviewed literature on international service-learning programs for nursing students with
the intent of identifying research-based suggestions for implementing an international service-learning program for faculty in schools of nursing. Amerson pointed out that nurses and nursing students should be taught to utilize evidence-based practice guidelines in patient care. In addition, Amerson (2014) advised that nurse educators need to design and implement international service-learning programs based on research and evidence-based guidelines. After the literature review, Amerson developed several guidelines for international service-learning and immersion programs for use that are based on research. Although the list includes 10 guidelines, the following six are listed for this project: (1) Nurse educators should choose a country for visitation based on course objectives. Importance should be placed on planned living and working arrangements. (2) Nurse educators should plan to include home-visiting activities in addition to clinical and hospital experiences. (3) Nurse educators should collaborate with existing organizations in the area, if possible. (4) Nursing students should allow for unstructured time with members of the community to help in the development of personal relationships while there. (5) Nurse educators should include teaching opportunities for the students to teach community members about health topics. (6) Nursing students should utilize such methods as journaling, photography, and videos to do self-evaluation and self-reflection (Amerson, 2010, 2014).

Amerson (2014) concluded that the literature review demonstrated the international service-learning concept as promoting cultural competency in nursing students. The recommendations could also be used in developing student experiences in vulnerable and/or underserved populations in the United States (Amerson). Amerson concluded by stating that “Increasing cultural competence does not require going to a
foreign country. It does require being open to new ways of living, working, and communicating with people of diverse cultures” (p. 179). Amerson asserted that the importance of the experiences involves moving students out of their comfort zones.

Cooke et al. (2015) described the use of a service-learning project for nutrition students that was designed to teach the students about self-efficacy. During the first half of the service-learning portion of the course, 20 students were prepared to teach a specific cooking and nutrition class in the community by “learning key skills needed to be a successful nutrition educator (lesson planning, knife skills, facilitated dialogue and best practices in teaching)” (Cooke et al., p. 29). The second half of the service-learning portion of the course consisted of individual student group assignments to teach an established nutrition education program to children, teens, or senior adults, under the oversight of their instructors.

Cooke et al. (2015) reported that students’ reflections on their personal growth could foster their growth as nutritionists and suggested how discipline-specific coursework could be used to educate those in a community. The authors utilized the Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) integrated model of teacher efficacy. Tschannen-Moran et al. noted that “efficacy beliefs are strengthened substantially when success is achieved on difficult tasks with little assistance or when success is achieved early in learning with few setbacks; however, not all successful experiences encourage efficacy” (p. 229). Cooke et al. developed a model for students to teach nutrition in a community setting. Two groups of students were used: one consisting of 20 students as an experimental group enrolled in the service-learning course and a control group of 63 students not enrolled in the service-learning course. A self-efficacy test was administered
to the students in both groups. The two groups were administered the Self-Efficacy in Teaching Nutrition in the Community questions at three different times during the semester. At the end of time period 1, an independent $t$ test was conducted. Students in the experimental group scored higher than those in the control group. The experimental group had a significantly higher self-efficacy (SE) score as compared to the control group at the end of time period 2 ($p=0.008$) and at the end of time period 3 ($p<0.001$). The authors summarized the results stating that the service-learning nutrition course did increase the students’ self-efficacy in teaching nutrition to the community. Limitations of the study include that the tool developed by Cooke et al. would need to be validated for future use in testing self-efficacy of the students and that the testing was done only at one university. Results may not be generalized to other nutrition student populations (Cooke et al.).

Amerson (2010) noted that several nursing schools had incorporated service-learning as part of the curriculum for community health nursing, particularly in dealing with transcultural nursing skills. Jeffreys and Smodlaka (1998) defined the transcultural nursing skills as those tools and skills that are essential for assessing, planning, implementing, and evaluating nursing care that is culturally specific. Amerson utilized the Transcultural Self-Efficacy Tool (TSET), which was developed by Jeffreys (2000), in evaluating self-perceived cultural competences of 60 BSN nursing students who had completed a service-learning course in community health both locally and overseas. The TSET was designed by Jeffreys (2000) to measure nursing students’ self-efficacy perceptions or confidence in providing transcultural nursing care to people in diverse populations. The tool measured cognitive or knowledge skills, practical or interview
skills, and affective factors such as attitudes, values, and beliefs (Jeffreys, 2000).

Amerson’s (2010) literature review noted a limited number of research articles in demonstrating effective methods of evaluating cultural competence. Several examples were described of service-learning opportunities for nursing students, including experiences in maternity and child health settings and community health sites in rural areas (Amerson).

Amerson’s (2010) convenience sample of 63 students was divided into groups that worked with at-risk populations, which included minority groups, homeless populations, and single-parent families. Additionally, six students also included, participated in a project in Guatemala for one week as a part of a medical mission team in rural villages (Amerson). The results of the study indicated that the students did perceive “an increase in their abilities in cognitive, practical, and affective dimensions following participation in a service-learning project” (p. 21). Limitations of the study included the lack of a control group, small sample size, and that the students who went on the international trip had volunteered, raising funds to take the trip (Amerson).

Kohlbry (2016) utilized the theoretical framework from Campinha-Bacote’s (2013) model of The Process of Cultural Competence in the Delivery of Healthcare Services, including the five central constructs: cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire. The methodology included triangulation of both quantitative and qualitative data from the study of the impact of an international service-learning project with nursing students from three universities in California (Kohlbry). The findings from the study did provide information for nursing research, practice, and education (Kohlbry). International service-learning projects do
contribute to the students’ knowledge, skills, and self-efficacy (Kohlbry). Further research needed would be to assess the patients’ perceptions of nursing students who have participated in the international service-learning project to see if they perceived an increase in the students’ cultural sensitivity (Kohlbry).

**Nursing Students and Cultural Competence**

The Joint Commission (2016b) encourages effective communication between patients and healthcare providers to have the successful delivery of healthcare. The Joint Commission has recommended a significant approach to communicating healthcare information between providers and patients that include identification of language needs, patient’s understanding, and cultural communication issues. The Joint Commission (2010) does view “effective communication, cultural competence, and patient and family centered care as important components of safe, quality care” (p. 4).

Long (2012) related that nurses who have not been appropriately trained in providing culturally competent care may not adequately address the various specific needs or preferences of minorities. Long provided a review of teaching strategies that have been utilized in educating nursing students about cultural competence. Long mentioned that many aspects of culture may impact health outcomes, including language barriers, cultural beliefs, and food preferences. Nursing educators need to be familiar with evidence-based teaching strategies that have been successful in increasing students’ awareness and knowledge and confidence levels of working with culturally diverse patients (Long). Methods of instruction utilized by programs for undergraduate nursing students include lecture style, group discussions, student-written reports, clinical experiences, simulation, guest lecturers, mentoring and consultation, educational
partnerships, and lived immersion/study abroad experiences (Long). Long concluded that “educational interventions to teach cultural competence to nursing students demonstrates positive outcomes regardless of the content, method, length of program or cost” (p. 105) and that no educational method has demonstrated any stronger results than any other method used to measure cultural competency in nursing students. Long recommended that future studies be done to examine the impact of methods of training for cultural competency on patients’ behavior changes and outcomes.

Coffman, Burfield, Neese, Ledesma-Delgado, and Campos-Zermeño (2013) utilized Campinha-Bacote’s (2007) definition of cultural competence as “the ability to effectively work within the cultural context of a client” (Coffman et al., 2013, p. 238). Coffman et al. used at least one of the concepts of Campinha-Bacote’s model by exposing nursing students to other cultures through providing them an opportunity to study abroad as well as having two faculty and two students from the University of Guanajuato at Irapuato School of Nursing in Mexico visit their campus at the University of North Carolina at Charlotte. The literature review provided by Coffman et al. did not identify any other universities that used the two-way exchange to an “economically disadvantaged country” (p. 239). The students found that nursing concepts can be worldwide and that four constructs were found to be effective in achieving outcomes (Coffman et al.) The four constructs used were increasing cultural knowledge; becoming culturally aware of other nursing education processes; cultural skills especially in nursing practice; and having cultural encounters (Coffman et al.)

Furthermore, in an additional study, Long (2014) described the influence of international service-learning on nursing students’ self-efficacy toward cultural
compete. Cultural competence is important for community health nursing students to acquire. Long established that ADN students who spent two weeks in Belize, Central America on a medical service-learning experience improved their self-efficacy, skills, self-awareness, and self-confidence while working with the Hispanic culture and increased cultural competence.

Qualitative and quantitative research methods were used. There were 34 ADN students who participated in the study. Seventeen were in the control group, and 17 were in an international intervention group. All participants were from the same college in the southwestern United States. The 17 international intervention group students volunteered to participate in the 14-day service-learning trip. The control group of 17 students was completing a 14-day preceptorship within the local community. Quantitative data were collected using the Cultural Self-Efficacy scale for pre-intervention and postintervention. Qualitative data were gathered from the self-reflective journals that the participants kept every day, along with private interviews with each student. The theoretical framework was Bandura’s (1995) social cognitive theory, which included information on self-efficacy toward cultural competence. Long (2014) noted that “Bandura’s social cognitive theory posits that learning and motivation are directly related to the perceptions of confidence” and that the social cognitive framework “identifies knowledge of cultural concepts, knowledge of cultural variables, and self-confidence to perform certain nursing skills” (p. 476).

Long (2014) pointed out that instructors who focus on nursing issues need to be aware of methods and strategies on how to train students in cultural competencies. Moreover, nursing instructors need to acknowledge that cultural-competencies training is
required for students. Instructors need to provided information on cultural-competencies and resources for students who can attend overseas service-learning experiences. Long remarked that faculty could also provide learning materials online relating to language training, to assessment skills, and to health issues to the specific country students will be attending.

One limitation identified by Long (2014) was the small sample size. Another was that Long did not collect any data on any improvements in the ability of students to speak Spanish after two weeks in a Hispanic country. The study presents relevant information in that it defines the importance of the improvement of self-efficacy, especially in cultural competency, of the students who traveled abroad. Long asserted that future studies of BSN students in similar learning environments, rather than ADN students, would be beneficial as well. Long also noted that the literature review was not done until the data collection had been completed. Long reported that she was one of the teaching faculty for the trip and wanted to minimize bias.

Long (2016) completed an additional study involving the influence of an international situation on nursing students’ self-efficacy and cultural competence. The literature review on cultural competence training was summarized by Long (2016):

“Travel study programs for nursing students therefore have been proposed as strategies to help foster cultural competence and their self-efficacy for practicing with diverse cultures” (p. 29). The literature review of study-abroad visits for Associate Degree Nurse (ADN) nursing students revealed that community college curricula for these students lack immersion programs due to cost, faculty who are not prepared for the experience, and a lack of time in the curriculum to accomplish the experience. Long (2016) also noted that
study of abroad experiences of nursing students could provide faculty with additional
teaching strategies and help prepare the students for care of diverse populations and
communities. The study applied both a qualitative and quantitative data analysis of the
nursing students’ two-week service learning experience in Belize, Central America
(Long, 2016). One recommendation was that nursing students need to seek opportunities
outside the classroom to expand their knowledge and skills in cultural competence. Long
proposed that the additional exposure in the service of cultural competency might
enhance the nursing students’ competitive edge when seeking employment.

Mayo, Sherrill, Truong, and Nichols (2014) noted the Latino population continues
to rise and that the southern and southeastern states continue to have the greatest increase
in the Latino population. The United States Census Bureau (2011) has reported that the
Latino population has become the largest ethnic minority group in the United States and
comprised 16% of the population in the United States and 16% of the population in the
south as of 2011. The University of Florida Bureau of Economic and Business Research
(2016) reported that the Latino population has increased from 6% in 1970 to 22.5% in
2010 in Florida. The Florida Center for Nursing (2015) noted that 23% of the general
population in Florida was Hispanic, 11% of Licensed Practical Nurses were Hispanic,
10% of RNs was Hispanic, and 10% of Advanced Practice Nurses was Hispanic.
Schneider (2014) indicated that

African Americans and Hispanics are less likely than whites to receive the most
effective treatments for heart disease, human immunodeficiency virus (HIV)
infection, asthma, breast cancer, and many other conditions, even when their
income and insurance status are equal to whites (p. 491).
The importance of preparing nursing students for cultural competence toward the Latino population was identified in a study by Mayo et al. (2014). The authors conducted a cross-sectional survey to explore undergraduate nursing students’ attitudes and beliefs about Latino patients, as well as their perceived readiness to provide care to those patients (Mayo et al.). Results of the study were that real-life experiences with minorities increase the student’s preparation to care for minority populations (Mayo et al.). Students who visited and/or lived in a Spanish-speaking country were shown to have an increase in their cultural competency (Mayo et al.). Limitations of the study included the small sample size and students’ self-reporting of their ideas (Mayo et al.). Mayo et al. concluded that knowledge, attitudes, and skills in working with culturally diverse populations need to be incorporated in coursework, teaching, and learning.

Randolph, Evans, and Bacon (2016) defined important skills needed in public health nursing to include “analytic assessment, program planning, cultural competence, communication, leadership and systems thinking, and policy development” (p. 115). The authors described an innovative partnership between their school of nursing and a community agency for the homeless, with the purpose of increasing community health nursing students’ skills in working with a vulnerable population and applying the nursing process to both individuals and a specific population. The experience was offered to traditional nursing students in their last year of training and included students attending at least two days of clinical experience in the homeless shelter (Randolph, Evans, & Bacon). Clinical services offered by the students included blood pressure screenings, blood glucose, cholesterol levels, health histories, individualized health education, and other activities. Randolph et al. reported that, in the evaluation of the project, students noted
that they could increase their levels of autonomy and self-confidence in applying what they had learned, which in turn helped them improve their critical thinking skills. Limitations discovered were in providing services to the population when the students were not available in other semesters, having enough faculty to provide oversight while the students were there, and obtaining adequate supplies for the students to use while at the shelter (Randolph et al.). One stated benefit of the experience for the students was to help them “take part in a rich, population-focused nursing experience in the community where they reside and work” (p. 117).

Wright (2010) presented a case study of an overseas community health-learning experience for senior nursing students. Wright reviewed literature from studies published regarding nursing students who had obtained clinical experiences overseas, especially in European and Asian countries. Wright noted that nurse educators in other parts of the world had recognized the benefit of providing ways to “internationalize their education programs” (p. 280). Wright described one program for senior nursing students who experienced community health nursing in Botswana in southern Africa, where the official language is English. The area chosen had a nursing school, hospital, and several clinics in the area. Preparation for the senior students included reading about the local culture, receiving required immunizations, and obtaining passports (Wright). Community projects by the students were completed through interviews with key community members rather than through Internet searches as there was no Internet access for them (Wright). Clinical experiences totaled 120 hours, and students and faculty were abroad for a month (Wright). Depending on the students’ clinical interests, they could be assigned to be in the maternal-child health area, health promotion, labor and delivery area, or the pediatric
area (Wright). The students voiced that they did have “an increase of their own strengths and skills, and the knowledge that humans, no matter where they live, do have basic similarities” (Wright, p. 286). The Loma Linda University has continued the abroad clinical experiences for the nursing students and has helped provide a curriculum consultant for the nursing students at the facility in Botswana (Wright). Wright wrote that one area that will need further study is the long-term effect of the overseas community health nursing experience on the future professional development of the students.

Another study in following up on nursing students who received their community health nursing experience overseas was presented by Murray (2015). The purpose of the study was exploration of the personal and professional changes of the BSN students who received their community health nursing experience overseas. The students worked in a local hospital in Swaziland, Africa, and started community health clinics while there. Six students were interviewed after they had returned from the community health nursing experience in Swaziland. Answers to the interviews were analyzed by thematic analysis with four themes developing from the interviews: transition, perceptions, internalization, and incorporation with additional subsections (Murray). Murray concluded that one of the implications of the study was the identification of a need for nursing educators to “find ways to incorporate the same processes of cultural dissonance that will provoke activation of coping strategies without the financial barriers” (p. S72). Murray suggested that instructors should look at other methods to stretch students out of their comfort zones by having them placed in a rural clinic, an urban setting, or a disaster recovery program. The rationale offered was that by going through the mild hardship phase and cultural dissonance, the nursing students could report that they had a greater understanding of the
culture and experienced both professional and personal growth.

**Preconceptions about community health clinical rotation.** Leh (2011) described a qualitative study of nursing students’ preconceived ideas about entering the community health clinical rotation. Leh’s exploratory, descriptive design was utilized with the theoretical perspective being a naturalistic inquiry. Three nursing schools in Pennsylvania were accessed for the study, with the nursing students in community health making home visits, making hospice visits, visiting schools, and visiting seniors’ centers. Six major themes were identified through the discussions with the students: feeling insecure and unprepared, contemplating risks to personal and client safety, anticipating a change of pace, sensing a loss of control, envisioning isolation, and interpreting the value of community health nursing.

Leh (2011) noted limitations of the study to be that the students were homogeneous, that the study needed to be repeated after the rotation to see if any changes in preconception of ideas had occurred, and that the study was done with a convenience sample, thus compromising generalizability. Leh argued that nurse educators need to consider allowing the students to voice their feelings and thoughts prior to their community health nursing experience, acknowledge students’ fears and potential risks, and demonstrate a willingness to help the students overcome their fears.

**Adult Learning Theory**

In discussing his ideas about how adult learning evolved, Knowles (1989) described Freire’s (1970) ideas on pedagogy of consciousness-raising as being a part of the learning process, in the context of empowering oppressed people through education.
The hypotheses of andragogy (i.e., theory of how adults learn best) were used by Knowles to inform a particular method of pedagogy (i.e., teaching/instruction) which would include placing emphasis on the “individualization of learning and teaching strategies” (p. 82). Knowles listed the following assumptions about andragogy in educating adults: that adults need to know why they need to learn something; that they can be self-directed; and that they have greater life-experiences than youth do on which to draw.

Andragogy is understood to be learner-focused (Curran, 2014; Knowles, 1989). Curran (2014) posed the idea that life-long learning and improving competencies are essential in the practice of Nursing Professional Development (NPD) specialists. Curran discussed information from a workshop on pulmonary assessment for nurses provided by NPD specialists. The step-by-step process in developing the andragogy-styled training included a formal needs assessment and informal conversation between the NPD specialists and new nurses in an acute inpatient unit. Also, small focus groups of nurses were formed to determine what was needed for the training. Support was sought from stakeholders in the subject, interactive learning activities were formed, and the final addition to the program was a set of simulation exercises. The NPD specialist then observed the follow-up pulmonary assessments done by the practitioners for one month following instruction.

Curran (2014) cited Bandura (2005) in explaining the social cognitive theory notion that learning is rooted in observation and cognition. Curran provided an example of another program given by NPDs that illustrated the social cognitive theory in providing observation. The NPD demonstrated intravenous venipuncture skills while the
RN observed. After observing, the nurse reflected on what she saw, followed by entering self-direction and ended with accepting ownership of a newly learned behavior. Curran concluded that by using experience and observation, the nurse could then utilize the knowledge with a patient. According to the author, continued use of the venipuncture skills requires self-efficacy; self-efficacy was seen as enhancing motivation and problem-solving abilities.


Lahaie (2007) mentioned the use of adult learning principles in web-based courses, with constructivism as a learner-centered model. Students were the focus of the learning experiences with the faculty facilitating the learning experiences (Lahaie). Davidson, Metzger, and Lindgren (2011) further recommended a variety of distance-learning techniques to use to enhance the learning possibilities for students, including “face-to-face traditional classroom and online interactions (hybrid model) to online communication” (p. 224). According to Davidson et al., having both face-to-face classroom meetings and online assignments, combined with group activities, helped the adult learner have flexibility and some control of the learning environment. The Gateway program was developed to add online courses in nursing for RNs transitioning to BSN (Davidson et al.). Davidson et al. studied two cohorts, one cohort with 25 out of 26 students completing the program and one cohort with 27 out of 27 students completing the program, with 98% of the students completing their training during 14 months.
Factors cited for the success of the program included allowing students to complete their courses in a reasonable timeframe, to continue to work and to care for their families, to receive social support from peers, and to have full faculty and administrative support from the school of nursing (Davidson et al.). Davidson et al. concluded that the hybrid learning environment was significant in the retention and graduation rate of the students.

Six subscales of the ATI Critical Thinking test were measured for the Gateway students. Davidson et al. reported that their results indicated higher than average test results, especially when compared to the national database of BSN students who were taking the same tests.

**Experiential Learning Theory**

Henoch et al. (2014) provided an exploratory study of nursing students’ experiences of involvement in clinical research. Experiential learning theory was used as the basis of the Swedish study. The objective of the study was “to explore nursing students’ experiences of participation in clinical research, their approaches to learning and their interest in nursing research” (Henoch et al., p. 189). The authors explained the experiential learning theory by Kolb and Kolb (2005): “The process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (p. 194).

Henoch et al. (2014) described experiential learning theory as proposing “a constructivist theory of learning, e.g., social knowledge is created and recreated in the personal knowledge of the learner” (p. 189). Biggs and Tang (2007) discussed that some “students adopt a surface learning approach” to learning and “account superficially for the facts while other students adopt a deep learning approach and acquire a deeper
understanding of the facts” (Henoch et al., 2014, p. 189). Biggs (1987) and Marton (1983) defined deep learning for students as being associated with a fundamental interest and motivation relating to the content of the task, and surface learning for students as being associated with memorization of facts, rote learning, and not connecting the tasks with other tasks (Chin & Brown, 2000).

Henoch et al.’s (2014) methodology was a cross-sectional design with 140 nursing students. Henoch et al. analyzed questionnaires quantitatively whereas the open-ended questions were analyzed qualitatively. Henoch et al. (2014) described two groups of students, 70 in each group for a total of 140 students who were taking a course in research methodology and were in their third year of training. Seventy students were invited to participate as data collectors on two separate data collection occasions (n = 140), but 63 of the students completed evaluation questionnaires after each data collection date (n = 126). Henoch et al. reported that the students were glad to be a part of the process that involved collecting data. Students who felt more involved in learning were described as having had high levels of involvement before the process and afterward as well. Henoch et al. (2014) observed that the older students were more involved with deep learning than were the younger students.

Henoch et al. (2014) reported “a weak yet significant negative correlation between deep learning and surface learning” (p. 192). The authors reported a significant difference between the students with higher levels of deep learning and the students with lower levels of deep learning regarding certain parts of the evaluation; however, the authors did not report the difference as being statistically significant. Henoch et al. did not find a statistically significant difference among those with various levels of surface
learning. In the study, the Cronbach’s value for surface learning approach was 0.67 and was 0.75 for deep learning, about which the authors indicated that the surface learning dimension might not have been completely reliable. The authors found that the students who benefited with involvement in nursing research were students who already had high levels of deep learning.

The conclusions were that students with high levels of deep learning participated more in the research. Henoch et al. (2014) also concluded that students need to be prepared to interview people for research studies before they become involved in interviewing studies. Henoch et al. concluded that more studies are needed to see whether or not experiential learning increases deep learning as well as developing ways to improve interest of the students in the deep learning process.

**Pedagogy**

Ivarsson and Nilsson (2009) considered the subject of pedagogy from theory to practice, involving the perspectives of newly registered nurses. Ivarsson and Nilsson stated that nurses will continue to need education in how to improve and learn pedagogical skills as those learned skills would improve patient care. In their study, Ivarsson and Nilsson (2009) asked two questions: “Describe an important event that made it easier or more difficult to teach, inform and communicate with patients and relatives” and “Describe an important event where you used, missed, or wished for more knowledge received during the course in health care pedagogy in clinical practice” (p. 511).

Ivarsson and Nilsson (2009) cited an idea from Sanford (2000) on “caring through relation and dialogue theory” (p. 510). The question was raised if new registered nurses
in daily clinical activities used pedagogical knowledge. The findings were separated into two categories. The first category “Pedagogical methods in theory” was divided into theory and the application of the course in practice, knowledge of pedagogy, and information as a professional competence. The second category “Pedagogical methods in everyday clinical practice” included subcategories of factual knowledge and pedagogical knowledge. The nurses reported that they had not received enough information in training for the specialty job and that they also did not have enough work experience in the same area.

The study involved pedagogical challenges that nurses have and how nursing students are prepared through their education for these challenges (Ivarsson & Nilsson, 2009). Many of the participants indicated that they had learned more about communication, patient education, and material through clinical practice rather than through classroom teaching. The nurses stated that they had not received adequate pedagogical knowledge to help them with communication for educating the families and patients.

The nurses also stated that they might benefit from reflective thinking as well as from getting feedback from their clinical experiences. A recommendation by the authors was that nurses need training and education “to develop their pedagogical skills, which in turn will ensure high-quality care” (Ivarsson & Nilsson, 2009, p. 514). Ivarsson and Nilsson concluded that, because learning is a continuous process, health care pedagogy training will need to be continued in postgraduate nursing programs. They urged that the undergraduate programs need to attend to working with professionals and family members for explaining health education to patients. Highlights of the study indicated
that practicing communication skills, continuing educational studies in pedagogy, and attending to information given to persons with functional disorders are important concepts.

Equally important, Sakalys (2002) has been credited with reader-response theory and narrative learning as literary pedagogy utilizing fictional reports of illnesses to enhance the student’s understanding of a condition. Wood (2014) described historical imagination, narrative learning, and nursing practice from the standpoint of graduate nursing students’ responding to an older nurse’s story. The study by Wood examined “one example of engaging students’ historical imagination, in order to identify its relation to narrative learning approaches in nurse education and potential for stimulating discussion of nursing practice” (p. 473). The further discussion of narrative learning that is based on reader-response theory demonstrated the focus on the reader’s activities after the story and how the response was obtained by the participant (Wood).

Wood’s (2014) methodology was a qualitative descriptive study. Graduate students in a master’s program in nursing were participants in a group discussion about a nurse from New Zealand’s historical story from 1911. Initial review of transcribed discussions showed that the reader-response theory was to be used. Students would respond with personal and professional reactions. The participants were already nurses with different practice settings. There was movement from the discussion of the nurse’s story from the past to the students’ present, which is a feature of engaging students (Wood).

Overall, Wood (2014) concluded that three important components are associated with reader-responses to a nurse’s historical storytelling: narrative learning and reader-
response theory, historical imagination, and imagination. The historical imagination facilitated discussions, questioned assumptions, and translated the past to the present. Wood (2014) recommended that more research be done on how the approaches could be interrelated and developed into an active method of teaching.

Likewise, critical pedagogy in health education was discussed as part of a scholarly review by Matthews (2014). The focuses were on the concerns and interests of the students. Matthews described how health education encourages learning that is focused on the concerns and interests of the learner, leading to the notion that the learners can acquire skills to find solutions to their problems. Matthews promoted the idea that that type of learning helps develop health literacy in people to “identify inequality and injustice so that they can seek change” (p. 607). According to Matthews, using critical pedagogy helps the learners think critically about many of the determinants of health, including the social, environmental, and political. Matthews stated that the effects of the determinants on individuals as well as populations have great importance.

The author described Paulo Freire’s (1970) three-phase model of critical pedagogy as described by Wallerstein and Bernstein (1988), which includes “listening and naming; dialogue and reflection; and the promoting of transformative social action” (Matthews, 2014, p. 602). The process of using this method, Matthews contended, shows “that there are no predetermined answers to problems and the teacher focuses on the process of learning rather than outcomes” (p. 602) of solving the problems. Matthews made some interpretations of the interplay of critical pedagogy and problem-solving. Through reflection and dialogue, the participants can come up with their ideas of any actions they would like to take. Investing time and energy in utilizing critical pedagogy in
health education to add learning opportunities that take into account health situations can help the learners think critically about health and social determinants.

**Meaningful Learning Theory**

Huang and Chiu (2015) discussed meaningful learning theory, which was introduced by Ausubel (1963). Huang and Chiu pointed out that meaningful learning can occur when the learner can relate previous life experiences with current cognitive structure. Ausubel noted that “meaningful learning and retention are more effective than their rote counterparts” (p. 44). Ausubel observed that meaningful learning involves a “characteristic process in which meaning is a product or outcome of learning rather than an attribute of the content of what is to be learned” (p. 45).

Ausubel (1963) reported that in the meaningful learning theory, independent problem-solving could be one way of testing to see if the students understand the ideas they verbalize; however, Ausubel cautioned that the lack of ability to problem-solve could be related to many other factors including deficiencies in reasoning power, flexibility, or perseverance. Further, Ausubel discussed that learning and retention outcomes, as related to meaningful learning, “are primarily influenced by those attributes of cognitive structure which influence the anchorage and dissociability of the new learning materials” (p. 42).

Correspondingly, Taricani (2000) utilized the meaningful learning theory in developing a concept map to display information for the students to master. Taricani stated that the more information the student could connect on a map as meaningful, then the more likely the student will understand the material. Taricani further reported that Ausubel’s (1963) meaningful learning theory would help to build meaning when one
connects substantive relationships with the material and current knowledge, rather than trying to connect arbitrary relationships with the material and current knowledge. Acquiring and retaining information can occur with the assimilation of a “body of conceptual meanings—the product of meaningful learning” (Taricani, 2000, p. 210). Horsfall, Clearn, and Hunt (2012) noted that nursing educators could guide students, have knowledge of correct answers for some scenarios, discuss possible solutions for some situations, and help shape their experiences into positive learning experiences. Horsfall et al. urged that the task of the educator is to produce an environment that helps the student focus on learning and meaningful involvement.

Furthermore Getha-Eby, Beery, Xu, and O’Brien (2014) discussed meaningful learning relating to nursing students. Findings from “cognitive psychology, human development, and neurobiology provide empirical evidence of the relationship between concept-based teaching, meaningful learning, and knowledge transfer”(Getha-Eby et al., 2014, p. 494). A clear and meaningful understanding of the knowledge for nursing students that has occurred both in the classroom and clinical experiences can produce context-free knowledge (Getha-Eby et al., 2014). The context-free knowledge can allow nurses to identify various nursing concepts of specific conditions related to the concept, and the nursing principles necessary for both effective and safe patient care (Getha-Eby et al., 2014). Homeostasis can be used as an example of the use of meaningful learning theory to students. Normally, homeostasis is explained during a prerequisite science course. Knowledge of homeostasis aids the student’s understanding of maintaining fluid balance as associated with intravenous therapy (Getha-Eby et al.).
Predictors of Success for Nursing Students

Wolkowitz and Kelley (2010) applied “a multiple regression model to student test scores to determine the relative strength of science, mathematics, reading, and English content areas in predicting early nursing school success” (p. 498). Wolkowitz and Kelley noted that multiple tests could be used by nursing schools for evaluation for admissions, such as the ACT (American College Test), the SAT (Scholastic Aptitude Test), the Test of Essential Academic Skills (TEAS), and the Nursing Entrance Test (NET). The authors provided a literature review of each of the four tests and summarized that the TEAS exam, which tests English, reading, mathematics, and science skills, has the composite score as a weighted average. English is weighted the most, followed by mathematics, reading, and science (Wolkowitz & Kelley). The American Technologies Institute’s (ATI) RN Fundamentals assessment, given to nursing students during their first year of nursing school, is a basic test to elicit how much the students have learned during their first year (Wolkowitz & Kelley). Students’ performances on the ATI (RN Fundamentals assessment) and the initial TEAS tests were compared to identify any predictive accuracy relating to scores on the entrance TEAS with the ATI (RN Fundamentals assessment) results (Wolkowitz & Kelley).

The authors described the results of the study as indicating the strongest predictor of early success in the nursing program was science test scores, followed by reading scores, written/verbal scores, and mathematics scores (Wolkowitz & Kelley, 2010). Successful candidates were identified as those students with a sound science aptitude, regardless of the type of testing criteria used for admission, followed by reading ability (Wolkowitz & Kelley). The authors suggested that the testing criteria, grade point
averages, and/or remediation requirements should be factors in consideration in the admission process. Cited limitations of the study included the use of only one admissions test for RN students (TEAS test) and perhaps nonacademic factors that influence students’ performance in nursing programs. They recommended that further areas of study could include different predictor tools and identification of other variables in predicting the success of students in the nursing program.

Equally important, Alameida et al. (2011) were aware that documentation existed in the literature that the ATI RN Comprehensive Predictor was a tool to use in predicting students’ successfully passing the NCLEX-RN exams in a “normative population” (p. 261). Alameida et al. were concerned that considering that the students at their urban university were quite diverse and that the ATI RN Comprehensive Predictor exam may not be an accurate measure of competencies of their diverse population. The purpose of the authors’ study was “to determine whether there was a relationship between the predictive probability on the ATI RN Comprehensive Predictor (taken at the end of the last semester in the nursing program) and first-time pass success on the NCLEX-RN for groups of nursing students” (p. 263). Additionally, Alameida et al. studied whether or not there was any relationship between academic factors and socioeconomic factors in the first-time pass results. The study used a retrospective, descriptive study design involving 589 students. The conclusions of the study indicated that the ATI RN Comprehensive Predictor exam was a predictor of first-time pass rates for students but did not find any significant relationship between the demographic variables and the first-time pass rates. Alameida et al. pointed out that one limitation of the study was that admission criteria for the students varied, as three program types were included in the study.
One school of nursing in a midsized university near the Mississippi delta was found to exhibit poor performance of their students on the NCLEX-RN exams, with the pass rate falling below 72% in 2007, according to Catlette (2007) and Koestler (2015). Alameida et al. (2011) noted that one predictor of success for passing the NCLEX-RN test the first time included the nursing program GPA. Additionally, Landry, Davis, Alameida, Prive, and Renwanz-Boyle (2010) observed that academic performance in nursing fundamentals, pharmacology, and psychiatric/mental health areas were indicators for first time passing the NCLEX-RN exams. In addition, Landry et al. mentioned that critical thinking skills might also be a variable in predicting successful passing of the NCLEX-RN test for the first time.

One of the identified issues involved with the students’ not passing the NCLEX-RN exam was that the students were having a difficult time understanding some of the concepts of pathopharmacology (Landry et al., 2010). Problems reviewed by the nursing faculty included errors in dosage calculation of medications and poor writing skills (Landry et al.). Changes made included dividing pathopharmacology into two courses, improvements in implementing training to aid with the writing assignments, standardization of the courses offered in the online training, and the addition of simulation experiences (Landry et al.). The faculty also added the ATI testing program, which includes many learning activities and multiple testing activities as well (Landry et al.). Other changes included the addition of an enhancement interventionist to assist the students with personal tutoring, classes that assist in learning about common identified needs (Landry et al.). Landry et al. reported that the pass rates improved substantially in 2011 to 96.4% after the changes, and the faculty continued to review, evaluate, and make
changes when needed.

Summary

The thematic review of the literature identified themes of social cognitive theory of self-regulation (Bandura, 1991), of self-efficacy in changing societies (Bandura, 1995), and of social cognitive theory—an agentic perspective (Creswell, 2015; Bandura, 1977, 1986, 1991, 2001). Sources selected were based on teaching methods utilized by professionals in nursing education and studies relating to social cognitive theories based in nursing education. In addition, theories were mentioned about experiential learning theory (Kolb & Kolb, 2005), reader response theory (Sakalys, 2002), modeling (Crookes, K. et al., 2013) and pedagogy (Ivarsson & Nilsson, 2009).

Developing skills in self-efficacy, self-regulation, and reflective thinking for nursing students may be significant factors in helping nursing students develop an interest in the community health lab experience, even though they have had overseas experiences. Luthy, Beckstrand, and Callister (2013) mentioned that cultural competence for nursing students can occur with several interactions with the same culture over several weeks when the students are immersed in a community’s culture. Luthy et al. (2013) also indicated that cultural competence can occur for students without traveling long distances to immerse in a culture when there are local opportunities for interaction with others from various cultural backgrounds.

The ideas of storytelling, modeling, and practicing skills to teach other students in real nursing practice have been identified as tools the adjunct faculty can use to help the students develop self-regulation and self-efficacy in changing societies (Burke & Manarso, 2012; Bandura, 2005; Crookes, K. et al., 2013). ensuing studies for the use of
the tools in a class mixed with both oversees community health and local community health nursing students could occur with both qualitative and quantitative theories. Qualitative methods could include critical-reflexive theory while quantitative theory methods could include developing research questions based on the theories discussed. By examining the ATI scores of the students who have had their out-of-country learning experiences and comparing them with the scores of the students who received their learning experiences in community health in Florida, the researcher was able to track any trends for comparison or correlation.

**Research Questions**

1. Quantitative: Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between ATI scores of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences?

2. Quantitative: Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between TSET scores (cognitive, practical, and affective) in community health nursing of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences?

3. Qualitative: What conceptual knowledge of the relevant skills and practical knowledge required to service communities did senior community health nursing students, those who have had an out-of-country experience and those who have had the experience in Florida, at an urban university demonstrate in their descriptions of their understanding of community health nursing experiences?
Chapter 3: Methodology

Purpose Statement

Nursing students enrolled in a baccalaureate degree program in community/public health nursing at the researcher’s site have two options for field experience in community health nursing. One option is to participate in an out-of-country community health clinical experience. The second option is to participate in a local clinical experience in a local community in Florida. The purpose of this study was to examine the relationship between the two groups of students’ ATI test results, transcultural self-efficacy, conceptual knowledge, and the location of their clinical experiences. For current students who had not taken the ATI exams at the time of the study, the second part was to identify what similarities and differences the two groups reported in their sense of confidence or transcultural self-efficacy and conceptual knowledge and their clinical experiences.

Null Hypothesis

Nursing students who received their community health nursing experience in-country did not have significantly different ATI scores in community health nursing and higher perceptions of self-efficacy and conceptual knowledge than the students who received their experience out-of-country.

Mixed Methods Paradigm

Tashakkori and Teddlie (2003, as cited in Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007) defined the term mixed methods research as referring “to all procedures collecting and analyzing both quantitative and qualitative data in the context of a single study” (p. 19). Creswell and Plano Clark (2011) indicated that mentioning the quantitative and qualitative data collection and analysis procedures in a mixed methods study is important.
Research Design

The researcher was an independent and objective observer who collected and analyzed the students’ ATI scores according to whether they received their community health nursing experience in-country or out-of-country. The second set of quantitative data called for the researcher to be an independent and objective observer, collecting and analyzing survey results of both groups of students and the more current students’ perceptions of their levels of confidence relating to professional competencies in a culturally diverse population. For the qualitative data collection, the researcher established respectful, trusting rapport and fairness between herself and the two groups of students in community health nursing. The research required interviews with several students to find their self-perceptions of relevant skills and practical knowledge of service to communities. The mixed methods approach was used to gather and analyze both quantitative data and qualitative data and follow up with an overall interpretation (Edmonds & Kennedy, 2013; Terrell, 2016). Social learning theory (Bandura, 1977) served as an analytic bridge between students’ confidence and self-efficacy and the relationship of their locations of experiences (Edmonds, 2015).

The study was considered nonexperimental. Internal validity does not apply to nonexperimental research as internal validity deals with causal inferences (Edmonds & Kennedy, 2013). Describing phenomena or explaining a relationship between the variables is the goal of nonexperimental research rather than inferring causation (Edmonds & Kennedy).

External validity in nonexperimental research could be influenced by issues of sample characteristics. Because the population in the study was not selected by a true
probability sampling method, the results may not be generalizable to another population (Edmonds & Kennedy, 2013).

**Participants**

The participants were current nursing students enrolled in a Bachelor of Science Nursing Program in an urban, southeastern university. Both the subjects and participants in the quantitative section and the qualitative section will be discussed in the following section.

**Subjects for Research Question 1.** Archivable data from all ATI scores for nursing student graduates for the past four years were requested from the administrator of the college of nursing. The administrator separated the scores according to the two groups of students, one with out-of-country community health nursing experience and one with in-country community health nursing experience; otherwise, all identifying data were removed. There were approximately 200 nursing school graduates from the last four years, with ATI scores available and separated by group for 144 students. The scores were separated into two groups, based on the way the program had assigned the experiences. The in-country group consisted of 69 students. The out-of-country contained 75 students. Historically, the nursing students the researcher has trained at the university were Caucasian females, early 20s in age, English-speaking, with backgrounds in urban areas of the eastern part of the United States. A small percentage was of other ethnicities and were men. The independent variable was the students’ experiences identified as either completing community health nursing experiences out-of-country or completing community health nursing experiences in-country. The independent variable can be considered a non-manipulated independent variable as the researcher did not determine
which students were in either group (Terrell, 2012). The dependent variable was the ATI Community Health scores of each group.

**Subjects for Research Question 2.** Two groups of participants for the second set of quantitative data consisted of currently enrolled senior nursing students who had completed a majority of their community health nursing experiences or were completing it during the current semester. The independent variable was whether the students had completed the out-of-country community health nursing experience or were among those who had completed or were in the process of completing their in-country community health nursing experience. The dependent variable was the Transcultural Self-Efficacy Tool scores. The total population was 26 students, with 13 students responding to the survey. The sampling was a convenience sample of those students who volunteered via responding to an email soliciting participation in the survey, 6 of whom had received experiences in-country and 7 receiving training out-of-country. The researcher submitted a link to the survey by email to the students’ college email addresses.

**Subjects for Research Question 3.** The target population included currently enrolled senior nursing students as participants from the same university who had had community health nursing experience out-of-country or in-country and had not completed their ATI exams. The sampling was a convenience sample for the purpose of creating two focus groups. The total population was 10 students. The first group of five senior nursing students in the focus group discussions were the participants who had had in-country community experience. The second group of five senior nursing students were the participants who had had out-of-country community health experience. The researcher received permission from the administrator of the college of nursing to have an informal
conversation with students enrolled in NUR 422L, the clinical section of Community Health Nursing course. The researcher requested students to self-identify as either having had their experiences in-country or out-of-country and to volunteer for the corresponding focus group or recommend peers who might be interested in participating in a focus group. Creswell (2015) named this method of sampling as snowball sampling, one form of purposeful sampling that might be utilized if not enough students volunteered for the focus group discussion. All 10 students self-identified into the appropriate group.

Typical focus groups, according to Creswell (2015), consist of between four and six participants. The students in the researcher’s study were asked to participate in a focus group to discuss what conceptual knowledge of the relevant skills and practical knowledge skills they had, relating to community health nursing. Each focus group was homogeneous with respect to out-of-country or in-country experience. The students were advised that participation or nonparticipation in the process would not affect their final grades. The researcher gathered the names and separated participants into groups that self-described as having had in-country or out-of-country experiences.

Dr. Kim Curry, PhD, ARNP, FAANP, Associate Dean for Student Affairs, College of Nursing, University of Florida, advised that developing two distinct groups for focus group discussion would increase the possibility of eliminating cross-contamination of group responses (K. Curry, personal communication, October 23, 2016). One cited main danger of focus groups is that “some participants may find a focus group situation intimidating or off-putting; participants may feel under pressure to agree with the dominant view” (Birmingham City University, UK, 2006, para 3).

Focus groups can be one form of data collection with the researcher meeting with
“a small group of people having similar attributes, experiences, or focus and leads the group in a nondirective manner” (Yin, 2016, p. 336). The purpose, according to Yin, is to gather information on the perspectives of the participants with as little influence as possible from the researcher. Yin stated that five analytical phases are involved in analyzing qualitative data: compiling, disassembling, reassembling, interpreting, and concluding.

**Instruments**

The three instruments utilized in the research study were the ATI 2010 RN Comprehensive Predictor test (Assessment Technologies Institute, L.L.C., 2013; see Appendix A), the TSET by Jeffreys (2016; see Appendix B), and nine interview questions for the focus groups (see Appendix C).

The ATI 2010 RN Comprehensive Predictor test is an instrument used by several nursing schools to predict a student’s readiness to sit for the NCLEX-RN exam and is considered highly accurate in predicting passing for the students (Assessment Technologies Institute, L.L.C., 2013). Kelley (2009) reported that reliability estimate scores on both Forms A and B of the RN Comprehensive Predictor 2007 was .79. Further, a statistically significant relationship was found between the Comprehensive Predictor scores and the NCLEX-RN pass/fail, with a 27.2% reduction in predictive error (Kelley, 2009). ATI Comprehensive Assessment and Review Programs include more than 10 categories for testing (Assessment Technologies Institute, L.L.C., 2016). Community health ATI testing is one of eight tests students need to master before graduating, including nursing care of the developing family, nursing care of children, pharmacology, nutrition, nursing care of medically complex patients, mental health
nursing, and leadership and management (The University of Tampa Department of Nursing, 2016).

The ATI scores are also considered valid and reliable (see Appendix D) predictors of NCLEX-RN pass rates for students (Alameida et al., 2011). The instrument selected for the testing has been developed under the same type as the NCLEX-RN test and is available in a computerized format for immediate feedback for the students and in a format for faculty to use the data for individual student assistance, summaries of information, and evaluation of curriculum (Alameida et al.). The ATI Content Mastery Series had been chosen for the study as it had all the characteristics needed by the faculty at the urban university nursing program (Alameida et al.). ATI had developed the standardized tests; however, no test results of separation of diverse population were compiled (Alameida et al.). The results of the study indicated that “the ATI RN Comprehensive Predictor has utility in predicting first-time pass success even in a racially diverse student population” (Alameida et al., p. 266). Alameida et al. also noted that the ATI testing is valid and highly reliable. The reliability coefficient (see Appendix D) of the ATI community health nursing test is shown to be fairly high (Ascend Learning (In Press), 2016).

The second instrument used was the TSET (see Appendix B) by Jeffreys (2010). The Cultural Competence Education Resource Toolkit ©, which contains the TSET was received by the researcher, and the terms and conditions of use of the TSET instrument were signed, returned by the researcher, and approved by Springer Publication as required. The test has 83 items on the questionnaire that are designed to “measure and evaluate the learners’ confidence (transcultural self-efficacy) in providing transcultural
nursing expertise to a variety of cultural patients” (Jeffreys, 2016, p. 2). The questionnaire is divided into three parts. Each part has questions for students to rate themselves using a 10-point rating scale (1=non confident to 10=totally confident; Amerson, 2009). The TSET has three subscales, which are cognitive, practical, and affective (Amerson, 2009). The cognitive subscale has 25 items: it asks how knowledgeable the student is of various cultural factors that might influence nursing care. The practical subscale has 27 items: it asks about conducting an individual client cultural assessment. The affective subscale has 29 questions: it asks about self-knowledge, acceptance, appreciation, recognition, and awareness about caring for people of other cultures (Jeffreys, 2016, Amerson, 2009).

Jeffreys (2016) explained that the items on the TSET questionnaire are designed to “measure and evaluate the learners’ confidence (transcultural self-efficacy)” (p. 2) in providing transcultural nursing expertise to a variety of cultural patients. Three areas of validity of the tool were constructed: content, construct, and criterion-related (Jeffreys, 2010). The test has provided both “high estimates of validity and reliability on subscales and the total questionnaire” (Jeffreys, 2016, p. 2).

Equally important, Loftin, Hartin, Branson, and Reyes (2013) reported reliability of the TSET as “total alpha .97 and .98 with subscale alpha ranging from .90 to .98” and reported validity as “content validity by a 6 member expert panel followed by factor analysis confirming construct validity” (p. 3). Further review of the instrument indicated reliability of the subscales with the alpha “coefficient of 0.91 for the cognitive subscale, 0.91 for the practical subscales and 0.92 for the affective subscale (Lim, Downie, & Nathan, 2004, p. 431). The TSET has been tested and used in a variety of sites and
scenarios and has been identified as a meaningful instrument (Loftin et al.). Overall results of the TSET testing indicated that the tool was reliable to “measure students’ self-efficacy in providing transcultural care to diverse cultural groups” (Lim et al., p. 431).

The third instrument was the set of focus group questions (see Appendix C), which was developed by the researcher and reviewed by two nursing educators, one from the private sector and one from a public university. Both agreed that the tool appeared to measure what is being asked, with a few minor corrections. Face validity is a type of validity in which one can look at the instrument or tool to “see whether on its face it seems like a good translation of the construct” (Trochim, 2006b, para 5). Trochim described face validity as subjective judgment, looking at the face value of a program. Face validity can run the risk of not being of convincing validity to others but can be improved by sending a test or the program to a panel of subject experts to review for their opinions of the subject matter (Trochim).

The focus group questions were developed by the researcher utilizing information from Erickson (2013) and Hunt (2013). Nine questions were explored during the focus group meetings (see Appendix C). Focus groups have the focus of the predetermined questions; however, the interview process helped explore the students’ understanding (Perrin, 2015).

The results of the quantitative data and the qualitative data were analyzed. Due to the lack of availability of the comprehensive ATI scores for the Fall 2018 semester, the Community Health ATI scores compared to the location of experiences were reviewed. The information was reviewed, with results being merged, and patterns looked for convergence, divergence, contradictions, and/or relationships between the databases
Procedures

The approach to the research study was a mixed method, convergent parallel design. Upon approval of the dissertation proposal, the researcher received approval for the IRB process at both Nova Southeastern University and the University of Tampa. During the summer of 2018, the Dean of Nursing and faculty gathered and separated the scores of the cumulative ATI testing and provided them to the researcher. Once the Fall 2018 semester began, the researcher selected dates for the focus group discussions and the TSET survey. During NUR 422L seminar discussions, participants were invited to participate in the focus group discussions and the TSET survey and self-identified in which group they were. The in-country focus group was held on October 29, 2018. The out-of-country focus group was held November 13, 2018. The TSET survey and invitation to participate were emailed to the students November 12, 2018 and reminders sent twice. The survey was closed December 4, 2018.

Research Question 1. In the quantitative phase of the study, community health ATI test results were collected through the School of Nursing’s database of approximately 200 students who had graduated. After the IRB approvals from Nova Southeastern University and the University of Tampa School of Nursing had been granted, the researcher met with the Dean of Nursing. Faculty from the School of Nursing prepared the list of scores, separated into in-country training and out-of-country training. No additional student identification information was received. The information was hand-delivered to the researcher by the Dean of Nursing.

Research Question 2. Twenty-six currently enrolled senior nursing students were
sent an email by the researcher, inviting them to participate in the survey (the Transcultural Self-Efficacy Tool, Appendix B). As adjunct faculty at the university, the researcher did receive permission to access the students’ school email addresses. The researcher had converted the TSET survey to an electronic form, through SurveyMonkey, that included all the benefits, risks, purpose, and permission as required. The only identifying information collected was whether the student completed community health nursing experience in the country or completed community health nursing experience out-of-country. The size of both groups was defined by the number of students who chose to respond, which ultimately included 6 students in the in-country group and 7 students in the out-of-country group.

**Research Question 3.** The lead Community Health Nursing Professor gave the researcher permission to discuss the focus group information in NUR 422L seminars and allowed students to participate in a sample of convenience from the population of self-selected participants of two groups of students who had received their community health nursing experience representing both out-of-country and in-country. Activities for community health nursing students referenced in Research Question 3 included classroom lectures and field experience and recognizing vulnerable populations, community resources, environmental hazards, and community needs (American Nurses Association, 2013; Hunt, 2013; LaComb-Williams, 2015). The focus groups were subjected to a predetermined set of questions with the adaptability of the researcher to explore comments made by participants to explain the topic (Perrin, 2015).

The procedure for the focus groups was as follows:

- The lead professor and researcher met with the senior nursing students on a
seminar day.

- The students had already met the researcher on the first day of class. The researcher described the nature of the focus groups, the purpose of the focus groups, and the features of the research project and answered any questions.

- Consent forms were distributed by the researcher and collected by the researcher that day at the end of the seminar.

- Each group consisted of five students.

- After the students signed the focus group consent form for participation, indicating their awareness of privacy in the research study, interviews were scheduled with the members of each group independently at a time and place convenient for both the students and the researcher. Each focus group interview took one hour.

The focus group interview procedures were as follows (Creswell, 2015):

- The date, time, and location for the interviews were selected as convenient as possible for the students and interviewer. A quiet and suitable place was selected for the interviews.

- Students were advised that the interview would be recorded and taped for accuracy of interpretation, with a transcriptionist transcribing the notes and tape.

- On the day of the interview, the interviewer introduced herself and asked students to identify themselves.

- The questionnaire was handed out to the students to review.

- The interviewer took notes during the interview.
• Verbal probes were used to gather additional answers during the interview.

• When the interview was over, the interviewer thanked the participants and reminded them that the interviews were confidential and did not have any effect on their final grades in the class.

• The first focus group recording was incomplete due to technical difficulty of the recording device. The interviewer made notes for the unrecorded part of the focus group session. The second group recording was successful with a recording and video-taping device.

Data Collection, Sampling, and Analysis

The research method was a mixed methods approach, with Research Questions 1 and 2 being quantitative questions and Research Question 3 being a qualitative question.

Research Question 1. Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between ATI scores of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences? The scores were utilized to test meaningful learning theory to assess whether there was a relationship between ATI scores and whether community health nursing experience was in-country or out-of-country. The Dean of Nursing and nursing faculty were able to help identify which students completed their community health experiences out-of-country or in-country. The ATI test scores were recorded and stored at the university’s school of nursing.

A purposive sampling method was used of the target population, which was all the senior nursing students who had taken the ATI tests, resulting in a nonprobabilistic and sampling with a specific purpose in mind (Trochim, 2006a). The data from the ATI
scores were interval data.

The results of the ATI scores in community health nursing for the previous BSN graduates for the last five years was provided to the researcher from the computerized scores available through School of Nursing’s database and the faculty. The information from the faculty who retained the data on whether the students received their community health nursing experience in-country or out-of-country were collected by the Dean and shared with the researcher. The information was recorded by the faculty on a data-gathering tool, with the identifying information of the students being omitted, except for the type of community health nursing experience the students had. The data were subjected to an independent samples two-tailed *t* test, evaluated at *p*<.05 level, as there were two sets of quantitative data to see if there was a relationship between them. The independent variable—whether the student had the community health nursing experience in-country or out-of-country—was considered nominal data. Quantitative data were gathered from ATI scores and separated into the two groups by faculty. The data were analyzed in SPSS (SPSS Statistics GradPack, 2018).

**Research Question 2.** Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between TSET scores (cognitive, practical, and affective) in community health nursing of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences? The instrument that was used for answering Research Question 2 was the Transcultural Self-Efficacy Tool by Jeffreys (2010; see Appendix B).

This study attempted to see if there was any relationship between the self-
identified self-efficacy knowledge and the location of the community health nursing experience. The quantitative data were from currently enrolled senior community health nursing students at the researcher’s university. Results of confidence (transcultural self-efficacy) TSET tests were compared between the group that received out-of-country community health experiences and the group that received in-country community health experiences. Initially the “strength of self-efficacy perceptions within a particular dimension (subscale) of the construct” was calculated by “totaling subscale item responses and dividing by the number of the subscale items, resulting in the mean score” (Jeffreys, 2016, p. 1). The scores were separated by the two groups. For each group, independent sample t tests were conducted. The independent variable corresponded to location of experience: in-country and out-of-country. The dependent variable corresponded to TSET scores: cognitive, practical, and affective. The data were analyzed in SPSS.

Research Question 3. What conceptual knowledge of the relevant skills and practical knowledge required to service communities did senior community health nursing students, those who had had an out-of-country experience and those who had had the experience in Florida at an urban university demonstrate in describing their understanding of community health nursing experiences? For Research Question 3 (qualitative design), the target population included currently enrolled senior nursing students as participants who had had community health nursing experience out-of-country or in-country and were gathered from a sample of convenience from currently enrolled nursing students. Two focus groups of five each were formed.

The qualitative data collection process focused on the students’ perceptions of
their confidence levels of professional nursing (see Appendix C). The qualitative phase was conducted to help explore students’ conceptual knowledge of relevant skills and practical knowledge in community health nursing at the researcher’s university.

Creswell’s (2015) steps were followed in analyzing and interpreting the data.

- The researcher collected the data through the interviews, which were recorded and video-taped. The first focus group discussion was written from the researcher’s notes, as the video equipment was not working. The second focus group discussion was recorded by hand and video-taped.

- A transcriptionist was used to transcribe the information obtained through the recording of the out-of-country focus groups. The notes and the recordings were subsequently reviewed. The researcher prepared and reviewed for accuracy the discussion from the in-country focus group.

- Students were given the opportunity to check the transcriptions. No students chose to review the transcriptions.

- The researcher subsequently read through the transcriptions to get a general understanding of the material.

- The researcher sorted the data into various categories and themes and then coded, as recommended by Creswell (2015), Shosha (2012), and Eliot & Associates (2005). The codes and themes were used in the researcher’s report.

**Limitations**

Limitations to generalizability may occur from the sample size and the nonrandom method of sampling (Creswell, 2015). The actual sizes of the focus groups with respect to Research Question 3 were small—five in each of the groups.
If statistical comparisons are to be considered valid for Research Questions 1 and 2, one needs a random sampling from a large and representative population (Creswell). A total sample of 146 from a database in Research Question 1 was used and a survey sample of 13 for Research Question 2 was used. The survey sample that was drawn from 10 students for Research Question 3 cannot be determined to be representative of either the student population at the school or a broader population of similar students in other universities.

Face validity of the tool for the focus group questions could have been enhanced by sending the tool to more than two experts (Trochim, 2006b); however, two experts did review and approve the tool.

Yin (2012) cautioned that convenience sampling is not a preferred method of sampling. An unknown degree of incompleteness may be produced. The sampling may also produce an undesirable degree of bias. Yin noted that the snowball sampling procedure could be used to follow up on leads from other interviews; however, the researcher did not attempt to follow up on the potential leads. Although all the students were self-separated into the two groups and the students were familiar with each other, there could have been participants who found the focus group situation “intimidating or off-putting and participants may feel under pressure to agree with the dominant view” (Birmingham City University, UK, 2006, para 3).

The researcher acknowledges that efforts were made to reduce interviewer bias by offering the participants an opportunity to review the transcripts; however, no participants accepted the offer. The researcher did review the results and compared and contrasted the results of each coding set as indicated by Sutton and Austin (2015). Gaps in time were
minimized between the time of the focus group discussions, transcription, and coding to reduce memory inconsistency about environmental or nonverbal issues that might affect interpretation of data (Sutton & Austin). The researcher also acknowledges that she is one of the adjunct professors for the students in each group. The elements of moderator bias during the focus groups discussions were attempted to be limited with the moderator’s neutral dress, tones, and body language and by her not giving an opinion during the focus groups (FocusGroupTips.com, 2017). Also, consideration of hidden variables, such as academics, including grade point average, and socioeconomic status, such as an individual’s and family’s incomes, might need to have been considered; however, those factors were not considered in the study (Creswell, 2015; Perrin, 2015).

**Ethical Considerations**

Participants from the focus groups were required to sign informed consent forms. Participants in the TSET survey had the consent information available to them online, which thus allowed them to decide whether to proceed without having to sign a form. The researcher contacted the Dean of Nursing at the researcher’s university for permission to gather the ATI scores, to proceed with the focus groups, and to proceed with the distribution of the TSET surveys. Permission was also obtained through the IRB process from both Nova Southeastern University and the researcher’s university. An additional ethical precaution was that the data from the survey group in Research Question 1 were sent to the researcher in anonymized form, and the online surveys were also anonymized.
Chapter 4: Results

Introduction

The purpose of the study was to examine the relationship between senior community health nursing students’ ATI test scores, as a measure of cultural proficiency, and their clinical community health nursing experiences, either in-country or out-of-country. The study also examined what similarities and differences the two groups of students reported in their sense of confidence or transcultural self-efficacy and conceptual knowledge and their clinical experiences.

Chapter 4 provides the results of the mixed method study, quantitative data collection of ATI scores and of the TSET survey results and qualitative data collection of the focus group discussions of both groups of nursing students. Data from the ATI scores (Tables 2, 3, and 4), TSET results (Tables 5 and 6), and focus group summaries of dominant themes (Table 7) are used to illustrate a picture of the two groups of senior nursing students, one who received community health nursing training in-country and one that received training out-of-country from a southern, urban university. The study attempted to show whether there were any differences in ATI scores, transcultural self-efficacy, and the understanding of community health nursing principles. The study is considered nonexperimental. The researcher utilized a mixed method approach, with two quantitative questions, relating to electronic survey and ATI test scores in community health nursing, and one qualitative question for focus groups.

For the data collected for the project, the students involved in Research Question 2 and Research Question 3 were Fall 2018 community health nursing students who had not taken the ATI mastery exam prior to the implementation of focus groups and the
TSET survey. The NCLEX-mastery exams and final ATI exams will be given in the Spring 2019.

Out of 26 students taking the NUR 422 course in the Fall of 2018, 20 passed with either a Level 2 or 3. Six students were below a Level 2, which is the expected level of ATI achievement (Table 2). Two of the students who failed the ATI test at the end of the course had traveled out of the country for their community health experience. Four of the remaining students who did not pass the ATI test at the end of the course had in-country community health nursing experience. The students do not retake the Community Health ATI exam. The students will remediate by completing templates related to each topic area that they missed. The students will take a comprehensive ATI predictor exam in April 2019, which will have some Community Health content integrated within the exam. (R. White, personal communication, January 11, 2019). The researcher did not have access to their final ATI scores, as these students will not take the final test until the Spring of 2019.

Table 2

<table>
<thead>
<tr>
<th>Proficiency level</th>
<th>n= In-Country</th>
<th>%</th>
<th>n= Out-of-Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 or below (x ≤ 72%)</td>
<td>4</td>
<td>23.5</td>
<td>2</td>
<td>22.2</td>
</tr>
<tr>
<td>Level 2 or Level 3 (74% ≤ x ≤ 100%)</td>
<td>13</td>
<td>76.5</td>
<td>7</td>
<td>77.8</td>
</tr>
</tbody>
</table>

Note. “The gaps in percentage values between the Level 1 and Level 2 cut scores and between the Level 2 and Level 3 cut scores reflect a one-item difference in the total number of correct items. Values between the percentages listed for each cut score are not possible” (Scribd, 2019, para 1).
Creswell’s (2015) five steps in hypothesis testing were followed for the quantitative data: identifying the null hypothesis; setting the level of significance or alpha level for rejecting the null hypothesis; collecting data; computing the sample statistics; and deciding whether to reject or fail to reject the null hypothesis. The results of the quantitative data analysis are presented for Research Questions 1 and 2. The qualitative data results from the focus group interviews for Research Question 3 are presented last. Stake’s (2005) cross-case analysis process of the two focus groups was utilized.

**Results for Research Question 1**

Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between ATI scores in community health nursing of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences?

The null hypothesis was nursing students who received their community health nursing experience in-country did not have significantly different ATI scores in community health nursing and higher perceptions of self-efficacy and conceptual knowledge than the students who received their experience out-of-country.

**Number of participants.** A total of 69 students had an in-country experience and 75 had an out-of-county experience prior to their final ATI Comprehensive Exam before graduation.

**Instruments used.** The ATI scores were gathered from the school of nursing’s database by the nursing faculty. The ATI tests provided the students with feedback on their mastery of the topic content and for any areas of improvement (Newman & Williams, 2003).
The computer software program SPSS (Version 25.0) was used to analyze the data for the ATI scores. The Kolmogorov-Smirnov test was completed on the ATI scores to test the normality assumption, while the Levene’s test was performed to assess the homogeneity of variance assumption. The null hypothesis was nursing students who received their community health nursing experience in-country did not have significantly different ATI scores in community health nursing and higher perceptions of self-efficacy and conceptual knowledge than the students who received their experience out-of-country. The null hypothesis was not rejected, due to non-significant results of the analysis.

**Data findings.** To address Research Question 1, an independent sample two-tailed $t$ test was conducted with the aid of SPSS. The independent variable corresponded to the students who completed community health nursing experience out-of-country and those completing the experience in-country. The continuous dependent variable corresponded to ATI scores.

Prior to analysis, the assumption of normality and homogeneity of variance was tested. The Kolmogorov-Smirnov test was performed on the ATI scores to test the normality assumption (George & Mallery, 2016). The findings were statistically significant ($p = .024$), suggesting that the assumption of normality was not met for ATI scores. Levene’s test was used to assess the homogeneity of variance assumption (Terrell, 2012). The findings were not statistically significant, $F(1,142)=2.18$, $p = .142$, suggesting that the variance in the dependent variable by location was approximately equal.

The result of the independent samples $t$ test (Table 3) was not statistically significant, $t(142) = 1.28$, $p = .201$, suggesting that there were not significant differences
in ATI scores between in-country and out-of-country experiences. Students with in-country experiences scored slightly higher than those with out-of-country experiences.

Table 3 presents the results of the two-tailed independent samples t test.

Table 3

*Independent Samples t Test for Differences in ATI Scores by Location of Experience of Nursing Students*

<table>
<thead>
<tr>
<th>Variable</th>
<th>In-country</th>
<th>Out of country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>n=69</td>
<td>n=75</td>
</tr>
<tr>
<td>Measures</td>
<td>69</td>
<td>75</td>
</tr>
<tr>
<td>ATI Scores</td>
<td>78.75</td>
<td>77.12</td>
</tr>
</tbody>
</table>

*Note.* Degrees of Freedom for the t statistic=142. n=number of students in each category. M=mean scores

Figure 1 illustrates the insignificant difference in mean scores for the 69 in-country students and for the 75 out-of-country students.

![Bar chart for ATI scores by location.](image)

*Figure 1.* Bar chart for ATI scores by location.

Proficiency levels of the ATI tests are prepared by Assessment Technologies Institute, Inc. and are utilized by nursing schools in evaluating the students’ scores.
The proficiency level of the 144 ATI scores were further examined. Table 4 presents the proficiency level for ATI scores of all nursing students as the frequency distribution, indicating that the largest cluster of scores was at Level 2 and almost none at Below Level 1.

Table 4

<table>
<thead>
<tr>
<th>Proficiency level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Level 1 (x &lt; 54%)</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Level 1 (58% ≤ x ≤ 72%)</td>
<td>37</td>
<td>25.7</td>
</tr>
<tr>
<td>Level 2 (74% ≤ x ≤ 82%)</td>
<td>70</td>
<td>48.5</td>
</tr>
<tr>
<td>Level 3 (84% ≤ x ≤ 100%)</td>
<td>36</td>
<td>24.5</td>
</tr>
</tbody>
</table>

Note. “The gaps in percentage values between the Level 1 and Level 2 cut scores and between the Level 2 and Level 3 cut scores reflect a one-item difference in the total number of correct items. Values between the percentages listed for each cut score are not possible” (Scribd, 2019, para 1).

Results for Research Question 2

Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between TSET scores (cognitive, practical, and affective) in community health nursing students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences?

The null hypothesis was nursing students who received their community health nursing experience in-country did not have significantly different ATI scores in community health nursing and higher perceptions of self-efficacy and conceptual knowledge than the students who received their experience out-of-country.

Number of participants. All 26 students in the community health nursing class were invited to participate in the survey, with the information given in class and an
electronic survey link sent to all the students. Two reminders were sent, as there was a low response at first. The total number of participants was 13. Six students with in-country community health nursing experience responded to the TSET survey, while seven students with out-of-country community health nursing experience responded.

**Instruments used.** A link to the TSET questionnaire that was placed in SurveyMonkey was sent via the university’s email system to all 26 students in the community health nursing class. The results were gathered from SurveyMonkey and tabulated according to cognitive, practical, and affective responses. The data were entered into SPSS software.

SPSS (Version 25.0) was used to analyze the data for the TSET scores. The Kolmogorow-Smirnov test was applied to the TSET scores to test the normality assumption, while the Levene’s test was performed to assess the homogeneity of variance assumption. Due to non-significant results of the analysis, the null hypothesis was not rejected.

**Data findings.** To address Research Question 2, three independent sample \( t \) tests were conducted. The independent variable corresponded to location of experience: in-country and out-of-country. The continuous dependent variable corresponded to TSET scores: cognitive, practical, and affective.

The TSET is an 83-item survey. The variables were computed through summations of the respective items comprising each scale. A Cronbach alpha coefficient was calculated for each of the scales. The Cronbach's alpha coefficient was interpreted using the guidelines suggested by George and Mallery (2016) where “\( > .9 \)” categorized as excellent, “\( > .8 \)” categorized as good, “\( > .7 \)” categorized as acceptable, “\( > .6 \)” categorized
as questionable, “> .5” categorized as poor, and “≤ .5” categorized as unacceptable. The results of the reliability test were excellent for Cognitive, Practical, and Affective (see Table 5).

Table 5

Reliability Table for TSET Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>No. of Items</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>25</td>
<td>.97</td>
</tr>
<tr>
<td>Practical</td>
<td>28</td>
<td>.98</td>
</tr>
<tr>
<td>Affective</td>
<td>30</td>
<td>.97</td>
</tr>
</tbody>
</table>

Prior to analysis, the assumption of normality and homogeneity of variance were tested. The Kolmogorov-Smirnov test was performed on the TSET scales to test the normality assumption (George & Mallery, 2016). The findings were not statistically significant for cognitive (p = .200), practical (p = .117), and affective scores (p = .200), suggesting that the assumption of normality was met. Levene’s test was used to assess the homogeneity of variance assumption (Terrell, 2012). The findings were not statistically significant for cognitive scores, $F(1,11) = 2.65, p = .560$, suggesting that the variance in cognitive scores by location was approximately equal. The findings were not statistically significant for practical scores, $F(1,11) = 0.97, p = .347$, suggesting that the variance in the practical scores by location was approximately equal. The findings were not statistically significant for affective scores, $F(1,11) = 4.32, p = .062$, suggesting that the variance in affective scores by location was approximately equal.

The results of independent samples t test for differences in cognitive, practical, and affective TSET scores by location of experience of nursing students
(see Table 6) were not significant (all $p > .05$), indicating there were not differences in cognitive, practical, and affective scores by location of experience.

Table 6

*Independent Samples t Test for Differences in Cognitive, Practical, and Affective TSET Scores by Location of Experience of Nursing Students*

<table>
<thead>
<tr>
<th>Variable</th>
<th>In-country</th>
<th>Out-of-country</th>
<th>$t(11)$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>196.83</td>
<td>184.00</td>
<td>0.56</td>
<td>.587</td>
</tr>
<tr>
<td>Practical</td>
<td>194.00</td>
<td>197.57</td>
<td>-0.14</td>
<td>.894</td>
</tr>
<tr>
<td>Affective</td>
<td>258.83</td>
<td>242.14</td>
<td>0.71</td>
<td>.491</td>
</tr>
</tbody>
</table>

The following three bar charts (Figures 3, 4, 5) illustrate the insignificant differences in cognitive, practical, and affective scores by location of nursing students’ clinical experience. Affective learning involves attitudes, values, beliefs, self-awareness, and an “awareness of cultural gap” (Jeffreys, 2016, p.48). The in-country focus group discussions are suggestive of the increased awareness of other cultures in the United States during their training, or the higher scores of the in-country group on the affective variable.
**Figure 2.** Bar chart for cognitive scores by location of nursing students’ clinical experience.

**Figure 3.** Bar chart for practical scores by location of nursing students’ clinical experience.
Results for Research Question 3

What conceptual knowledge of the relevant skills and practical knowledge required to service communities did senior community health nursing students, those who had had an out-of-country experience and those who had had the experience in Florida, at an urban university demonstrate in describing their understanding of community health nursing experiences?

Number of participants. Ten students participated in two focus groups. The first group of five senior nursing students in the focus group discussions were the participants who had had in-country community health experience. The second group of five senior nursing students were the participants who had had out-of-country community health nursing experience. The students volunteered to participate in the focus groups when asked by the researcher during their community health-nursing seminar and self-selected in which group to attend. Students were advised during the seminar that their participation was not mandatory and that they would not be graded on their participation.
or answers. Consent forms were signed and collected after class. The in-country student focus group was held on October 27, 2018. The out-of-country focus group was held on November 13, 2018. The first group’s responses were recorded by hand as the recording equipment was not working. The results were obtained from the researcher’s memory and notes taken during the discussion (Krueger & Casey, 2015). The second group’s responses were recorded and transcribed by a transcriptionist. Responses were reviewed for accuracy and categorized by themes of similarity and differences (Krueger & Casey).

Each participant in the in-country group was assigned a unique number from 1 to 5, followed by the letter “a”, while each participant in the out-of-country group was similarly assigned a number followed by the letter “b.” The notes and transcriptions from both the in-country group and the out-of-country group were reviewed by the researcher for similarity in dominant themes. The focus group questions were then separated per group, with each individual question and responses reviewed for similar themes and phrasing. The themes were color-coded and separated into categories by the researcher and also analyzed by the QSR International’s NVivo 10 Software.

**Instruments used.** The focus group questions appear in Appendix C. The transcripts of the focus group discussions were analyzed using the QSR International’s NVivo 10 Software including review and categorization by the researcher. The NVivo program allows one to nest codes, or code specific pieces of information in multiple ways (Krueger & Casey, 2015). The program and individual review helped the researcher to sort out large sets of data, to be able to code the data, and then to make sense of the information (Krueger & Casey). The responses of the focus group participants from in-country and out-of-country experiences were categorized by dominant themes (Table 7).
Table 7

**Dominant Themes Expressed by Focus Group Participants’ In-Country or Out-of-Country Experiences**

<table>
<thead>
<tr>
<th>Dominant Themes</th>
<th>In-Country</th>
<th>Out-of-Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills for community nursing</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Patient assessment skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Environmental assessment skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Strong communication skills</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>0</td>
<td>√</td>
</tr>
<tr>
<td>Autonomy and critical thinking</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Cultural competency</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Benefits</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Barriers/Drawbacks</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>ATI preparation</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

*Note: Symbol √ = mentioned by focus group participants as a dominant theme. 0 = not mentioned by focus group participants*

Themes, subthemes, and codes were identified from the two focus groups and categorized for comparison (Table 8).
Table 8

Dominant Themes, Subthemes, and Codes Expressed by Focus Group Participants’ In-Country or Out-of-Country Experiences

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills for Community Nursing</td>
<td>Cultural competency</td>
<td>In-Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-environmental assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-improvisation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-patient needs assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-cultural competency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Out-of-Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-communication skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-environmental assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-expertise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-meeting patients at their level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-patient needs assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-problem-solving and adaptability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-cultural competency</td>
</tr>
<tr>
<td>In-Country Experience</td>
<td>Benefits of in-country experience</td>
<td>In-Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-knowledge of own community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-provides first-hand training</td>
</tr>
<tr>
<td></td>
<td>Drawsbacks of in-country experience</td>
<td>In-Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-language barrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-differences in distribution of wealth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-knowing what to expect versus open-mindedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-better prepared for community health class</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-provided a different point of view</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-provided head start</td>
</tr>
<tr>
<td></td>
<td>Drawsbacks of out-of-country experience</td>
<td>Out-of-Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-lack of preparation for ATI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-language barrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-missing out on other CH opportunities</td>
</tr>
</tbody>
</table>

In-Country Focus Group Results

Each participant in the in-country community health nursing experience provided his/her definition of what community health nursing meant to him/her. Generally, students believed that community health nursing was about nursing skills taken outside of the hospital or clinical setting and applied to the community setting. Included in the definition was the application of nursing skills to outpatient locations and home health
care settings. Participants also suggested community health nursing was focused more on the health of the community and population rather than on the individual patient.

**Skills for community nursing.** The participants who experienced in-country community health nursing described important skills needed for community nurses, leading to the creation of the theme of skills for community nursing. Participants shared many skills they felt were important for community nursing, and this theme contained one subtheme: cultural competency.

**Patient assessment skills.** Four of the participants identified patient assessment skills as important. Participant 1a said that in community nursing, “you have to identify the patient needs more.” The participant provided an example of an experience in which a patient needed a bedside commode but had been using a bucket. In the example, the home care nurse ordered a proper commode because “the patient had no one [to help him/her], and the nurse also asked for an aide to go into the home two times a day.” Participant 4a also discussed the importance of patient needs assessment and the ability to obtain needed supplies like “tube feedings, specific feedings that may vary every day.”

**Environmental assessment skills.** In addition to patient assessment skills, Participant 3a noted that nurses need the ability to evaluate the home environment for safety factors and the ability for “looking at the positive environment for healing.” Participant 3a also stated that adequate patient needs assessment required adaptability and ability to improvise in the home environment. Participant 4a explained that the nurse may identify the patient needs more, especially for equipment. “In the home, you have to improvise, use things that are not usually used when needed,” Participant 4a said.
**Strong communication skills.** Participants described the need to have strong communication skills. Communication skills needed included skills in communicating with both doctors and patients and acting as an advocate on behalf of patients. Participant 3a said that “communication skills in home health care like calling the physician” were important skills for community nurses to have. The group agreed that hospice work was an important area where community nurses needed to have strong communication and advocacy skills. Participant 3a also shared an example of a patient in hospice care who was not showing signs of pain and was sitting in a chair, “but had a high level (10) of pain.” Participant 3a continued, “the nurse needs to advocate for medications for the patient and to help [the patient] be more comfortable.” Participant 5a shared an example of his/her use of communication skills in an elementary school working with children with diabetes. Despite the requirements of parents to provide insulin and supplies for their children, Participant 5a noted that “the school nurse has to call to remind [parents] of the need for supplies,” which required careful communication with parents.

**Autonomy and critical thinking.** Participants were expressive in many examples of the autonomy of the community health nurse and the amount of critical thinking the nurse does. Participant 4a discussed how the nurse had to adjust to the patient’s environment, not the hospital room. In describing differences between hospital nursing and community health nursing, Participant 3a noted that the thoughts of nurses in acute care are to “cure them to get them out.” Participant 3a looked more at the autonomy and critical thinking involved in describing that community nursing “is a holistic approach.” Participant 1a also said that supplies and resources are readily available in the hospital but “in home make do.”
**Cultural competency.** Participants described how important it was for community nurses to possess some degree of cultural competency. Definitions of cultural competency varied among participants, but all shared that to provide culturally competent community nursing, care must be appropriate to the patient and situation, which required an understanding of a patient’s background.

Participant 1a believed that to be culturally competent, a community nurse must “step into someone else’s shoes, make appropriate changes as possible but realize you don’t know all their background.”

Participant 2a described cultural competency as the ability to “learn different ways, accept, and accommodate what you do” to the patient.

Participant 3a shared that cultural competency was the “need to assess your own culture and then assess the patient’s culture and involve that in your care.”

Participant 4a said that, to have cultural competency, “have a basic understanding of the patient’s culture, not judging, how where they live affects their healthcare, what is available.”

Participant 5a defined cultural competency as being “able to provide care to people of other backgrounds.”

The in-country community health nursing experiences provided a platform for participants to develop their cultural competency. “By going to different locations, health departments, schools, hospice, it shows health care different,” explained Participant 2a. The participant also voiced that s/he had developed greater cultural competency through the in-country experience, as the experience provided more exposure “to more diverse patients rather than on the same floor in the hospital.” Through the in-country experience,
Participant 3a saw “more avenues public health uses to communicate. Examples include pamphlets and when needed using family members for translating instead of the language phone.” Participant 3a believed that the realities of community nurses are “not so textbook.” Participant 4a also felt that the in-country community nursing experience was “when we experience home health, we see it in real life.” Summarizing, the experiences in community health nursing and the examples stated by the students led to the estimation that participants had developed greater cultural competency.

**Benefits and/or barriers of in-country experience.** Participants were able to acknowledge both benefits and/or barriers of their in-country experience. Participants did agree that the experience was beneficial, especially since they all planned to continue working in the United States. The students did not define any drawbacks of their in-country experience.

**Benefits of in-country experience.** Through their in-country community nursing experience, participants indicated that they had gained benefits that would help them in their careers as community nurses. For many participants, the experience strengthened what they learned in classes and through textbooks, allowing them the chance to see the application of the material they could only read or hear about in the classroom. As Participant 2a stated, “the experiences give an overall picture, which you can’t really learn in the classroom.” Instead, the in-country experience was important to “reinforce classroom material,” according to Participant 1a.

Participants also believed the in-country community health nursing experience was important because “seeing it first hand is important,” as Participant 5a stated. For example, “you see what the Spanish culture is here rather than what is seen out of the
country.” Participant 5a shared, meaning that while cultural background was important for understanding a patient, understanding that patient in the community of practice was also very important. Participant 3a felt that since “most of us will be working in the United States, in [Florida], and are exposed to things here,” it was important to gain a better understanding of the community in which community nurses will spend their careers. “Seeing what is going on in our own community. You can see what change you make,” Participant 4a said.

**Barriers of in-country experience.** Participant 2a expressed that language was a barrier in the in-country experiences. Participant 1a noted the vast differences in the distribution of wealth in the in-country experiences. Participant 2a stated that their in-country group had an idea of “what to expect here versus the other group that was more open-minded.”

**ATI preparation.** Although the students had not taken the community health ATI exam prior to the interviews, the students noted the benefit for them was to see the nursing activities in action. Participant 4a noted, “ATI is too textbook.” Participant 1a expressed that seeing what the nurse had done in action would be helpful in answering a question during the test. Participant 1a summarized by saying that “we are still performing skills, but clinic visit reinforces classroom material.” The answers were noting the in-country experiences would be beneficial for the ATI test.

**Out-of-Country Focus Group Results**

Parallel to the in-country experience counterparts, participants who took part in the out-of-country experience expressed their definitions of community nursing. Participants described community nursing as more about prevention than what is seen in
the clinical setting with acute care. Participants described that much of primary prevention in community nursing had to do with patient and family health education, for which they felt community nurses are responsible. Participant 3b said that in community nursing, “you’re trying to prevent the community as a whole from being sick. And a lot of education, too, about smoking and preventive care.” Participant 2b also believed education was a key component of community nursing: “A lot of education, whether it’s like a group-based…like, you’re meeting a whole…a city that has a problem, like, with hypertension or something, or it’s individual based as well.” Participant 1b also suggested “a cultural component” to community nursing, another theme that will be discussed in a later section of this chapter.

**Skills for community nursing.** Participants who completed the out-of-country community nursing experience described the skills required of community nurses. The skills that participants described led to the creation of themes for community nursing and cultural competency.

**Patient assessment skills.** Participants believed that the ability to assess patients’ needs was a skill important for community nurses. “You just have to have to, like, be able to, like, critically think and see what the patient needs most at the time,” said Participant 2b. Participant 4b provided an illustrative example of the skill. S/he stated:

I think assessment skills are really important, like we saw in [underline] where we’re trying to assess which kids had a little bit of advantage with English and then which spoke just Spanish, or if some didn’t even speak Spanish well. So, we dealt with that there. And there even here, too, at some of the clinics, you have to assess what’s going on. Like, are they a
smoker or do they drink, things like that. So, you get to the root of the problem more. I feel like you see that more in community health than you do in acute care.

*Environmental assessment skills.* The ability to assess a patient’s environment and how this supports or hinders their needs was also an important skill. Participant 3b shared an example of environmental assessment in the community context. Participant 3b said:

I think assessing their environment is really important too, like, what’s feasible for them, like what kind of care at home is feasible for them, and if they need to be in the hospital or if someone can take care of them at home. And being able to, like, recognize when you should call 9-1-1 on someone at home.

*Strong communication skills.* One participant spoke about the importance of communication skills. “I think communication skills are really important, too,” said Participant 3b. The student provided an example of a scenario in which s/he was “arguing back and forth with the patient about throwing out expired antibiotics.” The participant said that to stop the argument, “you kind of have to see where they’re coming from, why they don’t want to throw them out, because they don’t have the money to buy new ones.”

*Problem solving skills.* Three participants from the out-of-country community described the important skill of problem-solving, which included being adaptable and able to improvise in the moment. Participant 2b said:

I think a lot of it is, like, the ability to adapt. Whether it’s, like, education or if you’re in home health care. You might not have what you need, or
you might have to change the way you’re trying to teach the patient something if they’re not understanding or not following along.

**Autonomy and critical thinking.** Participant 1b linked problem-solving to autonomy and critical thinking. “I think independence is also another thing,” Participant 1b said. “If you’re in a school, or if you’re doing home health, you don’t necessarily have a nursing supervisor or, like, a manager to grab immediately. So, having some level of experience before going into community health is important,” Participant 1b stated. Lack of access to supervisors required community nurses to be creative and adaptable, as did lack of access to resources, as Participant 5b highlighted.

**Cultural competency.** Participants provided their definitions of cultural competency, a skill they identified as important for community nursing. Participants agreed that cultural competency was learning about the patient’s background and applying this to care. They also suggested that to be culturally competent, a community nurse needed to put him/herself in the other’s shoes.

Participant 1b defined cultural competency as “being able to relate and kind of put yourself in someone else’s shoe, but also knowing your limits. Unless you had the same environment as they have, that you’re not going to know everything about their culture.”

Participant 2b said cultural competency was “not necessarily, like, understanding and knowing about all the different cultures and the cultural preferences, but just, like keeping an open mind.” Participant 3b explained that when being culturally competent, “you have to assess yourself before you start taking care of someone else and realize what your beliefs are and then put them aside and just focus on what they want.”
Participant 4b described the nurse’s need to be aware of the patient’s culturally specific diet, whether or not the patient wanted a “chaplain or something,” and for the nurse to be “mindful of their culture.”

Participant 5b explained that “it is important to be able to identify what their culture is, and if you don’t know about it, maybe do a little research.”

In describing their out-of-country community nursing experiences, students described how their cultural competence grew from their experiences. Participant 4b, who had never been out of the United States before the out-of-country experience, found it challenging to work in a different country. Participant 4b noted personal growth in cultural competency in that the experience in another country “was really the biggest challenge for me, so it was just very interesting to be put in any other culture than…when you’re dealing with other cultures here.”

Growth in personal cultural competency was mentioned by many participants when being exposed to the lack of available resources and the increased exposure to a variety of people with various backgrounds. Participant 3b stated, “Just seeing the resources that we have compared to what some other cultures have. We have a lot more access to care, and you just see more, like, a need in those countries than you do here.” Participant 2b also noted that “I’m definitely, like, more grateful and then also more aware just that different cultures, like, depending on where you go, have less, like, resources and, like less access to education.” In addition, Participant 2b noted the similarities of students on campus at a “nice university. You either live on campus or in an apartment. So, it’s just easy to forget that there are, like, other cultures and communities that aren’t as fortunate.” Participant 5b reported that s/he has the ability now
to apply cultural competency at home. An additional bit of insight was expressed by Participant 5b when s/he stated, “There’s just a lot of different cultures that I know exist, but you never really think about it until you see it and have to educate them.”

**Benefits and/or drawbacks of out-of-country experiences.** The responses of participants were divided into the benefits of out-of-country experiences and the drawbacks of out-of-country experiences. While three participants spoke of the benefits they received from the out-of-country experience for the community nursing careers, four participants believed that the in-country experience would have provided them with greater benefits than did the out-of-country experience.

**Benefits of out-of-country experience.** A big benefit to all the participants was that the out-of-country experience helped them get ahead on their community hours. Additionally, all the participants noted that the experience provided them the opportunity to apply classroom material in a real-world setting. Participant 4b described the experience as providing a head start on the required community hours and was “a huge weight lifted off.” Participant 4b continued:

We had started talking about the different types of prevention before we went on the trip, and that was back, like, last December, November, that we started talking about those things. So, I just felt a little bit more prepared for the community health course, and I feel like I have a lot to relate back to, like, our lecture from our experiences.

Participant 5b agreed and stated:

I think we also learned a little earlier than everyone else how to look at a community in, like, an assessment type of way instead of just, like, you’re
walking around like you’re actually looking at things. You can do it here, but there, it was just a lot more different from what we usually experience. So, we were looking at things with a different point of view.

**Drawbacks of out-of-country experience.** Three coded categories were discerned in the drawbacks to the out-of-country experience: language barrier, missing out on other community health opportunities, and lack of preparation for ATI. Language barrier and missing out on other community health opportunities are discussed in the upcoming section, while preparation for ATI is discussed in its own section.

The language barrier as a problem was described in terms of helping in the community and in terms of the experience students were gaining. Participant 2b shared:

The level that we were teaching them due to, like, the language barrier, and then also, just the age of the children, it seemed like it was a little, like….what if…if you do have, like, chest pain there, what do they do for you, rather than teaching five- to eight-year olds…English.

Participant 3b was prepared to go with high expectations. S/he described the lesson plans the group had made and the disappointment felt when trying to provide the health education:

We got there, and we realized that [the lessons plans] weren’t going to work because no one could speak English. But then, that also was a lesson for all of us, that you have to adapt to the environment that you’re in and teach them what…the best that you can that will benefit them after you leave.
Concluding, participants expressed frustration that their out-of-country community nursing experience left them missing out on other community health opportunities. Participants 2b and 4b explained that they had wanted to go into the clinical setting in the other country and to see how care was provided there.

Missing out on other community opportunities and spending time elsewhere were expressed as problems, even though the students were glad to get ahead on the 40 required community hours. Participant 2b stated, “I think we missed out on some experiences that we would’ve had, like, in community health. Like, so those 40 hours we missed…I didn’t go to any of the home health or hospice or other health communities or opportunities.” Participant 2b continued, “Clinic and the health departments are pretty similar. I just thought we could have had maybe more experiences had we not done that trip.” Participant 4b agreed, stating, “Yeah, or even, like, less hours at, like, half a day at Clinic and then…I just was really interested in, like, seeing the hospice nursing.”

**ATI preparation.** Regarding ATI preparation, Participant 2b stated, “time in might not translate into information needed for the ATI.” Agreeing, Participant 3b voiced, “they won’t ask for experiences in on the ATI tests,” and felt that this would be better suited for the home care setting. Elaborating further, Participant 3b stated:

I don’t really think they’re going to ask us much about stuff that we learned there. I think it would have been beneficial to have home health and hospice and going to the schools and stuff for what they’re going to be asking us on the ATI here.
To lessen the problem, Participant 3b suggested that “we need to relate our field experiences more in the seminar class.”

**Cross-Case Analysis Results**

Khan and VanWynsberghe (2008) described cross-case analysis as “a research method that can mobilize knowledge from individual case studies” (para 1). Khan and VanWynsberghe (as cited in McGrath & Hughes, 2018) also noted that cross-case analysis is helpful in finding similarities and differences of cases being studied. Stake (2005) recommended that the process of cross-case analysis include developing themes through review of cases and summarizing similarities and differences in themes (as cited in Peters-Burton & Johnson, 2018). Connecting ideas or concepts often supplement cross-case analysis (Stake). The results of the analysis follow.

A cross-case analysis of results from the in-country experience focus group and the out-of-country experience focus group yielded noteworthy results. Both groups shared similar definitions of what community nursing is and encompasses. In addition, both groups identified a similar skill set required of community nurses, including skills needed for accurate patient needs assessments, including environmental assessments, and the ability to stay adaptable when working in community nursing. Both groups of participants also recognized the important skill of cultural competency, defined in similar ways. Both groups also related the skills of autonomy and critical thinking as important in community health nursing.

The differences in experiences between the two groups was apparent when asked about the benefits of the community nursing experiences. While the in-country group of participants did not identify any drawbacks, particularly as related to the ATI test, to their
in-country experience placement, the out-of-country group did. The out-of-country participants believed they did receive benefits from completing the community nursing experience out of country, but these benefits did not outweigh the drawbacks. The participants did not believe that what they learned abroad would translate to the knowledge required for the ATI test. Although the language barrier was apparent in both groups, the out-of-country had less access to translation services to help with their educational activities. The out-of-country participants described the challenge that the language barrier posed, stating that they felt they spent more time trying to communicate across this language barrier than doing any real community nursing. Finally, they felt frustration in that their 40 hours of required community health experience were not spent in clinical settings or learning how people abroad provide and receive health care.

Summary

The baccalaureate degree students enrolled in a community/public health course did not appear to exhibit a relationship between their ATI scores based on whether they had participated in an out-of-country community health clinical experience or participated in local clinical experience.

The baccalaureate degree students enrolled in a community/public health course exhibited no significant relationship between TSET scores (cognitive, practical, and affective) based on whether they were students who had participated in an out-of-country community health clinical experience or who participated in local clinical experiences. The standard deviations for Cognitive and Affective categories were much larger for the out-of-country group than the in-country group; however the in-country group had standard deviation for Practical category larger than the out-of-country group. No
significant differences occurred in the mean scores between the groups. Consideration can be given to the indication that the out-of-country group participants were more varied than the more homogeneous participants in the in-country group. Conversely, the situation was reversed for the Practical category, which could give consideration that the in-country group received more practical experiences during their community health experience.

Both sets of focus group participants, out-of-country community health experience and in-country community health experience who were community health nursing students, provided similar definitions of the skills needed for community health nursing that include communication skills, accuracy in patient needs assessments, environmental assessments, and the ability to stay adaptable when working in the community. Both groups also exhibited similarities in their definition of and relation to what cultural competency meant to them, including learning about the patient’s background and applying that knowledge to the patient’s care and that the care must be appropriate to the patient and situation and understanding the patient’s background.

Differences were seen in the responses to ATI test preparation and drawbacks of each experience. The in-country group reported positive knowledge databased on observing the field nurse in a variety of scenarios. The out-of-country group felt somewhat hampered by not having the experience of observing the hands-on nursing care needed to aid with recall during ATI testing. Out-of-country participants expressed that linguistic differences overshadowed the students’ ability to fully participate in the clinical experience. Out-of-country participants expressed that drawbacks for them outweighed
the benefits they felt from their experiences. They indicated that more time was needed in the class seminar to share the information all participants wished to learn.
Chapter 5: Discussion

Introduction

The senior nursing students at the researcher’s university have a choice of either receiving the community health nursing experiences in-country or out-of-country. This study was designed to examine two groups of ATI scores, one of in-country community health nursing experiences and one of out-of-country experiences, to see if there were any differences in the scores of the two groups. This study was also designed to examine cognitive, practical, and affective scores of the two groups of students. In addition, focus group discussions were held with each group of students to learn of conceptual knowledge of relevant skills and practical knowledge that students had gained from their understanding of community health nursing experiences, whether in-country or out-of-country. The study was also warranted because no literature was found connecting ATI scores and students’ community health nursing experiences in-country or out-of-country.

The theoretical framework of the study included three social learning theories — social cognitive theory of self-regulation, self-efficacy in changing societies, and social cognitive theory as an agentic perspective (Bandura, 1991, 1995, 2001)— to help understand community healthy nursing experiences. The main categories of the theories, including self-regulation, reflective thinking, observation, cognition, storytelling, and modeling, were observed in the focus group discussions. Bandura (1986) explained that learning and motivation for learning are influenced by self-efficacy perceptions. Explanation of the TSET perceptions was based in the self-efficacy theory (Jeffreys, 2010). Meaningful learning theory (Huang & Chiu, 2015) was used in describing students’ reactions in preparation for ATI testing and transcultural self-efficacy testing.
The value of the meaningful learning theory was observed during the students’ recollection of events in home nursing care observations that were involved in preparation for the ATI testing.

This study was used to determine whether nursing students who received their community health nursing experience in-country had significantly different ATI scores in community health nursing and higher perceptions of self-efficacy and conceptual knowledge than the students who received their experience out of country. There were no differences found between the ATI scores of the two groups, in comparing data for the past five years of scores as demonstrated in independent samples t test. The perceptions of self-efficacy and conceptual knowledge of both groups also demonstrated no differences. The focus group discussions yielded similar information; however, the out-of-country group suggested some improvements for the course.

Results and Interpretation Relative to Research Questions

Research Question 1. Research Question 1 was based on a quantitative analysis: Among baccalaureate degree students enrolled in a community/public health course, what relationship existed between ATI scores of students who participated in an out-of-country community health clinical experience as compared to students who participated in local clinical experiences?

A review of the 144 ATI scores from the class of 2015 through the class of 2018 revealed a proficiency level of 73%. The Fall 2018 results were similar, demonstrating that both groups achieved around a three-quarters passing rate on their community health nursing ATI test prior to remediation. The ATI scores are considered valid and reliable predictors of NCLEX-RN pass rates for students (Alameida et al., 2011). The result of
the independent sample $t$ test statistical analysis of the ATI scores for the graduating senior nursing students, separated by 69 in-country and 75 out-of-country community health nursing experiences, was not statistically significant, suggesting that there were not significant differences in the groups. All students not reaching benchmark of Level 2 proficiency are required to receive remediation before being able to graduate with a Bachelor of Science Degree in Nursing.

**Interpretation of findings.** Huang and Chiu (2015) demonstrated the importance of meaningful learning theory in a study of the use of the meaningful learning-based evaluation models for context-aware mobile learning. The results indicated evaluations of mobile learning activities can be carried out soon after the activity has taken place, when the procedure is short and clear, and the procedure can supply instructors with suggestions. ATI tests are taken online with results available online as students are being tested. If the meaningful learning theory has been used to help with recall of nursing skills, then the nursing activities performed by the students during their community health nursing experiences can be recalled during the ATI testing.

**Findings linked to relevant research for Research Question 1.** Although no research has been found linking types of community health nursing experience to ATI test scores, passing ATI test scores are linked with NCLEX-RN first-time pass rates. Alameida et al. (2011) did find a “significant relationship between the ATI predictive probability and first-time pass success” (p.266). The findings of this study support the concept of the relationship between passing ATI testing and first-time pass rates.

**Implications of findings for Research Question 1.** Although the study did not show any significant difference between the ATI scores of the in-country community
health nursing experience group and the out-of-country community health nursing
experience, the important information to gather from the study is that the two groups did
equally well on the ATI testing. The information could be utilized to validate the
continued need to provide both in-country and out-of-country learning experiences for
the nursing students.

**Research Question 2.** Research Question 2 was also based on a quantitative
analysis: Among baccalaureate degree students enrolled in a community/public health
course, what relationship existed between TSET scores (cognitive, practical, and
affective) in community health nursing of students who participated in an out-of-country
community health clinical experience as compared to students who participated in local
clinical experiences?

The Transcultural Self-Efficacy Tool (TSET) was chosen as a reliable test,
designed “to measure and evaluate students’ transcultural self-efficacy perceptions for
performing general transcultural nursing skills among diverse client populations”
(Jeffreys, 2000, p. 127). The opportunity to test the students for the TSET scores prior to
their out-of-country or in-country experiences was not available; however, the value of
testing both groups separately after their experiences was found to be constructive.
Purnell and Paulanka (2003, as cited in Amerson, 2014) discovered that students who had
not had out-of-country or international “immersion experiences may rate themselves high
on transcultural skills” (p. 179). The question was then raised that it might be possible
that the students who did not travel abroad might not be conscious of their need to learn
more about cultural competency (Amerson, 2014).

The results of the TSET scores for the groups demonstrated no significant
differences between the TSET scores (cognitive, practical, and affective) based on whether they were students who had participated in local clinical experiences or out-of-country experiences. The practical scores represent the students’ confidence in interviewing patients from other cultures, while the cognitive scores demonstrated the students’ confidence in their knowledge of factors that affect nursing care (Jeffreys, 2010). The students’ sense of confidence or transcultural self-efficacy was a part of the design of the study. Additionally, conceptual knowledge of clinical experiences was also a part of the study.

Jeffreys (2014) also described several purposes of the TSET perception scores. Two main purposes of the present study were to identify differences between groups and to evaluate the effectiveness of specific teaching interventions. The results of the three independent samples t tests were not significant, indicating no differences in cognitive, practical, and affective scores based on location of experience.

The affective learning questions involved the attitudes, values, beliefs, self-awareness, and acknowledgement of cultural differences (Jeffreys, 2016; Jeffreys & Smolak, 1998). The out-of-country students were immersed in another culture as a group for several days and did rate themselves higher on transcultural skills. Conversely, the in-country students were exposed to a wide variety of culturally diverse situations beyond the campus settings as well, including hospice patients, low income patients at health department clinics, and multicultural students in elementary, middle, and high schools throughout the county. As Participant 3a reported, the student needed to assess “your own culture and then assess the patient’s culture and involve that in your care.”

Similarly, Amerson (2014) described that the students not immersed in an out-of-country
experience rated themselves as high on transcultural skills.

Participants of the in-country group reported culturally sensitive experiences, dealing with income, social status, culture, and language. The out-of-country group also mentioned similar cultural observations in more detail. The out-of-country group indicated that the lack of resources made them more acutely aware of the great problem-solving attitudes that they had to develop. The in-country group mentioned lack of resources for patients but were able to find solutions relatively easily. Altogether, the observations of the two groups’ responses suggest that culturally diverse experiences can be obtained locally. Both groups valued their culturally diverse experiences. The suggestion that there is a price to pay by the out-of-country students, as they pay their own way for the trip, nonetheless, does not show up as a differentiating factor in the results for Research Question 2. Therefore, it is possible to realize that the out-of-country experience has value for the participants but does not seem to better prepare the students for cultural efficacy.

**Interpretation of findings.** The results of the TSET scores could be utilized by nursing faculty to support continued opportunities for nursing students to have both in-country and out-of-country community health nursing skills, in support of transcultural self-efficacy. The high level of cultural competency as measured by TSET scores that the students have obtained during their nursing education is demonstrated in both groups on the cognitive, practical, and affective level of testing. Jeffreys and Dogan’s (2012b) findings supported that transcultural self-efficacy is guided by both formalized education and additional learning experiences.

No TSET pretesting of the students was provided for the present study prior to the
community health nursing field experience. The differences in the results of the three independent samples t tests for the researcher’s study were not significant, with respect to the cognitive, practical, and affective scores by location of experience. The lack of significant differences in the groups’ scores may indicate that the transcultural self-efficacy of participants in each group was not affected by the location of the community health nursing experience.

Although it would be less expensive for the in-country experiences than out-of-country experiences for the students, the university has an emphasis on international travel as part of the learning process in which students can travel “while developing the cultural awareness and skills necessary for success in an interconnected world” (University of Tampa, 2017, p. 2). The Department of Nursing is committed to preparing students as health care professionals who provide safe and compassionate care to “the citizens of Florida, the nation and the global community” (University of Tampa, 2018, para 2). The interpretation of the findings for Research Question 2 may support the continuation of the out-of-country experiences for the nursing students in that the results were similar to the ATI passing rates of their peers who had the experiences in-country. This would be in support of the emphasis the university has on international travel learning experiences. Both group experiences support the nursing program’s student learning outcome of applying “professional, legal, ethical values and standards in the provision of globally congruent care that acknowledges cultural differences, the special needs of the at-risk, underserved and vulnerable populations” (University of Tampa, 2018, para 4).

Conversely, because the study was based on a limited sample with groups that
may not have been well matched, inferred from the differences in standard deviations, more research with better samples might show a significant difference.

**Findings linked to relevant research for Research Question 2.** Alpers and Zoucha (1996) compared cultural competence and cultural confidence of senior nursing students in a private southern university by using the Bernal and Froman Cultural Self-Efficacy Scale. The findings indicated that students receiving cultural content through a course felt “less competent and confident to provide culturally sensitive care than those who received no cultural course content” (Alpers & Zoucha, p. 9). Interestingly, the students who had received training about transcultural nursing and who had 10 weeks of home visiting experience with certain cultures reported more confidence and competence in providing nursing care to those of a different culture (Alpers & Zoucha).

Recommendations included offering nursing students both didactic opportunities for cultural competence training as well as introducing students through clinical experience to a diverse cultural population (Alpers & Zoucha).

Jeffreys (2012b) found that “cultural competence education throughout the curriculum leads to positive change in self-efficacy perceptions” (p. 194). The findings of this study also support the importance of providing learning experiences for students in providing culturally competent nursing care. Results of the TSET testing demonstrated positive practical, affective, and cognitive responses to questions about the students’ abilities to provide culturally competent nursing care.

In a study on an approach to improving NCLEX-RN pass rates, Opsahl, Auberry, Sharer, and Shaver (2018) reported that nursing education strategies, including online coaching programs and academic support mechanisms, can result in improved NCLEX-
RN for first-time pass rates for students. Additionally, training in emotional intelligence can help one to “perceive emotions in self and others, to understand emotions and psychological meanings, and to self-regulate emotions by encouraging emotional and intellectual growth” (Stein & Book, 2011, as cited in Opsahl et al, p. 553). Emotional intelligence focuses on “understanding the self in the context of one’s personal and social environment” and is an important component of nursing, according to Fitzpatrick (2016).

In considering the idea of emotional intelligence with transcultural self-efficacy studies, one could speculate that connection with Jeffreys’ (2010) concern that “confidence (self-efficacy) is an important factor that may influence motivation, persistence, and commitment for cultural competency development” (p. 26). Por, Barribal, Fitzpatrick, and Roberts (2010) found that students having emotional competence and an increased feeling of control helped them deal with stress and enhanced their wellbeing. Grossman (2013) found that nursing students needed opportunities to increase their knowledge in caring for culturally diverse elderly patients by helping the students address their own feelings or emotions. Long (2016) reported a significant improvement in self-efficacy in the students who spent two weeks out-of-country for community health. Nursing educators were encouraged to address the diverse needs of the population which would aid in the development of nurses who are more sensitive to culturally diverse patients (Long). Students undergoing both in-country and out-of-country learning experiences rated themselves similar on the questions relating to their affective knowledge, including their degree of confidence in self-awareness of their own cultural heritage, belief systems, and biases and limitations.

Connections between the literature on cultural competency and cultural diversity
were apparent in the responses to TSET survey. As reported by both in-country and out-of-country focus groups in the current study, cultural competency and cultural diversity were themes expressed in community health nursing skills. Although emotional intelligence was not a part of the study, both groups of students rated themselves well on self-efficacy. Insignificant differences in cognitive, practical, and affective scores on the TSET between the two groups in the current study certainly support the idea that both groups felt equally confident in their transcultural self-efficacy skills.

**Implications of findings for Research Question 2.** One implication of the findings for Research Question 2 shows a relation to current theory relating to transcultural self-efficacy. Nursing students are in need of transcultural self-efficacy through not only formal education but additional learning experiences (Jeffreys, 2012a). This finding suggests a step toward creating a more culturally competent workforce.

Second, the discovery of self-efficacy of both groups of students suggests the consistency with the social cognitive theories by Bandura (1991, 1995, 2001). Explanation of the TSET perceptions was based in the self-efficacy theory (Jeffreys, 2010).

Third, the practice settings of community health nursing involve hospice settings, home care settings, schools, clinics, and home visiting, which require the community health nurse to have a wide variety of skills (Hunt, 2013). The TSET results demonstrate the students’ self-efficacy of many cultural situations that could be translated into awareness of differences in location of practice as well.

**Research Question 3.** Research Question 3 was based on a qualitative analysis: What conceptual knowledge of the relevant skills and practical knowledge required to
service communities did senior community health nursing students, those who have had an out-of-country experience and those who have had the experience in Florida, at an urban university demonstrate in their descriptions of their understanding of community health nursing experiences?

Research Question 3 data results suggest that both groups of students had similar conceptual knowledge of the relevant skills and practical knowledge required to service communities. Research Question 3 was examined through discussion with a focus group, one with the in-country students and another with the out-of-country students.

Both groups attributed importance to certain skills for community nursing: patient needs assessment skills, environmental assessment skills, strong communication skills, autonomy and critical thinking, and cultural competency. Improvisation was a particular skill emphasized by the in-country group, while expertise, meeting patients at their levels, and problem-solving and especially adaptability were noted as needed skills by the out-of-country group.

Additionally, the in-country group expressed benefits of now having a knowledge of their own community and having first-hand training on patient care. In comparison, the out-of-country group felt they were better prepared for the class, learned a different point of view, and had a head start for the class.

One drawback cited by both groups was the acknowledgement of having a language barrier in some areas. The in-country group noted differences in the distribution of wealth and a lack knowledge of what to expect during the experience. Conversely, the out-of-country group expressed missing out on other community health opportunities in the local area, and a lack of preparation for the ATI testing.
The groups disagreed on the preparation for ATI testing. The in-country group noticed visual nursing care, with hands-on care by the community health nurse that they felt would be remembered or recalled if needed for answers to ATI questions. The out-of-country group did not have that experience. The out-of-country group voiced that the time spent out-of-country might not translate into information needed for the ATI testing.

Additionally, the out-of-country group also suggested that some time would be better spent in the home care setting. Another suggestion was that class seminar time could be better spent telling more field experience stories to each other. The group also pointed out that there was a lack of experiences in clinical settings or addressing health care provisions in the visited country.

**Interpretations of findings.** Meaningful learning theory seen in the researcher’s study has been demonstrated with the students’ increased knowledge in community health nursing and assessment skills. The use of the meaningful learning theory has been beneficial in educating the community health nursing students about language barriers and assisting with cultural competency. Ausubel (1963), as cited in Getha-Eby, Beery, Xu, and O’Brien (2014), described how instructors, through concept-based teaching and active learning strategies, allow students to “develop conceptual knowledge that can be transferred from the classroom to the work world” (p. 496). Meaningful learning theory also can be used to enhance the students’ knowledge structure (Getha-Eby et al., 2014). Conceptual knowledge of community health nursing experiences was enhanced by both in-country and out-of-country field experiences. In addition, the in-country group expressed about visual learning. Visual learning is a concept Taricani (2000) utilized in meaningful learning theory.
Results of the focus group discussions show a benefit of the in-country experience by providing first-hand training and the observation of a real nurse experience, which could be recalled during the ATI testing. One student from the out-of-country nursing experience voiced that one drawback of the experience was a lack of preparation for the ATI test from the experience.

The out-of-country students reported better abilities for problem-solving and adaptability, while the in-country students reported more first-hand training in the community health nursing training. Both groups did direct their impressions to problem-solving skills, although not specifically stated by the in-country group. In a like manner, Mayer (1992, 2002) summarized that students can learn through meaningful learning theory the processes for problem-solving. The two components of problem-solving are problem representation and problem solution (Mayer, 1992). Problem-solving ability was demonstrated in both groups of students when examples of problems in the field were addressed and how their respective nurses solved the problems or how they solved the problems themselves.

Both groups of students identified skills in cultural competency as needed for community health nursing. Both groups did receive cultural competency training throughout the curriculum. The immersion in culture by the out-of-country group, along with their preparation work for the experience, may have helped them with cultural competency for the country they visited but lacked in the other community health cultural experiences that the in-country group received.

Consideration can be given to the concept of service-learning as a positive for both groups of students. Amerson (2014) noted the importance of increasing cultural
competence by additional means, not only through students visiting other countries but also through looking at various ways of interacting with people of different cultures.

Dr. Cynthia Parsons, DNP, ARNP, FAANP, BC, Associate Professor of Nursing, Interim BSN Program Director, University of Tampa, reported that the students who do travel to Nicaragua prior to the community health nursing experiences do study the culture, absorb information on current and frequent diseases of the area, and identify community health risks for children and adolescents. The information is then synthesized to produce a health education program for the children and adolescents. The experiences could be considered service-learning projects (C. Parsons, personal communication, September 21, 2016).

At the same time, Tressa Pedroff, MSN, RN, Clinical Instructor, Department of Nursing, University of Tampa, reported that the transcultural health care in the Latin America course taken by students prior to their out-of-country community health nursing experience is considered an academic course and is not considered a “community service” to the people of the area visited (T. Pedroff, personal communication, September 22, 2016). Additionally, Ms. Pedroff stated:

While the transcultural health care in Latin America is not a ‘service-learning’ course, the course components of academic preparation, in-country community interactions, and homestay experiences augment and increase students’ cultural awareness and understanding (T. Pedroff, personal communication, April 11, 2019).

ATI testing preparation was an important area discussed by both groups. Seeing a nurse in action in the community was important to the students in the in-country group.
Students noted that the in-country experiences would be beneficial for the ATI test. Visual learning is a concept Taricani (2000) utilized in meaningful learning theory. Horsfall, Clearn, and Hunt (2012) ascertained that educators need to produce an environment that helps students focus on learning and meaningful involvement.

**Findings linked to relevant research for Research Question 3.** Hunt (2013) listed several competencies for community health nurses, which include knowledge and skills in assessment and cultural competency. Focus groups responses revealed very similar definitions of skills for community health nursing, including patient assessment skills, environmental assessment skills, strong communication skills, autonomy and critical thinking and cultural competency. Problem-solving skills were listed as important for the out-of-country group and not listed by the in-country group. The possibility of including problem solving skills by the in-country group could have occurred in their discussion of critical thinking but was not specifically listed. ATI preparation through the community health nursing experiences was addressed; however, the out-of-country group reported that they felt they might not have recall of doing procedures in community health as they had not seen those skills in the out-of-country experiences. Additional assistance could be suggested in instructions on culture and additional instructions or simulations on the ATI preparation.

**Implications of findings for Research Question 3.** Valuable information from the focus group discussions can contribute to evaluating ways to add more observation of community health care options to the activities of the students taking community health nursing experience out-of-country. Validation of students’ learning about the skills for community health nursing was demonstrated with both groups’ understanding of patient
assessment skills, environmental assessment skills, communication skills, autonomy and critical thinking and cultural competence. Also, the academic significance of the focus group information can support the value of the community health nursing experiences in better preparing future nurses for competent patient care.

An equally important finding was the similarity of the comments from previous students relating to the need for more opportunities for medical experiences in community health nursing (University of Tampa, 2014a, 2014b, 2015a). The out-of-country focus group participants for the study reported that they felt they were missing out on other community health opportunities and that was listed as a drawback for the out-of-country experience students. The in-country experience students described the experience as providing first-hand training in community health nursing. Efforts may need to continue to find additional medical experiences in community health nursing for the out-of-country participants.

Conclusions and Summaries Regarding Findings

Creswell’s (2015) steps on hypothesis testing were followed. No significant differences were seen in the ATI scores in community health nursing students. No higher perceptions of self-efficacy and conceptual knowledge were seen in community health nursing students who received community health nursing experiences in-country or out-of-country. Because the data from Research Question 1 and Research Question 2 showed no statistical significance in the differences on the scores of the two groups, this suggests that each group received adequate community health nursing training, whether in-country or out-of-country. Yet, the out-of-country group felt they were unprepared for the ATI because of a lack in the clinical experience. The qualitative data demonstrated similarity
in the themes expressed by the two groups.

The additional information gathered from the focus group discussions reflected two differences between the groups. First, the in-country group provided insight into the value of knowledge about their own communities, while the out-of-country group missed the community health experiences locally. Second, the out-of-country group felt better prepared for the community health class, while the in-country group voiced concern on not knowing what to expect during the semester regarding their experiences in the field. The difference in the two groups was only noted from the focus group discussions, where there may be a need for further cultural competency training for both groups and additional support for ATI practice exams.

One further result was the researcher discovered that the original concern with students not being interested in community health nursing experiences was unfounded with the Fall 2018 students. Students did express interest in the hospice experiences, school settings, and nonacute settings. In addition, students found being with people from other cultures very interesting. By way of illustration, Participant 4a summarized his/her interest with the following statement: “We learn about the cultures in the textbook, but when we experience home-health we see it in real life.” By using a mixed method research project, the researcher was able find accurate data on both groups of students’ test scores. The qualitative data detailed the skills both groups described as being necessary for community health nursing, in addition to the subtle differences of the two groups.

Limitations of Findings

**Small size and sampling method.** The small sample size for the Transcultural
Self-Efficacy constitutes a limitation to finding a significant relationship through the data (University of Southern California, 2019). Moreover, convenience sampling was used for the focus groups. Creswell (2015) noted that limitations to generalizability may also occur from the nonrandom method of sampling. Although the survey was open to all 26 students during the Fall semester of 2018, only 13 students responded. There may be confounding factors that were not addressed in the research, such as what other factors can affect the ATI scores.

**Bias and verifiability of interpretation.** Lack of additional peer review of the focus group discussions could be a factor on the researcher’s personal bias and verifiability of interpretation of the results as discussed in Krueger and Casey (2015). The researcher did try to encourage all focus group participants to speak, allowing participants to answer the questions fully before going on to another question. No one participant dominated the discussions in either group. One limitation of focus groups is that some participants may feel the group setting is intimidating or feel pressured to respond (Birmingham City University, UK, 2006). One potential limitation addressed by Yin (2016) warned that focus group members with similar characteristics and experiences can lead the group away from the main conversation. However, both focus groups stayed on topic and all interacted actively. Researcher bias was addressed with the students by reporting that their participation in the discussions and surveys was strictly voluntary and that participation or lack of participation in the research study would not affect their grade.

**Timing.** The Fall Semester timing for collecting the data for the Community Health ATI scores, Focus Groups and the TSET testing could also be considered a
limitation, as the students were not at the path in their studies to take the Final Comprehensive ATI exam. The students still had one more semester of studies to complete prior to taking the Final Comprehensive ATI exam before graduation.

**Recommendations for Future Research**

Thought-provoking data from the focus group discussions could lead to further research. Topics for future research include:

- enlarging community health nursing experiences locally for both in-country and out-of-country students.
- exploring whether the additional experiences can affect students’ recall on the ATI Comprehensive Exam.
- identifying additional problem-solving skills that the in-country students need to acquire.
- expanding the TSET survey to future classes, helping to increase the sample size.
- investigating the effects of specific cultural indoctrination/training in advance of out-of-country placement.
- investigating additional inclusion of emotional intelligence methods utilizing coaching mentors for ATI practice exams and ATI preparation.
- researching further cultural competency training for both groups.

An additional topic for future research would be examining emotional intelligence factors in the in-country and out-of-country nursing groups for any potential differences or similarities. An upcoming topic in nursing education recently studied by Opsahl, Auberry, Sharer, and Shaver (2018) is the study of emotional intelligence and ways to
improve NCLEX-RN pass rates. The value of the study suggests that an online coaching program may improve the NCLEX-RN pass rates. Additionally, one could see if the coaching approach also improves ATI comprehensive testing results.
References


Assessment Technologies Institute, L.L.C. (2016). *Comprehensive assessment and review program*. Retrieved from ATI Nursing Education:

https://www.atitesting.com/Solutions/DuringNursingSchool/ComprehensiveAssessmentAndReviewProgram.aspx


https://www.atitesting.com/educator/solutions/teas


Department of Nursing. (2015a). *Department of nursing student handbook*. Tampa, FL: University of Tampa.

Department of Nursing. (2015b). Retrieved from University of Tampa:

http://www.ut.edu/nursing


LaComb-Williams, L. (2015). *Community Health Laboratory NUR 422L [Syllabus]*. Tampa, FL: Nursing Department, University of Tampa.

LaComb-Williams, L. (2016). *Community Health Laboratory NUR 422L [Syllabus]*. Tampa, FL: Nursing Department, University of Tampa.


OPPAGA. (2014). *Florida’s nursing education programs continued to expand in 2013, while licensure exams passage rates of new programs declined*. Tallahassee, FL: The Florida Legislature.


OPPAGA, (June, 2017). *Approximately 42% of nursing programs had licensure exam passage rates below the required legislative standards in 2016*. Tallahassee, FL: The Florida Legislature. Retrieved from


The University of Tampa Department of Nursing. (2016). *BSN Student Handbook*. Tampa, FL: The University of Tampa Department of Nursing.
http://www.socialresearchmethods.net/kb/sampnon.php


University of Tampa. (2014a). *Class climate evaluation*. Tampa, FL: University of Tampa.

University of Tampa. (2014b). *Class climate evaluation*. Tampa, FL: University of Tampa.
University of Tampa. (2015a). *Class climate evaluation*. Tampa, FL: University of Tampa.


University of Tampa Nursing. (2016). *Transcultural Health Care (Nur 392T-B)*. Retrieved from Academics/Faculty/SpartanWeb/Course Search: https://spartanweb.ut.edu/ICS/Academics/Faculty.jnz?portlet=Course_Search_(Add%2fDrop)&screen=Advanced+Course+Search&screenType=next


White, R. (2018). *Principles of Community Health Nursing NUR 422 [Syllabus]*. Tampa, FL: Nursing Department, University of Tampa.


Appendix A

General Contents of the Comprehensive ATI Tests
General Contents of the Comprehensive ATI Tests

Following are the general contents of the Comprehensive ATI RN Tests:

1. Adult-Medical Surgical
2. Community Health
3. Fundamentals
4. Leadership and Management
5. Maternal Newborn
6. Mental Health
7. Nursing Care of Children
8. Nutrition
9. Pharmacology

Information derived from ATI, 2019
Appendix B

TSET Survey
TSET Survey

Throughout your nursing education and nursing career, you will be caring for clients of many different cultural backgrounds. These clients will represent various racial, ethical, gender, socioeconomic, and religious groups.

Cultural differences exist in health care needs, caring, and curing practices. Knowing and understanding cultural factors related to client care helps establish a theoretical foundation for providing culture-specific nursing care.

**Part I:** Among clients of different cultural backgrounds, how knowledgeable are YOU about the ways cultural factors may influence nursing care? Please use the following scale and more your response accordingly.

| 1. health history and interview |
| 2. physical examination          |
| 3. informed consent             |
| 4. health promotion             |
| 5. illness prevention           |
| 6. health maintenance           |
| 7. health restoration           |
| 8. safety                        |
| 9. exercise and activity        |
| 10. pain relief and comfort     |
| 11. diet and nutrition          |
| 12. patient teaching            |
| 13. hygiene                     |
| 14. anxiety and stress reduction|
| 15. diagnostic tests            |
| 16. blood tests                 |
| 17. pregnancy                   |
| 18. birth                       |
| 19. growth and development      |
| 20. aging                       |
| 21. dying and death             |
| 22. grieving and loss           |
| 23. life support and resuscitation|
| 24. sexuality                   |
| 25. rest and sleep              |

Part II: The most effective way to identify specific cultural factors that influence client behavior is to conduct a cultural assessment of each client. This is best done by interview.

Right NOW, how confident are YOU about interviewing clients of different cultural backgrounds to learn about their values and beliefs?

Rate your degree of confidence or certainty for each of the following interview topics. Please use the following scale and mark your response accordingly.

<table>
<thead>
<tr>
<th>Not Confident</th>
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<td>1  2  3  4  5  6  7  8  9  10</td>
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</tbody>
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Interview clients of different cultural backgrounds about:

26. language preference
27. level of English comprehension
28. meaning of verbal communication patterns
29. meaning of nonverbal behaviors
30. meanings of space and touch
31. time perception and orientation
32. racial background and identity
33. ethnic background and identity
34. socioeconomic background
35. religious background and identity
36. educational background and interests
37. religious practices and beliefs
38. acculturation
39. worldview (philosophy of life)
40. attitudes about health care technology
41. ethnic food preferences
42. role of elders
43. role of children
44. financial concerns
45. traditional health and illness beliefs
46. folk medicine tradition and use
47. gender role and responsibility
48. acceptable sick role behaviors
49. role of family during illness
50. discrimination and bias experiences
51. home environment
52. kinship ties
53. aging
Part III: As a nurse who will care for many different people, knowledge of yourself is very important. Please rate YOUR degree of confidence or certainty for each of the following items. Use the following scale and mark your response accordingly.

Not Confident | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

(A) About yourself, you are AWARE OF:
54. YOUR OWN cultural heritage and belief system
55. YOUR OWN biases and limitations
56. differences within YOUR OWN cultural group

(B) Among clients of different cultural backgrounds,
You are AWARE OF:
57. insensitive and prejudicial treatment
58. differences in perceived role of the nurse
59. traditional caring behaviors
60. professional caring behaviors
61. comfort and discomfort felt when entering a culturally different world
62. interaction between nursing, folk, and professional systems

You ACCEPT:
63. differences between cultural groups
64. similarities between cultural groups
65. client’s refusal of treatment based on beliefs

You APPRECIATE:
66. Interactions with people of different cultures
67. cultural sensitivity and awareness
68. culture-specific nursing care
69. role of family in providing health care
70. client’s worldview (philosophy of life)

Among clients of different cultural backgrounds,
You RECOGNIZE:
71. inadequacies in the U.S. health care system
72. importance of home remedies and folk medicine
73. impact of roles on health care practices
74. impact of values on health care practices
75. impact of socioeconomic factors on health care practices
76. impact of political factors on health care practices
77. need for cultural care preservation/maintenance
78. need for cultural care accommodations/negotiation
79. need for cultural care repatterning/restructuring
80. need to prevent ethnocentric views
81. need to prevent cultural imposition

**You ADVOCATE:**

82. client’s decisions based on cultural beliefs
83. culture-specific care
Appendix C

Focus Group Questions
Following are the focus group questions:

1. In general, how would you describe community health nursing? [Ask focus-group participants the previous question without any prompts or guidance from the facilitator. If the participants do not mention all the items (a-e) at the end of the discussion for Question 1, the facilitator should ask about the specific items that the student did not mention.]. For example, what is your understanding of the difference between:
   a. Community health nursing and community based nursing?
   b. Acute care and preventive health care?
   c. Health care education for community versus individual education?
   d. Program planning skills versus individual patient education programs?
   e. Communication barriers versus successful communication?

2. What skills do you feel are basic community health nursing skills? Please try to think of at least three examples.

3. Can you think of an experience you have had in community health nursing that would demonstrate your knowledge and/or skills in communication?

4. What difference do you see between acute-care nursing settings and community health nursing settings?

5. What is your definition of cultural competency?

6. After studying community health nursing, what changes have you experienced in your level of cultural competency?

7. If you traveled out of the country for your community health nursing experience, what benefits and drawbacks do you think that experience had for
you?

8. If you did not travel out of the country for your community health nursing experience, what benefits and drawbacks do you think that experience had for you?

9. How might the community health nursing experiences be of benefit or a drawback for you in preparing for the ATI testing?

Questions derived from Erickson (2013) and Hunt (2013).
Appendix D

Reliability Indicators of Measurement of ATI Tests
The following table indicates the reliability scores for each ATI test.

<table>
<thead>
<tr>
<th>ATI Tests</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult-Medical Surgical</td>
<td>.94</td>
</tr>
<tr>
<td>Community Health</td>
<td>.88</td>
</tr>
<tr>
<td>Fundamentals</td>
<td>.91</td>
</tr>
<tr>
<td>Leadership</td>
<td>.89</td>
</tr>
<tr>
<td>Maternal Newborn</td>
<td>.91</td>
</tr>
<tr>
<td>Mental Health</td>
<td>.90</td>
</tr>
<tr>
<td>Nursing Care of Children</td>
<td>.91</td>
</tr>
<tr>
<td>Nutrition</td>
<td>.91</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>.91</td>
</tr>
</tbody>
</table>

*Note. Information from (Ascend Learning (In Press), 2016).*