EVALUATING CULTURAL COMPETENCY: A THEORY-DRIVEN
INTEGRATIVE PROCESS/OUTCOME EVALUATION OF AN ASSOCIATE
DEGREE PROGRAM

by

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Abstract

Accreditation organizations have identified specific program outcomes that each nursing program must meet to maintain accreditation, including standards on cultural competence. However, research has shown there is no consistent method of teaching cultural competence or incorporating it into nursing curriculum, so nursing programs are at risk for misinterpretations or not meeting required program outcomes. This research used a theory-driven integrative process/outcome evaluation with an embedded causal comparative non-experimental study. Using the nursing curriculum as the independent variable, and Campinha-Bacote’s cultural constructs as dependent variables, nursing students entering the associate degree program were compared to those completing the program. Student admission scores to the nursing program, along with demographic information, were statistically analyzed to determine homogeneity of groups. *T-tests for independence of means* yielded a significant difference between the experimental group and the control group on the dependent variables cultural knowledge and cultural skill with the experimental group scoring significantly higher than the control group. There was also a significant increase in total scores showing both the control and experimental groups to be at a level of cultural competence. Faculty review of the accreditation standards, nursing program objectives, cultural concepts, and curriculum showed congruency. Faculty responses to the Grasha-Reichmann Teaching Style Survey showed alignment with adult learning theory, the theoretical component adopted by the nursing program to implement their nursing curriculum. Generalization of the findings is limited due to the causal comparative non-experimental design.
Dedication

I would like to dedicate this work to my husband, Rick, and my sons, Brian and Andrew, who never let me lose sight of my dreams. It would not have been possible to complete this journey without the additional support of my extended family, friends, and colleagues, who offered empathetic understanding and who were generous with their encouraging words. I will always be forever grateful to my husband, and my sons in providing loving support during the pursuit of my educational goals.
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CHAPTER 1. INTRODUCTION

Introduction to the Problem

Cultural competence is defined as the practice of recognizing and considering cultural diversity between the nurse, the client, and the family when providing nursing care (Calvillo et al, 2009; deChesnay & Anderson, 2012). As the population has become more diverse, and new nursing programs have emerged to address the nursing shortage, culturally competent care has become necessary to assist the client in reaching favorable health outcomes (Billings & Halstead, 2009; US Census Bureau, 2013). The Accreditation Commission for Education in Nursing (ACEN, formerly known as National League for Nursing, NLN), and Commission on Collegiate Nursing Education (CCNE) have identified specific program outcomes that each nursing program must meet to become accredited, which include culturally competent behaviors that nursing students must achieve to satisfy professional nursing practice requirements (ACEN, 2013; CCNE, 2009; NLNAC, 2008). It is important to explore how a nursing program meets its accreditation standards pertaining to cultural competency of its graduates, as well as how nursing programs define cultural competency in their program outcomes.

Background, Context, and Theoretical Framework

The ACEN modified the accreditation standards for associate degree programs by adopting standards for cultural competency that are similar to those for baccalaureate degree programs (ACEN, 2013; CCNE, 2009). Andrist, Nicholas, and Wolf (2006)
emphasized the important role of culture in the domains of nursing in providing excellence in patient care. With the multiculturalism of health care, cultural competence could be the next step in the evolution of nursing care.

Nursing programs are responsible for producing evidence of achievement of their program outcomes and have done so through evaluation of student performance, program effectiveness, use of instructional media, and delivery methods (Billings & Halstead, 2009). However, there is no consistent method of teaching cultural competence or incorporating it into nursing curriculum (Calvillo et al., 2009; Kardong-Edgren et al., 2010). Therefore, nursing programs interpret cultural competency differently leading to misinterpretations or to the risk of not meeting required program outcomes (Calvillo et al., 2009). Before making changes to program curriculum, nurse educators must evaluate what is already being accomplished, and determine how current practices are contributing to their program outcomes.

The primary theoretical basis for this study is derived from program theory-driven evaluation science that systematically reviews program development, program implementation, and program outcomes through a social lens. This type of evaluation combines both the practical and scientific aspects of research to formulate evaluation questions that look at the ability of inputs to yield anticipated outcomes (Donaldson, 2007; Chen, 1990).

In a search of the literature, no studies were found that used program theory-driven evaluation to study the nursing program as a whole. One study looked at six different nursing programs at the baccalaureate level to determine how these programs
incorporated cultural competency in their curriculum, as well as how their students compared on achieving levels of cultural competency using Campinha-Bacote’s (2003) Culturally Competent Model of Care (Kardong-Edgren et al., 2010). However, further research is needed on cultural competency education in different nursing programs, and a systematic evaluation of cultural competency in different levels of nursing education. Through a program review, nursing education can obtain new knowledge, which can yield important insight on better ways to prepare nursing students for professional nursing practice.

**Statement of the Problem**

The research problem identified in the review of literature pertains to different interpretations of cultural competency among nursing programs and whether these programs are meeting the cultural competencies identified by their accreditation organizations (Calvillo et al., 2009; Kardong-Edgren et al., 2010). As the population has become more diverse, and new nursing programs have emerged to address the nursing shortage, culturally competent care has become necessary to assist the client in reaching favorable health outcomes (Billings & Halstead, 2009; U.S. Census Bureau, 2013). The Institute of Medicine (IOM, 2010) has stated that due to increased population diversity, health care must address multifaceted patient needs in a collaborative effort to ensure safe health care. The Accreditation Commission for Education in Nursing (ACEN, formerly known as National League for Nursing Accrediting Commission - NLNAC), and Commission on Collegiate Nursing Education (CCNE) have identified specific program outcomes that each nursing program must meet to become accredited, which include
culturally competent behaviors nursing students must achieve to satisfy professional nursing practice requirements (ACEN, 2013; NLNAC, 2008; CCNE, 2009). However, there is no consistent method of teaching cultural competence or incorporating it into nursing curriculum (Calvillo et al., 2009; Kardong-Edgren et al., 2010). Nursing programs interpret cultural competency differently leading to misinterpretations or the risk of not meeting required program outcomes (Calvillo et al., 2009). It is important to explore how a nursing program meets its accreditation standards pertaining to cultural competency of its graduates, as well as how nursing programs define cultural competency in their program outcomes.

In light of an increased demand for registered nurses who are culturally competent and able to address health care disparities associated with multicultural health care recipients, this research study tried to determine through program theory-driven evaluation science (Donaldson, 2007), whether the program inputs of an associate degree program located in a culturally diverse urban location produced program outcomes aligned with AACN’s (2008) cultural competency standards for baccalaureate nursing students, as adopted by the ACEN (2013), who accredits associate degree nursing programs. Using a program theory-driven evaluation method, this study included a review of program inputs: (a) program goals; (b) curriculum; (c) implementation of the curriculum (adult learning theory); and (d) alignment of cultural concepts to program goals/curriculum. This study further reviewed program outputs with regard to the alignment of program goals with ACEN accreditation standards. This was accomplished
through a causal-comparative non-experimental research design comparing nursing students who had just started the associate degree nursing curriculum to those nursing students who had just completed the associate degree curriculum.

**Purpose of the Study**

Accrediting organizations set forth standards for nursing programs to achieve program outcomes derived from research findings, expert consulting panels, and the core values of professional nursing (ACEN, 2013; CCNE, 2009; NLNAC, 2008). Nursing programs are responsible for showing evidence of achieving accrediting organizations’ standards and their stated program outcomes (Billings & Halstead, 2009), including standards and outcomes related to cultural competence. Since nursing programs rely on accreditation to show quality and excellence in nursing education (Billings & Halstead, 2009), nursing programs cannot afford the risk of not meeting required accreditation standards through misinterpretation (Billings & Halstead, 2009; Calvillo et al., 2009).

Before making changes to program curriculum, nurse educators must seek to evaluate what is already being accomplished, and how it is contributing to their program outcomes. One of the ways nursing programs evaluate their program effectiveness and student achievements is through program analysis associated with program accreditation (Billings & Halstead, 2009). Therefore, the purpose of this research study is to determine through techniques associated with program theory-driven evaluation science (Donaldson, 2007) whether the program inputs of an associate degree program produce program outcomes that are aligned with the definition of cultural competence for nursing
students: cultural attitude, cultural knowledge, and cultural skill (AACN, 2008), as adopted by the accrediting organization for associate degree nursing programs (ACEN, 2013).

**Research Questions**

The primary research question asked whether there is alignment of program inputs with program goals in developing cultural competency in the nursing program. The primary research question was: Is there congruency between program theory implementation and outcomes for development of cultural competency in an associate degree nursing program?

The secondary questions asked if there is alignment of accreditation standards and program components in meeting cultural competency standards.

1. Is there congruency between program standards and program outcomes?
2. Is there congruency between program outcomes and curriculum?
3. Is there congruency between curriculum and implementation (including use of adult learning strategies)?
4. Is there a difference in scores of cultural competency concepts between those entering an Associate Degree Nursing Program versus those who have been exposed to the full curriculum of an Associate Degree Nursing Program?

The Research Hypothesis associated with secondary question (4) states that there will be a significant difference in cultural competency among students that was caused by exposure to the nursing curriculum, rather than by chance, as stated in the Null
Hypothesis (Houser, 2012). The research hypothesis addresses secondary research question #4 concerning a difference in scores on a cultural competency inventory.

Research Hypothesis: Nursing students who have been exposed to an associate degree nursing curriculum (treatment group) will have significantly different scores on a cultural competency inventory from nursing students who are entering an associate degree nursing program (control group).

Null Hypothesis: Nursing students who have been exposed to an associate degree nursing curriculum (treatment group) will not have significantly different scores on a cultural competency inventory from nursing students who are entering an associate degree nursing program (control group).

Rationale, Relevance, and Significance

The following section will review the basis of the research study of reviewing a nursing program meeting its program objectives by reviewing the use of a conceptual framework identified in the literature as one of the ways to evaluate a nursing program (Billings & Halstead, 2009). Also this section reviews why this research is pertinent to nursing programs that are required to meet professional standards to meet their accreditation requirements. Finally, this section also identifies the importance of this research in examining the benefits of using a full program review, rather than a snapshot view of educational strategies to promote cultural competency.

Rationale

This research study will review the congruence of utilizing program theory-driven evaluation science, a neutral research design process used extensively in education
(Donaldson, 2007), now being used in the health science field of nursing to evaluate the two year program design by the target college (program inputs) in meeting the program outcomes influenced by professional nursing practice and accreditation standards of cultural competency (program outputs). Program theory-driven evaluation, a conceptual framework developed by Chen, is a process of evaluating program construction and determining if a program has met its desired outcomes. It reviews why a program is supposed to work based on an evaluation of how the program is implemented (Chen, 2006).

**Relevance**

This research will review the congruence between adult learning theory and cultural competence outcomes in a two year nursing program. The areas of congruence that are investigated will be theory/standards with objectives, objectives with curriculum, and student cultural competence outcomes. Using adult learning theory, emphasis is placed on learning through experience, making meaning of learning by comparing it to the lived experience, and developing a partnership between the teacher/learner to create mutually acceptable goals (Merriam, Caffarella, & Baumgartner, 2007). Adult learning theory is compatible with the associate degree curriculum, as it was conceptualized by Mildred Montag for the non-traditional nursing student (Andrist et al., 2006). The associate degree program was developed as a solution to the nursing shortage experienced post World War II and allowed entry into nursing practice in a shorter period of time. Although recognized by nurse educators as a “stepping stone” to nursing practice, associate degree nurses comprise the majority of the workforce in health care.
today (Andrist et al., 2006). A review of the literature shows research primarily conducted on baccalaureate programs, so it is not known whether graduates of associate degree programs are meeting professional nursing practice goals. Among those goals is the capability of the nurse to provide culturally competent nursing care to a diverse patient population (IOM, 2010).

**Significance**

Historically, nursing has focused on developing awareness through cultural sensitivity rather than on constructing behavior through cultural competence (deChesnay & Anderson, 2012). Cultural competence in nursing is defined as the practice of recognizing and considering cultural diversity between the nurse, the client, and the family, when providing nursing care. It is crucial to recognize health disparities and to work toward teaching, planning, and implementing ethically sound health care, which will be beneficial to the client’s well-being. It is the essence of the reciprocal nurse-client relationship to mutually work toward positive health outcomes through learning from each other (AACN, 2008; Calvillo et al., 2009; deChesnay & Anderson, 2012). This evaluation design uses available nursing program data that will either validate meeting program outcomes or alert stakeholders that program improvement is necessary. Given the importance of program effectiveness regarding the overall value of the program for stakeholders, for student recruitment, and for organizational support, this evaluation can be generalized to other associate degree programs accountable for meeting the same accreditation standards.
Nature of the Study

Using program theory-driven evaluation as a framework, a non-experimental research design was utilized to evaluate the congruency between program theory and expected program outcomes in an associate degree nursing program. A program theory-driven evaluation is designed to review the program components that are presumed to affect program outcomes and to evaluate the conditions under which these processes are believed to operate (Donaldson, 2007). A significant inquiry includes review of accreditation standards, program curriculum, learning experiences, and program outcomes to determine if the nursing program has met its educational purpose. Through a program theory-driven evaluation design, program inputs were reviewed to determine their congruency in meeting program outcomes. This evaluative approach looked at cultural competency theory, accreditation standards, program outcomes, adult learning theory, program curriculum, and implementation of curriculum. The evaluation identified how cultural competency of students is evaluated by the nursing program, as well as how program outcomes associated with cultural competency were aligned with accreditation standards on cultural competency. A causal-comparative non-experimental research design was used to review cultural competency levels of a control group (freshmen nursing students entering the nursing program) and an experimental group (senior nursing students completing the nursing program) to produce data reflecting cultural competency levels of students based on Campinha-Bacote’s Cultural Competency Tool (IAPCC-SV, 2007). The embedding of a retrospective study within
the evaluation design strengthens the empirical basis for drawing causal conclusions about the impact of the curriculum on cultural competency (Chen, 2006).

**Definition of Terms**

The following section will define the terms used in connection with this research study. These definitions will be broken down into the conceptual framework used to guide this research, as well as the accreditation standards, program outcomes, curriculum, implementation of curriculum, and method of outcome assessment. This section will provide an overview of the research design and research components under review.

**Accreditation Standards**

Accreditation Standards are defined as the educational goals to be met by nursing programs. Established by “peer review” accrediting bodies, parameters are set for meeting education objectives associated with professional nursing practice for nursing programs (Billings & Halstead, 2009). For the associate degree program, accreditation standards are developed and enforced by the Accreditation Commission for Education in Nursing (ACEN, formerly known as the National League for Nursing Accreditation Commission – NLNAC), and were recently revised in January, 2013 to use similar cultural competency concepts for baccalaureate nursing programs (ACEN, 2013). This will be a dependent variable of this research, as their interpretation by the nursing program can affect meeting the standards (Houser, 2012).

**Cultural Competence**

Cultural competence in nursing is defined as the practice of recognizing and considering cultural diversity between the nurse, the client, and the family, when
providing nursing care. It is the essence of the reciprocal nurse-client relationship that mutually works towards positive health outcomes through learning from each other (AACN, 2008; Calvillo et al., 2009; deChesnay & Anderson, 2012). As described by Campinha-Bacote (2003), cultural competence is a lifelong process and is composed of five interdependent constructs.

**Cultural Competence Constructs**

Cultural competence constructs are defined by Dr. Josepha Campinha-Bacote (2003), a noted transcultural nursing expert, as five constructs that encompass cultural competence – cultural awareness; cultural knowledge; cultural skills; cultural encounters; and cultural desire. Each of these five constructs are interdependent. Development of the Cultural Competence Care Model has been cited as one of the significant transcultural nursing models being used by nursing programs (Sagar, 2012; Zander, 2007). These cultural constructs served as descriptive variables, as they identified the level of cultural competency achieved by the students who have and have not been exposed to the curriculum (Houser, 2012).

**Curriculum**

Curriculum is defined as the curriculum implemented by the program under review, and is composed of both general education courses, as well as five nursing courses. The curriculum served as the independent variable for this study, as it can affect the ability of nursing students to achieve program outcomes (Billings & Halstead, 2009). How the curriculum is implemented can be just as important to student learning, as the
curriculum components themselves, so a review of how the curriculum is taught is part of the program evaluation (Billings & Halstead, 2009).

**Implementation of Curriculum**

Implementation of curriculum is based on nursing goals and educational objectives used by the program under review and taught by faculty using adult learning theory strategies adopted as the teaching framework. The implementation of curriculum was the dependent variable for this study, as each of the faculty teaching the curriculum may differ in their teaching styles or use of adult learning strategies (Grasha & Reichmann, 1996; Merriam et al., 2007).

**Method of Outcome Assessment**

The method of outcome assessment was based on Campinha-Bacote’s (2003) Model of Cultural Competence. From this model, an assessment tool was developed for both students and health care professionals, which quantitatively evaluates the five constructs: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural skill (Campinha-Bacote, 2007). This tool yielded statistical data identified as instrumental for nursing education through the development or modification of cultural competence educational strategies (Campinha-Bacote, 2007; Kardong-Edgren et al., 2010; Riley, Smyer, & York, 2012).

The independent variable for this research is the standard curriculum. The dependent variables were the scores on the Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – student version (IAPCC-SV). The IAPCC-SV is an instrument used by researchers to test cultural
competence in nursing students. It is a widely used valid and reliable 20-item tool that uses a four (4) point Likert scale to answer a total of five questions on each of the five constructs of Campinha-Bacote’s model (Campinha-Bacote, 2007; Kardong-Edgren et al., 2010; Riley et al., 2012).

**Program Outcomes**

Program outcomes are defined as the educational goals to be met by students who have completed the curriculum of the nursing program. Program outcomes for associate degree program are very similar to baccalaureate degree programs; however, there is no clear distinction between degrees by the public (Billings & Halstead, 2009). Though they incorporate the same standards associated with professional nursing, the outcomes for associate degree programs are dependent on fewer curricular offerings and degree credits (Andrist et al., 2006). Program outcomes and how they are measured by the nursing program may not meet accreditation requirements due to the recent revision of cultural competency standards by the Accreditation Commission for Education in Nursing (ACEN, 2013). These served as dependent variables for this research, as program outcomes are determined by each nursing program (Billings & Halstead, 2009).

**Program Theory**

Program theory is defined by Chen (1990) as an action oriented process that looks to problem solve or show goal achievement. Consisting of two parts that identifies how the program is supposed to work (prescriptive theory) and how the program actually worked (descriptive theory), program theory evaluates how a program is constructed and implemented to investigate or provide feedback for decision-making processes. The
importance of utilizing program theory is to yield a summative evaluation of programs, which are initially constructed from ideas of the program stakeholders, who interpret how the program is supposed to work (Chen, 2006).

**Assumptions, Limitations, and Delimitations**

The following section will review the assumptions, limitations and delimitations of this research study. Each of these will help to clarify the background of the research questions, and shed light on the areas that have impacted the research study. They will also help distinguish the characteristics of the research and how the results may be generalized (Houser, 2012).

**Assumptions**

A difference in cultural competency levels was expected between those entering an associate degree nursing program versus those who have been exposed to the full curriculum of an associate degree nursing program. This premise is based on the assumption, if (a) there is congruency between program standards and program outcomes; (b) there is congruency between program outcomes and curriculum; and, (c) there is congruency between curriculum and implementation (including use of adult learning strategies). Using the conceptual framework of program theory-driven evaluation, these assumptions will be examined.

Based on the new accreditation standards implemented by the ACEN (2013), and their current definition of cultural competence standards (Camphina-Bacote’s Model of Cultural Competency, 2003), the nursing program acquired valuable insight on their nursing program’s curriculum, and have research data that can help facilitate program
modifications. Chen’s Theory-driven model (1990) is considered a viable framework to develop an evaluation plan for nursing education programs in meeting accreditation standards or identifying program modifications (Billings & Halstead, 2009).

**Limitations**

Limitations to this research can be attributable to using a small convenience sample in a private two-year associate degree nursing program. Additionally, this program runs three consecutive semesters in an academic year, which does not align with two year programs running on a two semester academic calendar, without a summer semester. Also, as described in the literature, each nursing program individually identifies what they consider to be culturally competent concepts for their graduates, and further identifies individual exemplars from these assumptions (Anderson, 2004; Kardong-Edgren et al., 2010). Thus, differences in interpretations can impact generalization.

**Delimitations**

Unlike baccalaureate programs that attract younger students who typically are admitted to college based on high academic achievement testing, associate degree programs have attracted non-traditional students from diverse backgrounds and who may have more life experience (Andrist et al., 2006). Consequently, the results derived from the convenience sample used in this research can be generalized only to other associate degree programs. In addition, baccalaureate degree programs incorporate a core curriculum set forth by the Commission on Collegiate Nursing Education (CCNE), an autonomous arm of the American Association of Colleges of Nursing (AACN), whereas
associate degree programs incorporate a core curriculum set forth by the National League of Nursing (now known as ACEN). Both organizations have their own distinct accreditation standards that define the academic preparation of nursing graduates from their accredited nursing programs (Billings & Halstead, 2009). However, since the accreditation standards are similar between both of these accrediting organizations, the findings from this study should also be generalized (AACN, 2008; ACEN, 2013).

Although theory-driven evaluation (Chen, 1990) can be adapted to all levels of nursing education (Billings & Halstead, 2009), this research provided a solid framework to formatively evaluate the extent to which only an associate degree nursing curriculum is aligned with its program objectives, and in meeting their accreditation standards. Thus, this evaluation showed alignment of not only the nursing program evaluated, but yielded a substantial benefit for both the organization and the program: a competent nursing professional (ACEN, 2013). No similar evaluation of a baccalaureate nursing program has been reported in the literature, though specific teaching and learning strategies used by baccalaureate programs and the results of these strategies on cultural competence levels of their students (Calvillo et al., 2009; Kardong-Edgren et al., 2010). Therefore, further research using program theory-driven evaluation of a baccalaureate program would be needed to generalize findings to these nursing programs.

Organization of the Remainder of the Study

The remainder of the study will focus on Chapter 2: Review of the Literature; Chapter 3: Methodology; Chapter 4: Data collection and analysis; and, Chapter 5:
Summarization of the research findings, and its implications for nursing education.

Following the dissertation chapters will be Appendices A-D containing, an overview of the cultural concepts, an overview of accreditation standards and target nursing program objectives, faculty questionnaires, and the Student Demographics Form.
CHAPTER 2. LITERATURE REVIEW

Introduction to the Literature Review

The purpose of the literature review is to add to the importance of the proposed research topic, uncover research tools or instruments that have been successfully tested, and assist the researcher in identifying areas of further research (Houser, 2012). A literature review is an important aspect of developing a research study, as it guides the researcher to uncover what is already known about a topic of interest, as well as provides direction in developing new knowledge. Regarding cultural competence of nursing students, several studies had been published about baccalaureate nursing programs, as well as cultural competence in practicing health care professionals. However, little research had been conducted on associate degree programs, and no research had utilized program theory-driven evaluation as the conceptual framework.

As cited in numerous studies, Campinha-Bacote developed cultural competency tools that had been successfully utilized in research to generate measurable levels of cultural competency in both health care professionals and student nurses (Calvillo et al., 2009; Kardong-Edgren et al., 2010). With the use of Campinha-Bacote’s competency tool and utilizing a program theory-driven evaluation as the conceptual framework, this research study evaluated the ability of an associate degree program to meet accreditation standards relating to cultural competency. This research is relevant to nursing education, as the accreditation organization for associate degree programs recently adopted new
cultural competency standards (ACEN, 2013), and it will also yield information about the effectiveness of using a conceptual framework (normally utilized in social and behavioral disciplines) in evaluating congruency between nursing program outcomes and accreditation standards (Chen, 1990; Donaldson, 2007).

Consistent with a thorough literature review, every effort was made to obtain articles, books, and web-based materials to uncover knowledge about cultural competency in the health field. The literature search was conducted using Capella University’s Library databases, books and journals; websites for accreditation agencies, professional nursing organizations, health organizations, and periodicals from Central Connecticut State University Library. Search terms included nursing education, cultural competency, accreditation standards, and program theory-driven evaluation.

**Theoretical Framework**

Program theory-driven evaluation, a non-experimental research design, was used as a framework to evaluate the congruency between program theory and expected program outcomes in an associate degree nursing program. Considered a neutral science, program theory-driven evaluation allows the researcher to develop evaluation questions without the constraints of a specific scientific design. It blends both the social and scientific principles to yield pertinent data valued by program stakeholders (Donaldson, 2007). Developed by Chen (1990), the importance of a program theory-driven evaluation is its ability to look past the scientific aspects of evaluation, and incorporate the social or behavioral aspects that help to drive program conception. Although used generally by education, Chen noted that this type of evaluation can be used in different research
designs - all of which can yield important data on whether a social program is meeting its goals or is in need of improvement. Billings and Halstead (2009) cited Chen’s theory-driven evaluation as an adaptable framework for nursing education to evaluate their programs and meet accreditation standards. A more in-depth review of program theory-driven evaluation is included in a separate section on program theory found later in this chapter.

**Review of the Research Literature**

This section will review the literature pertaining to cultural competency and healthcare, cultural competency and nursing education, accreditation standards for nursing programs, associate degree programs, implementation of curriculum using adult learning theory, associate degree program outcomes, and exemplars of cultural competency. An in-depth review will be presented on each component of the nursing program included in the program theory-driven evaluation. A review of the methodical literature describing the conceptual framework used in this research study will be presented later in this chapter.

**Cultural Competency and Healthcare**

The U.S. Government has been instrumental in establishing goals and objectives for promoting health and its delivery through an initiative called Healthy People 2020. Among its goals is the creation of a social and physical environment that is capable of promoting good health for all. The impact of health care reform will change the ways in which the provision of short term and long term care is viewed (Lewis, Dirksen, Heitkemper, Bucher, & Camera, 2011). There is no easy remedy to the nation’s health
care financial woes or to the increase in health care disparities experienced by the poor, the elderly, and the uninsured. The health care arena is changing in the wake of new legislation proposed under Health Care Reform (Evans, 2010). These changes are aimed at decreasing health care costs and decreasing health disparities by focusing on access to care, health promotion, and coordination of care services (Evans, 2010).

Including cultural practices in the delivery of health care is considered important to ensure positive patient goals, otherwise there is risk for ineffective health care delivery, which could result in poor patient outcomes (Purnell, 2013). Taking patients’ values and beliefs into consideration helps to ensure delivery of health practices that enhance patient well-being, decrease health disparities, and promote preventative care. With the rise of patient diversity in health care, Purnell feels culturally competent health care practitioners are required to meet patient needs, decrease health complications, and deliver cost-effective care. This would be accomplished through culturally appropriate communication and practicing culturally appropriate health assessments. Purnell stated increased global diversity, migration, and longer life expectancies have impacted health care access and health care costs, which have fueled the need for providers who can communicate, educate, and deliver services to diverse patient populations. Reducing health care disparities, improving health care access, and decreasing health care costs is driving the current push for universal health care coverage and the establishment of cost effective partnerships between health care providers (Lewis et al., 2011). Purnell’s model for cultural competence was developed as a framework for health care providers to
learn and understand culture, in an effort to promote culturally competent health care (Purnell, 2013).

Although the U.S. Department of Health put forth an initiative aimed at elimination of health disparities that occur by gender, race or ethnicity, health care disparities for minorities still exist, and these disparities result in higher morbidity and mortality rates, situating this group as being the larger portion of health care consumers (Leonard, 2006). Nursing programs are faced with the challenge of providing culturally diverse curriculum to ensure that they are graduating culturally competent nurses.

Paramount to nursing education is the importance of the nurse-patient relationship in developing shared goals and outcomes. Without consideration of the patient’s cultural values or health care wishes, this relationship is threatened and poor health care outcomes can result (Billings & Halstead, 2009).

Sponsored by the Robert Wood Johnson Foundation, the Institute of Medicine (IOM) reviewed the future of nursing’s role in the wake of health care reform in the report: The Future of Nursing: Leading Change, Advancing Health (IOM, 2010). The goal of this report was to outline what nursing, as a profession, had to do to participate in transforming health care. Recommendations were made for higher educational preparation (minimally, at the BSN level), which would prepare nurses to practice safe, cost effective health care. In addition, this educational preparation would foster the development of interdisciplinary health care partnerships, which are capable of meeting increased health care demands by a complex health care system. Additionally, the report asserted that nurses must have educational preparation to act as advocates in meeting the
cultural needs of their patients. Billings and Halstead (2009) identified the importance of patient advocacy by the nurse in considering the patient’s individual needs, providing patient focused care, and meeting positive health care outcomes. The IOM concluded that with increased population diversity, health care delivery must address multifaceted patient needs with a collaborative effort to ensure safe health care (2010).

In summary, educational and health care delivery organizations have espoused multiculturalism as an effective way of addressing educational and health care needs of an increasingly diverse population. From teaching and learning strategies to delivery of health care services, the elimination of disparities and providing access to quality services have been expectations. However, these expectations are at risk of not being achieved in nursing without an evaluation of the cultural competency components of the nursing curriculum (Banks, 1996; IOM, 2010; Irvine, 2003; World Health Organization, 2013).

Cultural Competency and Nursing Education

With the increase in diversity among the population and among nursing students, Billings and Halstead (2009) indicated that nursing curriculum must accommodate diversity to enhance students’ cultural competence. This includes both classroom and clinical experiences where multicultural perspectives are interwoven into course objectives, and students are able to encounter multicultural patients in clinical settings. As a multicultural expert, Banks (1996) cautioned educators about the viewpoints represented in textbooks, which he cited are reflective of the dominant culture, and do not depict diverse history. Banks further stated when textbooks are used without additional support, it perpetuates the passing of the dominant culture onto another without regard for
differences. Within nursing programs, multicultural education is influenced by didactic and clinical learning opportunities that can be limited to faculty availability, clinical site availability, and competition among other nursing programs for health care collaborations, student recruitment, and financial support (Billings & Halstead, 2009).

In analyzing cultural competence, earlier versions of the construct has developed from its origins of promoting fear and curiosity to evolving into a moral obligation by promoting sensitivity and competence among social and behavioral scientists (Zander, 2007). As interest in cultural competence began to grow, professional disciplines developed and adopted cultural models. To promote cultural competence in nursing, Leininger established the field of transcultural nursing through her development of the Culture Care and Diversity and Universality Theory in the late 1940s (Sager, 2012, p. 1). Leininger’s theory incorporates three action modes: (a) preservation and/or maintenance: aimed at recognizing, maintaining, and preserving helpful values and beliefs; (b) accommodation and/or negotiation: aimed at adapting or transacting appropriate cultural care; and (c) repatterning and/or restructuring: aimed at mutual decision-making between patient and nurse to achieve better health care outcomes (Sager, 2012, p. 4). Leininger was the first nurse theorist to clarify the meaning of nursing care based on cultural differences (Zander, 2007). More current models of culturally competent care, such as Purnell’s (2002) Model of Cultural Competence, and Campinha-Bacote’s (2003) Cultural Competence Care Model were derived from Leininger’s theory and serve as exemplars for the delivery of culturally competent care by health care professionals today (Sager, 2012).
Historically, nursing has focused only on developing awareness through cultural sensitivity rather than on constructing behavior through cultural competence (deChesnay & Anderson, 2012). However, research on cultural competency by Campinha-Bacote (2003), a noted transcultural nursing expert, led to the identification of five interdependent constructs that now are generally considered to encompass cultural competence: cultural awareness; cultural knowledge; cultural skills; cultural encounters; and cultural desire. The development of her cultural competence care model has been cited as one of the significant transcultural nursing models being used by nursing programs (Sagar, 2012; Zander, 2007).

These cultural constructs are further delineated by the literature as variables that can be measured based on (a) accreditation standards, (b) curriculum development (cultural awareness); (c) teaching strategies (cultural knowledge, cultural skill); (d) student diversity (cultural knowledge, cultural skill); (e) organizational foundations (cultural awareness, cultural encounters); and (f) environmental influences (cultural encounters, cultural awareness, cultural desire, cultural skill) (Anderson, 2004; Calvillo et al., 2009; DiCicco-Bloom, 2000; Sagar, 2012, Zander, 2007). It is the interpretation of these constructs and how these constructs can be achieved that has helped nursing programs to understand how to incorporate cultural competency into their curriculums. However, there are no set guidelines or proven methods cited by accreditation organizations for nursing programs to teach cultural competence. Exemplars are only identified and offered to nursing programs to foster cultural competency in nursing students (AACN, 2008; ACEN, 2013)
According to Camphina-Bacote, cultural awareness occurs through awareness of one’s own biases and cultural differences; cultural knowledge occurs through awareness of different world views and of different cultures; cultural skill pertains to the ability to perform culturally sensitive assessments; cultural encounters occur when one is directly engaging with diverse cultures; and cultural desire stems from one’s motivation to work with diverse cultures (Anderson, 2004). The model has been utilized in the development of nursing curriculum, continuing education for nursing professionals, and by nursing administrators when evaluating their nursing organizations (Sagar, 2012).

In analyzing the construct of cultural competence, Zander (2007) stated not all cultural concepts are achieved from nursing curriculum and clinical exposure. Rather, she noted many factors such as self-motivation, self-reflection, and self-learning help to fuel cultural desire, which is one of Campinha-Bacote’s cultural concepts. Additionally, she stated cultural exposure leads to cultural awareness, which lends itself to the development of cultural behaviors (Zander, 2007).

Campinha-Bacote considers cultural competency to be a life-long commitment to learning (2003). As a result, each nursing program may consider different constructs as their interpretation of cultural competence (Calvillo et al., 2009). As an example, prior research conducted using Campinha-Bacote’s Model with BSN Programs (Kardong-Edgren et al., 2010) and RN-BSN Programs (Riley et al., 2012) explored attainment of cultural competency through coursework and clinical experiences. Anderson (2004) found a positive correlation between cultural competence in BSN students and use of
literary journalism as a teaching strategy, in qualitative research conducted at a Jesuit University servicing low-income housing communities.

In research using Campinha-Bacote’s Cultural Competence Assessment tool, Schim et al. (2005) surveyed urban hospital-based health care providers in Michigan and Ontario, Canada. They anticipated and found higher educational levels and prior cultural competence training associated with higher scores of cultural competence; whereas, assumptions based on the conceptual model led to predictions that greater experience with diverse clients would be associated with higher cultural competence scores, but this was not the case. The educational breakdown of the 154 health care professionals in the Schim et al. (2005) study was 14 (20%) held bachelor’s degrees, and 26 (37%) held graduate degrees for Ontario providers; whereas, 37 (51%) held bachelor’s degrees, and 16 (21%) held graduate degrees for Michigan providers. Interpretation of their data led to the conclusion that higher educated participants were the most culturally competent; but, this was solely based on data distributed among participants with previous degrees, and did not examine specific educational curriculum or cultural projects. From review of the literature, recommendation for further research on nursing programs is to identify how cultural competency is addressed in curriculum and to determine whether program outcomes are congruent with cultural competency outcomes, as identified in accreditation standards (Calvillo et al., 2009; Kardong-Edgren et al., 2010; Riley et al., 2012; Schim et al., 2005).

Bednarz, Schim, & Doorenbos (2010) conducted research on cultural diversity in nursing education, and examined what they considered to be perils (complications),
pitfalls (barriers), and pearls (strategies) to increasing diversity in the classroom (p. 253). Stated as one of the perils was nursing faculty’s imperative of treating everyone the same and not accounting for or adjusting for cultural differences within the classroom. This complication stems from the fear of discriminating against or not being comfortable with teaching diverse students. They further stated that among the pitfalls of nursing education is the traditionally embedded uniformity of nursing as a discipline, and the lack of ability to tailor nursing education towards diverse student needs. Since nursing is predominantly a white, female profession, they concluded lack of cultural sensitivity (a) impacts cross-cultural learning by diverse students, who are unaccustomed to current cultural trends in health care; (b) impacts male students negatively who may have trouble with interpersonal communication with patients; (c) impacts student/faculty relationships with regard to age differences or learning needs; and, (d) impacts students who are educationally disadvantaged and who struggle with the rigors of nursing education (p. 255-256). Bednarz et al. (2010) offered as pearls (strategies) for faculty to encourage examination of their beliefs/values, to expand their cultural awareness, and to model cultural sensitivity to their students. Additionally, faculty are encouraged to find ways to incorporate different teaching styles to accommodate diverse student learners, and to weave cultural awareness into the course curriculum through more experiential means such as moving away from faculty directed (pedagogy) towards learner centered (andragogy) methods. In conclusion, their research opened up the dialogue about moving away from traditional nursing curriculum uniformity and creating a learner-centered approach to teach the culture of professional nursing practice. Through this
transition, nursing students will be exposed to diverse learning opportunities that will enhance their cultural competence.

In research conducted by Kennedy, Fisher, Fontaine, and Martin-Holland (2008), an examination of the Nursing Program at the University of California, San Francisco was conducted to see how they were meeting their goal of addressing diversity through their teaching pedagogy. Using a mixed-method study, they implemented a four-step approach to review content of diversity across the nursing program’s curriculum. They conducted a review of syllabi content, student evaluations of diversity in these courses, survey of nursing graduates for perspectives and evaluation of diversity across the curriculum, and a faculty review/analysis of strengths, weaknesses, opportunities and threats. The courses that scored the highest for diversity were those that held a socio-cultural focus, and those that scored the lowest were clinical practicum courses. This was a surprising aspect of the research, as the university is located in a diverse setting, and clinical practicums served a highly diverse patient population. Additionally, their research revealed the discomfort faculty felt with changing curriculum or addressing diversity in the classroom.

In summary, each nursing program has to have resources, motivated faculty, organizational commitment, and community involvement to introduce diversity, cultivate knowledge, and practice cultural skill (Calvillo et al., 2009). What works, what can be initiated, and how it can be taught needs to be individualized to each nursing program. As part of the program theory-driven evaluation, faculty will be surveyed to acknowledge
alignment of cultural competence in accreditation standards, program outcomes, and nursing curriculum.

**Accreditation Standards for Nursing Programs**

Accrediting bodies in higher education evaluate nursing programs and their ability to meet their educational objectives. Seen as “peer-review” by governing organizations established to ensure sound nursing educational programs, an extensive self-evaluation process is conducted to show accrediting organizations how program objectives are being met (Billings & Halstead, 2009). The process of becoming accredited is intensive and based on professional nursing practices. Accreditation helps the nursing programs attract nursing students, solicit qualified nursing faculty, establish community partnerships, and ensure graduates who will meet professional nursing standards. The two main organizations that accredit nursing programs are the Commission on Collegiate Nursing Education (CCNE), and the National League for Nursing Accrediting Commission (Billings & Halstead, 2009).

The National League for Nursing developed a set of six standards and criteria to meet accreditation requirements by nursing programs including the associate degree and baccalaureate degree. Of these six standards, accreditation outcomes address the nursing program’s ability to meet its institutional mission and professional standards of nursing education and show how these outcomes are achieved (NLNAC, 2008). Now known as the Accreditation Commission for Education in Nursing, their six standards were revised in 2013 (ACEN, 2013). For the associate degree program, accreditation standards utilize similar cultural competency concepts for baccalaureate nursing programs. As a result,
cultural competency requirements were modified and referred to those cultural
c ompetency standards previously associated with only baccalaureate level nursing
programs (ACEN, 2013).

A second accrediting agency, the Commission on Collegiate Nursing Education
(CCNE), an autonomous arm of the American Association of Colleges of Nursing
(AACN), developed the Standards of Accreditation for Baccalaureate and Graduate
Degree Nursing Programs comprised of only four standards. The CCNE standards
incorporate The Essentials of Baccalaureate Education for Professional Nursing
Practice, a set of guidelines developed by the AACN. These essentials are recognized by
nursing organizations as the learning objectives of graduating nurses about to enter into
the professional nursing role (AACN, 2008).

The AACN further developed five competencies for Cultural Competency in
Baccalaureate Nursing Education, which has provided the framework for nursing
educators to implement curriculum preparing nursing students to provide culturally
competent care (AACN, 2008). Subsequently, the ACEN created hallmarks of nursing
education excellence using the AACN’s cultural competencies as a resource. Both of
these nursing organizations highlight Campinha-Bacote’s Model of Cultural Competence
to serve as a guide for nursing programs in meeting their accreditation standards of
cultural competence (AACN, 2008; ACEN, 2013).

In summary, associate degree programs were originally conceptualized from
curriculum preparing nursing students to practice in structured settings such as sub-acute
or long-term care settings; whereas, baccalaureate degree programs were conceptualized
to prepare nursing students for nursing practice in various health care settings, nursing leadership, and preparation for higher education. However, as program outcomes for associate degree programs are so similar to baccalaureate degree programs, there is no clear distinction between degree levels made by the public or by the new accreditation standards on cultural competency (ACEN, 2013; Billings & Halstead, 2007).

**Associate Degree Programs**

Conceptualized by Mildred Montag, as a solution to the nursing shortage experienced post World War II, the associate degree movement was tailored to the non-traditional nursing student and allowed entry into practice in a shorter period of time (Andrist et al., 2006). Although recognized by nurse educators as a “stepping stone” to nursing practice, associate degree nurses comprise the majority of the workforce in health care today (Andrist et al., 2006). As a result, the majority of nurses who enter the workforce are educationally prepared at the associate degree level, a level of education not considered sufficient for professional nursing practice by the IOM. In light of this, the majority of nurses may not be able to meet an important nursing role of providing culturally competent nursing care. This has been cited as an IOM goal for professional nursing practice, in the wake of health care transformation (IOM, 2010).

Although differentiated by curriculum offerings and degree credits, many associate degree prepared nurses have been entering acute care or community settings normally structured for baccalaureate prepared nurses. Due in part to the lack of perception between the differences in curriculum or nursing roles of the associate degree
and baccalaureate degree graduate, program outcomes may be similar in both programs, but alter significantly in curriculum offerings (Billings & Halstead, 2009).

The college described in this manuscript is a non-profit organization founded in 1999 “with the goal of serving a diverse student population with career-focused degree programs that lead to strong employment outcomes” (as shown in the college’s informational page, 2013). The college’s mission is to “educate a culturally diverse student population in an environment that builds bridges between education, commerce, and community” (as shown in the college mission statement, 2013). This associate degree nursing program was developed in 2004 and uses a three semester academic year (as shown in the department of nursing handbook, 2013).

Since there is no definitive approach in the research on meeting cultural competency standards in either baccalaureate or associate degree programs, the current study is relevant to nursing education. In light of the recent adoption of new cultural competency standards by the ACEN in 2013, a program theory-driven evaluation of an associate degree program’s inputs, outputs, and alignment with accreditation standards will yield insight on the use of this conceptual framework in health care. It will also be applicable to nursing education researchers looking at the whole nursing program, rather than critiquing a cultural project or an addition to curriculum (Calvillo et al., 2009; Kardong-Edgren et al., 2010).

**Implementation of Curriculum Using Adult Learning Theory**

Adult learning theory was introduced by Malcom Knowles in the 1960’s to distinguish between adult learning (andragogy) from child learning (pedagogy) strategies.
Adult learning theory encompasses many learning strategies associated with the way adults accept knowledge, process knowledge, and apply knowledge. Among those learning strategies outlined within adult learning theory are self-directed learning, experiential learning, and transformative learning (Merriam et al., 2007). Since the college involved in this research study cites adult learning theory as a framework for the implementation of its nursing curriculum, these learning strategies will be reviewed.

The goals of self-directed learning revolve around the promotion of opportunities for learning, the assistance in fostering personal growth with learning, and the encouragement of self-empowerment through learning (Merriam et al., 2007). Adults tend to make choices to participate in self-directed learning based on their desire to maintain independence, seek opportunities to change, or effect emancipation. Self-directed learning can be done through linear model, such as Knowles’ (1975) six step process, or it can be done through an interactive model, such as Spear’s (1988) model incorporating opportunity, knowledge and chance occurrences (p.112). In contrast to Knowles’ theory, a nursing student may require more teacher-directed learning, in order to become familiar with the nursing process unless the nursing student has specific knowledge related to nursing, or has life experiences that can be related to nursing (Billings & Halstead, 2009).

The goals of transformative learning are to affect change by making new meaning out of what we already know by challenging this meaning (Merriam et al., 2007). The key concepts of transformative learning are one’s life experience, critical reflection on learning, and individual development derived from this learning. The role of the educator
is that of a facilitator directing the adult towards learning in an environment that
promotes inquiry. Mezirow (1978) was a proponent of transformative learning and
believed that one’s experiences would help to guide future action (Merriam et al., 2007,
p. 132). Transformative learning in nursing can be accomplished through the application
of nursing knowledge into nursing practice in clinical settings where the student interacts
with patients and provides patient education to assist with positive health outcomes
(Bastable, 2008).

The goals of experiential learning are to assist the learner with learning by
drawing on their experiences and making discourse with others to develop new
understanding (Merriam et al., 2007). The role of educators in experiential learning is
based on their theoretical orientation. Kolb (1984) and Jarvis (1987) are proponents of
experiential learning through their respective models. Overall, the main premise of
experiential learning is to move towards problem-solving and effect new learning through
critical reflection, service-learning, emotional conflicts and the recognition of power
influences (Merriam et al., 2007). Jarvis’s Learning Process (1987) identified the crucial
role of experience to develop meaningful learning outcomes. These experiences come
from a person utilizing their senses. For example, after the experience, the learner uses
thoughtful reflection and emotional response to determine the action: the learning is
applied and the learner moves onto the next learning experience (Merriman et al., 2007).
Jarvis’s theory that a person learns through the process of experiential learning is
consistent with the experiential learning opportunities created in nursing education. In
reviewing the three theories of adult learning, all three appear to be relevant to the field
of nursing education. However, not all adult learners have the emotional or cognitive ability to directly transition new knowledge into practice.

One of the theories identified in the review of literature as being utilized in nursing education has been experiential learning theory. Per Itin (1999), “the philosophy of experiential education would direct teachers toward providing more opportunities for students to interact with the subject matter, the environment, other students, and the teacher” (Merriam et al., 2007, p.6). In conducting research on a simulated patient experience for a junior medical-surgical nursing class, Lisko and O’Dell (2010) found that students experienced all four of Kolb’s learning domains, thus, making it a very valuable experiential learning tool. Kolb’s (1984) model utilizes the concepts of concrete experience, reflective observation, abstract conceptualization and active experimentation to foster learning through experiential opportunities. Patient simulation provided a concrete experience, gave students active experimentation, anticipating challenges provided abstract conceptualization, and discussing feedback on student performance provided reflection. Students commented that experiential learning helped to boost self-confidence, and faculty found value in visualizing their students’ progress while interacting with the scenarios (Lisko & O’Dell, 2010). By critically reflecting on the experience the student is able to internalize the learning, and through abstract conceptualization make meaning out of the experience to inform future nursing practice. Lisko and O’Dell (2010) showed that the diverse learning styles of the students were met, and the experiential learning strategy fostered critical thinking. Feedback from the
students on the patient simulation experience was positive, and they found this to be beneficial to incorporating theory and practice.

Banks (1996) identified that students should be given the opportunity to learn how knowledge is constructed, especially since knowledge gleaned from textbooks is influenced by factors which favor the dominant culture. He suggested that to provide a multicultural education, opportunities should be developed to allow students to construct knowledge themselves, and through this development experience how this knowledge is influenced by their own personal biases. Through experiential learning opportunities both in and out of the classroom, nursing lab, and clinical placements, nursing students in nursing programs are usually provided these opportunities (Billings & Halstead, 2009).

To actively engage students in their learning, Potter (2009) offered suggestions to professors on how to incorporate experiential learning exercises into classes. Her research stated that professors may recognize the importance of experiential learning, but are resistant to incorporating it into the classroom because of the risk involved in giving up control. She described the experiential exercise as creating a learning opportunity for both the professor and the student, which deviates from the formal training of professors, and which tends to reflect students as passive learners. She suggested the use of faculty mentoring, embracing a positive attitude, adequate preparation and planning, and use of student feedback to evaluate student learning. Potter stated that practice and experience will facilitate the better use of and comfort with this beneficial learning strategy (2009).

In summary, nursing educational strategies built on adult learning theory to address diversity in learning and in teaching have yielded positive results. Creativity and
innovative teaching strategies can provide a learning environment that will accommodate different learning styles. Experiential learning opportunities also foster the nursing student’s ability to learn, engage, and reflect on multiculturalism (Banks, 1996). Through the use of adult learning strategies, nursing knowledge transforms into nursing skill and provides opportunities for nursing students to practice effective nursing care capable of helping patients meet health care goals. This effective nursing care is learned through different teacher-student learning strategies that are determined by and carried out by faculty in the implementation of the nursing curriculum (Bastable, 2008)

**Associate Degree Program Outcomes**

The ACEN described four program competencies for graduates of Associate Degree and Diploma Programs: Human Flourishing, Nursing Judgment, Professional Identity, and Spirit of Inquiry. These competencies set forth the role of the ADN prepared Registered Nurse in relation to professional nursing practice (ACEN, 2013). Under their 2008 Accreditation Standards, the NLNAC (now known as ACEN) carried these four program competencies in their program outcomes for nursing programs from Licensed Practical Nursing up to Advanced Degree Nursing Programs; however, the competencies are adjusted for the degree level. As an example, whereas the ADN graduate is expected to advocate, evaluate and be sufficiently knowledgeable to challenge health care provided to clients, the BSN graduate is expected to possess leadership skills and research skills to advocate, evaluate, and assist in the research of evidenced-based health care practice (NLNAC, 2008). With the new accreditation standards adopted by
the ACEN in 2013, cultural competency requirements have been modified and refer to those cultural competency standards previously associated with baccalaureate nursing programs (ACEN, 2013).

In an exploratory, descriptive study conducted by Riley et al. (2012) on practicing nurses entering an RN-BSN Program, data from Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competency Among Healthcare Professionals-Revised (IAPCC-R), revealed a significant difference in cultural competency between age ranges (20-30 years old and 41-50 years old), as well as scores associated with the cultural skill construct (p. 383). They also found a weak, negative correlation between overall cultural construct scores and years of nursing practice. Demographic data was collected entailing gender, race, age category, years of nursing experience, and previous nursing education, but they did not find that educational preparation was a contributing variable in the research, as all of the 76 participants recruited from an online BSN-completion program had similar ADN program preparation (pg. 382). Based on a mean of eight years of nursing experience, 26 students were recognized as culturally competent, and 26 were recognized as culturally aware. The highest scores were in the construct of cultural desire, which the authors attributed to the nurses seeking higher education. The lowest score was in cultural knowledge, which the authors contended is the reason for seeking higher education to assist with nursing practice (Riley et al., 2012). No significant scores were reported for total scores or any of the construct scores on the IAPCC-R. Their review of the literature and their research data further substantiated the lack of consistency in cultural competencies between RNs and nursing students. Further, RN-
BSN program faculty should consider building on cultural competency standards for associate degree programs, and use these standards as a baseline from which to build additional cultural education in their baccalaureate program (Riley et al., 2012).

In summary, review of available research on achieving cultural competence by associate degree nursing programs produced evidence of a need for review of the inclusion of cultural competency education in curriculum, and the review of program outcomes on meeting accreditation standards on cultural competence (Calvillo et al., 2009; Kardong-Edgren et al., 2010; Riley et al., 2012; Schim et al., 2005). This review is even more important for nursing programs accredited under the Accreditation Commission for Education in Nursing (ACEN), which recently revised its cultural competency standards in January, 2013. These new standards use similar cultural competency concepts for associate degree nursing programs, previously applicable to baccalaureate nursing programs, and offer exemplars to assist programs in meeting these standards (ACEN, 2013).

**Exemplars of Cultural Competency**

Accreditation standards for nursing programs ensure that the nursing program meets professional nursing standards, as well as has the organizational and community support it needs to be successful in meeting its program outcomes (ACEN, 2013; CCNE, 2009; NLNAC, 2008). These standards are based on theoretical frameworks that promote meeting professional standards of practice. To meet educational standards, each nursing program’s mission must be in alignment with their organizational mission and vision to put forth a sound educational foundation.
The NLNAC and the AACN have both established accreditation standards, and exemplars of meeting cultural competency standards, as resources for nursing programs to guide their curriculum development. However, these exemplars refer mostly to incorporation, evaluative tools, and constructs of cultural competency, rather than attainment of cultural competency standards. Yet, with the move by the ACEN to adopt similar standards as the CCNE on cultural competency, there is a lack of consistency or explanation as to what is expected by nursing programs. Thus, from the associate degree nursing program standpoint, they have been given new rules for accreditation, without being given the strategy for meeting them.

Assessment of cultural competency and meeting accreditation standards is a challenging task, and more guidance is needed by nursing programs to evaluate cultural competency outcomes and related curriculum. Research articles are listed by the accreditation organizations within their standards to outline specific teaching/learning strategies successfully utilized by nurse educators to enhance cultural competence, but there are no set standards on teaching strategies (AACN, 2008; ACEN, 2013). Therefore, nursing programs have to take the initiative and through trial and error decide what they should include in their curriculum. In addition, they are held responsible by their professional nursing organizations (ACEN, 2013; CCNE, 2009) for showing how they met cultural competency objectives.

As an example, Kennedy et al. (2008) conducted a mixed method evaluation of the School of Nursing within the University of California, San Francisco (UCSF), to evaluate how the school’s commitment to diversity was achieved through curriculum and
pedagogy. In reviewing curriculum, implementation of curriculum, and student feedback on meeting their commitment to diversity, they found that courses with a socio-cultural focus scored highest with diversity content, whereas courses with a clinical component scored the lowest. Additionally, their research identified many faculty felt unprepared to teach diversity content, or felt that time constraints would inhibit their ability to revise their courses to include diversity content. Although clinical placements in diverse settings reflected increased ability to provide care to diverse clients, data collected from students indicated low ratings. Even with a program commitment to diversity, research conclusions suggest meeting diversity outcomes is a continual process dependent on faculty preparedness, implementation of curriculum, and faculty commitment to diversity (Kennedy et al., 2008).

In summary, the ACEN’s broad definition of cultural competency standards for accreditation, and the lack of resources to aid nursing programs in meeting both program outcomes and accreditation standards for cultural competency, serves to confuse, rather than articulate what is meant by culturally competence. Without a consistent method of teaching, developing curriculum, or interpreting cultural competence, it is no wonder that nursing programs are in jeopardy of not meeting accreditation standards (ACEN, 2013). However, of greater concern is the inability of the nursing programs to adequately prepare students for the professional role of the health care provider capable of caring for diverse patient populations through cultural knowledge, skill and encounters (Billings & Halstead, 2009; IOM, 2010). Further research utilizing a program theory-driven evaluative research design will provide the first step in program review and yield data for
nursing programs capable of identifying gaps or reinforcing alignment of program outcomes meeting accreditation standards.

**Review of Methodological Literature**

The methodological review of literature addresses the use of program theory as a conceptual framework for this study. In addition, this section will review the use of a causal-comparative non-experimental research design that is embedded in this program evaluation. This section will conclude with a synthesis of the research findings, and a critique of previous research.

**Program Theory**

Chen (1990) developed his theory-driven evaluation method to assist in evaluating the effectiveness of a program, or to help develop program concepts from their social or behavioral aspects. His evaluation method is adaptable to many disciplines and many research designs making it a useful way of performing formative assessments capable of ongoing evaluation of program effectiveness, rather than evaluation after program execution. From a conceptual standpoint, program theory-driven evaluation helps to identify where programs are considered effective or helps to pinpoint areas where improvement is needed. It is a good way to gauge meeting program goals and providing research data to support this conclusion (Chen, 1990).

The use of program theory-driven evaluation science can “develop and improve programs”; “aid decision making”; “facilitate organizational learning and the development of new knowledge”; and “meet transparency and accountability needs” (Donaldson, 2007, pg. 10). This type of empirical evaluation helps organizations
prioritize evaluation questions based on practical experience and provides scientific methods of validating the research. Although considered a neutral science, program theory-driven evaluation allows the researcher to develop evaluation questions without the constraints of a specific scientific design. It blends both the social and scientific principles to yield pertinent data valued by program stakeholders (Donaldson, 2007).

Billings and Halstead (2009) cite Chen’s theory-driven evaluation as an adaptable framework for nursing education for program evaluation and meeting accreditation standards. Their positive review of the formative process associated with theory-driven evaluation is based on the ability of the evaluation to determine if there is a failure in the program theory or in its implementation. Program theory can be either normative theory (which is prescriptive) or causative theory (which is descriptive) allowing program elements to be reviewed and then generalized to other areas of interest. This generalization is of importance to stakeholders, who may wish to evaluate other aspects or specific interests of the program, and be able to use the results of the systematic evaluation as a template (Billings and Halstead, 2009).

As an example of using program theory-driven evaluation science, Baldwin, Hutchinson, & Magnuson (2004) examined the applicability of this evaluation design to therapeutic recreation models outlining therapeutic concepts. They found this approach could provide both empirical and scientific data for the development of evidenced-based practices. They further stated that through the use of this framework, therapeutic recreation program faculty can now evaluate how program outcomes are met, and signify the effectiveness of these programs to professional practice (Baldwin et al., 2004).
Oosthuizen and Louw (2013) evaluated the use of program theory-driven evaluation on a South African purveyor program involving the management of numerous sites responsible for providing social programs on HIV education. The concern was to determine how the purveyor program could disseminate its program objectives to each site, and ensure that the educational programs were effective as delivered. Through the use of this framework, the purveyor program staff was able to gather information from their program stakeholders, develop program theory, and ensure that program outcomes were being met. This research also revealed the effectiveness of the program theory-driven evaluation process in social programs that are decentralized, yet working under the same program objectives. The purveyor program research revealed this type of evaluation is well suited to different types of social programs and outlined how these programs can determine their expected results.

The fundamental basis of program theory is to determine what ought to be (normative theory) and what actually is (causative theory), in an effort to identify program effectiveness. Similarly, a program theory-driven evaluation can assist in identification of program weaknesses and assist in program modifications (Chen, 1990). Accreditation standards are based on normative theory and program outcomes are based on causative theory tempered by experience and knowledge. However, it is the alignment of the two that will yield the greatest benefit for both the organization and the program: a competent nursing professional (ACEN, 2013).

**Method of Outcome Assessment**

Utilizing the program theory-driven evaluation as a framework, a causal
comparative study was conducted on students entering an associate degree program (control group) and on students completing an associate degree program (treatment group) to yield data showing differences in cultural competence. This study examined students who have been accepted into a private two year college under similar criteria, and aims to determine if the cultural competence outcomes identified as program objectives for nursing graduates have been achieved (as shown in the department of nursing handbook, 2013).

Using Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competence among Health Care Professionals – student version (IAPCC-SV, 2007), data was collected by a tool designed for research on cultural competence in nursing students. The IAPCC-SV, is a widely used and reliable 20-item tool that uses a Likert scale to answer a total of five questions on each of the five constructs of Campinha-Bacote’s model. This tool is readily available from Campinha-Bacote’s organization (Transcultural C.A.R.E. Associates, Cincinnati, Ohio), and has been identified as a valid and reliable tool to measure cultural competency. From this tool, student nurse perceptions on each of the five constructs is collected, and based on the total score, determines their level of cultural competence (Kardon-Edgren et al., 2010; Sagar, 2012). Data can then be analyzed utilizing a statistical program to determine statistical relevance of the results (Sagar, 2012).

**Synthesis of Research Findings**

Educational and health care delivery organizations have espoused the use of multiculturalism as an effective way of addressing educational and health care needs of
an increasingly diverse population (Banks, 1996; Irvine, 2003; World Health Organization, 2013). But each nursing program has to have resources, motivated faculty, organizational commitment, and community involvement to introduce diversity, cultivate knowledge, and practice cultural skill (Calvillo et al., 2009). In addition, all nursing programs are challenged with evaluating the effectiveness of teaching and learning strategies used for cultural competency education, or they run the risk of not meeting their intended program goals or their professional nursing standards (Billings & Halstead, 2009).

Since program outcomes for associate degree programs are so similar to baccalaureate degree programs, there is no clear distinction between levels of nursing education made by the public or by accrediting organizations in relation to the newly adopted accreditation standards on cultural competency (ACEN, 2013; Billings & Halstead, 2009). As stated by the IOM (2012), research has provided evidence that the baccalaureate degree program should be the entry level into nursing practice to ensure safe health care outcomes (IOM, 2012). However, with the new ACEN standards on cultural competency, and their similarity to those of the baccalaureate program standards (CCNE, 2009), nursing programs are in jeopardy of not meeting professional nursing standards intended to protect health care recipients.

The use of adult learning strategies in the teaching of diversity in nursing education programs have yielded positive results (Bastable, 2008; Bednarz et al., 2010; Lisko & O’Dell, 2010). Not only do creative and innovative teaching strategies accommodate different learning styles, but the use of experiential learning opportunities
fosters the nursing student’s ability to learn, engage, and reflect on multiculturalism (Banks, 1996). There is a gap in the research on the use of adult learning strategies to teach cultural competency to associate degree nursing students, although these strategies have been shown to be effective in baccalaureate programs. There is also a need to conduct further research on RN-BSN nursing programs, where associate degree standards can be used as a baseline to build upon cultural competency concepts, as associate degree nurses continue their educational pursuit of the baccalaureate degree (Riley et al., 2012).

The original purpose of the associate degree nursing program was to prepare nurses in a shorter period of time with a tightly constructed curriculum to address a nursing shortage after World War II (Andrist et al., 2006). With the additional requirements of cultural competency education embedded in this curriculum (ACEN, 2013), the ability of the associate degree program to adequately prepare students to meet the professional role requirements of the health care provider is a concern. Making similar requirements of the associate degree program to that of the baccalaureate degree programs, the ACEN (2013) is taxing these programs whose faculty may not be able to adequately prepare the nursing graduate to fulfill the nursing goal of caring for a multicultural patient population (Billings & Halstead, 2009; IOM, 2010).

The fundamental basis of program theory is to look holistically at program inputs and evaluate whether program outputs have been accomplished. This type of evaluation incorporates both normative theory and causative theory to determine program effectiveness (Chen, 1990). Since accreditation standards are based on normative theory and program outcomes are based on causative theory, the alignment of the two can yield
the end result of a competent nursing professional (ACEN, 2013). Similarly, if it is found that there is a lack of alignment, this evaluation will assist the nursing program to identify where strengths and weaknesses lie, and provide the data needed to make informed decisions about the program (Chen, 1990; Donaldson, 2007).

Critique of Previous Research

From teaching and learning strategies to delivery of health care services, the elimination of disparities and providing access to quality services have been expected goals (Banks, 1996; Irvine, 2003; World Health Organization, 2013). However, what works, what can be initiated, and how it can be taught needs to be individualized to each nursing program. Several research studies have used cultural competency strategies to introduce cultural concepts, and then reviewed the effects of these on cultural competence; yet, these snapshot strategies have yielded short term results (Anderson, 2004; Calvillo et al., 2009; Leonard, 2006). There has been no comprehensive review of the curriculum, or its implementation, to determine if cultural concepts are embedded in the curriculum, and no baseline has been established by comparing nursing students entering a program to those completing a program. Since there is no definitive approach identified in the research literature to meet cultural competency standards for either baccalaureate or associate degree programs, further research would be beneficial to nursing education (ACEN, 2013; CCNE, 2009). Program theory-driven evaluation research has been cited as an acceptable evaluative process for nursing education (Billings & Halstead, 2009). This conceptual framework has also been successful in
evaluating program effectiveness in other health and social related disciplines (Baldwin et al., 2004; Oosthuizen & Louw, 2013).

Through the use of adult learning strategies, nursing knowledge transforms into nursing skill and provides opportunities for nursing students to practice effective nursing care capable of helping patients meet health care goals. The use of adult learning strategies has proven effective in nursing education for both teaching nursing concepts, as well as for addressing diverse learning needs (Bastable, 2008; Bednarz et al., 2010; Lisko & O’Dell, 2010). The faculty play an important part in implementing the nursing curriculum, and to be effective, they must help students learn through the use of effective instructional strategies (Bastable, 2008). If faculty are not comfortable with diverse student learning needs or fear lack of knowledge in carrying out curriculum objectives, they may not be effective in meeting their stated program objectives (Kennedy et al., 2008).

Normally used by educational organizations to evaluate the effectiveness of educational programs, the use of program theory-driven evaluation in the scientific field of nursing could serve to evaluate whether the nursing program has met its accreditation standards (Chen, 1990; Donaldson, 2007). Research using this design as the conceptual framework in the study of an associate degree program to evaluate whether their curriculum and its implementation sufficiently meets the program objectives, as well as accreditation standards on cultural competency, would prove useful to nursing education. In addition, further research utilizing a program theory-driven evaluation research design
will provide a holistic review of the nursing program rather than a snapshot of a particular cultural competency activity, and will serve as the first step in program review (Chen, 1990; Donaldson, 2007).

**Chapter 2 Summary**

Education on multiculturalism has been proven to be useful in eliminating health care disparities and providing quality health care services to a diverse population (Banks, 1996; Irvine, 2003; World Health Organization, 2013). Nursing programs must adopt a commitment to educate their nursing students on cultural diversity, in order to help them cultivate knowledge and practice cultural skill. Nursing programs must also secure adequate resources, as well as community involvement, to have the tools to promote this cultural education (Calvillo et al., 2009). A review of the literature identifies nursing educational opportunities that have yielded positive results using adult learning theory in addressing diverse student learning needs. Through innovative teaching strategies, nursing programs can provide a learning environment that will accommodate different learning styles. An innovative teaching strategy, experiential learning, offers opportunities to foster the nursing student’s ability to learn, engage, and reflect on multiculturalism (Banks, 1996). However, what works, what can be initiated, and how it can be taught needs to be individualized to each nursing program. Due to the ACEN’s broad definition of cultural competency standards for accreditation and the lack of resources to aid nursing programs in meeting program outcomes, these programs face the possibility of not aligning with cultural competency standards (ACEN, 2013). Further research on effective methods of teaching and curriculum development, as well as a
consistent interpretation of cultural competence, will aid nursing programs in aligning program objectives to professional nursing standards. Using a program theory-driven evaluation research design could provide important data nursing programs can be used to identify gaps or reinforce alignment of their program with accreditation standards (Chen, 1990; Donaldson, 2007)
CHAPTER 3. METHODOLOGY

Introduction to Chapter 3

Using the program theory-driven evaluation design as a framework, this evaluative inquiry included review of accreditation standards, program curriculum, learning experiences, and program outcomes to determine if the nursing program had met its educational purpose. Developed by Chen (1990), theory-driven evaluation has been used successfully in education, but is easily adaptable to other professional disciplines. Embedded in this theory driven evaluation is a causal-comparative research design used to review two intact nursing groups enrolled in an associate degree program, and the nursing program’s ability to meet cultural competency goals through curriculum development and curriculum implementation. This causal-comparative research design is useful in examining differences between intact groups to determine if the differences are by cause or by chance, as well as providing direction to educators on program strengths or weaknesses. This non-experimental research design also lays the groundwork for additional experimental testing (Houser, 2012).

Purpose of the Study

The purpose of this research study was to determine through techniques associated with program theory-driven evaluation science (Donaldson, 2007) whether the program inputs of an associate degree program, located in a culturally diverse urban location, can produce intended program outcomes. These program outcomes are aligned with the
definition of cultural competence for nursing students: cultural attitude, cultural knowledge, and cultural skill (AACN, 2008), and have been adopted by the accrediting organization for Associate Degree Nursing Programs (ACEN, 2013). The current research reviewed the extent to which nursing students meet the program’s accreditation requirements of cultural competence. Through this comprehensive assessment of curriculum, curriculum implementation, and program goals, this research has yielded data that can be generalized to other nursing programs governed by the same accreditation standards. This research will also reveal a systematic approach to evaluating a program’s ability to reach its stated program goals and provide insight into areas that either align or detract from program goals.

**Research Questions and Hypotheses**

**Primary research question for the theory-driven process outcome evaluation.**

Is there congruency between program theory, implementation, and outcomes for development of cultural competency in an associate degree nursing program?

**Secondary questions and hypotheses.**

(1) Is there congruency between program standards and program outcomes?

(2) Is there congruency between program outcomes and curriculum?

(3) Is there congruency between curriculum and implementation (including use of adult learning strategies)?

(4) Is there a difference in scores of cultural competency concepts between those entering an associate degree nursing program versus those who have been exposed to the full curriculum of an associate degree nursing program?
Research hypothesis for the embedded causal comparative evaluation (addresses secondary question #4). Nursing students who have been exposed to an associate degree nursing curriculum (treatment group) will have significantly different scores on a cultural competency inventory from nursing students who are entering an associate degree nursing program (control group).

Null hypothesis. Nursing students who have been exposed to an associate degree nursing curriculum (treatment group) will not have significantly different scores on a cultural competency inventory from nursing students who are entering an associate degree nursing program (control group).

Research Design

Utilizing the program theory-driven evaluation as a framework, a causal-comparative non-experimental study was conducted on students entering an associate degree program (control group) and students completing an associate degree program (treatment group) to yield data showing differences in cultural competence. This study looked at students who had been accepted into a private two year college under similar criteria, and aimed to determine if the cultural competence outcomes identified within the program goals had been achieved (as shown in the department of nursing handbook, 2013). This research design also evaluated the congruency between program theory and expected program goals in an associate degree nursing program. The benefit of the use of this framework is the ability to incorporate social and behavioral aspects associated with program development, yet still use a scientific approach to the evaluative process (Chen, 1990). Chen (1990) has stated that program theory-driven evaluations are flexible to use
in different research designs, and these designs can yield important data on whether a social program is meeting its goals or is in need of improvement.

Program theory-driven evaluation research allows the researcher to develop evaluation questions pertinent to the organization being studied, without the constraints of a specific scientific design. This type of empirical evaluation allows organizations the flexibility of prioritizing these evaluation questions to yield pertinent data that will be valued by the program stakeholders. This approach offers scientific methods for validating the research, and it provides direction for developing or improving programs, as well as for meeting the accountability needs of organizations (Donaldson, 2007). Review of the literature showed that this type of evaluation was appropriate for providing evidence-based practice guidelines for a therapeutic recreation program, as well as evaluating program outcomes for decentralized offices under a purveyor program disseminating public health information (Baldwin et al., 2004; Oosthuizen & Louw, 2013).

Using this conceptual framework on an associate degree program, the entire curriculum and its implementation, and whether it achieved expected program objectives was evaluated. From this evaluation, scientific data will provide evidence of program effectiveness by reflecting congruency with accreditation standards, or will identify areas for improvement. This research also supported the use of program theory-driven evaluation for nursing science, identified by Billings and Halstead (2009), as an appropriate evaluation process in meeting accreditation standards. Using a causal-comparative non-experimental research method was appropriate to identify the possible impact of the cultural competency curriculum. The design involved the collection of data
from two intact groups in an associate degree program: a control group comprised of entry level nursing students (semester one), and a treatment group comprised of senior students, who have completed the curriculum (semester five). Causal-comparative designs are used to determine if observed differences are statistically significant. In causal-comparative research designs, the measurement of an independent variable that occurs with one group is measured against another group where the variable does not occur. In this research design the independent variable is the curriculum (Houser, 2012; Lennell & Boissoneau, 1996).

**Target Population, Sampling Method, and Related Procedures**

When considering the merit of research and whether it can be generalized to the population, research designs identify the target population for which the research will be applicable, as well as the sampling method for identifying research participants (Houser, 2012). In addition, using a program theory-driven evaluation research design is important to identify, as it is a unique educational method that is not regularly used in health care (Donaldson, 2007); yet, will be the framework for this research study.

**Target Population**

The characteristics of the larger population from which the sample was drawn included nursing students enrolled in a two year associate degree nursing program comprised of five nursing courses representing a systematic progression in nursing knowledge, nursing skills, and complexity of educational objectives. This population is similar to that of other associate degree programs that have produced the kind of nursing graduates who account for the majority of licensed nurses in health care today.
Originally conceived as a solution to the nursing shortage experienced in the United States post World War II, the associate degree programs still maintain an appeal to diverse non-traditional students who manage multiple responsibilities while pursuing their education (Andrist et al., 2006). Although associate degree programs have sustained their resilience through their flexibility and shortened program length, there is a need for educational portability to a baccalaureate degree. This need for continuation of higher education is premised on evidence-based research showing better patient outcomes associated with higher educational preparation (IOM, 2010). This educational portability should be built upon the educational foundation of the associate degree program, and should incorporate additional educational opportunities to meet professional nursing standards (Andrist et al., 2006). Thus, the data yielded from this target population will prove useful for both associate degree and baccalaureate degree programs.

**Sampling Method**

A convenience sample of 110 nursing students enrolled in the first nursing course and the last nursing course of an associate degree program was used in this research study. Although considered less powerful than random sampling, this method of participant recruitment is aligned with non-experimental causal-comparative quantitative research designs, as well as being aligned with program theory-driven evaluation research design (Donaldson, 2007; LoBiondo-Wood & Haber, 2010).

Generalizing research findings from the target population to the general population is the main consideration for most quantitative researchers. Using random sampling enhances generalization and decreases potential bias. However, convenience
sampling is often used in nursing research due to the accessibility of research participants, and is often used in non-experimental quantitative research designs (LoBiondo-Wood & Haber, 2010).

**Sample Size**

Houser (2012) stated that when analyzing research, a description of the research sample helps the reader to not only generalize findings, but also to trust research results if the sample size is sufficient. Although research results are considered more powerful with a larger sample size, sample sizes of 15 subjects per variable in quantitative studies may be considered sufficient (Houser, 2012). The sample size of this non-experimental causal-comparative research was 110 nursing students with 61 students in Nursing 100 (control group) and 49 students in Nursing 220 (experimental group). Having a sample size above 30 subjects per variable provides greater power to detect changes caused by the independent variable (Houser, 2012).

A power analysis was conducted to determine the adequacy of the sample size. Based on a power analysis using a small effect size derived from a population of 300, with a response distribution of 50 percent, the best estimation of the confidence level using an anticipated total sample size of 100 is .92 with an 8 percent margin of error (http://www.raosoft.com/samplesize.html). However, a more robust effect size was actually anticipated. The population size of 300 was thought to be the appropriate figure to use in the power calculation for this research design. A theory-driven program evaluation is theoretically not generalizable beyond the population being evaluated;
therefore, the 300 person student body of the college that served as the research site was considered the appropriate figure to use.

**Setting**

The convenience sample used in this study was from a state approved associate degree program, which is accredited by the Accreditation Commission for Education in Nursing (ACEN). Located in an urban area in the northeastern United States, the program goal for this private two year nursing program is to implement a comprehensive nursing curriculum that supports cultural diversity and meets the health care needs of the communities it serves (as shown in the college's informational website, 2013). This program has access to various urban and suburban clinical sites which serve a diverse multicultural population base. The college’s nursing program is congruent with the college’s mission statement supporting career based programs that are in demand within the community (as shown in the department of nursing handbook, 2013). The college was founded in 1999, and it has grown into one of the only colleges whose mission is to serve students who are often underserved by institutions of higher education. Most of the students are first generation students within their families. The student population from which the nursing students are included has a composition of 83% female and 17% male (5:1 ratio), with a median student age of 28, and the majority of the 3,583 student population reflects the diversity from around the greater urban areas where the college is located (as report from the college’s 2012 annual report). The characteristics of the study college are shared by many other associate degree nursing programs in the United States, and the study findings are likely to have implications for these programs.
Recruitment

Students who had met the requirements to become enrolled into the associate degree program and who were enrolled in the first nursing course (Nursing 100, control group) and in the last nursing course (Nursing 220, experimental group) were eligible to participate in the study. Students were made aware of the research study by their course professors, who had been briefed on the research study by their program chair. The program chair welcomed the opportunity for students to participate in evidenced-based practice research. The population from which the sample was drawn was nursing students enrolled in a two year associate degree nursing program, which uses a nursing curriculum that is in compliance with state regulations and ACEN accreditation standards.

An informational session was held for those qualified to participate in the research study, and information about the purpose of the research, the voluntary nature of participation, and the expected time commitment for completing the questionnaire was provided. Appropriate informed consent was secured, and questions about the research study were answered. The informed consent provided full disclosure of the research for the participants to decide whether or not to volunteer as a research participant (Houser, 2012).

Instrumentation

Using Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competence among Health Care Professionals-student version (IAPCC-SV, 2007), data was collected by a tool designed for research on cultural competence in nursing students. The IAPCC-SV, is a widely used and reliable 20-item tool that uses a Likert scale to
answer a total of five questions on each of the five constructs included in Campinha-Bacote’s model. Identified in her model as constructs of cultural competence are cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounters.

The IAPCC-SV is readily available from Campinha-Bacote’s organization (Transcultural C.A.R.E. Associates, Cincinnati, Ohio), and has been identified as a valid and reliable tool to measure cultural competency, as well as provide student nurse perceptions on each construct (Kardong-Edgren et al., 2010; Sagar, 2012). Data collected from the IAPCC-SV can easily be analyzed utilizing a statistical program, which can then be used to determine statistical relevance of the research (Sagar, 2012).

In research conducted by Young (2009), data collected using the IAPCC-SV was shown as having a Cronbach Reliability Coefficient of alpha of .84 in determining cultural competence of 46 nursing students at a Hawaii-based nursing program, as well as by Fitzgerald, Cronin, and Campinha-Bacote (2009), with a Cronbach’s alpha of .783, in research conducted on 91 BSN nursing students in a Midwestern university to support the reliability of the tool for nurse educators (Transcultural C.A.R.E., 2014). The Fitzgerald et al. study additionally supported the construct and content validity of the instrument. Since its inception, the IAPCC-SV has been used in numerous research studies and is considered a valid instrument in detecting cultural competency levels of nursing students (ACEN, 2013, Campinha-Bacote, 2007, CCNE, 2009). Given the strength of the validity and reliability data for the instrument, it can used with confidence to generate research data that can then be analyzed using a statistical program to determine statistical significance (Sagar, 2012).
Data Collection

After receipt of IRB approvals from Capella University and the college under study, the nursing chair and the program faculty were informed of the research study and an agreement to collect data from the students was secured. This agreement outlined the nature of the data collection, appropriate timing of data collection, and access to archival information.

Permission from Transcultural C.A.R.E. Associates (Campinha-Bacote, 2007) was obtained, and copies of the paper/pencil version of the IAPCC-SV were ordered. Additionally, permission to use the online Grasha-Reichmann (1996) Teaching Style Survey was secured from Dr. Gerald Grow, owner of the website, http://www.longleaf.net/teachingstyle.html, where the Teaching Style Survey is electronically located.

Data was collected from the college on student scores used in determining their admission into the nursing program. This information was obtained to determine homogeneity of the nursing students enrolled in both the Nursing 100 (control group) and the Nursing 220 (experimental group). These scores were derived from the application criteria used for admission into this two year nursing program. The admission application to the nursing program consists of a 25 point rating system based on the weighting of certain criteria. Among the criteria being weighted are previous degrees, number of courses taken at the college, GPAs after completion of 12 credits from college courses, and scores on a standardized pre-nursing assessment exam. A copy of the admission form for the college in this research is attached (Appendix B).
Faculty who teach in the nursing program were surveyed to determine if the cultural concepts being evaluated (cultural knowledge, cultural skill, cultural attitude, cultural awareness, and cultural desire) were congruent with program objectives on cultural competency. This data established validity of the IAPCC-SV Tool used to collect cultural competency data from students in this two year program. A copy of this survey is attached (Appendix A).

Faculty in the nursing program were also surveyed to determine if their teaching styles were aligned with Adult Learning Theory, the theory adopted by the nursing program because of its ability to address multiple learning styles. The Teaching Style Survey (Grasha & Reichmann, 1996) is a 40 question survey using a five (5) point Likert Scale (strongly disagree, moderately disagree, undecided, agree, strongly agree) to identify personal teaching styles. The teaching styles are assigned to five categories: expert; formal authority; personal model; facilitator; and delegator (Grasha & Yangarber-Hicks, 2000).

Students from the control group were given the paper and pencil version of the IAPCC-SV cultural competency tool at the beginning of their first semester in the nursing curriculum. Students from the treatment group were given the paper and pencil version of the IAPCC-SV cultural competency tool at the end of their final semester of the nursing curriculum. Students were directed to place the surveys in a locked bin to preserve confidentiality of the collected data.

Faculty were given directions to access their surveys electronically via Survey Monkey. Random numbers were assigned to the respondents to protect confidentiality.
The surveys were designed to gather data on the identification of cultural concepts taught in the nursing program and to validate the appropriateness of the Campinha-Bacote Inventory for this specific application.

**Operationalization of Variables**

Campinha-Bacote’s (2003) culturally competent model, was used to identify five cultural concepts: cultural awareness, cultural knowledge, cultural encounters, cultural skill, and cultural desire. These concepts have been adopted by accreditation agencies and incorporated into their standards. These agencies also use Campinha-Bacote’s Model as an exemplar for nursing programs in meeting cultural competency standards (ACEN, 2013; CCNE, 2009). Campinha-Bacote’s (2003) culturally competent model was used in several research studies with nursing students, as well as health care professionals, for determining levels of cultural competence, and both her versions of the IAPCC for health care were used for data collection (Calvillo et al., 2009; Kardong-Edgren et al., 2010). The model has been utilized in the development of nursing curriculum, continuing education for nursing professionals, and by nursing administrators when evaluating their nursing organizations (Sagar, 2012).

Review of research studies that have used different teaching and learning styles to achieve or enhance cultural competence in nursing students has yielded no definitive strategy to accomplish these goals (Anderson, 2004; Calvillo et al., 2009; Kardong-Edgren et al., 2010; Riley et al., 2012; Schim et al., 2005). Further research for nursing programs has been recommended to review how cultural competency is addressed in
curriculum, and whether program objectives are congruent with cultural competency outcomes identified in accreditation standards.

**Data Analysis Procedures**

The primary research question is modeled after the program theory-driven evaluation research design, and reviews the nursing program inputs to determine alignment between program objectives and accreditation standards. Since the causal-comparative non-experimental research is a quantitative research design, data collected was subjected to inferential analysis. Inferential analysis allowed the researcher to “infer something about a population’s response to an intervention” (Houser, 2012, p. 378), which in this program theory-driven evaluation was the impact of the curriculum on nursing students. Additionally, data was collected and analyzed by the researcher to review other dependent variables that had an impact on the curriculum, as well as how the program objectives were achieved, and how the accreditation standards were met.

The secondary research questions were developed from the primary research question and served to identify the components of the nursing program under review. The research hypothesis projected results of the study and was formulated based on the review of the literature. Houser (2012) stated that hypothesis testing is an important element of evidenced-based practice, and in this research, the hypothesis predicted the nursing curriculum would have a significant impact on cultural competence in nursing students. However, Houser (2012) further stated that the null hypothesis restates the research question into a “testable statement,” namely there would not be a significant
difference in cultural competence, and statistical analysis would reveal the probability that a relationship between the curriculum and cultural competence in students does not exist (p. 388).

To answer the first two secondary questions regarding congruency between program standards and program objectives, as well as the congruency between program objectives and curriculum, nursing faculty were sent an overview of accreditation standards and their nursing program’s objectives on cultural competency. They were then asked to determine if they viewed the program objectives as congruent with accreditation standards on cultural competency and were asked to determine whether they viewed the curriculum and program objectives on cultural competency as congruent. These questions were answered by “yes” or “no” and provided data to address the secondary questions regarding congruency. A copy of this overview is attached (Appendix C).

To answer the third secondary question on congruency between curriculum and implementation (including the use of adult learning strategies), nursing faculty were asked to provide feedback on their teaching styles using the Grasha-Riechmann Teaching Style Survey (1996). This questionnaire produces numerical data based on a five (5) point Likert scale (strongly disagree, moderately disagree, undecided, moderately agree, strongly agree) to identify personal teaching styles. The teaching styles are assigned to five categories: expert; formal authority; personal model; facilitator; and delegator (Grasha & Yangarber-Hicks, 2000). Analyses of the predominant teaching styles provided the data needed to determine alignment with adult learning theory, which had
been identified by the nursing program as the preferred method of instruction for their student population. Comparing the traits of the adult learner to the teaching styles, adult learning concepts would be reflected in scores associated with the personal model, the facilitator, and the delegator teaching styles. This assumption is based on the collaborative nature of a teaching/learning between the teacher and the student (Grasha & Yangarber-Hicks, 2000). It may be found electronically at the following website: http://www.longleaf.net/teachingstyle.html.

To answer the fourth secondary question regarding the impact of the nursing curriculum on cultural competency levels between nursing students entering the nursing program and nursing students completing the nursing program, several steps were taken to gather appropriate data. First, admission scores were analyzed for students accepted into the nursing program to establish homogeneity between the control group (students entering the program) and the experimental group (students completing the program). This data was derived from archival files and numerically coded on an excel spreadsheet developed by the researcher and reviewed by the statistician.

Second, feedback was collected from nursing faculty on cultural competency concepts used in the curriculum and identified in the Cultural Competency Tool to determine validity of the specific application of the tool. This data was collected electronically using a questionnaire identifying cultural concepts and having the faculty use a four (4) point Likert scale (Strongly Agree, Agree, Disagree, Strongly Disagree) on use of these cultural competency concepts in the nursing curriculum. A copy of this questionnaire is attached (Appendix A).
Finally, data was collected through the Cultural Competency Tool, IAPCC-SV, a 20-item tool that analyzes the five cultural concepts of cultural attitude, cultural knowledge, cultural skills, cultural encounters, and cultural desire. Using a four (4) point Likert scale, this tool numerically identifies levels of cultural proficiency, cultural competence, cultural awareness, or cultural incompetence based on cumulative scores from the 20 questions (Campinha-Bacote, 2007). Additional data was collected via a Demographics Sheet to collect descriptive data based on age, gender, previous degrees, number of courses taken at the college, and previous travel outside of the United States. This descriptive information has been identified in the literature as representing potential variables that could affect cultural competence (Anderson, 2004; Kardon-Edgren et al., 2010; Schim et al., 2005). A copy of this demographics sheet is attached (Appendix D).

Since the research design is a program theory-driven evaluation with a causal-comparative non-experimental quantitative research component, a \( t \)-test was used to test the research hypothesis showing statistical significance of the curriculum in meeting program outcomes. A \( t \)-test is used to compare two different measures or values to determine if there is significance between the two (George & Mallery, 2011). ANOVA can also be used to further determine statistical significance. This test is similar to the \( t \)-test in determining the difference between the mean of one group as compared to the mean of another group. This test was able to differentiate between the control and experimental group, and broke down data by each group on the five concepts of cultural competence. Both the \( t \)-test and ANOVA determined the “\( p \)” value, which was set at the generally accepted level of .05 in this study to determine statistical significance (George
& Mallery, 2011). A “p” level of .05 or below would be considered sufficient for determining if the curriculum and its implementation significantly impact cultural competence in nursing students. Based on the statistical results of the independent t-test between the experimental and control groups, in relationship to nursing admission points, no further statistical testing, such as ANOVA was necessary, as the groups were shown to be statistically equivalent in admission to the program. ANOVA would be necessary only if comparison groups had not been considered equal. The statistical analyses yielded data to test the null hypothesis, which predicted no significant difference in cultural competence levels between the two groups.

All research data collected was kept confidential and not reviewed by anyone other than the researcher, the dissertation committee, and the independent statistician. No identifying data was collected that could be traced back to individual respondents. Through the use of an electronic survey website, nursing faculty were able to anonymously complete the questionnaires. Students were also afforded anonymity by completing the IAPPC-SR in their nursing class, and were able to drop them in a locked collection box located in the classroom. All data collected for this research has been stored and will be kept for seven years by the researcher in both hard and electronic copy format.

**Limitations of the Research Design**

The benefits of using a quasi-experimental research design include feasibility, level of control, and convenience in using a sample of accessible subjects, as is the case with using the control and experimental groups in a nursing program to determine cause
and effect of the nursing curriculum on cultural competency (Houser, 2012). However, there are also limitations to this research design, and they include the ability to draw conclusions from intact groups, especially if the groups are not equivalent in characteristics, which could introduce extraneous variables into the research (Houser, 2012). The next section of this chapter will look at the limitations of this non-experimental quantitative research study and explain how these limitations were addressed.

**Internal Validity**

Internal validity refers to the strength of the research design, in this case program theory-driven evaluation, and the controls that were placed on the experimental situation being evaluated (Houser, 2012, p. 252). Donaldson (2007) explained that Chen’s (1990) theory-driven evaluation design was renamed to clarify the type of theory being used in the research design to guide the evaluation questions and design. The new name, program theory-driven evaluation science, “depicts the rigorous scientific methods” used to answer evaluation questions and helps to emphasize “the guiding principle of systematic inquiry” and “the critical evaluation standard of accuracy” (Donaldson, 2007, p. 11). In other words, this new name helps the reader understand that the same scientific methods of quantitative, qualitative, and mixed methods research designs are embedded in the evaluation, and enhances the scientific merit of the research approach. By reviewing the program under evaluation and understanding its components, the evaluation process helps to drive the formulation and prioritization of research questions.
Through this process, the researcher is then directed towards the appropriate scientific method to answer these key evaluation questions (Donaldson, 2007).

In evaluating the nursing program in this research, the primary research question conceptualized the research focus (cultural competency) and identified the components being reviewed by evaluation science. The secondary questions identified the components under evaluation (program standards, program objectives, curriculum, and the implementation of the curriculum) and helped to determine the data needed to answer the primary question. The research hypothesis directed the use of a non-experimental causal-comparative quantitative research design to answer the key evaluation question (significant difference in cultural competency caused by the curriculum). The null hypothesis identified the research question in a form amenable to numerical analysis.

Internal controls placed on the experimental situation being evaluated revolved around identifying the differences and similarities between the control and the experimental group. Differences stemmed from the exposure to the nursing curriculum, demographic composition of the groups, acceptance scores into the nursing program, and implementation of the curriculum. Similarities between the control and the experimental group were acceptance into the nursing program, program objectives, program standards, and curriculum. Additionally, the definition of cultural competency, validation of cultural concepts in the curriculum by faculty, teaching styles of the faculty implementing curriculum, and faculty perception of alignment of curriculum to program objectives, as well as program standards to program objectives were evaluated.
External Validity

As defined by Houser (2012), external validity refers to how generalizable the results of research are to the population, and to what target population the research is valuable. Nursing research investigating evidence based practice is directed towards a common idea or concern experienced by the nursing profession as a whole. In this case, the research study evaluated the two year program design by the target college (program inputs) in meeting the program objectives influenced by professional nursing practice and accreditation standards of cultural competency (program outputs).

Program theory-driven evaluation science, a neutral research design process used extensively in education, was reviewed for feasibility of use in the health science field of nursing education. Recognized by Billings and Halstead (2009) as an appropriate evaluation method for nursing education, this type of research can be generalized to nursing programs that wish to evaluate the effectiveness of their programs.

This research also reviewed the congruence between adult learning theory and cultural competence outcomes in a two year nursing program. The areas of congruence that were investigated were theory/standards with objectives, objectives with curriculum, and student cultural competence outcomes. Since the key to the popularity of associate degree nursing programs is their ability to meet the multifaceted needs of non-traditional students not afforded by traditional nursing programs (Andrist et al., 2006), this research design will help to establish the compatibility of adult learning theory with teaching cultural competency.
This evaluation design uses available nursing program data that will either validate that the program objectives have been met or alert stakeholders that program improvement is necessary. Given the importance of program effectiveness in the value of the program for stakeholders, for student recruitment, and for organizational support, this evaluation may be generalized to other associate degree programs, who are accountable for meeting the same accreditation standards. The characteristics of the study college are shared by many other nursing programs in the United States, and the study findings are likely to have implications for these programs.

**Expected Findings**

Based on the new accreditation standards implemented by the ACEN (2013), and their current definition of cultural competence standards (based on Camphina-Bacote’s Model of Cultural Competency, 2003), the nursing program in this study acquired valuable insight into the nursing program curriculum and data that can help facilitate program modifications. Through this evaluative process, a full review of the program components, program objectives, and alignment of both with newly adopted accreditation standards was accomplished. The resulting data provided a summative analysis for the college to use when being reviewed for accreditation renewal. This analysis can be paired with student exemplars of cultural competency to serve as a foundation to build upon in future endeavors.

Also among expected findings was a difference in cultural competency levels between those entering an Associate Degree Nursing Program versus those who have been exposed to the full curriculum of an Associate Degree Nursing Program. This
expected finding depended on finding congruency between program standards and program objectives, congruency between program objectives and curriculum, and congruency between curriculum and implementation (including use of adult learning strategies). From this program theory-driven evaluation, the college has been provided with a workable outline to use for future evaluative purposes.

**Ethical Issues**

Researchers may face many issues dealing with ethical or legal considerations during each step of the research process in areas such as selection of participants to the data collection process (Houser, 2012). It is up to the researcher to identify these issues, and review ways to decrease or eliminate them, if possible. The following section will discuss the ethical issues of this research and the ways that the research was conducted to help control these issues.

**Researcher's Position Statement**

The study was conducted at the researcher’s former employer, an educational institution with a two year nursing program, which the researcher helped to develop as an Assistant Professor. Although there existed a potential conflict of interest due to professional relationships with college faculty, strategies to avoid or mitigate the conflict of interest were applied. Participation by the students or the faculty in the study was voluntary. The decision to participate in the study was confidential, and the students and faculty could decline without any adverse consequences.
Conflict of Interest Assessment

To manage the potential conflict of interest, surveys used for data collection did not contain any identifiable information. Nursing faculty were advised about the research proposal and data collection measures, and informed consents were secured. The only risk that nursing faculty may have incurred would have been identification of their teaching styles or their disagreement that program objectives did not align with accreditation standards. Due to the small number of faculty, the Nursing Program Chair at the research site was asked to assign them random numbers, which protected their identity.

Since the two groups of students used in this research had been accepted under the same admission criteria, there was no risk of exploitation or unfair advantage between the control and experimental group. Additionally, a comprehensive informed consent was provided to the students involved in this research, which informed them of the study and outlined their rights as research participants. No study is completely risk-free. However, there was no anticipation that participants would be harmed or distressed during this study. The participants were told that they could stop being in the study at any time if they became uncomfortable. The researcher addressed students’ potential concern about coercion to participate in the study by having a locked box for all survey collection. Students were asked to place the survey (completed or blank) into the locked box, so as not to be singled out. Students were informed that their decision to participate or not would in no way affect their grade in the course.
The researcher did not receive any financial gain or preferential treatment from the college in relationship to the completion of the study.

**Chapter 3 Summary**

Accreditation standards for nursing programs ensure that the nursing program meets professional nursing standards, as well as has the organizational and community support it needs to be successful in meeting its program outcomes (ACEN, 2013; CCNE, 2009; NLNAC, 2008). These standards are based on theoretical frameworks that promote meeting professional standards of practice. To meet educational standards, each nursing program’s mission must be in alignment with their organizational mission and vision to create a sound educational foundation. According to Chen (2006), stakeholders initiate ideas that determine how a program should be constructed and speculate why a program is supposed to work.

Based on the Model of Cultural Competence, Campinha-Bacote developed the IAPCC, an assessment tool for both students and health care professionals, which quantitatively evaluates the five constructs and yields statistical data that has been instrumental in development or modification of cultural competence educational strategies (Campinha-Bacote, 2007; Kardong-Edgren et al., 2010; Riley et al., 2012).

With the newly adopted ACEN standards governing associate degree programs, previous research on these programs was designed under outdated, less stringent accreditation standards (ACEN, 2013; NLNAC, 2008). In addition, previous research studies have focused on how to implement cultural competency teaching strategies into curriculum, as well as what cultural concepts were considered by nursing programs to be
reflective of cultural competency (Calvillo et al., 2009; Kardong-Edgren et al., 2010; Riley et al., 2012; Schim et al., 2005). An evaluation of the entire curriculum, its implementation, and its ability to achieve program outcomes can yield scientific data reflecting congruency or non-congruency with accreditation standards. This evaluation would then give program stakeholders the data they need to continue or improve program inputs to meet expected program outcomes. Program theory-driven evaluations can be designed to view empirical as well as scientific applications of programs designed to provide social services and yield rich data showing the programs are effective (Chen, 1990; Donaldson, 2007).

Utilizing the program theory-driven evaluation as a framework, a causal-comparative study was conducted on students entering an associate degree program (control group) and on students completing an associate degree program (treatment group) and yielded data showing differences in cultural competence. This data can now be disseminated to assist other researchers in conducting evaluations using evaluative science, which has been successfully adapted from the discipline of education to the discipline of nursing.
CHAPTER 4. DATA ANALYSIS AND RESULTS

Introduction

This chapter will review the data analysis procedures and interpretation of the statistical results, as they relate to the program theory-driven evaluation research. This evaluation includes an embedded causal-comparative non-experimental quantitative research design to determine statistical significance of research data. Interpretation of the results will be discussed, as well as their application in the determination of alignment of program goals with accreditation standards for an associate degree program.

The goal of this quantitative research was to sample a small nursing population in a private two year nursing program on accreditation standards on cultural competency. Based on this research design, the results can be applied to a larger nursing population through scientific measurement of inferential data. Through analysis of data, interpretation of the probability of error, and degree of certainty of the estimates, the credibility of the research will be revealed (Houser, 2012).

Description of the Sample

Nursing students enrolled in a two year associate degree program in New England comprised the sample population used in this causal-comparative non-experimental study, which was conducted to determine the impact of the curriculum on levels of cultural competence. The control group was comprised of 61 nursing students who were in Nursing 100, the first nursing course in a five course nursing curriculum.
The experimental group was comprised of 60 nursing students who were in Nursing 220, the last nursing course in the nursing curriculum. Full time nursing faculty, who have developed and taught the program curriculum, were also included in this research. There are five courses included in the program curriculum, taught by five nursing faculty, and the curriculum includes both course room and clinical components. Although composed of adult health, adult medical-surgical, maternity and pediatrics, the curriculum is predominantly adult medical-surgical nursing. Each course is taught in succession over a period of twenty months, and prepares the nursing graduate for the Registered Nurse Licensure Exam.

**Nursing Program Point System**

Both the control and experimental groups were compared for homogeneity through archival data taken from the nursing applications for the nursing program. The specific admission criteria for the nursing program consisted of a 25 point rating system based on the weighting of certain criteria. Among criteria being weighted were previous degrees, number of courses taken at the college, GPAs after completion of 12 credits from college courses, and scores on a standardized pre-nursing assessment exam. A copy of the admission form for the college in this research is attached (Appendix B).

**Demographics**

In addition to the nursing application, demographic data was also collected on the control and experimental groups, which contained information that had been identified in the literature review as contributing to cultural competence (Anderson, 2004; Kardong-Edgren et al., 2010; Riley et al., 2012). This demographics form was used to collect data
on students’ age, gender, place of birth, country of birth (other than United States), experience with different cultures, vacationing outside of the United States, and living outside of the United States. A copy of the demographics form in this research is attached (Appendix D).

Research Methodology and Summary of the Results

This section contains a review of the methodology used in this research study and provides a summary of the results. The research methodology uses the program theory-driven evaluation as the framework, a well-known research design used in educational research (Chen, 1990; Donaldson, 2007), but relatively new in its use for nursing research (Billings & Halstead, 2009). As a result, this research methodology serves two purposes: summative evaluation of the nursing program, and the design’s effectiveness in nursing education.

Program Theory Driven Evaluation

Through a program theory-driven evaluation design, program inputs were reviewed to determine their role in meeting program outcomes. This evaluative approach looked at cultural competency theory, accreditation standards, program objectives, adult learning theory, program curriculum, and implementation of curriculum. The evaluation identified how cultural competency of students is evaluated by the nursing program, as well as how program objectives associated with cultural competency align with accreditation standards on cultural competency. A causal-comparative non-experimental research design reviewed cultural competency levels of a control group (freshmen nursing students entering the nursing program) and an experimental group (senior nursing
students completing the nursing program) to produce data reflecting cultural competency levels of students based on Campinha-Bacote’s Cultural Competency Tool (IAPCC-SV, 2007). The independent variable is the standard curriculum. The dependent variable will be scores on Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – student version (IAPCC-SV) – an instrument used by researchers to test cultural competence. The IAPCC-SV is a widely used valid and reliable 20-item tool that uses a four (4) point Likert scale to answer a total of five questions on each of the five constructs of Campinha-Bacote’s model. Cultural competence levels are based on total scores ranging from 20-80 points.

Research Results

In evaluating the components of the associate degree program and its ability to meet the accreditation standards on cultural competency, this research study shows the use of program theory-driven evaluation, as the conceptual framework, was compatible with research on nursing education. Faculty who were responsible for developing and implementing the curriculum were surveyed on alignment between accreditation standards, program objectives, implementation of the curriculum, and cultural concepts embedded in the curriculum. Their responses showed alignment between the components and verified the use of Campinha-Bacote’s (2007) IAPCC-SV, as a valid tool to measure nursing students’ cultural competency. In addition, using a causal-comparative non-experimental research method to compare nursing students exposed to the full curriculum to those who had not been exposed, helped to identify differences in cultural concepts
between the groups, as well as overall levels of cultural competency of nursing graduates, and contributed to the evaluation of possible causes for these differences.

Analysis of data using a two-tailed *t-test for Equality of Means* revealed statistically significant differences between the experimental and control groups in the cultural concepts of knowledge and skill. However, there was no significant difference between the two groups on the other cultural concepts of awareness, encounters, and desire. In addition, there was a statistically significant difference in total scores on the IAPCC-SV between the two groups, and based on these scores, both groups were considered culturally competent.

As is generally acceptable in educational research studies, a 95% confidence interval was used in the statistical analyses. This approach provided a high level of confidence as to the accuracy of the data collected, as there is only a 5% chance that the sample population would not yield the same results (George & Mallory, 2011).

A sample size of 110 participants was considered appropriate based on a small effect size derived from a population of 300, with a response distribution of 50%, the confidence level using a total sample size of 110 is .95 with a 7.45 percent margin of error (http://www.raosoft.com/samplesize.html).

**Detailed Analysis**

This section will review the results of the research study using statistical analysis of data, as well as detailed interpretation of the research results in addressing the primary research question, and secondary questions. There was a causal-comparative non-experimental design embedded in this evaluative process to determine if the nursing
program under review showed congruency between the accreditation standards and its program objectives regarding cultural competency. Selected data will be displayed in table format to guide the interpretation of the research results.

**Nursing Program Point System and Demographics Results**

Data was collected from a total of 121 students in the first nursing course (Nursing 110: \(n=61\)) and the last nursing course (Nursing 220: \(n=60\)), from archival data contained in the student files regarding admission requirements to the nursing program. The admission requirements for the program was based on a points system, where points are given for previous college education, completion of college courses taken at the parent college, points for GPAs earned on 12 or more credits at the parent college, and scores taken from the NLN Pre-admissions Exam, for a total of 25 possible points (see Appendix B). Since this point system can change from class to class, it is important to analyze the total point spread (i.e. from highest to lowest) of those admitted to the program to determine homogeneity of the control and experimental groups. Data was statistically analyzed to determine whether there were any statistically significant deviations in the admission process between the two groups. The results of this analysis are listed in Table 1. *T*-test results from Nursing Program Point System.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>(n)</th>
<th>(M)</th>
<th>(SD)</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Points</td>
<td>Control</td>
<td>61</td>
<td>19.67</td>
<td>1.14</td>
<td>1.33</td>
<td>110</td>
<td>(p\geq.05) NS</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>60</td>
<td>19.35</td>
<td>1.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(\text{*p} \leq .05\) (statistical significance)
Per George and Mallery (2011), statistical significance is determined with a $p$ value below .05, which indicates that there is less than a 1 in 20 probability that something occurred by chance (p. 96). In comparing the final points awarded to students who were accepted into both the control and the experimental groups, the control group had a mean score of 19.67 points and the experimental group had a mean score of 19.35 points. Statistical analyses of these two groups showed there was no statistical significance between the two groups, as the $p$-value was above .05. Therefore, based on this analysis, these two groups can be interpreted as being equivalent for admission into the nursing program.

Demographic data (age and years in the U.S.) was collected from participants in both control and experimental groups, in order to identify possible extraneous variables, which may have an impact on cultural competency, as identified in the literature (Kardong-Edgren et al., 2010).

In analysis of the demographic data, the only significant difference was shown in age between the two groups ($p$ value below .05). The mean age was 35 years old for the experimental group and the mean age was 31 years old for the control group. Also thought to have been significant among the demographic data was the number of years nursing students were living in the United States, who were not born in the United States. Although the mean for both groups on number of years living in the United States was somewhat close, statistical analysis showed no significant difference ($p$ value above .05) for this data. A mean of 18 years living in the United States was shown for the experimental group, and a mean of 20 years living in the United States was shown for the
control group. Statistical analysis of the demographic data is identified in Table 2: $T$-Test results from Student Demographic Form: Age and Years in the U.S.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>$n$</th>
<th>$M$</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Experimental</td>
<td>49</td>
<td>34.92</td>
<td>8.095</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>61</td>
<td>31.46</td>
<td>8.364</td>
</tr>
<tr>
<td>Years in the U.S.</td>
<td>Experimental</td>
<td>49</td>
<td>18.69</td>
<td>9.068</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>61</td>
<td>20.06</td>
<td>9.850</td>
</tr>
</tbody>
</table>

**Research Question Results**

In evaluating the nursing program and its ability to meet cultural competency standards, congruency between what is stated in the accreditation standards and what is stated in the program objectives needed to be established. Full time teaching faculty were considered those faculty who taught the five nursing courses in the nursing curriculum. These faculty were asked to review information outlining the ACEN Standard 4: Curriculum regarding cultural competency, the NLNAC Competencies for Graduates of Associate Degree and Diploma Programs, and the Nursing Program Outcomes regarding cultural competency. They were then asked to complete an electronic survey asking whether they felt there was congruency between the accreditation standards and the nursing program objectives pertaining to cultural competency.

*Question 1: Is there congruency between program standards and program outcomes?* Four out of the five full time faculty responded to the survey question. Of those four, three faculty (75%) responded there was congruency, and one faculty (25%)
felt there was no congruency between accreditation standards and nursing program objectives. Interpretation of this data shows alignment between the accreditation standards and the nursing program objectives.

Question 2: Is there congruency between program outcomes and curriculum? In evaluating the nursing program objectives and the nursing curriculum for alignment with cultural competence, a review by faculty to establish congruency between what is stated in the program objectives and what faculty perceived to be embedded in the nursing curriculum was needed. To establish alignment of the cultural concepts identified by Campinha-Bacote (2003) and adopted by the accreditation organization, full time faculty were surveyed to determine if the cultural concepts being evaluated (cultural knowledge, cultural skill, cultural attitude, cultural awareness, and cultural desire) were in agreement with the college’s perceptions of cultural competency. Results established the validity of using the IAPCC-SV Tool to collect cultural competency data from students in this two year program. A copy of this survey is attached and labeled Appendix A.

Four out of the five faculty indicated agreement with what was expected of graduates at the completion of the nursing program and what was embedded in the five semester nursing curriculum regarding cultural competency. Interpretation of results reveals alignment of the nursing curriculum and nursing program objectives, as they pertain to cultural competency.

Question 3: Is there congruency between curriculum and implementation including use of adult learning strategies? Because the nursing program adopted adult learning theory as the appropriate method of teaching their student population, full time
teaching faculty in the nursing program were surveyed to determine if their teaching styles were aligned with this theory. Data was collected from the faculty using the Teaching Style Survey (Grasha & Reichmann, 1996), a 40 question survey using a five (5) point Likert Scale (strongly disagree, moderately disagree, undecided, agree, strongly agree) to identify personal teaching styles. The teaching styles are divided into five categories: expert; formal authority; personal model; facilitator; and delegator. There are eight questions per category, and interpretation of scores will show higher scores in those categories that are in agreement with the respondent’s teaching style (Grasha & Yangarber-Hicks, 2000).

In conducting research on the use of technology within the classroom and its impact on teaching and learning styles, Grasha and Yangarber-Hicks (2000) identified four complementary teaching styles and the learning styles these reinforce based on an analysis of data collected from both the Grasha-Reichmann (1996) Teaching Style Inventory and the Grasha-Reichmann (1996) Student Learning Style Scales. Of the four teaching styles identified, three of the teaching styles are aligned with adult learning theory, which are the personal model, facilitator and expert, where the teaching style reinforce the student learning styles of collaboration, participation, and independent learning (Grasha & Yangarber-Hicks, 2000; Merriam et al., 2007). Comparing the traits of the adult learner to the teaching styles, adult learning concepts would be reflected in scores associated with the personal model, the facilitator, and the delegator teaching styles. This assumption is based on the collaborative nature of a teaching/learning partnership between the teacher and the student (Grasha & Yangarber-Hicks, 2000).
Table 3 reflects the scores of three nursing faculty who completed the Teaching Style Survey.

**Table 3. Faculty scores on the Grasha-Reichmann Teaching Style Survey (1996)**

<table>
<thead>
<tr>
<th>Teaching Style</th>
<th>Faculty #1</th>
<th>Faculty #2</th>
<th>Faculty #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert</td>
<td>4.0</td>
<td>3.5</td>
<td>3.25</td>
</tr>
<tr>
<td>Formal Authority</td>
<td>4.0</td>
<td>3.625</td>
<td>3.125</td>
</tr>
<tr>
<td>Personal Model</td>
<td>4.0</td>
<td>3.75</td>
<td>3.0</td>
</tr>
<tr>
<td>Facilitator</td>
<td>4.0</td>
<td>3.625</td>
<td>3.125</td>
</tr>
<tr>
<td>Delegator</td>
<td>3.5</td>
<td>3.25</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Review of the scores reflects higher numbers in each category, which corresponds to the number of statements the faculty agreed with regarding that teaching style (Grasha & Yangarber-Hicks, 2000). To determine the predominant teaching styles and their corresponding learning styles developed by Grasha and Yangarber-Hicks (2000), Table 4 shows the breakdown of faculty scores for both compatible teaching style and learning styles.

In reviewing Table 4, faculty scores reveal a majority of them use concepts of adult learning theory, which is reflected on the higher scores in teaching categories for Personal Model/Expert/Formal Authority, Facilitator/Personal Model/Expert, and Delegator/Facilitator/Expert (Grasha & Yangarber-Hicks, 2000). The Personal Model/Expert/Formal Authority Teaching style reinforces learning styles of participant/dependent/collaborative, which allows students to observe, plan, and then execute an activity (Grasha & Yangarber-Hicks, 2000). The Facilitator/Personal Model/Expert Teaching style reinforces learning styles of
collaborative/participant/independent, which allows students to participate in active
learning through the use of case studies, simulation, and role-playing (Grasha
& Yangarber-Hicks, 2000). The Delegator/Facilitator/Expert Teaching style reinforces
learning styles of independent/collaborative/participant, where the instructor acts more
like a consultant to students working independently or in small groups (Grasha &
Yangarber-Hicks, 2000).

Table 4. Faculty scores on compatible teaching styles and learning styles identified by
Grasha & Yangarber-Hicks (2000).

<table>
<thead>
<tr>
<th>Teaching Styles and Learning Styles</th>
<th>Faculty #1 Scores</th>
<th>Faculty #2 Scores</th>
<th>Faculty #3 Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert/Formal Authority:</td>
<td>8.0</td>
<td>7.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Dependent/Participant/Competitive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Model/Expert/Formal Authority:</td>
<td>12.0</td>
<td>10.9</td>
<td>9.4</td>
</tr>
<tr>
<td>Participant/Dependent/Collaborative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitator/Personal Model/Expert:</td>
<td>12.0</td>
<td>10.9</td>
<td>9.4</td>
</tr>
<tr>
<td>Collaborative/Participant/Independent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegator/Facilitator/Expert:</td>
<td>11.5</td>
<td>10.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Independent/Collaborative/Participant</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some of the experiential learning and self-directed learning strategies outlined
above are congruent with adult learning theory, and can be depicted as appropriate
teaching strategies for teaching nursing knowledge and nursing skill (Billings &
Halstead, 2009; Merriam et al., 2007), as well as cultural awareness, cultural knowledge,
and cultural skill in nursing programs (Kardong-Edgren et al., 2010). Therefore, this data shows alignment with the implementation of the nursing curriculum with adult learning theory.

**Question 4: Is there a difference in scores of cultural competency concepts between those entering an Associate Degree Nursing Program versus those who have been exposed to the full curriculum of an Associate Degree Nursing Program?**

To determine the validity of using Campinha-Bacote’s Cultural Tool as an appropriate data collection instrument for answering this research question, faculty were given a written overview of the five cultural concepts outlined in Campinha-Bacote’s Model. Faculty were then asked to respond to three survey questions asking for agreement or disagreement on the five cultural concepts as (a) being consistent with becoming culturally competent as a health care professional; (b) being consistent with cultural concepts included in their course curriculum; and, (c) being consistent with cultural concepts included in their associate degree program outcomes (goals). The Campinha-Bacote instrument was not sent directly to the faculty, as it is copyrighted, and permission was granted by Campinha-Bacote to use the tool only with nursing students.

Faculty responses to the question concerning Campinha-Bacote’s Cultural Competence Model outlining five cultural concepts as reflecting cultural competence as a health care professional revealed they strongly agreed. As a result, this data reveals faculty’s validation of the cultural concepts identified as cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire as being consistent with what constitutes cultural competence in health care professionals. Thus, the use of
Campinha-Bacote’s Tool is in alignment with the nursing faculty’s perception of cultural competence, and was thus an appropriate data collection instrument for this study.

Students from the control group were given the paper and pencil version of the IAPCC-SV at the beginning of their second class in the nursing curriculum, and students from the treatment group were given the paper and pencil version the IAPCC-SV at the end of their final class of the nursing curriculum. Sixty-one students from the control group and 49 students from the experimental group completed the IAPCC-SV Tool. Eleven surveys from the experimental group were not fully completed and were not included in this study. Table 5 shows the data distribution of the results from the IAPCC-SV Cultural Competence Tool.

Table 5. *T-Test Results from IAPCC-SV Cultural Competence Tool*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>$n$</th>
<th>$M$</th>
<th>(SD)</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>Experimental</td>
<td>49</td>
<td>10.41</td>
<td>1.14</td>
<td>1.86</td>
<td>108</td>
<td>.066</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>61</td>
<td>9.98</td>
<td>1.23</td>
<td></td>
<td></td>
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*p≥.05 (statistically significant)
In analyzing the data distribution among cultural concepts identified above, the *p* values of .000 for cultural knowledge and cultural skill showed statistically significant differences between groups involving the cultural concepts of cultural skill, cultural knowledge, but no significant differences involving the concepts of cultural awareness, cultural encounters, and cultural desire.

Additionally, a *p* level of .001 reveals a significant difference on total scores between the control and the experimental group, showing both groups as being considered culturally competent, as identified in the category ranges by Campinha-Bacote (2007): culturally proficient 75-80; culturally competent 60-74; culturally aware 41-59; and, culturally incompetent 20-40. Based on the interpretation of the data from the IAPCC-SV surveys, there were statistically significant differences in two of the cultural concepts (skill and knowledge), and there was also a statistically significant difference between the control and experimental groups in total scores showing an increase in the level of cultural competence over the duration of the program. Using the program theory-driven evaluation research design, it can be presumed that the significant difference in levels of cultural competence between the two groups can be attributed to the exposure to the nursing curriculum, which answers secondary research question four (Chen, 1990; Donaldson, 2007).

**Chapter 4 Summary**

As the research hypothesis was based on the measurable causal-comparative non-experimental research design, this data serves to reject the Null hypothesis, which stated that nursing students who have been exposed to an Associate Degree Nursing Curriculum
(treatment group) will not have significantly different scores on a cultural competency inventory from nursing students who are entering an Associate Degree Nursing Program (control group). Further, this research data identifies that cultural competence levels can be significantly increased with implementation of curriculum, and that associate degree nursing students can be considered culturally competent upon completion of their nursing program, when there is congruency between accreditation standards, program goals, curriculum, and implementation of curriculum by faculty incorporating adult learning theory.

In conclusion, the use of the program theory-driven evaluation design for review of a two year nursing program in meeting accreditation standards through their program inputs and outputs proved to be an effective research method for this research study. With the embedded causal comparative non-experimental research method, this design was further strengthened to help support the prediction that the curriculum had an impact on increased levels of cultural competence in nursing students.
CHAPTER 5. CONCLUSIONS AND DISCUSSION

Introduction

The purpose of conducting this research was to use program theory-driven evaluation as a framework to identify whether an associate degree program was able to meet accreditation standards and program objectives on cultural competency. Embedded in this evaluation was a causal-comparative non-experimental design that compared cultural competency levels between those entering the nursing program (control group) and those graduating from the nursing program (experimental group). This study reviewed the independent variable, the nursing curriculum, and its implementation (including the use of adult learning theory) on the dependent variables of accepted cultural competency constructs: awareness, skill, knowledge, encounters, and desire (Campinha-Bacote, 2003). Further, this research design was implemented to determine the effectiveness of using Program Theory-driven Evaluation in nursing research, as this type of evaluation is commonly used in other areas of educational research but not commonly used in nursing education research (Chen, 1990; Donaldson, 2007).

This chapter presents the summary of the research results, a discussion of the research results, relation of the research results to the literature, a review of the research limitations, and the implication of the research findings to nursing practice. Additionally, after analyzing and discussing the research results, areas for further research will be identified.
Summary of the Results

To conduct the program theory-driven evaluation, several components of the associate degree nursing program had to be reviewed, in order to determine if the program inputs would yield the expected program outputs. Review of these components were done through data collection from full time faculty, as well as from nursing students enrolled in the nursing program. The summary of this evaluation and the accompanying results are described in detail below.

Nursing Program Point System

The admission requirements for the program was based on a points system, where points are given for previous college education, completion of college courses taken at the parent college, points for GPAs earned on 12 credits or more at the parent college, and scores taken from the NLN Pre-admissions Exam, for a total of 25 possible point. Statistical analyses of the experimental and control groups showed there were no statistically significant differences between the two groups, as the $p$-value was above .05. Therefore, based on this analysis, these two groups can be treated as being equivalent for admission into the nursing program.

Demographic Differences Between Groups

The only significant demographic difference between the groups was age ($p$ value below .05). The mean age was 35 years for the experimental group and the mean age was 31 years for the control group. The older experimental group with the higher age mean showed higher levels of cultural skill and cultural knowledge, as well as level of cultural competence over the younger control group with the lower age mean of 31.
Also thought to have been significant among the demographic data was the number of years nursing students who were not born in the United States were living in the United States. Although the mean number of years was close for both groups, statistical analysis showed no significant difference ($p$ value above .05) for this data. A mean of 18 years living in the United States was shown for the experimental group, and a mean of 20 years living in the United States was shown for the control group.

**Research Question Results**

In evaluating the components of the associate degree program and its ability to meet the accreditation standards on cultural competency, using the program theory-driven evaluation design as the framework proved beneficial to the research study. Faculty who were responsible for developing and implementing the curriculum were surveyed on alignment between accreditation standards, program objectives, implementation of the curriculum, and cultural concepts embedded in the curriculum. As a result, their positive feedback showed alignment between the program components, and it verified the use of Campinha-Bacote’s IAPCC-SV (2007) as a valid tool to survey nursing students about cultural competency. In addition, using a causal-comparative non-experimental research method to compare nursing students exposed to the full curriculum versus those who had not been exposed, helped to identify differences in cultural concepts as well as overall levels of cultural competency of nursing graduates, and it contributed to the evaluation of possible causes for these differences.

Analysis of data using a two-tailed $t$-test for Equality of Means revealed statistically significant differences between the experimental and control groups in the
cultural concepts of knowledge and skill. However, there was no significant difference between the two groups on the other cultural concepts of awareness, encounters, and desire.

The significant differences on the knowledge and skill components of the IAPCC-SV contributed to a significant difference in total scores between the control group and the experimental group. With a mean score of 62 for the control group and a mean score of 66 for the experimental group, both groups had attained a level of cultural competence (Campinha-Bacote, 2007) as defined by the scoring system on the IAPCC-SV. However, even though both groups were considered culturally competent, the statistically significant difference between the two scores shows the curriculum as having an impact on raising the level of cultural competence. These findings are different from what has been reported in the literature and will prove beneficial to nursing education.

**Conceptual Framework - Program Theory-Driven Evaluation.** Using program theory-driven evaluation as a conceptual framework, a review of the nursing program’s construction and its ability to meet its desired outcomes was initiated. This research evaluated the nursing program’s ability to meet ACEN’s standards (2013) involving cultural competency through a review of the curriculum, the implementation of the curriculum, and the program objectives the nursing graduates are expected to meet.

In order to evaluate the nursing program and its ability to meet cultural competency standards, an initial review was needed to establish congruency between accreditation standards and program objectives.
Question 1: Is there congruency between program standards and program outcomes? Four out of five full time faculty responded to the survey question with three faculty (75%) indicating congruency and one faculty (25%) indicating no congruency between accreditation standards and nursing program objectives. Interpretation of the data supports alignment between the accreditation standards and the nursing program objectives.

Secondly, the nursing program needed to be reviewed to establish congruency between program objectives and nursing curriculum.

Question 2: Is there congruency between program outcomes and curriculum? Four out of five full time faculty stated their agreement with what was expected of graduates at the completion of the nursing program and what was embedded in the nursing curriculum over five semesters regarding cultural competency. Interpretation of results supports alignment of the nursing curriculum and nursing program objectives, as they pertain to cultural competency.

Third, the nursing program needed to be reviewed to establish congruency between nursing curriculum and the implementation of the nursing curriculum.

Question 3: Is there congruency between curriculum and implementation including use of adult learning strategies? Interpretation of data revealed the majority of faculty do teach using concepts of adult learning theory, as was reflected in higher scores in the Personal Model/Expert/Formal Authority, Facilitator/Personal Model/Expert, and Delegator/Facilitator/Expert Categories. Experiential learning and self-directed learning strategies embedded in these teaching styles are congruent with adult learning theory, and
can be depicted as appropriate teaching strategies for teaching nursing knowledge and nursing skill (Billings & Halstead, 2009; Merriam et al., 2007), as well as cultural awareness, cultural knowledge, and cultural skill in nursing programs (Kardong-Edgren et al., 2010). Therefore, this data shows alignment of the implementation of the nursing curriculum with adult learning theory.

Finally, to determine if the nursing program met its program objectives and accreditation standards in producing culturally competent nursing graduates, a non-experimental causal-comparative research study was conducted on students entering the nursing program (control group) and students completing the nursing program (experimental group).

*Question 4: Is there a difference in scores of cultural competency concepts between those entering an Associate Degree Nursing Program versus those who have been exposed to the full curriculum of an Associate Degree Nursing Program?* In analyzing the data distribution among cultural concepts identified, the p values of .000 for cultural knowledge and cultural skill showed statistically significant differences between groups involving the cultural concepts of cultural skill and cultural knowledge, but no significant differences involving the concepts of cultural awareness, cultural encounters, and cultural desire. Additionally, a p level of .001 revealed a significant difference on total scores between the control and the experimental group, although both groups were considered culturally competent as evidenced by their scores on the IAPCC-SV.
The identification of statistically significant differences in two of the cultural concepts (skill and knowledge), as well as statistical significance between the level of cultural competence between the control and experimental groups based on Campinha-Bacote’s IAPCC-SV (2007) total scores revealing level of cultural competence, answered Secondary Research Question four.

**Discussion of the Results**

The following section will review the components of the nursing program and the results of the data collected. Further discussion will also review the use of the program theory-driven evaluation as a conceptual framework.

**Nursing Point System**

By evaluating admission scores for students accepted into the Nursing Program, homogeneity between the control and experimental groups was established. However, cultural competence may be affected by those variables considered in the total point system for admission into the program. For example, level of education and the pursuit of learning have been cited in the literature as having a significant impact on cultural competence (Banks, 1996; Billings & Halstead, 2009; Campinha-Bacote, 2007; Kardong-Edgren et al., 2010).

**Demographic Results**

The mean ages of both the control group and the experimental group is in the 30’s, which is consistent with the age range of students who choose an associate degree program to pursue nursing education. The appeal of associate degree nursing programs is their flexibility to non-traditional students who balance work and family with educational
goals (Andrist et al., 2006). In addition, the demographics support that this associate degree program attracts nursing students who have not lived their entire lives in the United States, another attraction of such programs cited by Andrist et al. (2006) for those students where diversity is supported and English may be their second language.

**Research Question Results**

There was no specific cultural learning project incorporated into the curriculum, although faculty did agree cultural concepts were embedded in the nursing curriculum. Therefore, analysis of the data suggests that higher levels of cultural skill, cultural knowledge, and cultural competence can be attributed to exposure to the full curriculum by the experimental group as compared to the control group. This curriculum incorporates both course work and clinical rotations, where nursing knowledge is transformed into nursing skill through direct patient care.

**Program Theory-driven Evaluation as the Conceptual Framework Results**

The use of program theory-driven evaluation in this research study proved to be an effective conceptual framework for evaluating a nursing program. Through the review of the nursing program inputs, statistical data was provided confirming that the program met both objectives as well as accreditation standards on cultural competency. By using a valid instrument to compare cultural competency between the control and experimental groups, this research yielded statistically significant data that revealed positive effects on cultural competence levels in nursing students after exposure to the curriculum. Additionally, the review of the components of the nursing program revealed faculty’s awareness of cultural concepts, their inclusion of these concepts in the curriculum, and
the use of adult learning concepts in the implementation of the curriculum. This evaluation yielded evidence of agreement between what the nursing program advertised to its stakeholders and what is has delivered.

Since the fundamental basis of program theory is to determine what ought to be (normative theory) and what actually is (causative theory) to identify program effectiveness, the use of a program theory-driven evaluation assisted in identification of program strengths in meeting program objectives and accreditation standards (Chen, 1990). Accreditation standards are based on normative theory and program outcomes are based on causative theory tempered by experience and knowledge. Therefore, the alignment of the two will yield the greatest benefit for both the organization and the program in producing a competent nursing professional (ACEN, 2013).

**Discussion of the Results in Relation to the Literature**

The following section will review the nursing point system, the demographic results, and the research question results in relation to the literature. It will also review the program theory-driven evaluation as a conceptual framework, in relation to the literature.

**Nursing Point System**

The number of courses taken at the college where the nursing program is housed could also be significant to cultural competency, as the mission of the college is to provide education opportunities to a diverse student population composed of first degree candidates from the greater urban areas of the state. In addition, the NLN Pre-admissions Exam could have an impact on the cultural diversity of the program, as this standardized
exam evaluates prior knowledge, skill, and analytical reasoning and a minimum score is required to be considered for acceptance into the program. Non-traditional students where English is their second language, entering college several years post-secondary school, or have limited study skills, may not be able to achieve the minimum score; thus, curtailing their ability to enter nursing programs (Bednarz et al., 2010). Therefore, if the mission of the college and the admission criteria for the nursing program are not aligned, it could decrease diversity in the nursing program by focusing only on student achievement, thereby developing the dominant culture of the program, which could ultimately stifle cultural competence in students (Banks, 1996; Billings & Halstead, 2009). However, this is not the case based on the results of this college’s admission process because the nursing admission point system incorporates several variables, which prevent dominance of one variable over another. Points are also awarded for the minimal score of the NLN Pre-Admissions Exam, which is based on generally acceptable percentages for Associate Degree Programs (NLN, 2013).

**Demographic Results**

Research conducted by Schim et al. (2005) among urban hospital-based health care providers in Michigan and Ontario, revealed a mean age of 39 for their Canadian respondents and a mean age of 41 for their American respondents. To determine what variables were thought to be associated with cultural competence, they found higher educational levels and prior cultural competence training tended to reflect higher scores of cultural competence. However, this came as a surprise, as they assumed differently on the basis of the conceptual model from which their research tool was developed, which
tended to associate greater experience with diverse clients, an association that should yield higher cultural competence scores.

In contrast, Riley et al., (2012) found that younger students scored higher on cultural competency. Collecting data from associate degree nurses with an average of 8 years of nursing experience and who were enrolled in an online BSN completion program, they used Campinha-Bacote’s Cultural Tool for Health Professionals (IAPCC-R, 2003) to review cultural competency. Younger students, aged 20-30, scored higher on the IAPCC-R than older students aged 41-50. They attributed these younger students’ significantly higher scores in cultural skill to education initiatives of the associate degree programs and the program’s adherence to accreditation standards for cultural competence (Riley et al., 2012).

The IOM (2010) reported that older (50+) and middle-aged (34-49) nurses made up approximately three quarters of the total nursing workforce in 2009, and the number of older nurses will grow, as nursing has become a popular profession over the last 20 years. The IOM concluded that demographic variables such as age, gender, ethnicity, and lived experiences will help develop a nursing workforce that will be better suited for health care diversity.

**Research Question Results**

There is no consistent method of teaching cultural competence or incorporating it into nursing curriculum (Calvillo et al., 2009; Kardong-Edgren et al., 2010). Review of the literature shows numerous cultural exemplars that help to foster cultural competency in nursing students, but no single best way of teaching cultural concepts has been
identified. In addition, these exemplars involve or suggest the use of specific cultural projects to engage students in reflection, develop cultural knowledge, and develop cultural skill (AACN, 2008; ACEN, 2013; Anderson, 2004).

Anderson (2004) used a literary piece in her research on junior level nursing majors in a traditional BSN Program to introduce transcultural nursing during a foundational nursing course. Among the limitations cited in this study were a transcultural instrument that was used because of easy accessibility, the cultural project was also included with an assessment course, and students were motivated to learn about cultural practices to assist them in completing project homework (Anderson, 2004). Thus, the results of this research could be questionable as to what truly caused the increase in self-awareness and cultural skill, the cultural project or the foundational course, or a combination of both. Additionally, whether these skills would be enhanced or built upon as the students moved through the curriculum depended on both organizational and faculty commitment. Anderson stated that faculty challenges include continuation of the time intensive cultural project as well as faculty including additional learning opportunities for students to increase cultural concepts and skill (2004).

Founded as a profession providing care to culturally diverse patients, Nightingale led the way for nursing to develop transcultural care; however, as nursing has evolved, nursing education has not kept up with providing educational opportunities to teach cultural competency, and nurse educators have been misled in their belief that culturally diverse nurses are equipped to teach cultural competence (Zander, 2007). Zander (2007) concluded that although cultural competence may take a lifetime to develop, a
characteristic trait of cultural competence is taking into consideration the desires of the stakeholders in planning care. As was the case with this program theory-driven evaluation, these stakeholders can be identified as the organization, the nursing department, the faculty (course and clinical), as well as the nursing student, who must show a commitment to cultural sensitivity and acceptance of diversity.

**Program Theory-driven Evaluation as a Conceptual Framework Results**

The results from this research study showing an associate degree program meeting cultural competence levels in its nursing graduates, is not the norm based on the review of literature. Historically, nursing has focused on developing awareness through cultural sensitivity rather than on constructing behavior through cultural competence (deChesnay & Anderson, 2012). In analyzing the construct of cultural competence, Zander (2007) stated not all cultural concepts are achieved from nursing curriculum and clinical exposure. Rather, she cited many factors such as self-motivation, self-reflection, and self-learning that help to fuel cultural desire, one of Campinha-Bacote’s cultural concepts. Zander contends that cultural exposure leads to cultural awareness, which in turn, lends itself to the development of cultural behaviors.

Most literature deals with baccalaureate nursing students or associate degree graduates entering baccalaureate nursing programs, or nurses practicing nursing to determine if these groups are culturally competent. Literature published on cultural competency has described specific cultural learning opportunities in curriculum which are correlated with changes in cultural competence among baccalaureate nursing students (Anderson, 2004; Kardong-Edgren et al., 2010). Additionally, literature published on
health care professionals and cultural competency has yielded data showing the variables of age, higher education, and prior cultural learning opportunities correlating with an increase in cultural competency (Riley et al., 2012; Schim et al., 2005). Thus, the current research has yielded new knowledge about associate degree programs achieving cultural competence in their graduates, as well as the use of program theory-driven evaluation as an appropriate framework to review the nursing programs’ ability to meet its program goals.

The new knowledge yielded by this research study addresses recommendations for further research from Riley et al., (2012), who conducted research on cultural competency of associate degree nurses enrolled in an online baccalaureate completion program, and found that only half of their participants were culturally competent. Their recommendations for nursing education were to have RN-BSN programs build on the accreditation standards for cultural competency of associate degree programs, and for associate degree programs to research their inclusion and adherence to accreditation standards on cultural competence. In addition, the current study also addresses the recommendations from Schim, Doorenbos, and Borse (2005) who conducted research with health care workers in urban settings and found that level of education, as well as prior cultural competence training, were two factors that contributed to cultural competence among their study participants. They recommended additional research to further evaluate which outcomes are considered or what variables are associated with becoming culturally competent.
The use of adult learning theory used by faculty in this research to teach the nursing curriculum was also examined and could have contributed to increasing cultural competency levels in nursing graduates. Bednarz et al., (2010) stated that teaching a diverse student body can be difficult to meet individual needs for learning content, and that faculty will tend to treat every student the same to avoid discrimination. It can be challenging to envision the need or to approach changing the educational process to accommodate diverse student needs, as the nature of nursing education and practice is considered to be a uniform discipline. Also, generational differences can affect student learning and effective teaching, especially when the student population is younger and more accustomed to technology, which may not be fully integrated into the classroom. The authors concluded that cultural competence is a process rather than an outcome for educators and students.

In conclusion, as implementation of the curriculum has been identified as influencing cultural competency levels in nursing students, increasing cultural diversity calls for nursing educators to move away from pedagogy (child centered learning) to andragogy (adult centered learning), and to listen to their students to identify learning styles (Bednarz et al., 2010). Additionally, nursing educators should understand that using experiential learning methods and problem-centered learning provides the student with opportunities to create relevant meaning of content. Thus, student learning of cultural competency should be time-specific, place-specific, and lifelong, rather than short term cultural projects during the nursing program.
Limitations

Among the limitations to this research study is the small sample size, the single sample site, and the use of a convenience sample. Although considered less powerful than random sampling, this method of participant recruitment is aligned with non-experimental causal-comparative quantitative research designs, as well as aligned with Program Theory-driven evaluation research design (Donaldson, 2007; LoBiondo-Wood & Haber, 2010).

Another limitation to this research study is the forfeiture of control over the independent variable, the curriculum (independent variable), so there is no assurance that extraneous variables did not affect the research outcome (Houser, 2012). For example, the curriculum in this five semester program is predominantly medical and surgical nursing of the adult throughout the wellness continuum, and clinical rotations are predominantly in sub-acute and acute care settings. However, during these five semesters there may be other variables such as patient encounters, individual experiences, or exposure to cultural biases that could have influenced cultural competence levels.

A limitation to using the program theory-driven evaluation design is that it is not clear what part of the curriculum, or whether it is the implementation of the curriculum, that made a significant difference in competence scores between the control and the experimental group. Because the evaluation looked at the curriculum as a whole, and the implementation of the curriculum, the degree to which the beginning courses reviewing nursing assessment and the foundations of nursing versus the latter courses reviewing more complex patient scenarios and implications for nursing contributed to the increase
in cultural competency could not be determined. Additionally, the implementation of the curriculum using adult learning theory could have had an impact on cultural competence. As these were two of the components of the conceptual framework, they were not singled out as variables that could have an impact on cultural competence (Donaldson, 2007).

**Implication of the Results for Practice**

The program theory-driven evaluation research design was shown to be a useful conceptual framework for reviewing the associate degree nursing program as use of this research design yielded valuable knowledge about the ability of a two year program to meet its goal of graduating nurses who are considered culturally competent. The program theory-driven evaluation research design is adaptable to various disciplines for the evaluation of program effectiveness, and it can be coupled with a scientific research method to provide reliable and valuable data (Chen, 1990; Donaldson, 2007). This method is recommended by Billings and Halstead (2009), as an effective way for faculty in nursing programs to perform self-assessments and evaluate their meeting professional, as well as accreditation standards.

Adult learning theory appears to be compatible with increasing cultural competence outcomes in the associate degree nursing program, with a higher level of cultural skill, cultural knowledge and overall cultural competence scores in those exposed to the nursing curriculum (experimental group), as compared to those just entering the nursing program (control group). Adult learning theory also incorporates experiential learning strategies, demonstrated to be beneficial in teaching nursing education (Lisko &
Odell, 2010), and are consistent with assisting students to develop cultural awareness, cultural knowledge, and cultural skill (Campinha-Bacote, 2007; Kardong-Edgren et al., 2010).

Using a causal-comparative non-experimental design embedded in the conceptual framework, the results of data analysis from 110 nursing students yielded statistical significance between those students entering the nursing program and those students graduating the nursing program in relation to the cultural concepts of knowledge, skill, and overall level of cultural competence. Thus, based on the results of this research the target college did meet both the program objectives and the accreditation standards of graduating culturally competent nurses.

**Recommendations for Further Research**

Using program theory-driven evaluation proved to be an effective research design to evaluate the ability of an associate degree program in northeastern United States in meeting program objectives and accreditation standards. The target college was a private college with approximately 300 nursing students in a tri-semester, five course curriculum. However, it is not a public program, or a religious program, which may use different curriculum content, as well as different implementation of curriculum. So, further recommendations for research would include using additional types of associate degree programs, as well as all types of baccalaureate programs. Since the ACEN and CCNE accreditation organizations share similar accreditation standards on cultural competence and include similar exemplars of how cultural competency has been introduced into nursing programs, this research design could be replicated with few modifications. Also,
since there is an increased interest in RN-BSN programs to address the IOM’s recommendation for 80% baccalaureate prepared nurses in 2020 (IOM, 2010), there should be some continuity in building upon cultural competency from one nursing level to the next. From their research on associate degree nurses enrolled in online baccalaureate programs, Riley et al., (2012) stated that associate degree programs should use and build upon the NLNAC standards when developing the cultural competency components of an RN-BSN Program (Riley et al., 2012). They contended that students between the ages of 20-30 scored significantly higher on cultural skill concept, due to the education initiatives by ASD programs and their adherence to NLNAC standards for cultural competence (Riley et al., 2012).

Another area for further research would be to use Campinha-Bacote’s IAPCC-V cultural tool for health care professionals to conduct research on nursing graduates after working in health care for a minimum of five years to see if they have retained or increased their level of cultural competence. As uncovered in research from Schim, Doorembos, and Borse (2005), those health care professionals who had higher education, as well as prior cultural competence training, scored higher on levels of cultural competence on the IAPCC-V. Campinha-Bacote (2007) considers cultural competence a lifelong process, and Zander (2007) has described it is as a highly complex mix of cultural awareness, knowledge, and skill that can take a lifetime to develop. In this context, it can be asked whether nurses who do not cultivate cultural competency, lose their cultural competency. With so much emphasis on providing culturally compassionate care to an increasingly diverse patient population, it would seem negligent
for an individual, organization, or community to rely solely on prior exposure to keep one competent with something so important to the delivery of health care.

**Conclusion**

In developing this research study, a review of the literature revealed a gap in the evaluation of a whole program, rather than evaluation of a specific cultural project or cultural course embedded in the curriculum of nursing programs. Most research studies that had been conducted were reflective of only baccalaureate curriculums, and did not show statistical significance in the attainment of cultural competence; rather, statistical significance was revealed in one or two of the five cultural constructs which make up cultural competence (Kardong-Edgren et al., 2010; Riley et al., 2012; Schim et al., 2005). Thus, from the review of the literature, the identified research problem pertained to different interpretations of cultural competency among nursing programs and whether these programs are meeting the cultural competencies identified by their accreditation organizations.

The purpose of this research was to determine whether a two year associate degree program met its program objectives and accreditation standards on cultural competency. Through the evaluative process of program theory-driven evaluation, the different components of the program were reviewed, and were found to be in alignment with cultural competent constructs adopted by nursing accreditation organizations, and generally accepted by nursing education as demonstrated through a review of the literature (ACEN 2013, Billings & Halstead, 2009; CCNE, 2009; Kardong-Edgren et al., 2010; Zander, 2007). Using a causal-comparative non-experimental research design,
nursing students entering the nursing program and nursing students completing the nursing program were surveyed using the valid and reliable cultural tool, IAPCC-SV (Campinha-Bacote, 2007). Based on data analysis, this research study showed a statistically significant difference in cultural competency between nursing graduates (experimental group) compared to the beginning nursing students (control group). Additionally, this research design showed how the conceptual framework of program theory-driven evaluation can be adapted to the field of nursing education, and provided the two year nursing program with the validation they needed to confirm that their program objectives were being met with their curriculum and implementation of the curriculum by their faculty. This framework also provided validation that the nursing program was graduating culturally competent nursing students, which meets the accreditation standards for two year nursing programs.

Cultural competence in nursing is defined as the practice of recognizing and considering cultural diversity between the nurse, the client, and the family, when providing nursing care. It is crucial to recognize health disparities and to work toward teaching, planning, and implementing ethically sound health care, which will be beneficial to the client’s well-being. It is the essence of the reciprocal nurse-client relationship wherein both parties mutually work towards positive health outcomes through learning from each other (AACN, 2008; Calvillo et al., 2009; deChesnay & Anderson, 2012).

This research study underscores the necessity of looking at the whole picture, rather than just a cultural project of a nursing program, to determine whether program
objectives are being met. Further, this research study also suggested that a predominantly medical-surgical curriculum focusing on the adult and being taught with adult learning theory is adequate to teach cultural concepts and help nursing graduates reach higher levels of cultural competence. An important focus of the nursing process is to deliver holistic, cost effective care, and an important focus of nursing practice is to partner with the patient to develop mutual goals. Maybe focusing on the basic nursing principles and laying a solid nursing foundation for the student may just be the best way to build upon cultural constructs and meet accreditation standards.
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APPENDIX A. FACULTY AGREEMENT WITH VALIDITY OF IAPCC-SV TOOL


Campinha-Bacote’s Cultural Competency Care Model

Developed in 2003, Campinha-Bacote integrates five constructs into her Cultural Competency Care Model to depict an integrative process becoming culturally competent. These five constructs are:

1. **Cultural Desire:** an individual’s interest in wanting to learn about cultures that are different from their own. A voluntary process necessitated by desire, not motivated by others. This construct’s beliefs are based on caring and love as individuals for another; sacrifice of prejudice towards others; social justice to break down inequities towards others; and humility to accept other ways of doing or knowing (Campinha-Bacote, 2007, pgs. 21-26). In relationship to providing healthcare, it is the ability of the health care professional to partner with the client in establishing mutual goals towards achievement of positive health outcomes.

2. **Cultural Awareness:** an individual’s ability to acknowledge there are cultural differences, as well as to respect the importance of these cultural differences to others (Campinha-Bacote, 2007, pgs. 27-35). This construct is based on many areas of discrimination that can, and have occurred, in dealing with other individual traits that are different from our own. In order to become culturally aware, an individual must be open to their own biases and work towards breaking down barriers that shape these biases. In relationship to providing healthcare, it is the ability of the health care professional to recognize inequities, differences, and norms that are adversely affecting the achievement of positive health outcomes.

3. **Cultural Knowledge:** an individual’s ability to acquire knowledge about other cultures through formal and informal learning, and utilize this knowledge to breakdown stereotypes. It is the ability of a health care professional to combine what is obtained through learning with the unique needs of the individual, which can only be uncovered with a cultural assessment (Campinha-Bacote, 2007, pg. 47). In relationship to providing healthcare, the health care professional must have cultural background knowledge that will assist in developing cultural skills to assist the client with positive health outcomes.
4. **Cultural Skill:** an individual’s ability to utilize cultural knowledge and be confident in performing a cultural assessment to identify cultural components that will assist in assessing the client’s specific needs. Cultural skills range from communication, observation, asking questions, and developing a cultural competent plan to achieve positive client outcomes (Campinha-Bacote, 2007, pgs. 68-69). In relationship to providing health care, Campinha-Bacote points out that cultural skill is a continuum – it require both knowledge and practice. All clients deserve a cultural assessment to identify unique beliefs or practices that can impact their wellbeing.

5. **Cultural Encounters:** an individual’s ability to interact directly with other cultures and to learn how to break down stereotypes through understanding of cultural differences. This interaction exposes the individual to differences in language, practices, and beliefs that impact the ability to provide health care and achieve mutually beneficial client outcomes. Modification of health care practices to accommodate cultural differences, and putting them into practice help these client outcomes, as well as self-awareness of the health care professional of their importance to the client (Campinha-Bacote, 2007, p. 84). In relationship to health care, health care professionals develop more cultural empathy and enhance cultural knowledge allowing further development of cultural skills. With these encounters, health care professionals can become culturally competent leading to less social inequities, developing cultural awareness, and defending the importance of cultural sensitivity in providing mutually beneficial health care.

**Cultural Competency Tools**

*Inventory for Assessing the Process of Cultural Competence Among Health Care Professionals – Revised (IAPCC-R)*

Deeloped by Campinha Bacote in 2002, this 25 item tool allocates five questions relevant to the each of the five constructs, which are scored via a Likert Scale with numerical coding. The level of cultural competence is based on a score of 25-100: 25-50 – culturally incompetent; 51-74 – culturally aware; 75-90 – culturally competent; and, 91-100 culturally proficient (Campinha-Bacote, 2007, pg. 123). Copyright prohibits reproduction of this tool.

*Inventory for Assessing the Process of Cultural Competence Among Health Care Professionals – Student Version (IAPCC-SV)*

Developed by Campinha-Bacote in 2007 to use for health care students, this 20 item tool allocates four questions relevant to each of the five constructs, which are also scored via a
Likert Scale with numerical coding. The level of cultural competence is based on a score of 20-80: 20-40 - culturally incompetent; 41-59 – culturally aware; 60-74 – culturally competent; and, 75-80 – culturally proficient (Campinha-Bacote, 2007, pg. 131). Copyright prohibits reproduction of this tool.

Research Use

The IAPCC-SV will be used in the causal-comparative research design comparing the curriculum of a two year associate degree nursing program on the level of cultural competency between a control group (students not exposed to the curriculum) and an experimental group (students who have completed the curriculum).

Faculty Response Questions

Please answer the following questions regarding cultural competency and the assumptions of cultural competency in the two year nursing curriculum:

(1) I feel that the five concepts identified in Campinha-Bacote’s Cultural Competence Model are consistent with becoming culturally competent as a health care professional?
   ( ) Strongly Agree ( ) Agree ( ) Disagree ( ) Strongly Disagree

(2) I feel that the five concepts identified in Campinha-Bacote’s Cultural Competence Model are consistent with cultural concepts that are included in my course curriculum?
   ( ) Strongly Agree ( ) Agree ( ) Disagree ( ) Strongly Disagree

(3) I feel that the five concepts identified in Campinha-Bacote’s Cultural Competence Model are consistent with cultural concepts that are included in our associate degree program outcomes?
   ( ) Strongly Agree ( ) Agree ( ) Disagree ( ) Strongly Disagree
## APPENDIX B. NURSING ADMISSION SCORING SHEET

### NURSING PROGRAM POINT SYSTEM

#### New Students

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Pts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous College Education</td>
<td></td>
</tr>
<tr>
<td>Associate Degree (60 credits)</td>
<td>2</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>3</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td>Completion of College Courses which award credit</td>
<td></td>
</tr>
<tr>
<td>1 course</td>
<td>1</td>
</tr>
<tr>
<td>2 courses</td>
<td>2</td>
</tr>
<tr>
<td>3 courses</td>
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</tr>
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<td>4 courses</td>
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<td>6</td>
</tr>
<tr>
<td>7 courses</td>
<td>7</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td>Students who have earned greater than or equal to 12 credits at College will receive points based upon their College cumulative GPA. (minimum GPA—2.7)</td>
<td></td>
</tr>
<tr>
<td>2.7-3.0</td>
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</tr>
<tr>
<td>3.1-3.4</td>
<td>2</td>
</tr>
<tr>
<td>3.5-3.8</td>
<td>3</td>
</tr>
<tr>
<td>3.9-4.0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td>Composite Score on NLN Pre-Admissions Exam (Minimum score of 50%)</td>
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</tr>
<tr>
<td>50%-55%</td>
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<tr>
<td>56%-59%</td>
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<tr>
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<td>10</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FINAL TOTAL (TOTAL POSSIBLE POINTS—25)</strong></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C. FACULTY AGREEMENT WITH CONGRUENCY BETWEEN ACCREDITATION STANDARDS AND PROGRAM OUTCOMES

Faculty Questionnaire
Congruency of Accreditation Standards and Program Outcomes

Please find attached for your review:

(1) The ACEN accreditation standard relating to cultural competency
(2) The NLNAC associate degree graduate competencies
(3) The college mission statement
(4) The nursing program outcomes

Please answer the following questions:

1. Do you feel there is congruency between the accreditation standards and the nursing program outcomes pertaining to cultural competency?
   
   (  ) Yes   (  ) No

2. Do you feel there is congruency between the nursing program outcomes and the nursing program curriculum pertaining to cultural competency?

   (  ) Yes   (  ) No
APPENDIX D. DEMOGRAPHIC SURVEY FOR STUDENTS

Demographics Form

The following questions will be utilized with the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals – Student Version (IAPCC-SV). This form is voluntary. Any data collected will be used for the descriptive purposes only. All information will be kept confidential and reviewed only by those individuals involved in conducting this research study.

1. Please indicate your age: _________

2. Please indicate your gender: ( ) Male ( ) Female

3. Please indicate your ethnic origin:
   ( ) Asian ( ) Black ( ) Native American – Alaskan
   ( ) Pacific Islander ( ) White ( ) Other

4. Your place of birth: ( ) United States ( ) Other*
   *Your country of birth: ________________________________
   *number of years in the United States? _____

5. If born in the United States, have you had any experience with different cultures? ( ) Yes ( ) No

6. Have you ever vacationed out of the United States? ( ) Yes ( ) No

7. Have you ever lived outside of the United States? ( ) Yes ( ) No