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The Predictors of Cultural Competence in the Baccalaureate Degree Nursing Curriculum: Implications for Nursing Education

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THE PREDICTORS OF CULTURAL COMPETENCE IN THE BACCALAUREATE DEGREE NURSING CURRICULUM: IMPLICATIONS FOR NURSING EDUCATION

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ABSTRACT

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Health care providers are members of a helping profession and need to provide quality care to all members of society. As a result of current and projected demographic changes within the United States (U.S.), health care professionals are faced with the challenges of providing culturally competent care and fulfilling the role as the "helping profession." From 2000 to 2010, the Asian population increased by 43.3%, the Hispanic population grew by 43%, the Native Hawaiian and other Pacific Islander population increased by 35.4%, the American Indian or Alaskan Native population increased by 18.4%, and the African American population increased by 12.3%. Just as it is necessary for health care professionals to respond to the increase in the geriatric population as a result of the baby boomer generation, it is crucial to address the needs of an increasingly culturally diverse population in the U.S. Preparing to care for a culturally diverse population begins during the teaching and learning process in the nursing curriculum. This study intended to identify the predictors of cultural competence in the baccalaureate degree nursing curriculum. Specifically, predictors examined included selected demographic variables, the use of a stand-alone course on cultural concepts, integration of cultural concepts throughout the curriculum, and the use of a cultural immersion experience.

Josepha Campinha-Bacote's model titled "The Process of Cultural Competence in the Delivery of Health Care Services" was used as the theoretical framework to guide this study. Campinha-Bacote has studied transcultural nursing and has added to the current body of nursing

knowledge with regard to incorporating cultural concepts in the nursing curriculum. This model requires health care professionals to see themselves as becoming culturally competent rather than being culturally competent and involves the integration of cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire.

Statistical analyses were conducted using descriptive statistics, correlational analysis, and multiple regression. Cronbach alpha coefficient was used to measure internal consistency reliability and exploratory factor analysis, specifically principal components analysis, was run to provide evidence of construct validity of the research tool once data were analyzed. Correlational analysis findings revealed that the variables of significance were race/ethnicity, number of months practicing, and participation in a cultural immersion experience. Reliability analysis revealed good internal consistency and factor analysis provided evidence of construct validity of the tool used to measure perceived level of cultural competence in this study.

Implications for nursing education included: (a) enabling faculty members to plan teaching methods pertaining to cultural content; (b) preparing graduates that are better able to serve the needs of current health care consumers as it relates to specific cultural needs; and (c) determining a starting point for further research related to the predictors of cultural competence and faculty-preparedness in teaching cultural content.

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CHAPTER 1

INTRODUCTION

This introductory chapter provides an overview of this study and includes the following sections: (a) background and significance of the study; (b) statement of the problem; (c) statement of purpose; (d) conceptual definitions; (e) operational definitions; (f) research questions; and (g) summary.

Background and Significance of the Study

According to the United States (U.S.) Census Bureau (2010), cultural diversity has markedly increased in the U.S. over the past 10 years. For example, the Hispanic population increased by 43%, and the African American population experienced an approximate 12.3% increase (U.S. Census Bureau, 2010). Minorities currently make up one-third of the U.S. population, and are expected to comprise 54% by 2050 (U.S. Census Bureau, 2010). As a result of the increase in minority populations, health care disparities are apparent (Campinha-Bacote, 2007b).

In addition, the American Association of Colleges of Nursing (AACN) (2008) and Accreditation Commission for Education in Nursing (ACEN), formerly known as the National League for Nursing (NLN) (2009) indicate addressing the need for increased attention to cultural differences in the nursing curriculum can promote increased provision of culturally competent care. With knowledge of the best methods to teach cultural competence, nurse educators can better prepare students to care for clients from culturally diverse backgrounds.

The AACN is an accrediting organization that serves to establish quality standards for nursing programs and assists educational institutions in implementing these standards. It is the voice for America's baccalaureate- and higher-degree nursing education programs (AACN, 2011). Within the AACN, the Commission on Collegiate Nursing Education (CCNE) operates as an accrediting body that supports continuing growth and improvement in nursing educational

programs (AACN, 2011). The AACN/CCNE set forth essentials for the baccalaureate undergraduate nursing curriculum, placing emphasis on the preparation of baccalaureate-educated nurses to care for clients across the lifespan, with special attention paid to changing demographics. Diversity in terms of ethnic and cultural background among health care consumers in the U.S. is increasing significantly due to the rise in minority populations over the past 10 years; therefore it is necessary to address cultural and spiritual diversity in the undergraduate baccalaureate nursing curriculum in order to prepare future nurses to meet the needs of health care consumers (AACN, 2011).

ACEN/NLN (2013) is a membership organization for nurse faculty and leaders in nursing education. ACEN/NLN also serves as an accrediting body for various baccalaureate degree nursing programs throughout the U.S and internationally. ACEN/NLN provides a Diversity Toolkit, which serves as a guide, providing evidence-based exemplary practices to teach cultural diversity within their schools of nursing (NLN, 2009). According to the ACEN/NLN (2009), given the persistence of health care disparities, cultural competence inadequacies, and extraordinary demographic changes in student and patient populations, the case for increasing diversity awareness in nursing education is critical. A nursing curriculum that focuses on teaching and learning cultural concepts to promote competent health care can ultimately lead to the reduction and potential elimination of health care disparities in the U.S.

Statement of the Problem

According to the Agency for Healthcare Research and Quality's National Healthcare Disparities Report (2012), overall quality of health care is improving, while access to health care and disparities are getting worse. Anderson (2012) reports that despite recent efforts to decrease health care disparities, the U.S. racial and ethnic minorities, which include any non-white race or ethnicity, receive lower quality health care than whites, even when insurance status, income, age, and severity of condition are comparable. These noted health care disparities suggest the need for increased attention to specific cultural differences and how these differences relate to health

outcomes (Henderson, Kendall, & See, 2011; Jeffreys, Bertone, Douglas, Li, & Newman, 2007; Krupic, Eisler, Garellick, & Karrholm, 2012; Schim & Doorenbos, 2010).

Kardong-Edgren and Campinha-Bacote (2008) assert regardless of the method of implementation (integration of specific theory or model, integrated concepts throughout several courses, stand-alone course on culture), graduates seem to only be reaching the cultural awareness category of Campinha-Bacote's model titled "The Process of Cultural Competence in the Delivery of Health Care Services." Additionally, these authors state, "while the debate continues about the best way to teach cultural content, without adequate evaluation, we cannot determine which the most effective method to develop cultural competence is" (Kardong-Edgren & Campinha-Bacote, 2008, p. 38). In addition to the importance of adequate attainment of cultural competence by students, it is equally as important for nurses in practice. Martino Maze (2005) suggests nurses are accountable for the care they provide, and the provision of inadequate care based on prejudice or discrimination can result in disciplinary action. These points indicate further research needs to be done on teaching methods in order to determine the most effective way of conveying cultural information in fostering cultural competence in nursing students and ultimately nursing graduates.

Statement of Purpose

In order to address the need to incorporate cultural competence into the nursing curriculum, the aim of this proposed study was to determine which teaching method(s) is/are the best predictor(s) of cultural competence. Variables studied included teaching methods used in the curriculum and demographic variables and recent nursing graduates' perceived level of cultural competence. Specifically, the use of a stand-alone course, the use of integration of cultural concepts in the curriculum, and/or the use of a cultural immersion experience was examined. Demographic variables included age, sex, race/ethnicity, primary language spoken, length of time living in the U.S. and/or living outside of the U.S., nursing program location, public/private

institution, type of baccalaureate degree program (generic 4-year vs. accelerated/second-degree), additional baccalaureate degrees and focus, number of months practicing, and participation in an orientation/residency program in clinical practice. The theoretical framework used to guide this study is Campinha-Bacote's model "The Process of Cultural Competence in the Delivery of Healthcare Services (2007b)." Participants were nurses who graduated from a baccalaureate degree nursing program in the U.S. accredited by the CCNE or ACEN/NLN within one year at the time of data collection for this study. The participants were asked in a survey format to provide information about the teaching methods used in their curriculum to learn cultural concepts. An adapted version of Robert Like's tool titled the Clinical Cultural Competency Questionnaire (CCCQ) (2004) was used to measure participants' perceived level of cultural competence. The permission letter to use the CCCQ (2004) is found in Appendix A and a copy of the adapted version of the CCCQ (2004) is found in Appendix B. An associated contact information form is found in Appendix C.

Conceptual Definitions

The conceptual definitions for this study include the following:

Cultural Competence

The conscious and continuous effort on the part of the recent nursing graduate to work effectively with clients, individuals, families, and communities within the appropriate cultural context.

Cultural Concepts

Any idea or notion related to the beliefs, customs, or practices of a particular group of people.

Stand-Alone Course

A course in the nursing curriculum that focuses solely on the teaching of cultural concepts as it relates to providing culturally competent health care.

Integration of Cultural Concepts

A method of teaching cultural concepts in the nursing curriculum that involves threading cultural concepts throughout the curriculum.

Cultural Immersion Experience

An experience offered to students in the nursing curriculum, which requires them to become immersed in another culture for a minimum of 2 credit hours in a semester. The federal definition of a credit hour is as follows: "not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class student work for approximately 15 weeks for one semester or trimester…or the equivalent amount of work over a different amount of time" (Southern Association of Colleges and Schools, 2012, p. 1). Therefore, 2 credit hours would allow for a minimum of two hours of classroom or direct faculty instruction and four hours out of class student work per week for 15 weeks or an equivalent of this over a different time period. This ensures consistent interaction with members of another culture during the instruction period.

In addition, Campinha-Bacote's (2006) constructs are defined as follows: (1) cultural awareness: the continuous self-examination of one's own biases and stereotypes toward other cultures within the context of one's own cultural values, customs, and beliefs; (2) cultural skill: the ability to communicate, collect assessment data, and care for a client within the context of the client's cultural values, customs, and beliefs; (3) cultural knowledge: the attainment of specific knowledge about values, customs, and beliefs that can be transferred into education and practice; (4) cultural encounters: the opportunity to engage in interactions and provide care to clients from culturally diverse backgrounds; and (5) cultural desire: the aspiration of the nursing student to engage in cultural interaction and remain conscious of one's own and others' cultural characteristics.

Operational Definitions

Demographic Data

This includes information on age, sex, race/ethnicity, primary language spoken, living outside of the U.S., number of years lived in U.S., location of nursing program, type of institution, type of degree program, additional degrees and focus, number of months at practice, and participation in orientation/residency program.

Stand-Alone Course

A required entire course on cultural concepts in the curriculum and the number of credit hours it was worth if included.

Integration of Cultural Concepts

The inclusion of cultural concepts throughout the curriculum and the degree of integration as measured by a stated percentage.

Cultural Immersion Experience

The inclusion of a cultural immersion experience in the curriculum, the number of credit hours, and the number of hours per week spent on this experience.

Perceived Level of Cultural Competence

The participant's perceived level of cultural competence as measured on the CCCQ (2004). Total scores are averaged, with higher scores indicating a higher perceived level of cultural competence.

Research Questions

The research questions for this study are as follows:

(1) Does a stand-alone course on cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by the CCNE or ACEN/NLN in the United States?

(2) Does the integration of cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

(3) Does a formal cultural immersion experience in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

(4) Which variable(s) best predict perceived level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

Summary

Despite recent efforts to reduce health care disparities, it is evident they still exist (Agency for Healthcare Research and Quality, 2012). The health care needs of culturally diverse populations will be more easily identified if the nurse is culturally competent, and cultural competence among nurses can potentially assist in reducing and eliminating health care disparities, resulting in positive health outcomes (Agency for Healthcare Research and Quality, 2012). Findings from this study have the potential to provide information on the most effective methods of teaching cultural concepts to nursing students. The exploration of teaching methods used in a curriculum and identification of those that best promote cultural competence can assist in guiding nursing faculty in curriculum planning relating to teaching cultural concepts.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

Introduction

This chapter provides a review of previously conducted studies related to the purpose and research questions for this study and includes the following: (a) background on cultural competence; (b) demographics; (c) studies related to cultural competence in health care; (d) studies using Campinha-Bacote's model; (e) studies related to cultural competence in the nursing curriculum; and (f) summary.

Sources accessed for this literature review include CINAHL, PubMed, Academic Search Premier, and various professional websites. Textbooks were also referenced in order to complete this literature review.

Background on Cultural Competence

The AACN is an accrediting organization that serves to establish quality standards for nursing programs and assists educational institutions in implementing these standards (AACN, 2011). This accrediting body set forth essentials for the baccalaureate undergraduate nursing curriculum, and placed emphasis on the preparation of baccalaureate-educated nurses to care for clients across the lifespan, with special attention being paid to changing demographics. Diversity in terms of ethnic and cultural background among health care consumers in the United States is increasing significantly due to the rise in minority populations over the past 10 years; therefore it is necessary to address cultural and spiritual diversity in the undergraduate baccalaureate nursing curriculum in order to prepare future nurses to meet the needs of health care consumers (AACN, 2011).

ACEN/NLN (2013) is a membership organization for nurse faculty and leaders in nursing education. ACEN/NLN also serves as an accrediting body for various baccalaureate degree nursing programs throughout the United States. The NLN's Diversity Toolkit serves as a guide, providing evidence-based exemplary practices to inform diversity within their schools of nursing

(NLN, 2009). According to ACEN/NLN (2009), given the persistence of health care disparities, cultural competence inadequacies, and extraordinary demographic changes in student and patient populations, the case for increasing diversity awareness in nursing education has never been stronger.

Definitions of cultural competence were located in the literature and these definitions included similar concepts. According to Campinha-Bacote (2007b), cultural competence is defined as "the process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of a client, individual, family or community" (p. 15). Leininger (2002) defined cultural competence as an ongoing process with a goal of achieving the ability to work effectively with culturally diverse persons, and additionally, to care for these individuals with a keen awareness of diversity, a strong knowledge base and skills in transcultural nursing, and especially a strong personal and professional respect for others from various cultures. Lohmeier (2008) defined culture as a person's "attitudes and beliefs" (p. 484). According to Maier-Lorentz (2008), nurses are challenged to care for an ever-increasing multicultural population. Individualized and holistic client care that addresses beliefs, customs, and practices must be instituted in the health care field in order to ensure satisfaction and positive outcomes. Nurses are in direct and constant contact with clients and formulate plans of care that address individualized needs and goals. This places nurses in a prime position to ensure implementation of culturally competent health care. According to Maier-Lorentz (2008), the best and most feasible way to do this is to increase awareness of cultural differences and become knowledgeable about the cultural preferences of their clients under care.

Demographics

Weeks (2008) emphasized the importance of demography, and stated, "as population size and composition changes in an area—whether it be a growth or decline—people have to adjust, and from those adjustments radiate innumerable alterations to the way society operates" (p. 5). Additionally, this author spoke about the concept of globalization, which has enabled people to be

connected throughout the world. Globalization has allowed increased immigration to the U.S., which calls for adaptability in the health care field. Health care professionals are expected to care for people of many different cultural backgrounds.

According to Lowe and Archibald (2008), there is one international migrant every 27 seconds. The U.S. Census Bureau (2010) identified five specific race categories, which include White, Black or African American, American Indian or Alaskan Native, Asian, and Native Hawaiian or other Pacific Islander (p. 2). The U.S. Census Bureau (2010) noted between the years 2000 and 2010, the Asian population increased by 43.3%; the Hispanic population grew by 43%; the Native Hawaiian and other Pacific Islander population increased by 35.4%; the American Indian or Alaskan Native population increased by 18.4%; and the African American population increased by 12.3%. These groups, while they are still considered minority groups, are markedly increasing in the U.S; therefore facilitating accessibility to health care for minority groups is necessary. Health care providers, specifically nurses, will be better able to initiate policy change to increase accessibility if they are more knowledgeable in cultural concepts (Stanley & Dougherty, 2010). Adequate preparation among nurses, nursing faculty, and nursing students will aid in accessibility to health care among minority populations that can lead to health care equity.

Weeks (2008) indicated accessibility to health care is an ongoing issue in the U.S., particularly for people of a minority group. Furthermore, this author noted decreased accessibility to health care is also commonly seen with lower levels of education, occupation, and income, and ultimately leads to higher death rates. For example, African Americans and Native Americans are two groups that have been historically marginalized, and consequently experience higher-than-average death rates (Weeks, 2008).

Turner (2008) conducted a survey, which examined the number of visits to health care professionals according to selected characteristics. In addition to age and sex, race was a variable considered in the study. In the year 2008, the American Indian or Alaska Native and the Asian

populations reflected the highest percentage of no visits to a health care professional in a 12-month period. Increasing the ability of health care professionals to care for people of various cultures can significantly decrease health disparities in the U.S.

The National Center for Cultural Competence (2010) is an organization affiliated with Georgetown University that seeks to "address growing diversity, persistent disparities, and to promote health and mental health equity" (http://nccc.georgetown.edu). This organization set forth the following goals pertaining to the health care field: (a) responding to current and projected demographic changes in the U.S.; (b) eliminating long-standing disparities in the health status of people of diverse racial, ethnic, and cultural backgrounds; (c) improving the quality of services and outcomes; (d) meeting legislative, regulatory, and accreditation mandates; (e) gaining a competitive edge in the market place and raising awareness of cultural disparities; and (f) decreasing the likelihood of liability–malpractice claims. Consequently, nurses, nursing faculty, and nursing students need to focus on preparing adequately to address the consumers' needs and attain such goals.

The Medical Expenditure Panel Survey (MEPS) research findings showed limited English-proficiency Hispanics were more likely to have inadequate access to health care (MEPS, 2004, p. ii). It is among minority populations that this research finding remains consistent. The American Nurses Association's (ANA) Position Statement on Ethics and Human Rights noted human beings deserve quality health care service that is accessible, affordable and equitable (ANA, 2012, p. 8). Furthermore, nurses need to reach out to members of these disparate cultures to provide basic health care and health education; thus, teaching concepts specifically related to cultural competence in the baccalaureate degree nursing program is critical (Callen & Lee, 2009; Campinha-Bacote, 2008; Carpenter & Garcia, 2012; Doutrich & Storey, 2004; Kardong-Edgren, et al., 2010; Lowe & Archibald, 2009; Maier-Lorentz, 2008; Martino Maze, 2005; Siegrist, 2004; Xu, 2001).

Studies Related to Cultural Competence in Health Care

Campinha-Bacote (2007b) spoke about "building the case for cultural competence in health care delivery" (p. 10). She cited the following reasons "why cultural competence is needed in health care:

(1) Responding to current and projected demographic changes in the U.S.;

(2) Eliminating long-standing disparities in the health status of people of diverse racial, ethnic, and cultural backgrounds;

(3) Improving the quality of services and outcomes;

(4) Meeting legislative, regulatory, and accreditation mandates;

(5) Gaining a competitive edge in the marketplace; and

(6) Decreasing the likelihood of liability/malpractice claims" (p. 10)

This author spoke further about specific examples of health care disparities among minority populations, such as minorities being less likely to receive dialysis, receive appropriate diagnostic tests and treatments, and more likely to receive less desirable procedures (Campinha-Bacote, 2007b). It is a duty of health care professionals to recognize these issues and become change agents for the greater good of society as a whole.

Doutrich and Storey (2004) highlighted the importance of public health nursing in addressing the culturally diverse needs of the U.S. population. Nurses must recognize the process of becoming culturally competent, and strive to continually improve in this area of practice. These authors indicated nursing students need to be guided in this effort, and opportunities need to be provided to allow time to discuss and reflect on their experiences so students can understand more fully the meaning of the experience. This will allow heightened awareness of diverse cultural needs and for decreased health care disparities.

Evans, et al. (2012) indicated ethnic and cultural differences influence patterns of advanced disease, illness experiences, health care-seeking behavior, and the use of health care services. Research has shown people with similar socioeconomic backgrounds, language ability,

and health care needs receive different treatment, resulting in health care disparities. Mareno and Hart (2014) asserted 80% of licensed registered nurses in the U.S. are non-Hispanic whites, which indicates underrepresentation of Hispanic, Black, American Indian, and Alaska Native nurses, further compounding the complexity of the issue of health care disparities. This led to the focus of cultural competence in health care education. There is little evidence showing current approaches are making any real difference in patient outcomes, and there is need for further research in this area (Evans, et al., 2012; Brach, 2000; Betancourt, 2010). However, with the ever-changing needs of the current population, and with evidence of increased health care disparities, the area of cultural competence in health education is the first step in linking increased cultural competence to better patient outcomes (Riley, Smyer, & York, 2012). Betancourt (2010) maintained cultural competence as an essential building block of clinical care, and regards it as a skill that is central to quality health care as well as professionalism. If health care is delivered in a culturally competent manner in a way that is understood by the client, there will be an increase in compliance to prescribed treatment options, potentially leading to positive health outcomes and decreased health care disparities.

According to Kirk, et al. (2014), it is the responsibility of the health care provider to provide preventive care whenever possible. This type of care results in better health for the client as well as decreased health-related costs (Betancourt, 2006). If a health care provider is aware of a person's predispositions to disease as it relates to their cultural or ethnic background, they will be better able to provide the teaching related to healthy lifestyle habits and relevant testing in an effort to prevent health issues or treat them early on (Kirk et al., 2014).

Kirk et al. (2014) stated minority Americans had a higher prevalence of preventable and treatable disease. These researchers conducted a study on minority Americans and their perception of health care provider attention to cultural needs and evaluated the relationship between survey responses and the hemoglobin A1C level in patients with diabetes mellitus. It was noted that health care providers were more likely to discuss the use of insulin with those with

uncontrolled diabetes only. Additionally, diet and food preparation was not discussed regularly, which is a staple in both culture and management of diabetes mellitus.

Liu, et al. (2008) used Bernal and Froman's Cultural Self-Efficacy Scale (CSES) to examine the level of cultural self-efficacy among graduating baccalaureate level nursing students. The researchers found the subjects of the study had increased cultural self-efficacy when compared with previous studies done. The researchers asserted this change is due to increased exposure to cultural concepts and ethnically diverse populations. These researchers did not find demographic data had any impact on the student's perceived cultural self-efficacy. Finally, these researchers emphasized the importance of nurse educators to continue to incorporate cultural concepts in the nursing curriculum.

Lowe and Archibald (2009) conducted a study addressing nursing as a profession that pays close attention to cultural diversity. These authors claimed progress in the area of cultural diversity is slow and episodic, and state: "The intention of nursing being a discipline that embraces, integrates, and permeates cultural diversity is continually challenged and evaluated" (p. 12). As the U.S. anticipates a rapid growth in minority and ethnic populations, nursing will need to know how to care for these culturally diverse populations. These authors suggested nursing curricula planning needs to go beyond portrayal of cultural competence as awareness; nurses need to be provided with the opportunity to develop cultural competence through assessment and intervention in the clinical arena.

Ndiwane, et al. (2004) spoke about the importance of adapting to the current demographic changes. These authors discussed the implementation of a systematic plan used to integrate cultural concepts in the curriculum so as to enhance practice after graduation for the multifaceted needs of the emerging population. The authors stated the incorporation of specialty courses with regard to cultural competence was of utmost importance when addressing the current health care trends.

Xu (2001) cited 14 federal standards that address culturally and linguistically appropriate services (CLAS), and pointed out the implications of these standards for the profession of nursing. Standards 1 through 3, which address culturally competent care, are of particular importance to nursing. According to Xu (2001), providing culturally competent care may act as an appropriate "response to the changing American demographics, but also as a mechanism for closing, and eventually eliminating, racial and ethnic disparities in health care" (p. 241).

Studies Using Campinha-Bacote's Model

Knowledge about the method(s) used in nursing curriculums (stand-alone course, integration, cultural immersion experiences) for teaching cultural concepts is limited. However, several studies assessed teaching cultural concepts in the nursing curriculum using Campinha-Bacote's model (Campinha-Bacote, 2007b).

Studies Dating Between 2007 and 2014

Many researchers used Campinha-Bacote's model to evaluate a course focused on teaching and learning of cultural competence. Some researchers found an educational experience based around Campinha-Bacote's constructs greatly influence student's successful learning of cultural concepts, further increasing cultural competence that can be carried through to future practice (Ackerman-Barger, 2010; Adams, 2010; Buscemi, 2011; Campinha-Bacote, 2011; Chen, McAdams-Jones, Tay, & Packer, 2012; Graham & Norman, 2008; Hawala-Druy & Hill, 2012; Hayward & Charette, 2012; Hunter & Krantz, 2010; Ingram, 2012; Munoz, DoBoka, & Mohammad, 2009; Nickitas, 2007; Rutledge, Barham, Wiles, & Benjamin, 2008; Zoucha & Broome, 2008).

Other researchers looked at nursing curricula and methods used to implement cultural concepts based on Campinha-Bacote's model (Gebru, Khalaf, & Willman, 2008; Liu, Mao, & Barnes-Willis, 2008; McKinnon & Fealy, 2011; Momeni, Jirwe, & Emami, 2008; Rutledge, et al., 2008; Underwood, 2006). These researchers noted methods such as study abroad experiences, clinical experiences, stand-alone cultural courses, and threaded cultural concepts throughout the

nursing curriculum are being used. Furthermore, other studies focused on faculty preparedness in teaching cultural concepts in terms of Campinha-Bacote's model, and found faculty were more prepared to teach students concepts of cultural competence after having been exposed to this model (McKinnon & Fealy, 2011; Mixer, 2008; Underwood, 2006; Wilson, Sanner, & McAllister, 2010). The literature also indicated integration of ideas of many cultural theorists enhanced teaching of cultural concepts in the curriculum (Chen, et al., 2012; Hayward & Charette, 2012; Mahabeer, 2009; Wikberg & Eriksson, 2008). Finally, it is noted that the implementation of cultural competence in nursing practice using Campinha-Bacote's framework has promoted individualized client-care (Doody & Doody, 2012; Jirwe, Gerrish, & Emami, 2009; Leever, 2011).

Studies Dating Before 2007

Many of these studies focused on the importance of implementing cultural competence in nursing practice in order to decrease and potentially eliminate racial and ethnic disparities, and these studies recognized Campinha-Bacote's model as an effective means of accomplishing this task (Braithwaite & Majumdar, 2006; Campinha-Bacote, 2002; Campinha-Bacote, 2003; Cutilli, 2006; Gray & Thomas, 2005; Thompson-Robinson, Reininger, Sellers, Saunders, Davis, & Ureda, 2006). Other researchers emphasized the importance of nurse educators, researchers, and practitioners being culturally competent and the relevance of an established theoretical model in achieving this feat (Jirwe, et al., 2009; Koskinen & Tossavainen, 2003; Labun, 2001; Luquis & Perez, 2006; Ndiwane, et al., 2004). One research study focused on the importance of study abroad experiences in promoting cultural competence (Nokes, K. M., Nickitas, D. M., Keida, R., & Neville, S., 2005). Campinha-Bacote's model (2007b) served as the guiding theoretical framework for these studies. The model's constructs are central to achievement of cultural competence for the recent nursing graduate, which is in congruence with the aim of this study.

Some general limitations noted among research findings included in this literature review are: (a) a small sample size (many studies were conducted in one college/university); (b) lack of

control groups (many studies tested a teaching method among one group of students); (c) limited control over data collection (some studies observed students over a 4-year period and ensuring study participation over this period was difficult); and (d) use of newly-created instruments (reliability cannot be ensured).

Campinha-Bacote's model (2011) is a validated model and is useful for nursing as a profession because it acts as a guide in the implementation and evaluation of cultural concepts in the nursing curriculum and practice (Mareno & Hart, 2014). A helpful and successful guide for teaching and learning cultural competence is necessary in order to determine the effectiveness of student learning. As noted, many studies using this model showed this model was effective in guiding teaching and learning methods; these studies also indicate the need for further research in the use of this model.

Studies Related to Cultural Competence in the Nursing Curriculum

The AACN (2008) and ACEN/NLN (2009) emphasized the importance of integrating cultural concepts in the nursing curriculum to support the development of client-centered care, a concept addressing difference in clients' values and preferences. Cultural competence can also decrease issues of racism and discrimination according to the AACN (2008), but currently there is little to no research to address these issues. Addressing these issues will aid in eliminating racial and ethnic disparities. The AACN described social justice as a just share of the benefits of society and fair treatment, accentuating social justice and globalization as important aspects to be addressed in the undergraduate curriculum to foster the development of cultural competence.

Faculty readiness to teach cultural concepts in the curriculum is an area in need of further research as it pertains to nursing students' and graduates' success in becoming culturally competent**.** Sealey, Burnett, and Johnson (2006) explored the idea of nursing faculty readiness to teach cultural competence. In the process of developing cultural competence, these researchers found nurse faculty reported most difficulty in working with clients who speak a different language. According to Campinha-Bacote's model (2011), this language barrier poses an obstacle

to success in the cultural encounters aspect. A total of 313 faculty members in Louisiana were included in the study. A common theme noted was faculty felt as though lack of actual experience with culturally diverse populations was a barrier to student learning. Increased awareness, recognition of personal biases, and the ability to use and understand different communication patterns were evident in this study as being integral to the development of cultural competence. Finally, the findings of this study indicated cultural awareness is the first step in the attainment of cultural competence.

In addition to faculty readiness to teach cultural concepts, faculty also need to be prepared to design a curriculum that adequately addresses cultural competence. Campinha-Bacote (2006) emphasized the importance of instituting a curriculum that incorporates attitudes, skills, and knowledge with regard to caring for members of another culture. A standardized curriculum and a reliable method of evaluation ensure culture is adequately addressed and effort should be made on the part of the faculty members to standardize the incorporation of cultural competence in the curriculum. Members employed in academia must recognize the attainment of cultural competence as an ongoing process that requires continual adaptation to address the needs of the health care population.

Martino Maze (2005) acknowledged the existence of health disparities and the challenges presented in caring for both advantaged and disadvantaged individuals. This author purported implementation of multicultural principles that identify prejudices and intolerance for marginalized groups in the nursing curricula increases nurses' willingness to care for this population. This author indicated prejudice and discrimination are evident, and have adversely affected health care in the U.S. Additionally, the author remarked nurses are accountable for the care they provide each client, and inadequate provision of care as a result of prejudice or discrimination based on cultural differences may place the nurse at risk for client abandonment or negligence, which may ultimately result in disciplinary action. The nurse must be prepared to care for any person regardless of cultural preferences and beliefs or any other personal objections.

Jeffreys et al. (2007) suggested the expanding growth of minority populations requires nurses to care for clients that are "culturally different." These researchers stated there is little evidence in the literature with regard to effective teaching strategies specific to cultural competence, and identified this as a barrier to teaching transcultural nursing. These researchers noted another barrier is the availability of qualified faculty members. Students are major stakeholders in education, and so the learning needs of the students are extremely important in implementing appropriate teaching strategies. Since nursing students are adult learners, faculty must present the development of cultural competence in a way that is relevant and captures the student's interest. The researchers also suggested evaluation of cultural competence must be done in a way that addresses the cognitive, practical, and affective learning domains and used surveys to ask students questions about their experiences with regard to each learning domain.

Kratzke and Bertolo (2013) claimed it is not sufficient to teach cultural knowledge or language proficiency; students must learn to examine their own cultural knowledge, values, and beliefs to enhance their cultural competence (p. 107). These authors conducted a descriptive qualitative study on community health students' perceptions of their cultural competence after an experiential learning exercise. The sample included eight Hispanic, one White, and two American Indian students. The experiential learning exercise being studied required students to embody the role of a person of another culture. After the exercise was complete, students were required to write a reflection of the exercise and participate in a debriefing session. Content analysis was conducted and three themes emerged, including cultural knowledge and cultural awareness; observation and learning; and cross-cultural communication. The first theme involved understanding of the new cultures' values, traditions, and beliefs before interaction with the group. Students recognized having this understanding prior to interaction was important. The second theme involved learning that listening is an essential skill in understanding another culture's behavioral patterns. This theme also involved student acknowledgement of the importance of nonverbal communication as part of observation. The third theme involved the

importance of using a relatable health care professional in cross-cultural communication to ease in effective communication.

Kardong-Edgren, et al. (2010) noted current methods of implementing cultural concepts in the baccalaureate degree nursing curriculum include service learning projects, cultural immersion abroad, cultural immersion within other cultures at home (where the student is currently living), and free-standing cultural courses. Examining the achievement of program outcomes, this study investigated methods of implementation and evaluation of cultural competence in six undergraduate baccalaureate degree nursing programs. The researchers used a post-test only design to evaluate the graduates of each of the six programs.

In this study by Kardong-Edgren, et al. (2010), the first program examined used a stand-alone nursing course; the second program integrated cultural competence as a thread throughout several nursing courses; the third program executed a structured curriculum that built upon previous learned cultural concepts; the fourth program informally threaded cultural concepts throughout both the core curriculum and the nursing curriculum; the fifth program incorporated cultural concepts in the clinical courses and the community health course; and the sixth program required a 2-credit cultural nursing course. The students in programs that utilized integration of cultural concepts throughout the curriculum tended to score better than those using other methods of implementing cultural concepts on the Inventory for Assessing the Process of Cultural Competence-Revised® (IAPCC-R) (a 25-item tool that uses a four-point Likert scale to answer questions for Campinha-Bacote's five constructs [awareness, skill, knowledge, encounters, and desire]). It was noted that previous exposure to cultural content varied among the programs; this was seen as a limitation of the study. Additionally, this study suggested no approach seems to be superior; noteworthy, however, is the consistent attainment of cultural awareness among the students in all programs. This suggested this level of attainment seems to be a realistic goal for nursing graduates.

Additionally, Kardong-Edgren and Campinha-Bacote (2008) conducted a study on the effectiveness of four different nursing program curricula in developing culturally competent graduates (212 graduates were included in the study). The IAPCC-R was used after completion of course work and prior to graduation. Implementation methods included the use of Campinha-Bacote's model and other models; an integrated approach with no specific model; and a free-standing course taught by nursing faculty with strong preparation in cultural concepts. Students scored within the culturally aware range of Campinha-Bacote's model. From this study, a revised assessment tool, known as the IAPCC-SV® was developed.

Research studies noted in the literature pertaining to the variables of this study are noted below, and include studies on (a) stand-alone course on culture; (b) integration of cultural concepts in the curriculum; (c) cultural immersion experience; and (d) other teaching methods.

Stand-Alone Course on Culture

In addition to the research conducted by Kardong-Edgren and Campinha-Bacote (2007) as it pertains to a stand-alone cultural course, Hall-Long (2004) proposed a project titled Partners in Action (PIA) meant to enhance student education and clinical experience. Twenty-six students and 20 public health staff participated over the course of 2 semesters. The objectives of the project included the following: (a) to increase the number of formal educational experiences in public health for baccalaureate nursing students; (b) to develop a model service-education partnership program between public health and nursing academia that is replicable, incorporates technology, and promotes core public health functions and population focused services; (c) to develop a system for monitoring the long-term effects of the PIA program on Bachelor of Science in Nursing (BSN) public health nursing clinical, the health of the community, workforce development, and staff/student/consumer satisfaction. Students reported great satisfaction with the use of PIA in the undergraduate nursing curriculum. Satisfaction was measured with formative and summative means. Student journal remarks were specifically used to interpret student satisfaction with the project.

Integration of Cultural Concepts in the Curriculum

Cuellar, Brennan, Vito, and de Leon Siantz (2008) investigated cultural competence in the undergraduate nursing curriculum. These researchers proposed a framework to be used to integrate cultural competence into the undergraduate nursing curriculum, referred to as the *Blueprint for Integration of Cultural Competence in the Curriculum (BICCC)*. The researchers acknowledged it is difficult to add more information into an already occupied curriculum; therefore, their framework was meant to assist faculty in incorporating cultural concepts throughout the four levels of the baccalaureate degree program. According to their framework, the first year of the program focused on the development of the foundation of knowledge with regard to cultural competence; the second year focused on the application of concepts of culture; the third year focused on the analysis and implications of health in individuals in various settings; and the last year of the program focused on analysis and synthesis of cognitive, psychomotor, and affective skills of cultural concepts.

Sumpter and Carthon (2011) conducted a study on the integration of cultural competence in the nursing curriculum and sought to determine the student's perceptions in this regard as well as what recommendations students had for improvement in the curriculum. Three major themes emerged, including broadening definitions, integrating cultural competence, and missed opportunities. Participants thought the definition of cultural competence was overused and lacked clarity, contextual meaning and depth, and also thought clarification of the meaning of cultural competence was needed. Students also shared concerns about their ability to integrate cultural competence into research and practice. Finally, the last theme indicated students felt faculty may have missed many opportunities to create a teaching experience related to cultural competence, such as not integrating cultural concepts while caring for a client of another culture during clinical. Overall, the researchers noted careful attention and review of the implementation and evaluation methods of cultural competence in the nursing curriculum is essential.

Cultural Immersion Experience

Axtell, Avery, and Westra (2010) conducted a research study on the incorporation of cultural concepts in graduate nursing curricula through community-university collaboration. Community-university collaboration has been used in baccalaureate level curricula as well. This research article centered on eliminating health disparities by increasing cultural competence in health professionals and health professions students. Nursing educators used a variety of strategies to enable effective teaching and learning of cultural concepts, including whole courses with a cultural competence focus, projects within a broader course, immersion programs, and Web-based courses, or a combination of these strategies.

In implementation of cultural concepts in the curriculum, a specific strategy was tested during the study conducted by Axtell, et al. (2010). There were five committees formed and each focused on a different aspect of culture and nursing, such as culture and health and gender and health. In designing the project, committee members focused on achieving competencies in the following domains: (a) self-awareness; (b) basic knowledge of culture and identity; (c) attitudes that promote intercultural communication; (d) cross-cultural skills; and (e) advocacy skills. The teaching strategies that were used include self-reflection, sharing stories of health and illness, practice of cross-cultural skills, and learning from communities. The authors concluded the university and community partnership was a valuable experience for faculty and students in their pursuit of becoming culturally competent, and offered unique opportunities to learn about the relationship between culture, health, and health care.

Callen and Lee (2009) conducted a study that used a program titled "Ready for the World" and primarily used the local community as a learning environment. Students (a total sample size of 115 students) worked on the university campus, in the local community with vulnerable populations, in the Appalachian Mountains, and then went to Central America to work with members of a third-world country. The authors assert the knowledge gained during these experiences would help them in future practice. These authors found that, while these experiences

were excellent learning opportunities for students, it was difficult to find qualified and willing faculty members to accompany students on the trip, especially during university break times. When the trips were made possible, however, the students were able to combine real-world experience with cultural learning taught in the classroom, and would be able to carry over these experiences to other future work places.

Boostrom and Siewert (2009) purported that, in terms of behavioral outcomes, service learning provided an effective means of combining service and learning objectives in order to change both the recipient and the provider of the service. These authors did not specify a sample size, which may indicate a limitation of the study. Additionally, Dean and Fernandez (2009) studied cultural competence on hands-on service learning experience for students in an undergraduate nursing curriculum. The study included 200 college students. A 5-week program was offered to students, which allowed them to travel to Mexico and work with the native Mexican population. Native Mexican citizens also taught Spanish to the students, and students were able to work with and live immersed in Mexican culture. After the program finished, students completed a survey that asked about confidence in cultural competence. The results of the survey showed most students rate themselves with a high degree of cultural competence. A limitation of this study was availability of time and human resources for coordination of meetings and scheduling in order to prepare for the trip, which were necessary to facilitate this learning opportunity.

Clevenger (2009) stated service learning is grounded in the belief that students learn more by taking action. Service learning offers a transformational experience for the students, faculty, and the community involved. The author concluded service learning offers an opportunity for students to be involved in active learning, real life situations and experiences, and learning becomes deeper and transformational.

Harrowing, Gregory, O'Sullivan, Lee, and Doolittle (2012) conducted an analysis of students' cultural immersion experiences. Cultural perspectives of students were described prior

to, during, and after a field study in Malawi. Data were collected at three time points, and students were asked to write narrative essays regarding their perspectives and understanding of culture. These authors found that at the initial time point, students' narratives were informed by an essentialist understanding of culture. At later time points, varying degrees moving towards more constructivist viewpoints were noted. Ultimately the researchers found that students experienced existential growth through immersion but their understanding of the culture did not change with brief exposure to a different cultural context.

Kemppainen, Kim-Godwin, Mechling, Kanematsu, and Kikuchi (2012) advocated for the use of international collaboration among teaching institutions in the promotion of cultural competence among students and faculty. The use of videoconferencing was used at the University of North Carolina Wilmington. Nursing students and faculty participated in a videoconference series consisting of two to four sessions where an exchange would take place regarding nursing practice issues, student life, and education in respective countries. The sessions were described by those involved as "enriching, eye-opening, and a once-in-a-lifetime experience." The participants found this to be educational and helpful in promoting cultural competence.

Larson, Ott, and Miles (2010) stated, despite population-focused health care interventions, health care disparities continue to exist at an alarming rate. The authors proposed the use of cultural immersion as a means to prepare nursing students for the rectification of these disparities. Through real-life reflections, students revealed a larger context and worldview of culture, and felt they were better prepared to address the current health care issues they would be faced with post-graduation. These researchers also noted cultural immersion programs should be valued and taken advantage of by faculty members in order to allow flexibility in nursing curricula for students to take part in these experiences. A limitation of this study is that it was performed in one university and data used was from self-reports of respondents.

Wright (2010) asserted nurse educators must remain cognizant of the effects of globalization when planning for curriculum revision. Study abroad programs were an effective

way to ensure the incorporation of concepts that prepare the students for the changes globalization has brought; but many programs lack this opportunity. These authors emphasized the importance of programs offering study abroad programs, and also the importance for faculty members to be prepared to facilitate these programs as their significance in enhancing culture competence is paramount. This author concluded, "students who have participated in our study abroad program recognized they were looking at another culture through their own cultural lenses" (p. 286).

Other Teaching Methods

Kratzke and Bertolo (2013) claimed it is not sufficient to teach cultural knowledge or language proficiency; students must learn to examine their own cultural knowledge, values, and beliefs to enhance their cultural competence (p. 107). These authors conducted a descriptive qualitative study on community health students' perceptions of their cultural competence after an experiential learning exercise. The sample included eight Hispanic, one White, and two American Indian students. The experiential learning exercise being studied required students to embody the role of a person of another culture. After the exercise was complete, students were required to write a reflection of the exercise and participate in a debriefing session. Content analysis was conducted and three themes emerged, including cultural knowledge and cultural awareness; observation and learning; and cross-cultural communication. The first theme involved understanding of the new cultures' values, traditions, and beliefs before interaction with the group. Students recognized having this understanding prior to interaction was important. The second theme involved learning that listening is an essential skill in understanding another culture's behavioral patterns. This theme also involved student acknowledgement of the importance of nonverbal communication as part of observation. The third theme involved the importance of using a relatable health care professional in cross-cultural communication to ease in effective communication.

Rutledge, et al. (2008) conducted a study to evaluate a teaching method specific to cultural diversity. Cultural case studies were developed using focus groups and individualized interviews, and students were required to provide hands-on care to a simulated mannequin using these cases. The encounters were videotaped, and debriefing sessions were done. This allowed students the opportunity to explore their interaction in a relatively safe environment. The researchers concluded this format allowed students and instructors to overcome many of the barriers that are apparent in cultural education, such as bias. Students were able to make mistakes without compromising the safety of their clients with the use of this teaching method.

Siegrist (2004) presented a partnership model that involved a program with collaboration with public health departments, the academic nursing programs, and community agencies and leaders. Skill development and outcomes of this program included interdisciplinary teamwork, program development, and cultural competence skills. Additionally, this program provided development opportunities for faculty members. Adequate focus on public health was integral in addressing the health care needs of the emerging changes; therefore, theory in public health, interdisciplinary skills and experiences, and creative teaching strategies that bridge community-based clinical experiences with traditional public health nursing experiences needed to be developed for this program. At the end of the program, all students had planned clinical experiences in public health nursing, which addressed the need for incorporation of cultural competence in the curriculum.

Stanley and Dougherty (2010) proposed a new model to address student learning needs. It focused on teaching via three concepts: the learner, the instructor, and outside learning modalities. Rather than focusing on behavioral outcomes, as traditional curriculums have, the focus was on a community-based model. Content included material related to genetics, bioterrorism, health policy, mass casualty response, cultural competence, and leadership. These researchers also addressed the changing of nursing education delivery and incorporated a focus on web-based learning. The main point of this study was to emphasize the fact that as the learning

needs of the students and health care needs of the population become more varied, the course material and delivery must adapt.

Summary

Studies found in the literature related to cultural competence in health care emphasized the need to use a systematic plan to integrate cultural concepts in the curriculum so as to enhance practice after graduation for the multifaceted needs of the emerging population (Campinha-Bacote, 2007b; Doutrich & Storey, 2004; Leininger, 2002; Liu, et al., 2008; Lohmeier, 2008; Lowe & Archibald, 2009; Maier-Lorentz, 2008; Ndiwane, et al., 2004; Xu, 2001). Armed with the knowledge of the best methods to promote cultural competence in the curriculum, faculty members can foster the transfer of learned material into practice after graduation.

Campinha-Bacote's model (2011) can be significant for nursing as a profession because it acts as a guide in the implementation and evaluation of cultural concepts in nursing schools and in practice. A helpful and successful guide for teaching and learning cultural competence is necessary in order to determine the effectiveness of student learning. As noted, some studies that used this model showed its effectiveness in guiding teaching and learning methods, but there is a need for further research using this model to validate current research findings.

Many overall themes were noted in the literature related to cultural competence in the curriculum. These themes are summarized as follows: the need to critically evaluate implementation and evaluation methods of cultural concepts in the curriculum (AACN, 2008; Campinha-Bacote, 2006; Jeffreys et al., 2007; Kardong-Edgren & Campinha-Bacote, 2008; Kardong-Edgren et al., 2010; Kratzke & Bertolo, 2013; Martino Maze, 2005; NLN, 2009), use of a stand-alone course on culture in the curriculum (Hall-Long, 2004; Kardong-Edgren & Campinha-Bacote, 2008), integration of cultural concepts throughout the curriculum (Cuellar et al., 2008; Kardong-Edgren & Campinha-Bacote, 2008; Sumpter & Carthon, 2011), use of service learning projects and cultural immersion projects to increase cultural competence (Axtell et al., 2010; Boostrom & Siewert, 2009; Callen & Lee, 2009; Clevenger, 2009; Harrowing et al., 2012;

Kardong-Edgren & Campinha-Bacote, 2008; Kemppainen et al., 2012; Larson et al., 2010; Wright, 2010), lack of qualified faculty members to teach cultural concepts (Campinha-Bacote, 2011; Sealey et al., 2006), and the need for course material to adapt to the changing learning needs of students, and international collaboration among teaching institutions to teach cultural competence (Kratzke & Bertolo, 2013; Rutledge et al. 2008; Siegrest, 2004; Stanley & Dougherty, 2010). While the themes noted above are a starting point, further research is needed to determine the best ways to address cultural competence in the curriculum. The aim of this study addressed this knowledge gap by focusing on specific teaching methods and their ability to predict perceived level of cultural competence.

Given the current body of knowledge of cultural competence in the nursing curriculum, it is necessary to determine the most effective means of teaching cultural concepts in order to address the health care needs of current and evolving ethnic groups with a national sample. Since little is known about the most effective teaching methods, further research is needed. This study added to the body of nursing knowledge and findings have the potential to aid faculty members in formulating teaching methods that best foster cultural competence among nursing graduates, who are the future of nursing practice.

CHAPTER 3

CONCEPTUAL FRAMEWORK

Introduction

The theoretical framework that guided this study was Campinha-Bacote's model titled "The Process of Cultural Competence in the Delivery of Healthcare Service (2007b). This chapter describes Campinha-Bacote's theory and the framework used for this study and includes information about: (a) background on the theoretical framework; (b) theoretical constructs including cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire; and (c) description of the conceptual framework and model designed for this study.

Background on the Theoretical Framework

Campinha-Bacote has studied transcultural nursing extensively, and has contributed to the current body of nursing knowledge in areas of implementation and evaluation of cultural competence in the nursing curriculum. Campinha-Bacote (2007b) developed two conceptual models, "The Process of Cultural Competence in the Delivery of Health Care Service," and "A Biblically Based Model of Cultural Competence in the Delivery of Health Care." The former model focuses on the five constructs of awareness, skill, knowledge, encounters, and desire (ASKED®). The latter model assumes the Bible is the foundation for cultural competence. She developed several instruments based on her models (Campinha-Bacote, 2006).

According to Campinha-Bacote (2007a), cultural competence is defined as "the process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of a client, individual, family or community" (p. 15). Campinha-Bacote (2008) also notes research studies that demonstrate cultural competence is a vital component in health care delivery, and prevents the occurrence of negative outcomes.

Campinha-Bacote's model, "The Process of Cultural Competence in the Delivery of Health Care Services" "requires health care professionals to see themselves as *becoming* culturally competent rather than *being* culturally competent and involves the integration of

cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire" (Campinha-Bacote, 2007b, p. 15). Campinha-Bacote (2007b) feels achievement of cultural competence is a life-long journey, which is fluid and dynamic. Among her five constructs she cites desire as being the pivotal construct in her model. She also makes a case for differences and variation in cultural competence within as well as across cultural groups.

Campinha-Bacote (2006) advocates nurse educators pay special attention to how cultural competence is addressed in the nursing curriculum, and emphasizes the need to standardize cultural competence in nursing education in order to improve the institutional climate for diversity. The major constructs of Campinha-Bacote's (2006) model are discussed below.

Theoretical Constructs

Cultural Awareness

Cultural awareness is defined as "the deliberate self-examination and in-depth exploration of our personal biases, stereotypes, prejudices and assumptions that we hold about individuals who are different from us" (Campinha-Bacote, 2007b, p. 27). An important aspect of cultural awareness is the potential for cultural imposition, which is the tendency to impose upon others' cultures ones beliefs, values, and other patterns of behavior. In seeking cultural awareness, health care providers must be cognizant of cultural imposition in order to move toward achievement of cultural competence.

Cultural Skill

"Cultural skill is the ability to collect relevant cultural data regarding the client's presenting problem, as well as accurately performing a culturally based, physical assessment in a culturally sensitive manner" (Campinha-Bacote, 2007b, p. 49). This author notes the main reason to become proficient in cultural skill is "to obtain accurate information from the client that will allow the health care professional to diagnose the client's presenting problem and formulate a mutually acceptable and culturally relevant treatment plan" (p. 49). This author emphasizes six cultural phenomena that are evident in all cultural groups; these include communication, space,

social organization, time, environmental control, and biological variation (p. 52). Knowledge about the physical, biological, and physiological variations associated with various cultural groups is necessary in order to conduct an accurate and appropriate physical assessment. Campinha- Bacote (2007b) notes remaining cognizant and proficient in the six cultural phenomena also prevents possible misdiagnosis of the client's behavior (p. 68).

Cultural Knowledge

"Cultural knowledge is the process of seeking and obtaining a sound educational base about culturally diverse groups" (Campinha-Bacote, 2007b, p. 37). This author focuses on three major issues in the acquisition of cultural knowledge, including health-related beliefs, practices, and cultural values; disease incidence and prevalence; and treatment efficacy (p. 37). Recalling the various differences between cultural groups in the process of obtaining cultural knowledge is central to this construct. This author emphasizes the health care provider must remember cultures are constantly evolving, and it is never possible to be fully culturally competent; rather it is a continuous and ongoing process (p. 47).

Cultural Encounters

Cultural encounters are defined as "the act of directly interacting with clients from culturally diverse backgrounds" (Campinha-Bacote, 2007b, p. 71). Campinha-Bacote (2007b) also notes health care providers should treat every encounter with a client as a cultural encounter. "Health care professionals themselves can be viewed as a cultural group with unique values, beliefs, practices, and language" (p. 72). Successful cultural encounters require health literacy (the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions) and linguistic competence (the capacity of an organization and its personnel to communicate effectively, and convey information in a manner that is easily understood by diverse audiences) (pp. 72-75). The goal of cultural encounters is to continually apply skills for self-awareness and recognize the unique perspective each client brings to each encounter.

Cultural Desire

Cultural desire is defined by Campinha-Bacote (2007b) as "the motivation of the health care professional to 'want to' engage in the process of becoming culturally competent; not the 'have to'" (p. 21). This author emphasizes the importance of caring and love as being central to this construct, and points out recognition of differences and the building upon similarities allow the health care provider to provide "culturally responsive interventions" (p. 21). Campinha-Bacote (2007b) emphasizes the importance of sacrifice and social justice in the development of cultural desire and indicates sacrifice of one's prejudices and biases and the attainment of skills necessary to break down systems of practice that perpetuate inequities are central (p. 23). Furthermore, this author cites the term "cultural humility," which refers to "a life-long commitment to self-evaluation and self-critique, re-addressing the power imbalances in the client-health care professional relationship and developing mutually beneficial partnerships with communities on behalf of individuals and defined populations" (p. 26). Humility is therefore another inherent value that must be attained in the development of cultural desire and subsequently cultural competence. The building blocks of cultural desire are caring and love, sacrifice, social justice, humility, compassion and sacred encounters (p. 143).

Campinha-Bacote (2006) purports concepts of implementation, evaluation methods, and the faculty role must be continually addressed. As the attainment of cultural competence is an ongoing process, and since the health care needs are constantly changing based on changing demographics, it is necessary for curricular changes to take place to address these needs. Campinha-Bacote asks, "How do we effectively teach cultural competence in nursing education?" This is a question that has not been fully and adequately answered, and further research is needed in this area. Nursing faculty must continually strive to find an effective teaching standard, as well as attempt to develop a standardized curriculum that adequately addresses cultural competence (Campinha-Bacote, 2006).

Description of the Conceptual Framework and Model

The Expectations for Cultural Competence Model is the conceptual framework designed for this study and is based on the theoretical framework, The Process of Cultural Competence in the Delivery of Health Care Services (Campinha-Bacote, 2007b). In the theoretical framework, the five constructs of awareness, skill, knowledge, encounters, and desire are identified (Campinha-Bacote, 2007b). An assumption of the conceptual framework for this study is that self-perception of possession of the constructs represented in the theoretical framework is linked to cultural competence in recent nursing graduates. The methods addressing teaching of cultural competence guided by the theoretical framework are also represented in the conceptual framework. The aim of this study was to examine the relationship between teaching methods used in the nursing curriculum and recent nursing graduates' perceived level of cultural competence, specifically looking at which method best predicts cultural competence. The methods, specifically the use of a stand-alone course, the use of integration of cultural concepts in the curriculum, and the use of a cultural immersion experience was examined. Additionally, specified demographic information will be examined as predictors of cultural competence. The CCCQ (2004) was used to measure participants' perceived level of cultural competence (see Appendix B).

Appendix D is a pictorial representation of the conceptual framework for this study. In the center of the framework are the central constructs including awareness/knowledge, skill/ability, encounters/situations, and attitudes/desire. These central constructs surround cultural competence, the dependent variable, indicating possession of these constructs can influence cultural competence. There are arrows in a circular motion showing the interrelationship between these constructs. Surrounding the central constructs are the independent variables predicted to have an effect on perceived level of cultural competence, including demographics, stand-alone course on cultural concepts, integration of cultural concepts in the curriculum, and cultural immersion experience. There are dotted lines connecting each independent variable, showing a person can belong to one, two, three, or all of the categories. For example, a person can possess

certain demographic characteristics, as well as have taken a stand-alone course on culture and have cultural immersion experience, which affect their cultural awareness/knowledge, skill/ability, the encounters or situations they have had, and their attitude or desire to work with others of a different culture, subsequently affecting their perceived level of cultural competence.

CHAPTER 4

METHODOLOGY

Introduction

Details of the methodological techniques used to test the research questions for this study are described in this chapter. The following sections are included: (a) description of the research design; (b) study sample; (c) inclusion and exclusion criteria; (d) instrumentation; (e) data collection procedures; (f) data analysis methods; and (g) summary.

Description of the Research Design

A cross-sectional descriptive correlational study design was used for this study. Data were collected from recent nursing graduates within the first 12 months of graduation who completed a program that is accredited by CCNE or ACEN/NLN in the U.S. This design is appropriate when the researcher is not manipulating variables, and the purpose is to describe phenomena in real-life situations in order to generate new knowledge (Burns, et al., 2013). Additionally, this design allows for the collection of data and examination of relationships among variables at a fixed point in time, within the first 12 months of graduation (Polit & Beck, 2012). In addition to allowing for the exploration of the relationships among variables, this study design can determine each variable's predictive ability in terms of perceived level of cultural competence. A disadvantage is that this study design does not address causality, however, this study did intend to explore cause and effect.

This study was used to explore the relationship between the independent variables (stand-alone course, integration of cultural concepts, and cultural immersion experience) and the dependent variable (perceived level of cultural competence as measured by the CCCQ ([2004]). The relationship between selected demographic variables and the dependent variable was examined. Additionally, each of the variables was examined in terms of their predictive ability of perceived level of cultural competence. A survey method was used to collect data at one point in

time within 12 months of graduation. Once data were collected, descriptive, correlational, and regression analysis were run.

Study Sample

This study utilized a national sample. The target population was recent nursing graduates (graduated within 12 months at the time of implementation of this study) from programs accredited by the CCNE and ACEN/NLN in the U.S. Graduates from programs accredited by the CCNE and ACEN/NLN were chosen because these accrediting bodies have specifically set forth standards that programs must meet with regard to teaching cultural concepts in the curriculum.

Power refers to the ability of the study to detect differences or relationships that exist in a population (Burns, et al., 2013). Power analysis is a statistical test conducted to determine the minimum number of participants needed in order to achieve power. Power analysis was performed using G*Power 3.1, using a medium effect size, alpha level of 0.01, power of 0.95, and 14 variables were included (11 demographic variables and 3 teaching methods). As defined by Cohen (2002), a medium effect size for regression analysis is 0.15, and would allow for detection of a medium magnitude of differences between variables or groups. Based on a previous review of the literature, a study similar to this study used a medium effect size to detect differences in its target population (Schim, Doorenbos, & Borse, 2005).

An alpha level of 0.01 indicates a cut-off point or level of significance on the normal curve at which the results of the analysis yield statistically significant results. It is also defined as the probability of making a type I error (occurs when the null hypothesis is rejected when it is actually true) (Burns, et al., 2013). An alpha level of 0.01 is stringent and minimizes the probability of committing this type of error. A power of 0.95 is also a stringent value and indicates a 95% chance of detecting a statistical difference if one exists (Suresh & Chandrashekara, 2012). It was determined a minimum of 123 participants were required to achieve adequate power for the intended statistical tests (Tabachnick & Fidell, 2013). A response

rate of 30% is typical for online survey research, therefore a minimum of 410 surveys were sent to ensure adequate power (Burns, et al., 2013).

Inclusion and Exclusion Criteria

Inclusion criteria for participation in this study is as follows:

(1) A registered nurse who graduated within 12 months prior to implementation of this study

(2) A registered nurse who graduated with a baccalaureate degree

(3) A registered nurse who graduated from a nursing program in the U.S. that was accredited by the CCNE or ACEN/NLN

(4) A registered nurse currently employed in a health care facility and is involved in direct patient care

Exclusion criteria for participation in this study is as follows:

(1) A registered nurse who graduated from an RN to BSN program

(2) A registered nurse who graduated from a baccalaureate nursing program accredited by an agency other than CCNE or ACEN/NLN

(3) A registered nurse who graduated from a baccalaureate nursing program outside of the U.S.

(4) A registered nurse who is not employed in a health care facility or is employed in a health care facility but is not involved in direct patient care

Instrumentation

The CCCQ (2004) is the instrument that was used to measure the perceived level of cultural competence attained by recent nursing graduates. It was developed by Dr. Robert Like in 2001 and was revised in 2004. This tool was originally developed to measure physicians' knowledge, skills, attitudes, and comfort level associated with delivery of culturally competent care to diverse patient populations, but has been used with many disciplines in health care since its creation (Wetzel, 2013). This tool has 6 subscales and uses a five-point Likert scale (1 = not at all, 2 = a little, 3 = somewhat, 4 = quite a bit, 5 = very). The subscales in Dr. Like's tool include

demographics (10 items), knowledge (16 items), skills (15 items), comfort with encounters/situations (12 items), attitudes (7 items) and previous education and training related to care of culturally diverse groups (12 items). The scores on the knowledge, skills, comfort with encounters/situations, and attitudes subscales are averaged, with higher scores indicating a higher perceived level of cultural competence in that area (Mareno & Hart, 2014). The demographic and education and training subscales were adapted to include the characteristics of the target population for this study. Several studies report reliability and validity as greater than 0.80. For example, a study on 467 pharmacy students' knowledge, skills, attitudes, and comfort associated with specific tasks in responding to culturally diverse populations indicated a Cronbach's alpha of greater than 0.85 (Wetzel, 2013).

Additionally, as part of the Migrant-Friendly Hospital Project, the CCCQ (2004) was tested among physicians, nurses, and other staff across hospitals abroad; this study indicated a reliability coefficient exceeding 0.80 (Wetzel, 2013). Finally, a study examining the differences between medical students from two schools with different cultural competence curricula suggests a sensitivity of the CCCQ (2004) to measure perceived level of cultural competence, supporting its construct validity (Wetzel, 2013). Mareno and Hart (2014) conducted a study on level of cultural competence among nurses with undergraduate and graduate degrees. These authors supported the use of the CCCQ (2004) in nursing and implicate its ability to measure cultural competence among nurses. This tool has been used in several countries in Europe, Asia, and throughout the United States with medical students, pharmacy students, nurses, and other hospital staff (Wetzel, 2013). The CCCQ (2004) is shown in Appendix B.

A 77-item electronic survey using Survey Monkey® was sent to potential study participants who were recent graduates of accredited baccalaureate degree nursing programs in the U.S. The survey consisted of five parts. Part I included the description of the study and consent. Part II included screening questions to determine eligibility to participate in the study. Part III contained questions that relate to demographic data, including age, sex, race/ethnicity,

primary language spoken, living outside of the U.S., nursing program location, type of institution, other degrees and focus, number of months practicing, orientation with cultural concepts, and residency program. Part IV contained questions related to teaching methods used in the curriculum for learning cultural concepts. Part V included the CCCQ (2004) and collected information about the perceived level of cultural competence. Parts I, II, III, and IV were developed by the researcher of this study. Part V used the CCCQ (2004), a tool constructed by Robert Like (2004) to collect data about perceived level of cultural competence. See Appendix B for a copy of the survey. Additionally, a contact information form was the next page in Survey Monkey, which allowed participants to enter contact information for study results as well as if they desired to be entered into a drawing to win an iPad mini. See Appendix C for a copy of the contact information form.

Data Collection Procedures

A pilot test was conducted prior to sending the survey to participants to address face validity. Face validity is when an instrument gives the appearance that it is measuring the content desired for the study (Burns, et al., 2013). Functionality of the survey in the electronic format was also assessed. Four faculty members and six laypersons participated in the pilot test and answered specific questions regarding the pilot survey process. After the pilot study was conducted, modifications to the process and the survey were made accordingly prior to the start of the study. Minor word changes were made for clarity and an "Exit this Survey" button was added to the electronic survey platform. See Appendix E for the pilot test recruitment letter and see Appendix F for a copy of the pilot survey questions.

All programs in the U.S. accredited by the CCNE and ACEN/NLN and programs that met the inclusion criteria were identified, and the dean/director's email address was obtained from the institution's public website. After obtaining IRB approval, an initial email with the description and purpose of the study was sent to the dean, director, or chairperson of eligible schools. The researcher asked permission to recruit recent nursing graduates as participants.

Typically, graduates retain their institution's email address for 1 year following graduation, therefore this email address was used as the method of contact. Recruitment materials were sent to the deans/directors/chairpersons of eligible institutions to send to potential study participants. There were two emails sent to participants. The first was the initial recruitment letter. The second was the follow-up recruitment letter, which was sent two weeks after the initial recruitment email was sent. The researcher asked the dean/director/chairperson to send the follow-up recruitment letter. See Appendix G for a copy of the initial email sent to the dean/director/chairperson of eligible nursing programs, followed by the initial recruitment email to be sent to participants by the dean/director/chairperson. Two weeks later, the researcher sent the reminder letter to the dean/director/chairperson requesting forwarding to potential study participants. See Appendix H for a copy of the initial recruitment letter and Appendix I for the reminder recruitment letter. Due to the need for more participant responses, the survey was re-opened for an additional two weeks. The initial recruitment letter was re-sent to deans/directors/chairpersons to re-send to potential participants (See Appendix H).

Additionally, Facebook® was used as a method of advertisement. This social media website allows for anyone who has a profile and fits specified criteria (as set forth by the researcher and indicated by the potential participant) to view an advertisement of the study (see inclusion and exclusion criteria). The potential participant can click on the advertisement, which routed them to the description and purpose of the study and the link to the survey. The deans/directors/chairpersons of eligible programs were also asked to advertise the study on their institution's professional Facebook page if they had one. See Appendix J for a sample of the advertisement.

The body of the recruitment email contained a link to the informed consent and survey, and individuals were asked to complete the survey themselves and also forward the survey to any other recent nursing graduates they knew were eligible for this study. A figure depicting data collection procedures is shown in Appendix K. Participants were informed they can enter into a

drawing for an iPad mini for their participation as an incentive if desired. At the end of the survey, participants could choose to click on a link which re-routed them to another web page to enter their contact information if they would like a copy of the study results and/or if they would like to be entered into the drawing to win an iPad mini (see Appendix C). Participants wishing to be entered into the drawing were asked to fill in their name and email address at the end of the survey, however, their identifying information was not associated with their survey responses. Participants could also indicate if they would like a copy of the study results. Institutional Review Board (IRB) approval was obtained from the University of Nevada, Las Vegas (UNLV) before commencement of this study (see Appendix L).

Data Analysis Methods

Descriptive statistics. Data were first screened to ensure study participants met inclusion criteria. Any responses indicating inclusion criteria were not met were deleted from the data set. Descriptive statistics (i.e. percentages, measures of central tendency) were used to describe the characteristics of the sample for this study and to check the variables for any violation of assumptions. Descriptive statistics were run on each of the variables and categories were collapsed or deleted if there were a limited number of cases (Tabachnick & Fidell, 2013). Frequency distributions were also run to provide data to allow for examination of demographic data in relation to the dependent variable of this study. The frequencies were grouped to show how many of the participants fell within specific demographic categories. Establishing grouped frequencies is a method of classifying data, and is usually one of the first steps in data analysis (Burns, et al., 2013). Preliminary analyses were conducted to ensure no violation of the assumptions of adequate power or sample size, equality of variances, multicollinearity and singularity, outliers, normality, linearity, homoscedasticity, and independence of residuals before the respective data analysis methods were conducted.

For equality of variances, Levene's test was run with the independent t-tests analysis to determine whether the variance of scores for the two groups was the same. The significance level

for Levene's test was analyzed, and a $p = .05$ or less meant the variance for the two groups was not the same, indicating a violation of the assumption. The researcher then analyzed data from the "Equal variances not assumed" column (Pallant, 2010). For multicollinearity, singularity and independence of residuals, data were analyzed with the multiple regression analysis and the researcher ensured the independent variables were not highly correlated (r = .9 and above). The researcher also ensured there was some relationship between each independent variable and the dependent variable (r is above .3). The tolerance (value less than .10 is a concern) and variance inflation factor (value above 10 is a concern) were also checked in SPSS for multicollinearity (Tabachnick & Fidell, 2013; Pallant, 2010).

Outliers were identified by requesting the standardized residual plot in SPSS, and those with residual values above 3.3 or less than -3.3 were deleted for both independent and dependent variables. Mahalanobis distances were also checked for the presence of outliers (Tabachnick & Fidell, 2013; Pallant, 2010). Identified outliers were removed from the data set. For normality (normally distributed residuals about the predicted dependent variable scores), linearity (straight-line relationship between residuals and dependent variable scores), and homoscedasticity (same variance of residuals for dependent variable scores and predicted scores), scatterplots were requested. The researcher inspected the Normal P-P plot in the output to determine if the points lie in a reasonably straight line from the bottom left to the top right, indicating no major deviations for these assumptions. Also, the scatterplot was inspected for a rough rectangular shape, also indicating no major deviations for these assumptions (Tabachnick & Fidell, 2013; Pallant, 2010).

Correlational analysis. Correlational analysis, specifically the independent (Student's) *t*-test and one-way between groups analysis of variance (ANOVA) were used to analyze the relationship between the three teaching methods and perceived level of cultural competence. Correlation analysis is used to describe the strength and direction of linear relationships between two variables. An independent (Student's) t-test can be used to compare mean scores for two

groups on a continuous variable (Tabachnick & Fidell, 2013; Pallant, 2010). An example of two of the groups used was males and females, those who had a stand-alone course versus those who did not, and so on. ANOVA can be used when the researcher has one independent variable with three or more levels or groups and one dependent continuous variable (Tabachnick & Fidell, 2013; Pallant, 2010). An example of a group with three or more levels was the integration variable, which required participants to report the degree of integration of cultural content in their curriculum. Levels included 0%, 1-10%, 11-20%, 21-30%, 31-40%, 41-50%, and greater than 50%. This analysis was used to determine if any significant relationships existed among variables, and then further analysis was run on the variables showing significance.

Multiple regression. Multiple regression was used to analyze data of three teaching methods (stand-alone course, integration, and cultural immersion) to predict the perceived level of cultural competence. In addition, this technique was used to control for any demographic data that demonstrated significance in the correlational analysis. Multiple regression is a technique used to explore how well a set of variables is able to predict a particular outcome (Tabachnick & Fidell, 2013; Pallant, 2010). According to Pallant (2010), multiple regression also allowed for the testing of whether adding a variable contributes to the predictive ability of the model. Multiple regression provided information about the model as a whole as well as the relative contribution of each of the variables that make up the model. Hierarchical, or sequential, multiple regression was used, which allowed the researcher to evaluate each independent variable in terms of its predictive power over and above the predictive power offered by other independent variables, while controlling for selected demographic variables. The researcher entered in the variables in a predetermined order, which allowed for the controlling of other variables (Pallant, 2010). The dependent variable was evaluated in terms of how much of the variance was explained by each model in a percentage. Next, each independent variable was evaluated in terms of its predictive ability of the dependent variable and compared to determine which had the highest predictability.

The unique contribution of each variable was assessed while controlling for the effect of other variables.

Research question 1. To answer the first research question, the relationship between use of a stand-alone course and perceived level of cultural competence was examined. An independent (Student's) t-test was used to analyze data. The mean scores on the CCCQ (2004) for those who had a stand-alone course versus those who did not have a stand-alone course were compared.

Research question 2. Next, the relationship between use of an integrated approach (cultural concepts threaded throughout the nursing curriculum) and perceived level of cultural competence was examined. The mean scores on the CCCQ (2004) for those with varying degrees of integration were compared. Each grouped percentage was compared to one another for this variable (i.e. those reporting 50% or greater was compared to those reporting 31-40%). ANOVA was used to analyze this data. This method answered the second research question.

Research question 3. To answer the third research question, the relationship between use of a cultural immersion experience and perceived level of cultural competence was examined. The mean scores on the CCCQ (2004) for those who had a cultural immersion experience versus those who did not have a cultural immersion experience was compared. Again, an independent (Student's) t-test was used to answer this question. In addition, demographic variables were analyzed in terms of their relationship to the mean score on the CCCQ (2004).

Research question 4. To answer the fourth research question, the variables (stand-alone course, integration of cultural concepts, and cultural immersion experience) that best predict perceived level of cultural competence were examined, and hierarchical multiple regression was used to answer this research question.

Cronbach alpha coefficient and exploratory factor analysis. Cronbach alpha coefficient is a commonly used indicator of internal consistency of a scale, and a value greater than .7 is considered acceptable (Pallant, 2010; Tabacknick & Fidell, 2013). Factor analysis is a

technique used to reveal any latent variables causing the manifest variables to covary (Costello & Osborne, 2005). Principal components analysis (PCA), is an analytical technique in which all variance in the variables is being used and is the best choice if the researcher seeks an empirical summary of the data set (Tabachnick & Fidell, 2013). This technique was used to address construct validity for the CCCQ (2004) (Burns & Grove, 2013). One of the first considerations with factor analysis is sample size. Tabachnick and Fidell (2013) recommend having at least 300 cases; however, a smaller sample size should be sufficient if there are several high loading marker variables (above .80). Depending on the number of cases as well as whether the variables load higher than .80, it was determined that this technique is appropriate for the data set. Another recommendation is to inspect the correlation matrix for evidence of coefficients greater than .3. If few correlations above this level are found, this technique may not be appropriate and its use was reconsidered (Tabachnick & Fidell, 2013). This was not the case for this study. Additionally, Bartlett's test of sphericity was checked for significance (p <.05) and the Kaiser-Meyer-Olkin (KMO) index was analyzed to ensure a minimum value of .6 (ranging from 0 to 1) to determine appropriateness of this test. It was determined this test was appropriate for this study.

Kaiser's criterion, Catell's scree test, and parallel analysis were also considered to determine which items should be retained for further investigation (Tabachnick & Fidell, 2013). For Kaiser's criterion, factors with an eigenvalue greater than 1.0 were retained. For Catell's scree test, the plot was inspected to find a point at which the shape of the curve changes direction and becomes horizontal. All factors above this break were retained for further investigation as they explain most of the variance within the data set. For Horn's parallel analysis, the size of the retained eigenvalues were compared to those of a randomly generated data set, and only those that exceed the corresponding values were retained. This test helped to eliminate the tendency of Kaiser's criterion and Catell's scree test to overestimate the number of components, yielding more accurate results (Tabachnick & Fidell, 2013).

Summary

The literature demonstrated the incorporation of cultural concepts in the nursing curriculum is important in fostering growth in nursing students, so graduates entering the profession are better equipped to provide quality health care service. Research studies indicated an effective means of implementing cultural concepts in the undergraduate-nursing curriculum is paramount to prepare graduates for the ever-changing demographic population they serve in order to minimize health care disparities and improve quality of health care.

Effective means of implementation and evaluation of cultural competence require more research to elucidate methods that are most effective in preparing nursing students for future practice. Additionally, there is limited information about the effective translation of cultural concepts in practice after graduation. This study aimed to address the gap in knowledge about teaching methods of cultural concepts and the perceived level of cultural competence of students after graduation.

Campinha-Bacote's model, "The Process of Cultural Competence in the Delivery of Healthcare Services" (2007b) was the guiding theory used for this study. The conceptual framework is titled "Expectations for Cultural Proficiency Model" and depicts the expected elements that are associated with cultural competence among nursing graduates. Data were collected from currently employed registered nurses who graduated within one year of implementation of this study. A researcher-developed tool that asks questions about demographics and teaching methods in the curriculum and the CCCQ (2004) were used to collect data. Correlational analysis was used to analyze data, and any significant relationships emerging from this analysis was subjected to hierarchical multiple regression to determine which variables have the highest predictive ability while controlling for selected demographic variables. Exploratory factor analysis was used to provide data regarding the research tool and as evidence of construct validity, and Cronbach alpha coefficient was interpreted as a measure of internal consistency after data analysis. Results from this study have the potential to aid faculty members

in re-shaping the curriculum in order to most effectively address cultural competence, as well as foster increased ability of nursing graduates to care for a continually changing, diverse population.

CHAPTER 5

FINDINGS OF THE STUDY

Introduction

This chapter presents the findings of this research study and includes: (a) screening of the data; (b) preliminary analysis; (c) explanation of the variables; (d) description of the sample and results of the study; (f) reliability and validity of the instrument; (g) findings of the research questions; and (h) summary.

As a guide for implementation of this study, the following research questions were used:

(1) Does a stand-alone course on cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by the CCNE or ACEN/NLN in the United States?

(2) Does the integration of cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

(3) Does a formal cultural immersion experience in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

(4) Which variable(s) best predict perceived level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN/NLN in the United States?

Screening of the Data

The data for all of the variables were screened for errors using SPSS and running frequency distributions including minimum and maximum values. Minimum and maximum values were examined and any mis-keyed variables were identified and corrections made as necessary. For example, the data file was re-checked and corrected for the cultural immersion experience variable because the maximum value was shown as being four when it should have

been two. Also, there was a question on the CCCQ (2004) that asked the participant an open-ended question to specify other factors that relate to health disparities not previously mentioned. This was re-checked and corrected because the maximum value was shown as being 42 when it should have been seven.

The next part of the screening process was aimed at checking for any violation of assumptions. Descriptive statistics were run to describe the characteristics of the sample for this study and to check the variables for any violation of assumptions and these findings are described below under preliminary analysis. Multiple regression was the primary data analysis technique used for this study. The major assumptions for multiple regression include sample size; multicollinearity and singularity; outliers; normality; linearity; homoscedasticity; and independence of residuals. Each of these major assumptions was examined and the findings are described in the respective sections.

Preliminary Analysis

Descriptive statistics were run first to determine if any violations occurred. In this study, there were participants who did not complete the survey in its entirety and did not complete the CCCQ (2004). Therefore, these cases did not provide information on the dependent variable for this study. To handle this missing data, the "exclude cases pairwise" option was ticked in SPSS, which excluded the cases if they were missing data required for the analysis (Pallant, 2010). A total of 167 cases were included in the descriptive analysis; however, a total of 126 were included for analysis since data on the dependent variable was required.

Normality and Outliers

The data were then examined for normality. Tabachnick and Fidell (2013) recommend inspecting the shape of the distribution, such as inspection of a histogram, normal Q-Q plot, and box plots to determine if there are any violations in normality and to determine if outliers are present. Additionally, the Kolmogorov-Smirnov statistic was interpreted for normality. Data were also checked for outliers. Boxplots were examined to determine the presence of outliers, and any

cases noted beyond the whiskers of the boxplot were further scrutinized to determine if deletion was necessary. Outliers were noted for some variables and are listed in Table 1. The outliers noted were deleted from the dataset to ensure normality of the distribution.

Table 1
Outliers Identified in Preliminary Analysis*

Age
Knowledge of sociocultural characteristics for diverse racial and ethnic groups
Knowledge of health risks experienced by diverse racial and ethnic groups
Knowledge of health disparities experienced by diverse racial and ethnic groups
Sociocultural issues in child health
Knowledge of sociocultural issues in health promotion/disease prevention
Reproductive health/pregnancy, child health, adolescent health, adult health, and ethnopharmacology
Knowledge of historical and contemporary racism, bias, prejudice, and discrimination Knowledge of Title VI Prohibition Against National Origin Discrimination as it Affects Persons with Limited English Proficiency
Skill in eliciting information about use of folk remedies
Skill in implementing culturally sensitive clinical preventive services
Skill in providing culturally sensitive end-of-life care
Skill in dealing with cross-cultural adherence/compliance problems
Skill in dealing with cross-cultural ethical conflicts
Encounters with working with a colleague who makes derogatory remarks about patients from a particular ethnic group

*One (n = 1) outlier noted for each item above

After further examination, it was determined that outliers existed due to the fact some participants did not complete the CCCQ (2004), and only completed the first portion of the survey. These cases were deleted from the data set, resulting in a total of 126 valid cases. After deletion of outliers, the remaining cases were examined again for each variable by inspecting histograms and normal Q-Q plots and it was determined there were no violations in normality for the data set once outliers were removed.

Normality was assessed by examining histograms, normal Q-Q Plots, and the Kolmogorov-Smirnov statistic. Histograms and normal Q-Q Plots were inspected for a reasonably straight line, which indicates a normal distribution (Pallant, 2010). Scores on each subscale appeared to be normally distributed and appeared in a reasonably straight line, indicating normality. A Kolmogorov-Smirnov statistic indicating a non-significant result (Sig. value greater than .05) is indicative of normality (Pallant, 2010). The Sig. values for each subscale were greater than .05 (Knowledge = .093; Skills = .072; Encounters/Situations = .056; Attitudes = .101), which indicates normality in the data set.

Explanation of the Variables

For this study, data were collected on demographic information, teaching methods, and perceived level of cultural competence. Some demographic information (age, sex, race/ethnicity, primary language spoken, living outside of the U.S., nursing program location, type of nursing program, other degrees and focus, number of months practicing, orientation with cultural concepts, residency program with cultural concepts) was correlated with the dependent variable, perceived level of cultural competence. Age was broken down into six groups (Group 1: 20-25; Group 2: 26-30; Group 3: 31-35; Group 4: 36-40; Group 5: 41-45; Group 6: 46-50), with the ages ranging from 21 to 48 years. Sex was analyzed using the two groups of male and female. Race/ethnicity was analyzed using six groups (Group 1: American Indian/Alaska Native; Group 2: Asian/Pacific Islander; Group 3: Black, African American, or African; Group 4: Caucasian/non-Hispanic/non-Latino; and Group 5: Hispanic; Group 6: Other). Since 100% of the

participants primarily spoke English, participants who spoke English as well as those that spoke additional languages were further analyzed, and were broken down into the following groups: Group 1: English; Group 2: Chinese; Group 3: Japanese; Group 4: Korean; Group 5: Spanish; Group 6: French; Group 7: Tagalog; Group 8: Other.

Participant scores for those who lived outside of the U.S. for some period of time were analyzed and compared to those who have not lived outside of the U.S. For nursing program location, participant responses were broken down into four groups (Group 1: Northeast; Group 2: South; Group 3: Central; Group 4: West). For type of nursing program, participant responses were divided into public or private institution, and then traditional (generic, 4-year) or accelerated program. Participants were asked if they had another degree, and the scores for those who did were compared to the scores for those who did not. Participant responses were divided into four groups for number of months practicing (Group 1: 1-3 months; Group 2: 4-6 months; Group 3: 7-9 months; Group 4: 10-12 months).

Participants were asked if they participated in clinical orientation, and if their orientation included instruction on cultural concepts. Responses for participants that indicated their orientation included cultural concepts were compared to those who did not. This was the same for participants indicating they participated in a new graduate residency program. Correlational analysis was run and certain demographic variables, according to their significance in terms of correlation with perceived level of cultural competence, were examined using multiple regression for their predictive ability in perceived level of cultural competence.

In addition, teaching methods were examined and correlated with perceived level of cultural competence. A stand-alone course on culture was examined to determine its relationship with the dependent variable, and whether taking a stand-alone course aided in a higher perceived level of cultural competence. Integration of cultural concepts throughout the curriculum was also examined, and the degree (or percent) of integration was taken into account. This was divided into the following groups: (Group 1: 0%; Group 2: 1-10%; Group 3: 11-20%; Group 4: 21-30%;

Group 5: 31-40%; Group 6: 41-50%; Group 7: more than 50%). Finally, participation in a cultural immersion experience was examined to determine if a relationship between taking part in this experience existed with a higher perceived level of cultural competence. Again, according to their significance in this data analysis, each teaching method was examined for its predictive ability in perceived level of cultural competence using multiple regression.

Description of the Sample and Results of the Study

Descriptive statistics were run to determine the characteristics of the population sample. All participants included in this study met the following inclusion criteria: graduated from a program accredited by CCNE or ACEN/NLN, graduated within the last 12 months from inception of data collection, graduated from a baccalaureate degree program, and are currently working as an RN. Graduates from RN to BSN programs were not included because of their varying years of experience. This section includes information regarding recruitment of participants and the specific demographic variables as well as findings from correlational analysis for each demographic variable and the dependent variable. Information on the frequency of reported teaching methods, including curricular requirement for a stand-alone course, integration of cultural concepts throughout the curriculum, and participation in a cultural immersion experience is presented.

Recruitment

A total of 623 programs accredited by CCNE were included and 197 programs accredited by ACEN/NLN were included. Facebook was also used as a method of advertisement for participation (see Appendix J for a copy of the Facebook advertisement).

Participant response rate and power. Data were collected over a period of 6 weeks. A total of 244 participants responded to the survey. Of the total number that responded, 77 (31.5%) did not meet inclusion criteria and therefore were eliminated from the study. Fifteen (6.1%) did not graduate within 12 months of implementation of this study, 29 (11.9%) did not graduate from a baccalaureate program, and 33 (13.5%) were not currently working as RNs at the time of the

study. Of the total 167 valid cases, some participants were included in the data analysis. Some participants did not complete the survey in its entirety. Therefore, due to attrition, an additional 41 (24.5%) cases were deleted from the sample in order to eliminate outliers and ensure normality of the data set. Thus, a total of 126 cases (n = 126) were included in the final analysis. According to the power analysis conducted for this study, a total of 123 cases were needed in order to allow for detection of a medium magnitude of differences between variables or groups. A previous review of the literature used the same data analysis methods and effect size to detect differences in its target population (Schim, Doorenbos, & Borse, 2005) and deemed it an adequate sample size for the data analysis methods used. This indicates a final sample size of n = 126 as adequate in achieving statistical power.

Demographic variables. Descriptive statistics and correlational analysis were run on the demographic variables of interest for this study. See Appendix M for a list of demographic variables examined.

Type of health care facility currently working for. The majority of participants (73%; n = 92) indicated they currently work in an acute care facility. A total of 5.6% (7) participants indicated they worked in the rehabilitation setting, 3.2% (4) stated they worked in long-term care, and 2.4% (3) in home health. Other participants (0.8% to 1.6%) indicated they worked in other settings, which may include working in multiple (more than one) setting. Appendix N depicts the representation of the data for type of health care facility currently working for as reported by the participants.

How study participation information was received. Of interest to the researcher was how the participant received information about participation in this study so that future potential data collection procedures can be considered. Options were a posted flyer, advertisement on Facebook, email from the dean/director/chairperson, or email from peer. The majority of participants (79.4%; n = 100) indicated they received the information via email from their

dean/director/chairperson. There were 21 (16.7%) participants that indicated they received the information from an advertisement on Facebook. There were five (4%) participants that indicated they received the information via email from a peer. There were no participants (0%; $n = 0$) who indicated they received information from a posted flyer.

Sex and age. The majority of the study sample (87.3%; $n = 110$) reported their sex as female. Therefore, 12.7% (16) of the participants were male. An independent (Student's) *t*-test was conducted to compare the perceived level of cultural competence scores for males and females. There were a total of 16 males and 110 females included in this analysis. Levene's test was checked first to determine whether the variance of the scores for the two groups was the same. This test revealed a Sig. value of .698, which indicates that equal variances are assumed. Thus, data were interpreted from the "Equal variances assumed" row in the output. There was no significant difference in scores for males ($M = 199.81$, $SD = 30.946$) and females ($M = 199.96$, $SD = 26.804$); $t\ (124) = -.019$, $p = .99$, two-tailed). The magnitude of the differences in the means (mean difference = 0.14, 95% CI: -14.62 to 14.34) was very small (eta squared = .000003).

The range of ages was 21 to 48, with a mean age of 26.99 and standard deviation of 7.257. A one-way between groups ANOVA was conducted to explore the impact of age on perceived level of cultural competence. Participants were divided into six groups according to age (Group 1: 20-25; Group 2: 26-30; Group 3: 31-35; Group 4: 36-40; Group 5: 41-45; Group 6: 46-50). Levene's test for equality of variances was checked first, which indicated a Sig. value of .133, meaning this assumption was met. The ANOVA table was then interpreted from the output. There was no statistically significant relationship for the four groups: $F\ (5, 119) = .325$, $p = .9$. The effect size, calculated using eta squared, was small at .014.

Race/ethnicity. Of the 126 participants, 0.8% (1) declined to answer the question on race/ethnicity. A total of 97 (77%) reported Caucasian, non-Hispanic/non-Latino; seven (5.6%) as Asian/Pacific Islander; and seven (5.6%) as Black, African American, or African. There were six (4.8%) participants who identified as American Indian/Alaska Native, five (4%) as Hispanic, one

(0.8%) as Asian/Pacific Islander and Hispanic, one (0.8%) as Black, African American, or African and Caucasian, non-Hispanic/non-Latino, one (0.8%) as Portuguese, and one (0.8%) as American Indian/Alaska Native and Caucasian, non-Hispanic/non-Latino. A one-way between groups ANOVA was conducted to explore the impact of race/ethnicity on perceived level of cultural competence. When the initial ANOVA was run, Levene's test for homogeneity of variance was violated, but Welch and Brown-Forsythe could not be computed because there were some cases reported only one time. Therefore, the participant that did not report race and those categories with one participant (Asian/Pacific Islander and Hispanic; Black, African American, or African and Caucasian, non-Hispanic/non-Latino; Portuguese; and American Indian/Alaska Native and Caucasian, non-Hispanic/non-Latino) were collapsed into an "Other" group. Thus, race/ethnicities included in the analysis included the following: Group 1: American Indian/Alaska Native; Group 2: Asian/Pacific Islander; Group 3: Black, African American, or African,; Group 4: Caucasian/non-Hispanic/non-Latino; and Group 5: Hispanic; Group 6: Other. A total of 122 participants were included in the correlation analysis between race and perceived level of cultural competence.

Once the six groups were formulated, a second ANOVA was conducted. Levene's test indicated a Sig. value of .004, which indicates the assumption of homogeneity of variance was violated. Data were then interpreted from the Robust Test of Equality of Means box in the output using the Welch and Brown-Forsythe values. A statistically significant difference was noted for the six groups: F (5, 120) = 5.357, p = .008. The effect size, calculated using eta squared, was 0.15. According to Cohen (1988), this effect size is considered large and indicates a large magnitude in the differences in the means. Post-hoc comparisons using Tukey's Honestly Significant Difference (HSD) test indicated the mean score for Caucasian/non-Hispanic/non-Latino participants (M = 195.40, SD = 25.384) was significantly different from the Hispanic participants (M = 240, SD = 15.684), indicating those who identified as Hispanic have a higher level of perceived cultural competence when compared to their Caucasian counterparts. Those

identifying as American Indian/Alaska Native (M = 216.17, SD = 35.176), Asian/Pacific Islander (M = 205.71, SD = 16.111), Black, African American, or African (M = 217.14, SD = 39.726), and the "Other" group (M = 204.2, SD = 10.872) did not differ significantly from any of the groups.

Primary language spoken and any other spoken languages. The entire sample of participants indicated the primary language spoken was English (100%; n = 126). Some participants (11.9%; n =15) indicated they spoke another language besides English, with 3.2% (n = 4) indicating they speak multiple languages. Other languages spoken included German, Russian, Darija, Portuguese, Armenian, Afrikaans, Tagalog, Cantanese, and Mandarin. A one-way between groups ANOVA was conducted to explore the impact of primary language spoken on perceived level of cultural competence. Participants were divided into eight groups according to language (Group 1: English; Group 2: Chinese; Group 3: Japanese; Group 4: Korean; Group 5: Spanish; Group 6: French; Group 7: Tagalog; Group 8: Other). An "other" category was created for data analysis in order to create a category with enough cases to run ANOVA. Languages included in the "other" category included German, Russian, Darija, Portuguese, Armenian, Afrikaans, Cantanese, and Mandarin. Levene's test for equality of variances was checked first, which indicated a Sig. value of .637, meaning this assumption was met. The ANOVA table was then interpreted from the output. There was no statistically significant relationship for the eight groups: F (3, 122) = 1.38, p = .25. The effect size, calculated using eta squared, was small at .034.

Countries lived in besides the U.S., number of years lived in the U.S. and/or in another country, and name of any other countries lived in. Some participants (11.9%; n = 15) indicated they lived in another country besides the U.S. for some time. Of those who lived in another country, the range was from 1 to 7 years in that country. Table 2 depicts a list of the number of participants that lived outside of the U.S., how many years in another country, and the name of the other country. An independent (Student's) t-test was conducted to compare the perceived level of cultural competence scores for those who have lived in other countries besides

the U.S. and those who have not. A total of 15 who lived outside of the U.S. and a total of 110 who did not were included in this analysis. One (0.8%) participant did not answer the question regarding living in other countries. Levene's test was first checked to determine whether the variance of the scores for the two groups was the same. This test revealed a Sig. value of .282, which indicates that equal variances are assumed. Therefore, data were interpreted from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who have lived outside of the U.S. (M = 203.27, SD = 23.783) and those who did not (M = 199.76, SD = 27.709); t (123) = .468, p = .64, two-tailed). The magnitude of the differences in the means (mean difference = 3.51, 95% CI: -11.36 to 18.38) was very small (eta squared = .002).

Table 2
Number of Participants, Time Lived in Countries Outside of the U.S., Country

Number	Years in other country	Name of other country
3	1	France
2	3	Germany
2	0.5	Russia
1	1	Ecuador
1	4, 3	Canada, Israel
1	1	Spain
1	1	Brazil
1	2	Finland
1	4	South Africa
1	3	Africa
1	1, 1, 3	Germany, Iraq, Kuwait

Finding (number) reported by participants

Nursing program location. This study utilized a national sample. Participants attended programs in the Northeast, South, Central, and Western parts of the country. A total of 20.6% (*n*

= 26) graduated in a program from the Northeast, 22.2% (*n* = 28) from the South, 28.6% (*n* = 36) from the Central area, and 28.6% (*n* = 26) from the Western part of the U.S. There were 10 (7.9%) participants that did not answer the question regarding nursing program location. A one-way between groups ANOVA was conducted to explore the impact of nursing program location on perceived level of cultural competence. Participants were divided into four groups according to location (Group 1: Northeast; Group 2: South; Group 3: Central; Group 4: West). Levene's test for equality of variances was checked first, which indicated a Sig. value of .749, meaning this assumption was met. The ANOVA table was then interpreted from the output. There was no statistically significant relationship for the four groups: F (3, 117) = .454, p = .72. The effect size, calculated using eta squared, was small at .012.

Type of nursing program. There were 2 participants (1.6%) who failed to answer the question regarding whether the institution they attended was a public or private one. A total of 47.6% (*n* = 60) indicated they attended a public institution, while 50.8% (*n* = 64) indicated they attended a private one. Additionally, 84.1% (*n* = 106) indicated they attended a traditional (generic, 4-year) program while 15.9% (*n* = 20) indicated they attended an accelerated program. An independent (Student's) *t*-test was conducted to compare the perceived level of cultural competence scores for those who attended a public institution and those who attended a private institution. There were a total of 60 who attended a public institution and 64 who attended a private institution included in this analysis. Levene's test was first checked to determine whether the variance of the scores for the two groups was the same. This test revealed a Sig. value of .967, which indicates equal variances are assumed. Therefore, data were interpreted from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who attended a public institution (M = 204.5, SD = 26.722) and those who attended a private one (M = 196.17, SD = 27.495); t (122) = 1.71, p = .09, two-tailed). The magnitude of the differences in the means (mean difference = 8.33, 95% CI: -1.32 to 17.97) was very small (eta squared = .023).

This test was also conducted on the type of baccalaureate degree program, and perceived level of cultural competence scores were compared for those who attended a traditional (generic, 4-year) program to those who attended an accelerated program. There were a total of 106 who attended a traditional (generic, 4-year) program and 20 who attended an accelerated program. Levene's test was checked, revealing a Sig. value of .731, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who attended a traditional (generic, 4-year) program (M = 199.56, SD = 27.699) and those who attended an accelerated program (M = 201.95, SD = 25.153); t (124) = -.359, p = .72, two-tailed). The magnitude of the differences in the means (mean difference = -2.39, 95% CI: -15.58 to 10.79) was very small (eta squared = .001).

Other degrees held besides nursing degrees, focus of other degrees held, and percentage focus on culture in other degree programs if applicable. Some participants indicated they held degrees in other disciplines (23.8%; n = 30). Other degree focus areas and their highest associated percentage of cultural content focus in the other degree program are listed in Table 3. An independent (Student's) t-test was conducted to compare the perceived level of cultural competence for those who held another degree and those who did not. There were a total of 30 who held another degree and 96 who did not. Levene's test was checked, revealing a Sig. value of .604, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who held another degree (M = 200.97, SD = 28.388) and those who did not (M = 199.62, SD = 27.002); t (124) = .237, p = .82, two-tailed). The magnitude of the differences in the means (mean difference = 1.35, 95% CI: -9.96 to 12.67) was very small (eta squared = .014).

Table 3
Other Degree Focus Areas and Highest Associated Cultural Content Percentage

Number of Participants	Other Degree Focus	Highest Associated Percentage
3	French	21-30%
3	Nutritional Sciences	31-40%
3	Journalism	41-50%
2	Biology	21-30%
2	Kinesiology	1-10%
2	Public Health	21-30%
2	Psychology	21-30%
2	Arts	41-50%
2	Environmental Sciences	1-10%
2	English	1-10%
1	Healthcare Administration	1-10%
1	Medical Assistant	11-20%
1	Respiratory Therapy	0%
1	History	More than 50%
1	Intercultural Studies	More than 50%
1	Community Health	11-20%

Finding % (number) reported by participants

Number of months practicing. The number of months at practice ranged from 1 to 12 months, with a mean of 3.95 and standard deviation of 2.628. The relationship between perceived level of cultural competence and number of months practicing was investigated using a one-way between groups ANOVA. Participants were divided into four groups according to number of months practicing (Group 1: 1-3 months; Group 2: 4-6 months; Group 3: 7-9 months; Group 4: 10-12 months). Levene's test for equality of variances was checked first, which indicated a Sig.

value of .779, meaning this assumption was met. The ANOVA table was then interpreted from the output. A statistically significant difference was noted for the six groups: F (3, 123) = 2.686, p = .05. The effect size, calculated using eta squared, was 0.06. According to Cohen (1988), this effect size is considered medium and indicates a medium magnitude in the differences in the means. Post-hoc comparisons using Tukey's Honestly Significant Difference (HSD) test indicated the mean score for participants practicing 4 to 6 months (M = 194.02, SD = 24.473) was significantly different from the participants practicing 10 to 12 months (M = 226.17, SD = 27.229), indicating those practicing 10 to 12 months have a higher level of perceived cultural competence when compared to those practicing 4 to 6 months. Participants practicing 1 to 3 months (M = 200.5, SD = 28.798) and those practicing 7 to 9 months (M = 203.2, SD = 24.892) did not differ significantly from any of the groups. The trend in level of cultural competence shows a slight decline after the first 3 months of practice, and then a steady incline after 7 months of practice.

Currently in orientation in clinical practice and focus of orientation on cultural concepts. Some participants indicated they were currently in orientation in clinical practice (37.3%; n = 47). Of those who indicated they were in orientation, 21.4% (n = 27) indicated their orientation included information on cultural content, with the percentage of the cultural content ranging from 0 to 25% with a mean of 1.11% and standard deviation of 3.893. An independent (Student's) t-test was conducted to compare the perceived level of cultural competence for those who were currently in clinical orientation and those who were not. There were a total of 47 who were currently in orientation and 79 who were not. Levene's test was checked, revealing a Sig. value of .731, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who were in orientation (M = 201.89, SD = 26.355) and those who were not (M = 199.77, SD = 27.836); t (124) = .621, p = .54, two-tailed. The magnitude of the differences in the means (mean difference = 3.12, 95% CI: -6.83 to 13.07) was very small (eta squared = .003).

An additional independent (Student's) *t*-test was run to compare the 47 participants that were in clinical orientation who reported having cultural content in their orientation program to those who reported having no cultural content in their orientation program in terms of level of perceived cultural competence. Of the 47, a total of 27 did have cultural content in their orientation while 20 did not. Levene's test revealed a Sig. value of .401, therefore data were interpreted from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who had cultural content in their orientation (M = 206.2, SD = 22.289) and those who did not (M = 198.7, SD = 29.001); t (45) = .963, p = .34, two-tailed. The magnitude of the differences in the means (mean difference = 7.5, 95% CI: -8.17 to 23.17) was small (eta squared = .02). It is noteworthy, however, those with cultural content included in their orientation did have a higher mean score than those who did not.

Currently in a new graduate residency program, and focus of new graduate residency program on culture. There were two participants (1.6%) that failed to answer the question regarding participation in a new graduate residency program. Some participants indicated they were currently in a new graduate residency program (46%; n = 58). Of those who indicated they were in a new graduate residency program, 28.6% (n = 36) indicated their new graduate residency had some focus on cultural content, with the percentage of the program ranging from 0 to 40%, with a mean of 3.21 and a standard deviation of 7.575. An independent (Student's) *t*-test was conducted to compare the perceived level of cultural competence for those who participated in a new graduate residency program and those who did not. There were a total of 58 who did participate and 66 who did not. Levene's test was checked, revealing a Sig. value of .776, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who participated (M = 203.97, SD = 28.161) and those who did not (M = 196.39, SD = 26.501); t (122) = .126, p = .13, two-tailed. The magnitude of the differences in the means (mean difference = 7.57, 95% CI: -2.15 to 17.29) was very small (eta squared = .003).

An additional independent (Student's) *t*-test was run to compare the 58 participants that were in a new graduate residency program who reported having cultural content in their program to those who reported having no cultural content in their program in terms of level of perceived cultural competence. Of the 58, a total of 35 did have cultural content in their program while 23 did not. Levene's test revealed a Sig. value of .892, therefore data were interpreted from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who had cultural content in their program (M = 203.09, SD = 28.075) and those who did not (M = 205.3, SD = 28.870); t (56) = -.291, p = .77, two-tailed. The magnitude of the differences in the means (mean difference = -2.2, 95% CI: -17.48 to 13.05) was very small (eta squared = .002).

Stand-alone course, integration of cultural concepts throughout the curriculum, and cultural immersion experience. Approximately half of participants (46.8%; n = 59) indicated they were required to take a stand-alone course in their nursing curriculum, and 53.2% (n = 67) indicated they were not. Of those required to take a stand-alone course, 38.9% (n = 49) reported further information on the number of credit hours the course was worth. See Table 4 for a summary of the frequency of reported credit hours for the stand-alone course.

Table 4
Summary of Number of Credit Hours for Stand-Alone Course

Number of Credit Hours	Finding (%) number
1	0.8% (1)
2	7.1% (9)
3	18.3% (23)
4	7.9% (10)
5	2.4% (3)
6	1.6% (2)
12	0.8% (1)

Finding % (number) reported by participants

Almost all participants (98.4%; *n* = 124) stated cultural concepts were integrated throughout the curriculum. Table 5 depicts the varying degrees of integration as indicated by the participants. Those reporting the higher percentage of integration also reported participation in a cultural immersion experience.

Table 5
Degree of Reported Integration of Cultural Concepts Throughout the Curriculum

Degree of Integration	Finding % (number)
0%	6.3% (8)
1-10%	31% (39)
11-20%	38.9% (40)
21-30%	8.7% (11)
31-40%	4% (5)
41-50%	5.6% (7)
More than 50%	2.4% (3)

There were seven (5.6%) participants that failed to answer the question regarding participation in a cultural immersion experience, and 30.2% (*n* = 38) indicated they did participate in some sort of cultural immersion experience, and 64.3% (*n* = 81) stated they did not. Of those who did participate in a cultural immersion experience, 24.6% (*n* = 31) provided further information on the number of credit hours the experience was worth. Three (2.4%) stated it was worth 2 credit hours, 15 (11.9%) stated it was worth 3 credit hours, 11 (8.7%) stated it was worth 4 credit hours, and 2 (1.6%) stated it was worth 5 credit hours. The number of hours per week spent on cultural immersion experience was reported between 1 and 20 hours over the course of a semester.

Participants were also asked to identify any other potential challenges to the integration of training in cultural competence in health care if not previously addressed in the survey. Themes among these open-ended responses were noted, and included the following: difficult to

implement in practice, many different cultures and learning about all of them in a timely manner is difficult, group-think, pack mentality, resistance to change in an overwhelmingly changing field, access to an interpreter, compliance by health care providers, lack of interaction during practicing of learned concepts, belonging to a majority group, time, funding, resources, money, level of general importance, nursing school taught so students could pass the National Council Licensure Examination® (NCLEX), asking uncomfortable questions, bias and prejudice, patient compliance, lack of implementation of learned material into practice.

Reliability and Validity of the Instrument

Reliability of the CCCQ (2004) was addressed using Cronbach alpha coefficient. First, items on the instrument were checked to see if any negatively worded items required rescoring. For this instrument, this was not necessary. According to Wetzel (2013), several studies have previously reported good internal consistency of the CCCQ (2004), with a Cronbach alpha coefficient of greater than .80. In this study, the Cronbach alpha coefficient was .94, further demonstrating good internal consistency of this instrument. Construct validity of the CCCQ (2004) was addressed using principal components analysis (PCA). There are four subscales included in this instrument, and each subscale was subjected to PCA to determine if there was high correlation among items and if the analysis revealed a stable factor structure. Assumptions were checked first to determine if this data reduction technique was appropriate to use.

The Knowledge Subscale

The 16 items on the knowledge subscale of the CCCQ (2004) were subjected to PCA. Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value was .80, exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance (Sig. value of .000), supporting the factorability of the correlation matrix. PCA revealed the presence of four components with eigenvalues exceeding 1, explaining 39.4%, 11.9%, 9.6%, and 7.5%, respectively. An inspection of the scree plot revealed a clear break after

the second component. Parallel Analysis was then run, which showed three eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (16 variables x 126 respondents). Inspection of the correlation matrix reveals high factor loadings above .4 (Tabachnick & Fidell, 2013) on the first three components. Therefore, three components were retained for further analysis.

The three-component solution explained a total of 60.9% of the variance, with Component 1 contributing 39.4%, Component 2 contributing 11.9%, and Component 3 contributing 9.6%. To aid in the interpretation of these three components, oblimin rotation was performed. The interpretation of the three components was consistent with previous research on the scale, with knowledge of various health care related to specific populations in cultural competence loading strongly on Component 1, knowledge of historical traditions and policies related to cultural competence loading strongly on Component 2, and knowledge of demographics and sociocultural characteristics loading strongly on Component 3. There was a weak positive correlation between Components 1 and 2 (r = .332), a weak positive relationship between Components 1 and 3 (r = .330), and a weak positive relationship between Components 2 and 3 (r = .236). The results of the analysis support the use of the knowledge subscale as a separate scale, as suggested by the author (Like, 2001). For specific information on factor loading of items, see Appendix O.

High factor loadings were noted on the first, second, and third components. Given the content of the items, it is reasonable for these factor loadings to be high for these items as the first component deals with sociocultural issues in various areas, the second component includes items that are both related to policies or standards, and the third component deals with knowledge of diverse racial and ethnic groups. Communalities displayed extraction values above .3 for all items, indicating the items fit well together.

The Skills Subscale

The 15 items on the skills subscale of the CCCQ (2004) were subjected to PCA. Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value was .88, exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance (Sig. value of .000), supporting the factorability of the correlation matrix. PCA revealed the presence of four components with eigenvalues exceeding 1, explaining 48.3%, 9.6%, 7.5%, and 6.3%, respectively. An inspection of the scree plot revealed a clear break after the second component. Parallel Analysis was then run, which showed four eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (15 variables x 126 respondents). Therefore, four components were retained for further analysis.

The four-component solution explained a total of 71.6% of the variance, with Component 1 contributing 48.3%, Component 2 contributing 9.6%, Component 3 contributing 7.5%, and Component 4 contributing 6.3%. To aid in the interpretation of these four components, oblimin rotation was performed. The interpretation of the three components was consistent with previous research on the scale, with skill in implementing a culturally competent plan of care loading strongly on Component 1, skill in conducting a culturally competent physical exam loading strongly on Component 2, skill in culturally sensitive greetings loading strongly on Component 3, and skill in adherence and ethics associated with culturally competent care loading strongly on Component 4. There was a weak positive correlation between Components 1 and 2 (r = .374), and a weak positive relationship between Components 1 and 3 (r = .383), and a weak negative relationship between Components 1 and 4 (r = -.384). There was a weak positive relationship between Components 2 and 3 (r = .385), a weak negative relationship between Components 2 and 4 (r = -.325), and a weak negative relationship between Components 3 and 4 (r = -.349). The results of the analysis support the use of the skills subscale as a separate scale, as suggested by the author (Like, 2001). For specific information on factor loading of items, see Appendix P.

High factor loadings were only noted on the first and second components (more than three high factor loadings within that component). Given the content of the items, it is reasonable for these factor loadings to be high for these items as the first component deals with health literacy and medical interpreters and the second component includes items that are both related to folk remedies. Communalities displayed extraction values above .3 for all items, indicating the items fit well together.

The Encounters/situations Subscale

The 15 items on the encounters/situations subscale of the CCCQ (2004) were subjected to PCA. Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value was .82, exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance (Sig. value of .000), supporting the factorability of the correlation matrix. PCA revealed the presence of three components with eigenvalues exceeding 1, explaining 44.7%, 16.1%, and 9.2%, respectively. An inspection of the scree plot revealed a clear break after the third component. Parallel Analysis was then run, which showed two eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (12 variables x 126 respondents). Therefore, two components were retained for further analysis.

The two-component solution explained a total of 60.7% of the variance, with Component 1 contributing 44.7% and Component 2 contributing 16.1%. To aid in the interpretation of these four components, oblimin rotation was performed. The interpretation of the three components was consistent with previous research on the scale, with encounters/situations with caring for culturally diverse populations loading strongly on Component 1 and derogatory encounters/situations and bias and prejudice as it relates to cultural competence loading strongly on Component 2. There was a weak positive correlation between Components 1 and 2 (r = .310).

The results of the analysis support the use of the encounters/situations subscale as a separate scale, as suggested by the author (Like, 2001). For specific information on factor loading of items, see Appendix Q.

High factor loadings were noted on the first and second components. Given the content of the items, it is reasonable for these factor loadings to be high for these items as they both deal with working with persons from cultural diverse backgrounds and encounters/situations with bias and prejudice as it relates to culturally competent care. Communalities displayed extraction values above .3 for all items, indicating the items fit well together.

The Attitudes Subscale

There were 20 items on the attitudes subscale of the CCCQ (2004) subjected to PCA. Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value was .80, exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance (Sig. value of .000), supporting the factorability of the correlation matrix. PCA revealed the presence of five components with eigenvalues exceeding 1, explaining 35.1%, 13.7%, 9.0%, 8.1%, and 5.4%, respectively. An inspection of the scree plot revealed a clear break after the fourth component. Parallel Analysis was then run, which showed four eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (20 variables x 126 respondents). Therefore, four components were retained for further analysis.

The four-component solution explained a total of 65.9% of the variance, with Component 1 contributing 35.1%, Component 2 contributing 13.7%, Component 3 contributing 9.0%, and Component 4 contributing 8.1%. To aid in the interpretation of these four components, oblimin rotation was performed. The interpretation of the three components was consistent with previous research on the scale, with attitudes toward factors contributing to health care disparities loading

strongly on Component 1 and attitudes toward bias/prejudices, awareness, and stereotypes loading strongly on Component 2. There was a weak negative correlation between Components 1 and 2 (r = -.302), a weak negative relationship between Components 1 and 3 (r = -.319), and a weak positive relationship between Components 1 and 4 (r = .283). There was a weak positive relationship between Components 2 and 3 (r = .308), a weak negative relationship between Components 3 and 4 (r = -.113), and a weak negative relationship between Components 2 and 4 (r = -.113). The results of the analysis support the use of the attitudes subscale as a separate scale, as suggested by the author (Like, 2001). For specific information on high factor loading items, see Appendix R.

High factor loadings were only noted on the first and fourth component. Given the content of these items, with the first being on attitudes toward factors affecting health care disparities and the fourth being on attitudes toward bias/prejudice, awareness, and stereotypes, it is reasonable for these factor loadings to be high. Communalities displayed extraction values above .3 for all items, indicating the items fit well together.

Findings of the Research Questions

Correlational Analysis

For the first three research questions, correlational analysis, or the independent (Student's) *t*-test or ANOVA was used to investigate the relationship between inclusion of a stand-alone course in the curriculum, the degree of integration of cultural concepts throughout the curriculum, and participation in a cultural immersion experience and perceived level of cultural competence. Select demographic variables were also investigated using ANOVA to determine if these variables influence perceived level of cultural competence, and results were reported earlier in this chapter in the descriptive statistics section.

Assumptions for correlational analysis. The assumptions tested with the independent (Student's) *t*-test and ANOVA included level of measurement (ensuring the dependent variable is using a continuous scale rather than a categorical scale); random sampling (scores are obtained

using a random sample from the population); independence of observations (each measurement must not be influenced by any other measurement); normal distribution (using histograms); homogeneity of variance (using Levene's test to ensure the variability of scores for each of the groups is similar); type I error (minimized by using an alpha level of 0.01); and type II error (minimized by running power analysis and achieving an adequate sample size using a medium effect size [indicated as acceptable through previous review of the literature] and a power of 0.95). All assumptions were met and there were no violations noted during data analysis.

Research question 1. Correlational analysis, specifically the independent (Student's) *t*-test was used to investigate whether incorporation of a stand-alone course in the curriculum influences the level of perceived cultural competence. There were a total of 59 (46.8%) participants who indicated there was a required stand-alone course and 67 (53.2%) who indicated there was not. Levene's test was checked, revealing a Sig. value of .918, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who were required to take a stand-alone course (M = 203.58, SD = 26.998) and those who were not (M = 196.73, SD = 27.228); t (124) = 1.41, p = .16, two-tailed). The magnitude of the differences in the means (mean difference = 6.84, 95% CI: -2.74 to 16.43) was very small (eta squared = .016).

To further analyze perceived level of cultural competence as it relates to the number of credit hours for each participant that reported requirement of a stand-alone course, a one-way between groups ANOVA was used. Participants were divided into three groups according to the number of credit hours reported (Group 1: 2 or less [n = 10]; Group 2: 3 to 4 [n = 32]; Group 3: 5 or greater [n = 7]). Levene's test for equality of variances was checked first, which indicated a Sig. value of .191, meaning this assumption was met. The ANOVA table was then interpreted from the output. Although there was no statistically significant relationship noted for the three groups: F (2, 46) = 1.927, p = .16, it was noted that the mean score trended upward for those with higher credit hour requirements. For those with 2 credits or less, the mean score was 194, for those with 3-4 credits

the mean score was 203, and for those with 5 or more credits the mean score was 221.143. The effect size, calculated using eta squared, was medium at .08.

Research question 2. A one-way between groups ANOVA was conducted to explore the impact of degree of integration on perceived level of cultural competence. Participants were divided into eight groups according to degree of integration in percent (Group 1: those who declined to answer [n = 2]; Group 2: those reporting 0% of integration [n = 10]; Group 3: those reporting 1-10% of integration [n = 39]; Group 4: those reporting 11-20% of integration [n = 49]; Group 5: those reporting 21-30% of integration [n = 11]; Group 6: those reporting 31-40% of integration [n = 5]; Group 7: those reporting 41-50% of integration [n = 7]; Group 8: those reporting more than 50% of integration [n = 3]). Levene's test for equality of variances was checked first, which indicated a Sig. value of .420, meaning this assumption was met. The ANOVA table was then interpreted from the output. There was no statistically significant relationship for the eight groups: F (7, 118) = 1.373, p = .22. The effect size, calculated using eta squared, was medium at .08.

Although there was no statistical difference between groups of reported degree of integration, it was of interest to the researcher to also determine whether having integration had an effect on perceived level of cultural competence when compared to those who have no integration. An independent (Student's) t-test was used to analyze this data. There were 114 (90.5%) participants reporting they had integration and a total of 10 (7.9%) participants reporting having no integration were included in this analysis. Levene's test was checked, revealing a Sig. value of .539, indicating to interpret data from the "Equal variances assumed" row in the output. There was no significant difference in scores for those who reported integration (M = 200.32, SD = 27.900) and those who did not (M = 198.00, SD = 21.313); t (122) = .256, p = .79, two-tailed). The magnitude of the differences in the means (mean difference = 2.32, 95% CI: -15.62 to 20.25) was very small (eta squared = .008).

Research question 3. The independent (Student's) *t*-test was also used to analyze whether participation in a cultural immersion experience influenced perceived level of cultural competence. A total of 38 (32.2%) participants indicated they participated in a cultural immersion experience and 80 (67.8%) indicated they did not. Levene's test was analyzed first, revealing a Sig. vale of .848, therefore data were interpreted from the "Equal variances assumed" row in the output. There was a noted significant difference in scores for those who did participate in a cultural immersion experience (M = 211.26, SD = 27.170) and those who did not (M = 196.06, SD = 25.054); t (116) = 2.99, p = .003, two-tailed). The magnitude of differences in the means (mean difference = -15.2, 95% CI: 5.15 to 25.25) was medium (eta squared = .07).

To further analyze perceived level of cultural competence as it relates to the number of credit hours required for the cultural immersion for each participant that reported requirement of a cultural immersion experience, a one-way between groups ANOVA was used. A total of 30 (23.8%) participants were included in this analysis. Participants were divided into four groups according to the number of credit hours reported (Group 1: 2 [n = 3]; Group 2: 3 [n = 14]; Group 3: 4 [n = 11]; Group 4: 5 [n = 2]). Levene's test for equality of variances was checked first, which indicated a Sig. value of .310, meaning this assumption was met. The ANOVA table was then interpreted from the output. There was no statistically significant relationship noted for the four groups: F (3, 26) = 1.186, p = .33. The effect size, calculated using eta squared, was medium at .12. The number of hours spent per week on cultural immersion experience and its influence on perceived level of cultural competence was then analyzed. A one-way between groups ANOVA was also used. Participants were divided into four groups according to the number of hours spent per week reported (Group 1: 1 to 3 [n = 9]; Group 2: 4 to 7 [n = 7]; Group 3: 8 to 11 [n = 7]; Group 4: 12 or more [n = 11]). Levene's test for equality of variances was checked first, which indicated a Sig. value of .003, which indicates this assumption was violated. The Robust Test for Equality of Means using the Welch and Brown-Forsythe values was then interpreted. There was

no statistically significant relationship noted for the four groups: F (3, 30) = .403, p = .73. The effect size, calculated using eta squared, was small at .04

Multiple Regression

Hierarchical multiple regression was used to analyze demographic data that showed statistical significance in the correlational analysis, as well as the three teaching methods. Demographic variables that were significant included race/ethnicity and number of months practicing. Therefore, these variables were controlled for in the regression model in order to determine which teaching method is the best predictor of perceived level of cultural competence, and were entered first. In a block sequence, the remaining variables were entered in order to determine the best predictor of perceived level of cultural competence, over and above the influence of other variables.

Assumptions for multiple regression. Assumptions tested for multiple regression included sample size, multicollinearity, singularity, normality, outliers, linearity, homoscedasticity, and independence of residuals. To address sample size, power analysis was performed using G*Power 3.1, using a medium effect size, alpha level of 0.01, power of 0.95, and 14 variables were included (11 demographic variables and three teaching methods). As defined by Cohen (2002), a medium effect size for regression analysis is 0.15, and would allow for detection of a medium magnitude of differences between variables or groups. Based on a previous review of the literature, a study similar to this study used a medium effect size to detect differences in its target population (Schim, et al., 2005).

Multicollinearity, singularity, and independence of residuals were checked next. Each independent variable showed some relationship with the dependent variable. The stand-alone course variable showed a Pearson correlation coefficient of -.126, the integration of cultural concepts variable showed a Pearson correlation coefficient of .181 and the cultural immersion experience showed a Pearson correlation coefficient of -.093, indicating no violation in singularity. However, these values did not achieve the preferable greater than .3 benchmark

(Pallant, 2010). Further analysis on multicollinearity was done to address this. None of the variables showed a high correlation with each other, and all were less than the Pearson correlation coefficient of .7, which is recommended (Pallant, 2010).

The tolerance was also checked to determine if violation of the assumption of multicollinearity occurred. This value for the stand-alone course variable was .957, for the integration of cultural concepts variable was .936, and for the cultural immersion experience variable was .944, indicating no violation of multicollinearity. The variance inflation factors (VIF) for each of the values were 1.045, 1.068, and 1.059, respectively. Again, this indicates no violation of the assumption of multicollinearity.

Normality and linearity was checked next by inspecting the Normal P-P plot. The points lied in a reasonably straight line from bottom left to top right, indicating no major deviations from normality (Pallant, 2010). The scatterplot was also interpreted, and the residuals were roughly rectangularly distributed, with most of the scores concentrated in the center, indicating no violation in homoscedasticity (Pallant, 2010). There were no outliers noted in the scatterplot (classified as more than 3.3 or less than -3.3), therefore no further action was necessary. Mahalanobis distances were also checked for the presence of outliers. Utilizing the critical values table, it was determined the critical value for three variables for this analysis was 16.27 (Tabachnick & Fidell, 2013). The maximum Mahalanobis distance value in the analysis was 30.92. There was one outlier noted using the casewise diagnostics table, with a standardized residual at 3.1. This participant achieved a 281 out of 320 on the CCCQ (2004), while the model predicted a value of 197.1. This indicates this participant had a higher level of cultural competence than the model would have predicted for him/her. To address this, Cook's Distance was checked next to determine if the outlier should be removed from the data set. Tabacknick and Fidell (2013) recommend removing the case if the Cook's Distance maximum value is greater than one. The maximum value for this analysis was .167, indicating it was acceptable to retain this case for analysis.

Research question 4. Hierarchical multiple regression was used to assess the ability of three variables (stand-alone course, integration of cultural content, and cultural immersion experience) to predict perceived level of cultural competence (as measured on the CCCQ [2004]), after controlling for the influence of race/ethnicity and number of months practicing as a new graduate RN. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity existed. Race/ethnicity and number of months practicing were entered at Step 1, explaining 1.4% in perceived level of cultural competence. After the entry of the three teaching method variables at Step 2 the total variance explained by the model as a whole was 6.2%, F (5, 120) = 1.59, p = .17. The three teaching methods explained an additional 4.8% of the variance in perceived level of cultural competence, after controlling for race/ethnicity and number of months practicing, R squared change = .048, F change (3, 120) = 2.07, p = .11. In the final model, there were no variables showing statistical significance, however, the integration variable was closest to significance (*beta* = .165, p = .074) and was the best predictor when compared to stand alone course (*beta* = -.100, p = .27) and cultural immersion experience (*beta* = -.043, p = .64).

Summary

The block approach method for hierarchical multiple regression was used to assess the influence of specified variables on perceived level of cultural competence after graduation. Additionally, correlational analysis was used to assess the relationship between specified factors on perceived level of cultural competence. Descriptive statistics were used to provide information about the study sample. Validity and reliability analysis was conducted to address internal consistency and construct validity for the tool used to measure perceived level of cultural competence.

An independent (Student's) t-test and ANOVA were used to answer the first three research questions. These analyses showed that the third research question revealed statistical significance (t [116] = 2.99, p = .003, two-tailed), indicating cultural immersion experience was

correlated with a higher level of perceived cultural competence. In addition, selected demographic variables were analyzed to determine their influence on perceived level of cultural competence. Race/ethnicity (F [5, 120] = 5.357, p = .008) and number of months practicing (F [3, 123] = 2.686, p = .05) showed statistical significance, indicating those of Hispanic origin and those practicing a greater number of months demonstrated a higher level of perceived cultural competence.

Hierarchical multiple regression was used to analyze which of the three teaching methods was the best predictor of perceived level of cultural competence. Race/ethnicity and number of months practicing were entered into the model first as the control variables. Next, the stand-alone course, percent of integration of cultural content, and cultural immersion experience variables were entered. In the final model, there were no variables showing statistical significance, however, the integration of cultural content variable was closest to significance (*beta* = .165, p = .074) and was the best predictor when compared to stand alone course (*beta* = -.100, p = .27) and cultural immersion experience (*beta* = -.043, p = .64).

CHAPTER 6

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Introduction

This chapter includes the following: (a) summary of the research study; (b) discussion of the findings; (c) limitations of the study; (d) implications for nursing education; (e) recommendations for future research; and (f) summary.

Summary of the Research Study

The purpose of this study was to identify the demographic variables and teaching methods that influence perceived level of cultural competence, with the aim of providing new knowledge to nursing science about these predictors. The dependent variable for this study was perceived level of cultural competence, which was measured on a continuous scale using the CCCQ (2004) (See Appendix B). Selected demographic variables analyzed for this study included the following: (a) age; (b) sex; (c) race/ethnicity; (d) primary language spoken; (e) time spent living outside of the U.S.; (f) nursing program location; (g) type of nursing program; (h) other degrees and focus; (i) number of months practicing; (j) clinical orientation with cultural concepts; and (k) new graduate residency with cultural concepts.

The theoretical framework that guided this study was Josepha Campinha-Bacote's (2007b) "The Process of Cultural Competence in the Delivery of Health Care Service." According to this model, cultural competence is defined as "the process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of a client, individual, family or community" (p. 15). This model "requires health care professionals to see themselves as *becoming* culturally competent rather than *being* culturally competent and involves the integration of cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire" (Campinha-Bacote, 2007b, p. 15). Campinha-Bacote (2007b) feels achievement of cultural competence is a life-long journey, which is fluid and dynamic. Among her five constructs she cites desire as being the pivotal construct in her model.

She also makes a case for differences and variation in cultural competence within as well as across cultural groups. This framework is centered on five constructs: (a) cultural awareness; (b) cultural skill; (c) cultural knowledge; (d) cultural encounters; and (e) cultural desire.

All programs in the U.S. accredited by the CCNE and ACEN/NLN and programs that met the inclusion criteria were invited to participate in the study. A total of 623 programs accredited by CCNE and a total of 197 accredited by ACEN/NLN were included. A total of 244 participants responded to the survey, however, after data screening was complete, 126 were included in the data analysis. Of the 244 participants that responded to the survey, 77 (31.5%) did not meet inclusion criteria and were therefore excluded from the study. An additional 37 participants (15.2%) did not complete the CCCQ (2004), which provided information on the dependent variable for this study. These participants were also excluded, yielding a final $n = 126$, which met the standard set to achieve power. Data were collected over a period of 6 weeks and was collected at one point in time for each participant, within 12 months of graduation. An electronic survey created in Survey Monkey was used to collect data about demographics, teaching methods, and perceived level of cultural competence. A researcher-developed questionnaire was developed that asked questions about demographic information and teaching methods, and the CCCQ (2004) was used to collect data about perceived level of cultural competence.

Once data collection was complete, three data analysis methods were used to examine the data. Hierarchical multiple regression was used as the predictor model to identify the demographic variables and teaching methods that influence perceived level of cultural competence. Correlational analyses, specifically the independent (Student's) *t*-test and ANOVA, were used to determine any relationship between demographic variables and teaching methods and the perceived level of cultural competence. Reliability measurement using Cronbach alpha coefficient and exploratory factor analysis (PCA) was also used as a method of supporting construct validity of the CCCQ (2004).

Hierarchical multiple regression showed the three teaching methods explained an additional 4.8% of the variance in perceived level of cultural competence, after controlling for race/ethnicity and number of months practicing, however the final model did not show statistical significance for any of the teaching methods as being the predictors of perceived level of cultural competence. Degree of integration was recorded with a higher correlation to perceived level of cultural competence than stand-alone course and cultural immersion experience.

The correlational analysis showed that for the demographic variables, race/ethnicity was significant in its relationship with perceived level of cultural competence. Those participants identifying as Hispanic scored higher on the CCCQ (2004) when compared to their Caucasian counterparts. Additionally, the number of months practicing demonstrated significance in its relationship with perceived level of cultural competence, indicating the greater amount of months practicing correlated with a higher score on the CCCQ (2004). While there was no statistical significance noted, those who had a higher number of reported credit hours for the stand-alone course on culture scored higher on the CCCQ (2004). Participants indicating they participated in a cultural immersion experience also scored higher on the CCCQ (2004) when compared to those who did not participate in this experience.

Reliability and validity of the CCCQ (2004) was measured. Internal consistency reliability was checked using Cronbach alpha coefficient, revealing a value of .94. This was congruent with previous studies utilizing this tool, which indicated a Cronbach alpha coefficient of .80 or above (Wetzel, 2013). Construct validity of this tool was addressed using PCA, and suggested the tool's sensitivity to measuring perceived level of cultural competence among nursing graduates, demonstrating its construct validity.

Discussion of the Findings

This section provides a discussion of the findings of the study and includes the following sections: (a) demographic data; (b) teaching methods; and (c) other pertinent data.

Demographic Data

Few research studies were located in the literature that investigated demographic information and perceived level of cultural competence. There was one study that found demographic data did not have any impact on students' perceived cultural self-efficacy (Liu, et al., 2008). Another study found that 80% of licensed registered nurses are licensed non-Hispanic whites, but this study did not correlate race/ethnicity with perceived level of cultural competence (Mareno & Hart, 2014). This current study found that two demographic variables, race/ethnicity (p = .008) and number of months practicing (p = .05) had a statistically significant relationship with perceived level of cultural competence. Further analysis showed that those who identified as Hispanic had a higher score on the CCCQ (2004) when compared to their Caucasian/non-Hispanic/non-Latino counterparts. This may be due to the fact that those who are of Hispanic descent speak Spanish to an extent, enabling them to care for patients who speak Spanish as a primary language in a more comprehensive and comfortable manner. It was noted that two of the four Hispanic participants were able to speak Spanish. Sealey, Burnett, and Johnson (2006) found the area for health care providers noted to be most difficult in delivering culturally competent care is working with clients who speak a different language. Additional analysis of the number of months practicing showed that those participants practicing more months (10-12 months) scored higher on the CCCQ (2004) than those who practiced less months (1-6 months). This suggests that cultural competence increases with more time and experience at the bedside. However, as a component of becoming culturally competent and acknowledging that it is an ongoing process (Campinha-Bacote, 2006), it would be helpful to refresh oneself on the theoretical underpinnings of cultural concepts as time goes on, and participation in life-long learning in this area would be recommended to ensure continued delivery of culturally competent care (Jeffreys et al., 2007).

Other demographic variables analyzed in this study included age, sex, primary language spoken, length of time living in the U.S. and/or living outside of the U.S., nursing program location, public/private institution, type of baccalaureate degree program (generic 4-year vs.

accelerated/second-degree), additional baccalaureate degrees and focus, and participation in an orientation/residency program in clinical practice. There was no statistically significant relationship noted between these demographic variables and perceived level of cultural competence. The findings of this study in terms of specific demographic variables were surprising to the researcher. Intuitively, one would think age, speaking more than one language, and holding another degree in an area with a focus in cultural content would increase perceived level of cultural competence. Due to the limited number of participants in a higher age range as well as the practice time (12 months or less) used for this research study, this study was not able to determine how age specifically influences perceived level of cultural competence. In addition, more participants speaking more than one language and with additional degrees may allow for the detection of statistical significance between these variables.

Teaching Methods

Several research studies indicated study abroad experiences, clinical experiences, stand-alone cultural courses, and integration of cultural concepts throughout the curriculum are currently being used in nursing curricula to address cultural competence (Gebru, Khalaf, & Willman, 2008; Liu, Mao, & Barnes-Willis, 2008; McKinnon & Fealy, 2011; Momeni, Jirwe, & Emami, 2008; Rutledge, et al., 2008; Underwood, 2006). There were few research studies found on the effectiveness of a stand-alone course and its relationship or ability to predict level of perceived cultural competence; however those that were located indicated no relationship between these variables (Kardong-Edgren & Campinha-Bacote, 2007). Hall-Long (2004) noted that students' remarks regarding use of a stand-alone course were positive in terms of student satisfaction, but this study did not look at perceived level of cultural competence for its subjects. While this study found no statistically significant relationship between use of a stand-alone course and perceived level of cultural competence, the results indicated those participants with courses that required a higher number of credit hours had a higher mean score on the CCCQ (2004). This finding indicates the need for further research in this area utilizing a larger sample

size as this may result in detection of statistical significance. In addition, perhaps the need for a further understanding of the structure of these courses as well as the timing or location of this course in the curriculum, and how this relates to perceived level of cultural competence should be examined.

Research has shown courses structured using Campinha-Bacote's framework (2006) have been effective in promoting cultural competence (Ackerman-Barger, 2010; Adams, 2010; Buscemi, 2011; Campinha-Bacote, 2011; Chen, McAdams-Jones, Tay, & Packer, 2012; Graham & Norman, 2008; Hawala-Druy & Hill, 2012; Hayward & Charette, 2012; Hunter & Krantz, 2010; Ingram, 2012; Munoz, DoBoka, & Mohammad, 2009; Nickitas, 2007; Rutledge, Barham, Wiles, & Benjamin, 2008; Zoucha & Broome, 2008). Nurse educators should consider utilizing this framework when structuring their courses. The timing of the course in the curriculum also needs to be considered. For example, if the stand-alone course were provided early in the curriculum, it would allow for more experience with application of learned material into practice during clinical or cultural immersion experiences prior to graduation.

There are few research studies on the effectiveness of integration of cultural concepts throughout the nursing curriculum. Cuellar, Brennan, Vito, and de Leon Siantz (2008) proposed framework be used to integrate cultural competence, acknowledging the difficulty of adding more information into an already occupied curriculum. These researchers did not look at the relationship between their framework and level of perceived cultural competence. Sumpter and Carthon (2011) conducted a qualitative study on integration, and found the definition of cultural competence was confusing, and that there were many missed teaching opportunities using this method. This study found no significant relationship between integration of cultural concepts and perceived level of cultural competence ($p = .22$). This suggests that since this teaching method is the most feasible for programs due to time (Sumpter & Carthon, 2011), an organized method of implementation should be used to increase cultural competence among nursing graduates, such as the use of a blueprint or curricular mapping, and further research is needed on this strategy.

An additional strategy to use that would ensure integration of this content would be to provide faculty workshops on how to teach cultural content, and follow-up with faculty peer evaluations of courses. Cultural competence would be a noted component of each class, and faculty would need to adequately address this in their respective courses. For example, a faculty member teaching health and physical assessment should address the cultural considerations with each body system taught. This ensures cultural competence is addressed consistently throughout the semester, rather than at a fixed point in time, such as during one class period. Faculty peer evaluations would involve fellow faculty members assisting with planning cultural concepts and then sitting in on one to two classes held throughout the semester. Then, collaboration could ensue identifying which areas were addressed adequately and which need to be addressed more thoroughly. This would ensure faculty collaboration and also that faculty members are held accountable for including cultural content in an integrated manner throughout their courses.

Several research studies noted the importance of cultural immersion in promoting cultural competence in nursing graduates (Axtell, Avery, & Westra, 2010; Callen & Lee, 2009; Boostrom & Siewert, 2009; Dean & Fernandez, 2009; Clevenger, 2009; Harrowing et al., 2012; Kemppainen et al., 2012; Larson, Ott, & Miles, 2010; Wright, 2010). While many researchers indicated these experiences offered unique opportunities, there was only one research study that utilized a survey method to measure degree of cultural competence after a study abroad trip to Mexico (Dean & Fernandez, 2009). This study did indicate students demonstrated a higher degree of cultural competence after participating in this experience. While this method did not show predictive ability in perceived level of cultural competence when subjected to multiple regression analysis, this research study found a statistically significant relationship between participation in a cultural immersion experience and perceived level of cultural competence using an independent (Student's) *t*-test ($p = .003$), with those who participated scoring higher on the CCCQ (2004). This indicates that these experiences are valuable in promoting cultural competence and

ultimately delivery of culturally competent care. These findings impacts nursing curriculum planning and cultural immersion experiences should be included in the curriculum.

Given the importance of cultural immersion in promoting cultural competence among nursing students, nursing faculty should try to incorporate the use of cultural immersion in the curriculum through strategic curriculum planning. Study abroad experiences are preferable, but require time, resources, and adequately prepared faculty facilitators. If this option is feasible, it should be used to promote cultural competence in nursing students. For programs that do not have this option due to the resource strain, local cultural immersion experiences should be considered. With a current shift towards primary prevention, community health has become a new area for clinical placement for nursing students (Axtell, Avery, & Westra, 2010; Callen & Lee, 2009). Local community placement experiences for nursing students providing exposure to various cultures should be considered as a requirement or a component of the curriculum because it will allow for consistent interaction with members of another culture. Examples of cultural immersion experiences could include working at a homeless shelter, working at various local free clinics, volunteering for health fairs, visiting senior centers, or any other collaborative community health efforts. Nurse educators need to consider the cultural make-up of their geographical area when planning clinical placements, and precedence should be placed on clinical sites with the most diverse patient populations.

In addition, the use of technology in providing cultural immersion experiences is becoming more prevalent in nursing programs (Kemppainen, et al., 2012). Nursing programs in the U.S. should partner with nursing schools in other countries, and videoconferencing should be utilized throughout the semester. Students can talk about nursing practice issues in their respective countries, which will assist both parties in further understanding the complexities of the other culture(s). In addition, simulation is another technology that can be utilized to promote cultural competence, particularly with communication and assessment skills. Many nursing programs are using simulation in place of clinical placement throughout the course of the

semester (Rutledge, et al., 2008). In this way, time is allowed for adequate simulation preparation, implementation, and debriefing.

Other Pertinent Findings

On the CCCQ (2004), participants were given the opportunity to answer the following open-ended questions: (a) If you were not required to take a stand-alone course and integration of cultural concepts throughout the curriculum was not used, please briefly describe how cultural concepts were addressed in your curriculum; (b) Please specify any other factors that contribute to health disparities if not listed previously and indicate your response to that factor; and (c) What are some potential challenges to integrating training about culturally competent health care in health care organizations and clinical practice?

Other methods used to teach cultural concepts as identified by some participants included a one-day course topic, a religious studies course, and a community service project as part of a Spanish course. Another participant also indicated their clinical requirement allowed for exposure to various cultures in patient care, although there was no formal cultural immersion experience required. These may be areas for consideration depending on the cultural make-up of the nursing program location as a method of integrating cultural concepts into the curriculum. Specification of any other factors that relate to health care disparities included type of medical insurance, mental disorders, fear of working with individuals from the transgender community, marital status, illegal drug use, and access to health care. Potential challenges to integrating training about culturally competent health care in health care organizations and clinical practice are listed in Appendix S.

While the noted challenges to integrating training in health care organizations and clinical practice is daunting, they are not obstacles that cannot be addressed and overcome through the use of careful and strategic curriculum planning. The suggested teaching methods will aid in overcoming these challenges, promoting cultural competence among nursing graduates, and ultimately addressing the issue of consistently increasing health care disparities in the U.S.

Educators need to understand the substantial role they play in shaping future nurses, and the impact their teaching efforts ultimately affect a new nurse's practice. Nurse educators should use their time with their nursing students as opportunities to create teaching moments that facilitate the realization of the potentially powerful position graduates will be in to positively affect change in a person's life.

In conclusion, further study needs to be done exploring the most effective teaching methods and their relationship to perceived level of cultural competence in nursing graduates. There are a few research studies examining the use of a stand-alone course and its relationship to perceived level of cultural competence. A more detailed study focusing on what is included in specified courses as well as where in the curriculum the course is placed will provide more information on the effectiveness of this teaching method. Additionally, a more detailed study focusing on integration and where specifically cultural concepts are focused on and to what extent will provide valuable insight into this method's effectiveness. Further research on cultural immersion experiences and the most effective and convenient type will also provide valuable information to nurse educators, and will potentially allow for this opportunity in an occupied curriculum, as research implicated this as an important method in promoting increased cultural competence.

Limitations of the Study

One limitation of this study related to the recruitment process. There were six deans/directors/chairpersons indicating additional IRB approval would be needed for their respective programs. Obtaining additional IRB approval was not compatible with the timing of this study, and therefore these schools were not included in data collection. In addition, there was one school that indicated that the graduates did not have a school email address any longer, and there was no other method of contact to reach them to send recruitment materials. Deans/directors/chairpersons were also asked to advertise the study on their program's Facebook page. Most programs did not have a well-established Facebook page; therefore, advertising

through the program's Facebook page did not provide for a reliable recruitment method. Introducing this study in the final semester of the nursing program for nursing students may have resulted in greater participation.

To an extent, the researcher had to rely on others to introduce the study to potential participants and distribute recruitment and data collection materials. This was seen as a limitation because it was difficult to know exactly what procedures were carried through and if the same processes were followed throughout programs, even though directions were provided for distribution. Follow-up was done with the deans/directors/chairpersons, however the researcher could not ensure that recruitment and data collection materials reached potential participants as planned. Face-to-face contact for recruitment is favorable, however was not possible due to this being a national study.

Recall bias is another potential limitation of this study, particularly for those participants who had graduated 12 months before taking the survey. Depending on the teaching method implemented and where it was implemented in the curriculum, as well as how long it has been since graduation, it is possible participants either under-reported or over-reported their perceived level of cultural competence. Varying degrees of previous exposure to cultural content was seen as another limitation of this study. Many participants had other degrees and were therefore exposed to additional cultural content in these programs. This study, however, did not find this variable as having a statistically significant relationship with perceived level of cultural competence. Additionally, the design of this research study was considered a potential limitation. This study was cross-sectional, and data were collected at one point in time, which provides limited data due to the nature of the design. Use of a longitudinal study in the future would address this limitation and should be considered for ongoing research in this area.

Implications for Nursing Education

The current body of knowledge regarding the best methods to teach cultural competence in the nursing curriculum is evolving, and this study adds to this body of knowledge and provides

insight into planning curricular strategies and teaching methods that will best promote cultural competence after graduation.

While one other research study found no significant relationship between demographic variables and perceived level of cultural competence (Liu, et al., 2008), this research study noted that two demographic variables (race/ethnicity and number of months practicing) showed a statistically significant relationship with the dependent variable. For nursing education, the language barrier students experience when caring for diverse populations should be a focus of attention when planning teaching of cultural concepts. In addition, ways to overcome this barrier should be identified and incorporated in the curriculum. This information also alludes to the fact that as much exposure to culturally diverse populations during nursing school as is possible should be provided in order to promote cultural competence before graduation. Since number of months practicing was found to show a statistically significant relationship with perceived level of cultural competence, this should be addressed by faculty as a point of interest. A possible strategy would be to plan for consistent student experiences for caring for clients of different cultures. Some possible experiences could include interviewing clients from a culture different than their own, volunteering in local community outreach programs, working with the homeless population, and any other experiences the geographical area offers. In addition, nurse educators should inform students that as they continue to gain direct experience with caring for patients of culturally diverse backgrounds, they will feel more comfortable and therefore will be more culturally competent. With regard to the graduate nurse, further research is needed in this area, however, to determine how experience beyond 12 months at the bedside influences cultural competence.

Few research studies currently exist with regard to the use of a stand-alone course and its relationship to perceived level of cultural competence (Hall-Long, 2004; Kardong-Edgren & Campinha-Bacote, 2007). While this study did not detect a statistically significant relationship, the result was approaching significance. Nurse educators should still consider this method as a

viable option in promoting cultural competence in nursing students and ultimately graduates. Further and more detailed research is needed to determine how to structure a stand-alone course, its content, and where placement in the curriculum would be best in order to promote their effectiveness in practice.

Noted in the literature were studies that implicated the use of integration of cultural concepts throughout the curriculum as a promising method in promoting perceived level of cultural competence, however these studies did not test this as a method or test its relationship with cultural competence (Cuellar, Brennan, Vito, and de Leon Siantz, 2008; Sumpter & Carthon, 2011). This study did not detect a statistically significant relationship between integration of cultural concepts and perceived level of cultural competence after graduation. However, this method should be used in a pre-planned and organized manner. Faculty could incorporate a framework or utilize concept mapping in order to determine exactly what subject matter in terms of cultural concepts is being addressed in each nursing course. From this point, revisions could be made so that all concepts across selected cultures are addressed and integrated. This approach would emphasize the need to service clients from many cultures and this consistent presentation throughout the curriculum could foster a higher level of perception of cultural competence. Further research, however, is needed in this area to determine if this is an effective teaching method in promoting cultural competence after graduation.

Several studies were noted in the literature implicating cultural immersion as an effective method in promoting cultural competence, but only one study measured cultural competence after such an experience (Axtell, Avery, & Westra, 2010; Callen & Lee, 2009; Boostrom & Siewert, 2009; Dean & Fernandez, 2009; Clevenger, 2009; Harrowing et al., 2012; Kemppainen et al., 2012; Larson, Ott, & Miles, 2010; Wright, 2010). This current study noted a statistically significant relationship between participation in a cultural immersion experience and perceived level of cultural competence. While it is not a possibility for every nursing program to include study abroad as an option to address this requirement, cultural immersion within the surrounding

communities should be utilized. Further research is needed to determine which immersion experiences are most effective, and will provide valuable insight to educators to find effective and realistic methods in teaching and learning of cultural concepts.

Recommendations for Future Research

National accrediting bodies (AACN and NLN/ACEN) have set forth standards, requiring baccalaureate nursing programs to address cultural diversity and delivery of culturally competent care thoroughly and adequately in their curricula. Additionally, the U.S. Census Bureau (2010) noted an increase in minority populations over the last 10 years, and projects an even more dramatic increase in the coming years. Many researchers have noted the issue of an increase and persistence in health care disparities among minority populations (AACN, 2011; ACEN/NLN, 2009; ANA, 2012; Betancourt, 2006; Betancourt, 2010; Brach, 2000; Callen & Lee, 2009; Campinha-Bacote, 2007b; Campinha-Bacote, 2008; Carpenter & Garcia, 2012; Doutrich & Storey, 2004; Evans, et al. 2012; Kardong-Edgren, et al., 2010; Kirk et al., 2014; Liu et al., 2008; Lowe & Archibald, 2008; Maier-Lorentz, 2008; Mareno & Hart, 2014; Martino Maze, 2005; MEPS, 2004; Riley, Smyer, & York, 2012; Siegrist, 2004; Stanley & Dougherty, 2010; The National Center for Cultural Competence, 2010; Turner, 2008; Weeks, 2008; Xu, 2001) Therefore, it is critical that further research be done to determine which teaching methods are most effective in promoting cultural competence after graduation that is applied to practice. The results could provide nurse educators with the knowledge about how to structure courses and the curriculum in a way that will promote cultural competence. A national study would allow for research findings to be generalized. Even still, research done within one nursing program could provide valuable information regarding specific teaching methods.

This study found that those identifying as Hispanic scored higher on the CCCQ (2004). According to the U.S. Census Bureau (2010), from 2000 to 2010, the Hispanic population grew by 43%. This statistic should be considered as a contributing factor as to why Hispanic participants scored higher on the CCCQ (2004). With an increase in Hispanic health care

consumers, Hispanic health care workers may feel better equipped to care for these patients. As a component of future studies, race/ethnicity should be looked at as a contributing variable to perceived level of cultural competence. Also, language barriers should be studied to determine if this is in fact a major impediment to perceived level of cultural competence. This study also found that the more months at practice was linked to a higher score on the CCCQ (2004). This indicates the need to study how bedside experience contributes to perceived level of cultural competence. Intuitively, the more experience a person has in any area, the more comfortable they will feel, or perceive, in terms of their own ability. Since this study showed the greater number of months spent at the bedside was related to a higher level of perceived cultural competence, this should be considered an area for further study, particularly over a longer period of clinical experience time. Additionally, it is recommended that use of a stand-alone course and integration of cultural concepts are studied further as this information will provide valuable insight as a potential method for promoting cultural competence after graduation.

This study demonstrated a statistically significant relationship between cultural immersion experience and perceived level of cultural competence when correlational analyses were run. In addition, Jeffreys et al. (2007) suggested that teaching and evaluation of cultural competence must be done in a way that addresses the cognitive, psychomotor, and affective learning domains in order to be effective. Cultural immersion accomplishes this task. Therefore, further research is recommended to determine which immersion experiences contribute most to a higher level of cultural competence, and will inform educators on how to plan these experiences in a way that is realistic. It is not always possible to offer a study abroad option to students, and even when it is possible, many students cannot afford this. Surrounding communities can be used for these experiences, and the use of technology can also be incorporated. Video-conferencing with programs in other areas as well as the use of simulation in promoting cultural competence are areas of interest and should be researched further.

Another area of research that is needed is faculty readiness to teach cultural concepts and how this affects cultural competence after graduation. This research study noted that many programs addressed cultural content differently in the curriculum, essentially resulting in varying levels of perceived cultural competence. Therefore, a standardized curriculum that ensures culture is adequately addressed through any of these teaching methods has been recommended by experts in culture (Campinha-Bacote, 2006) and should be studied further to determine its effectiveness in promoting cultural competence.

Resource availability is another barrier to this important area of student learning, particularly in the case of study abroad experiences. Time, money, and availability of qualified faculty members in teaching this content are needed for success. Bringing to light the importance of these issues to administrative personnel may assist in increasing availability of resources. Additionally, funding through grants or other means may be an option. Perhaps establishing a scholarship fund used to allow students to study abroad would be another solution. Training of all faculty members in this area should also be considered as this will inevitably lead to faculty feeling prepared and confident in teaching this material.

The use of multiple regression should be considered if an adequate sample size is available to detect statistical difference. This data analysis method allows the researcher to determine which methods best predict the dependent variable while controlling for the influence of other potentially confounding variables. Few studies have used this method in studying cultural competence in the nursing curriculum, but this method provides a rigorous means for nurse researchers to determine the best predictors of cultural competence. Additional recommendations in terms of research methodology include recruiting in a face-to-face manner. This usually results in increased participation in the study. Another recommendation for data recruitment would be to begin recruitment during the final semester of potential participants' nursing program. This would allow the researcher to obtain after-graduation email addresses and therefore the researcher could email participants directly. This would eliminate the need to rely on others for recruitment.

Summary

The best teaching methods to prepare a nursing graduate to care for culturally diverse populations is of great importance to nurse educators in their curricular planning efforts. To date, little research has been conducted on the most effective teaching methods. While the body of nursing knowledge continues to evolve on this topic, further research is needed to determine which methods will adequately prepare nursing graduates to address the needs of a constantly changing health care population. Based on the correlational analysis, the results of this study support the idea that cultural immersion is a promising method in promoting cultural competence, thus allowing for these marginalized populations to be better cared for.

Cultural immersion, in addition to the other strategies studied, needs to be researched further so nurse educators can utilize and implement these strategies effectively. Additionally, just as graduate preparedness in caring for diverse populations is an issue, faculty preparedness in teaching graduates how to care for these populations is a further compounding issue. Further research and a plan to address this issue are needed so faculty can be confident in their ability to teach this important content. Increased cultural competence among both graduates and faculty will ultimately aid in the potential reduction and elimination of health care disparities, and will contribute to the delivery of high quality, equitable health care to the consumers in society today.

APPENDIX A

PERMISSION LETTER TO USE CCCQ

Hello Dr. Like,

My name is Angela Silvestri Elmore and I am a doctoral student at the University of Nevada, Las Vegas. I am reaching out to you regarding the tool you developed in 2004. I am working on my dissertation and am looking at the predictors of cultural competence in the undergraduate nursing curriculum. I am looking at three specific teaching methods as well as specific demographic variables and how they influence/predict cultural competence. I came across your tool in my research and am interested in potentially using it to measure my dependent variable (cultural competence). I was planning to use Campinha-Bacote's tool (IAPCC-R) but it is very expensive. Is there a cost to use your tool? Also, do you have an article I can reference on the development and validity and reliability of your tool?

Thank you very much. I really appreciate the work you have done and look forward to hearing back from you.

Sincerely,

Angela

Dear Ms. Silvestri (Angela):
Good evening and thanks for your interest in the CCCQ survey instrument that was used in our previous Aetna Foundation-funded cultural competency/quality improvement study (http://rwjms.rutgers.edu/departments_institutes/family_medicine/chfcd/grants_projects/aetna.html). I appreciated learning about your planned dissertation study with undergraduate nursing students.
It would be fine to make use of either the original or an adapted version of the CCCQ. I would just request your inclusion of the following attribution language on the adapted instrument acknowledging the original developers and funding source for the CCCQ:
"This survey has been adapted with permission from the Clinical Cultural Competency Questionnaire (CCCQ) developed by Robert C. Like, MD, MS, Professor and Director of the Center for Healthy Families and Cultural Diversity, Department of Family Medicine and Community Health,RutgersRobertWoodJohnsonMedicalSchool. The CCCQ was used in a project entitled, "Assessing the Impact of Cultural Competency Training Using Participatory Quality Improvement Methods," funded by the Aetna Foundation (http://rwjms.rutgers.edu/departments_institutes/family_medicine/chfcd/grants_projects/aetna.html). Any results obtained in future projects making use of the CCCQ are solely the responsibility of project investigators and do not necessarily represent the official views of the Aetna Foundation or its affiliates."
With regard to your inquiry, please be advised that there has generally not been a fee for single use of the entire CCCQ or an adapted version of the tool when undertaken by researchers based at academic institutions or community non-profit organizations who are funded by federal or foundation grants, or as part of a fellowship or graduate student projects. If there are any plans to make use of the CCCQ as part of a non-grant funded health care organization or provider cultural competency project, or if there are plans to do ongoing assessments as part of a larger project or make derivative uses of the tool(e.g., in quality improvement/patient safety studies), or if the organization is a for-

profit entity, there may be a fee for use. When fees are required, these are negotiable and can either be donated to the Rutgers University Foundation in support of our CHFCD's educational activities or paid directly to the CHFCD. If more extensive use of the tool is being considered, a limited licensing agreement or some kind of memorandum of agreement (MOA) may also need to be developed as the CCCQ is the intellectual property of the Center for Healthy Families and Cultural Diversity/Department of Family Medicine and Community Health/Rutgers Robert Wood Johnson Medical School].
I would also request that the CCCQ not be made available online in the public domain if there are plans to carry out any web-based surveys. Appropriate IRB approvals if needed should be obtained, and access protections and firewalls should be instituted to control use and dissemination (thanks).
The CCCQ has been used in a number of studies both in the US and abroad including the following:
http://archive.ajpe.org/aj7410/aj7410181/aj7410181.pdf
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3327238/
http://www.ajog.org/article/S0002-9378(06)00806-4/abstract
http://www.mfh-eu.net/public/experiences_results_tools/cct_eval_instruments.htm
http://www.jcehp.com/vol31/3103_like.asp (another article that may be of interest)
The CCCQ can also be accessed at the AAMC's new MedEdPORTAL DREAM database and is available for use by researchers/educators at academic institutions through a Creative Commons (non-commercial) license. You may want to access the instrument through this website for additional information including some relevant critical analysis papers.
Citation:
Wetzel A. Critical Synthesis Package: Clinical Cultural Competency Questionnaire (CCCQ). MedEdPORTAL; 2013. Available from:
www.mededportal.org/publication/9390
Have you also taken a look at any of the nursing cultural competency assessment tools developed by Dr. Marianne Jeffreys (Staten Island)?
http://www.mariannejeffreys.com/culturalcompetence/newtoolkit.php
http://www.springerpub.com/product/9780826117878
http://www.springerpub.com/content/downloads/9780826117915_chapter.pdf
http://www.springerpub.com/samples/9780826117878_chapter.pdf
http://tcn.sagepub.com/content/15/4/317.full.pdf (additional article of interest)
I hope this information proves helpful and would be pleased to learn more about the results of your study when completed. Thanks again for your interest and have an enjoyable remainder of summer!
Sincerely,
Bob Like

Robert C. Like, MD, MS
Professor and Director
Center for Healthy Families and Cultural Diversity
Department of Family Medicine and Community Health
Rutgers Robert Wood Johnson Medical School
1 Robert Wood Johnson Place, MEB 240
New Brunswick, NJ 08901
work: 732-235-7662
fax: 732-235-8564
email: like@rwjms.rutgers.edu

website: http://rwjms.rutgers.edu/departments_institutes/family_medicine/centers_networks/chfcd/index.html

Thank you, Dr. Like. I just want to clarify one part of your response. I am planning to use Survey Monkey to send out surveys to participants. Would this be acceptable, and if so, is there a fee associated with this?

Thank you again.

Sincerely,

Angela

Good morning Angela. Re: the use of Survey Monkey, you will need to include statements that 1) the Clinical Cultural Competency Questionnaire (CCCQ) is the intellectual property of the Center for Healthy Families and Cultural Diversity, Department of Family Medicine and Community Health, Rutgers Robert Wood Johnson Medical School and may not be reproduced, utilized, or further distributed beyond this study without our permission and 2) the required Aetna attribution statement in my email below, there will not be a fee for this single use re: your dissertation study. Will you be able to control having Survey Monkey used internally so that it is not generally available to others in the public domain? I don't know if Survey Monkey charges people a fee for the use of their technology so you will need to check this. Also the CCCQ cannot become the intellectual property of the Survey Monkey company so please confirm this before using the technology. If this becomes an issue, you will need to find another mechanism of distributing the survey. Would advise doublechecking with your dissertation faculty advisors so you've touched bases with all the appropriate channels at your institution. Please let me know what you find out. Thanks, Robert C. Like, MD, MS

Hi Bob,

Thank you for the information. Survey Monkey does not allow for distribution in the public domain. It is a secured website and we use it a lot at the university for data collection. You are correct, there is a fee, but since I use it so frequently, I have purchased a membership. Please let me know if there are any other concerns you have, but otherwise I believe my intended use should meet all of your requirements. Thank you again for your time.

Great - it sounds like you are good to go. Good luck with your study? Bob

APPENDIX B

DESCRIPTION OF THE STUDY, CONSENT, AND SURVEY

Part I: DESCRIPTION OF THE STUDY AND CONSENT

DESCRIPTION OF THE STUDY AND DIRECTIONS FOR PARTICIPATION

This research study is being done by a doctoral student at the University of Nevada, Las Vegas to identify the predictors of cultural competence in the baccalaureate nursing curriculum. The findings of this research study will be very important for faculty preparation, curriculum development, and delineation of effective teaching and learning methods. This survey is a part of this research study and its purpose is to collect data about demographic information, teaching methods used in the curriculum, and level of cultural competence in nursing graduates. If you agree to participate in this study, please read the information below. Press the NEXT button at the bottom of each page and the next page will appear. Once you read the consent pages, press the NEXT button at the bottom of the screen to continue or press the EXIT THIS SURVEY button located at the top right corner of the screen to leave this survey. To answer the following survey questions, you will be asked to either select an answer or to type an answer. The survey should take no longer than 30 minutes to complete. Your time and careful consideration in answering these questions is appreciated, and will provide valuable information related to cultural competence in nursing graduates.

PURPOSE OF THE STUDY

In order to address the need to incorporate cultural competence into the nursing curriculum, the aim of this proposed study is to determine which teaching method(s) is/are the best predictor(s) of cultural competence. Variables studied will include teaching methods used in the curriculum and demographic variables and recent nursing graduates' self-perceived level of cultural competence. Specifically, the use of a stand-alone course, the use of integration of cultural concepts in the curriculum, and/or the use of a cultural immersion experience will be examined. Demographic variables will include age, gender, race/ethnicity, primary language spoken, country of origin, length of time living in the U.S., nursing program location, public/private institution, type of baccalaureate degree program, additional baccalaureate degrees, number of months practicing, and participation in an orientation/residency program in clinical practice.

According to the Agency for Healthcare Research and Quality's National Healthcare Disparities Report (2012), overall quality of health care is improving, while access to health care and disparities are getting worse. Anderson (2012) reports the U.S. racial and ethnic minorities, which include any non-white race or ethnicity, receive lower quality health care than whites, even when insurance status, income, age, and severity of condition are comparable. These noted health care disparities suggest the need for increased attention to specific cultural differences and how these differences relate to health outcomes (Jeffreys, Bertone, Douglas, Li, & Newman, 2007; Henderson, Kendall, & See, 2011; Krupic, Eisler, Garellick, & Karrholm, 2012; Schim & Doorenbos, 2010). In addition, the American Association of Colleges of Nursing (AACN) (2008) and National League for Nursing (NLN) (2009) indicate addressing the need for increased attention to cultural differences in the nursing curriculum can promote increased provision of culturally competent care.

The health care needs of culturally diverse populations will be more easily identified if the nurse is culturally competent. This is because cultural competence among nurses can potentially assist in reducing and eliminating health care disparities, resulting in positive health outcomes (Agency for Healthcare Research and Quality, 2012). Findings from this study have the potential to promote the provision of culturally competent health care. The exploration of teaching methods used in a curriculum and identification of those that best promote cultural competence will assist in guiding nursing faculty in curriculum planning with regard to teaching cultural concepts.

RESEARCH QUESTIONS

The research questions for this study are as follows:
(1) Does a stand-alone course on cultural concepts in the curriculum influence the level of cultural competence attained by nursing graduates of a baccalaureate program accredited by the CCNE or NLN in the United States?

(2) Does the integration of cultural concepts in the curriculum influence the level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or NLN in the United States?

(3) Does a formal cultural immersion experience in the curriculum influence the level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or NLN in the United States?

(4) Which variables (age, gender, race/ethnicity, primary language spoken, country of origin, nursing program location, type of university [public or private; traditional or accelerated], other degrees including focus, number of months practicing, orientation with inclusion of cultural concepts, residency program with inclusion of cultural concepts, stand-alone course, integration of cultural concepts in the curriculum, cultural immersion experience) best predict level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or NLN in the United States?

PROCEDURES FOR THE RESEARCH STUDY

There will be approximately 1,000 colleges/universities invited to participate in this research study. If you volunteer to participate in this research study, you will be asked to complete one 73-item survey, which you should allow approximately 30 minutes to complete. The survey includes questions about: (1) your demographic information, (2) teaching methods used in your nursing program's curriculum, (3) cultural knowledge, (4) cultural skill, (5) cultural encounters/situations, (6) cultural attitudes, and (7) an area that provides you with the opportunity to offer any additional information regarding cultural competence. You will also be able to provide an email address if you would like a copy of the study results. The deadline for submitting the survey is _____. The data collected from all participants will be analyzed to determine the best predictor(s) of cultural competence in the baccalaureate nursing curriculum. The findings of this study may be published. If the findings are published, there will be no information in the publication that can link you as a participant of this study. The data collected in this research study may also be used for future analysis and publication of findings.

BENEFITS OF PARTICIPATION

If you wish, your name will be entered into a drawing to receive an iPad mini if you complete this survey. Your name will not be linked to the responses on the survey, and your responses will remain confidential if you decide to enter the drawing. Additionally, the information you provide will assist faculty members in developing curricular strategies in the area of cultural competence.

RISKS OF PARTICIPATION

There are risks involved in every research study. This research study may include minimal risk only. You may feel as though you are not able to answer a question, in which case, you will be able to skip the question, leaving it unanswered, and proceeding to the next question on the survey. There also may be risks associated with using an email address for communication via the Internet. Survey Monkey is being used to send and receive the survey, and the database is encrypted to protect you. If your email address contains letters that are a part of your name, anonymity cannot be guaranteed. The only persons that will have access to your information are the student and principal investigators, and your information will not be shared with anyone.

CONFIDENTIALITY PROCEDURES

All information gathered in this study will remain confidential. The only persons who will look at survey responses are the student and principal investigators. No reference will be made in written or oral materials that could link you to this study. The surveys completed online will be saved on a flash drive and stored in a locked facility in the principal investigator's office at UNLV for 4 years after completion of the study. After this time, data on the flash drive will be permanently deleted. Once the deadline for the survey has passed, and after data has been stored on a flash drive, data from the Survey Monkey system will be deleted. After data is analyzed, all survey documents will be permanently deleted.

COST AND COMPENSATION ISSUES

There will be no financial cost to you for participating in this study. The study will take approximately 30 minutes of your time. If you wish, your name will be entered into a drawing to receive an iPad mini in exchange for completing the survey. If you wish to receive a copy of the study results, this can be sent to the email address you supply.

CONTACT INFORMATION

If you have any questions or concerns about this study, you may contact the Principal Investigator, Dr. Patricia Alpert at 702-895-3810. You may also contact the Student Investigator, Angela Silvestri-Elmore, MSN RN at 413-668-6034. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which this research study is being conducted, you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

VOLUNTARY PARTICIPATION STATEMENT

You participation in this study is voluntary. You may refuse to participate at any point in time or during any part of this study. You may withdraw at any time (by clicking the EXIT THIS SURVEY button at the top right of the survey screen) without prejudice to your relations with the university. You are also encouraged to ask questions about this study at any time.

PROCEDURE FOR PROVIDING CONSENT

If you have read all of the above information and agree to participate in this study, click the NEXT button at the bottom of the screen to proceed. If you choose not to consent, please click the EXIT THIS SURVEY button at the top right corner of this screen. Additionally, if at any time you choose not to participate, you may click the EXIT THIS SURVEY button and you will be re-routed out of the survey.

I HAVE READ THE ABOVE INFORMATION AND I AM AT LEAST 18 YEARS OF AGE. BY SUBMITTING THIS SURVEY, I CONSENT TO PARTICIPATION IN THIS STUDY.

PART II: SCREENING QUESTIONS

This part of the survey will ask questions to determine if you are eligible for this study.

***1. Is your school accredited by the Commission on Collegiate Nursing Education (CCNE) or the National League for Nursing (NLN)?**

- ○ Yes
- ○ No
- ○ I don't know

If you don't know if your school is accredited, please provide the name of your school in the box below.

***2. Have you graduated from your nursing program within the last 12 months?**

- ○ Yes
- ○ No

***3. Are you a graduate of a baccalaureate degree nursing program?**

- ○ Yes
- ○ No

***4. Are you currently working as a registered nurse?**

- ○ Yes
- ○ No

5. What type of health care facility do you currently work for? Select all that apply.

- ☐ Acute care
- ☐ Long-term care
- ☐ Rehabilitation
- ☐ Sub-acute care
- ☐ Home health
- ☐ Hospice

If not listed above, please specify the type of health care facility you work for.

6. How did you receive the information about participating in this study? Select all that apply.

- ☐ Posted flyer
- ☐ Advertisement on Facebook
- ☐ Email from dean/director/chairperson
- ☐ Email from peer

If not listed above, please specify how you received the information about participating in this study.

PART III: DEMOGRAPHIC INFORMATION

This part of the survey will ask you questions about your demographics or individual characteristics.

7. Please indicate your age in years.

8. Please indicate your gender.

- ○ Male
- ○ Female

9. Please indicate the race/ethnicity you identify with. Select all that apply.

- ☐ American Indian/Alaska Native
- ☐ Asian/Pacific Islander
- ☐ Black, African American, or African
- ☐ Caucasian, non-Hispanic/non-Latino
- ☐ Hispanic

Other (please specify)

10. What language do you primarily speak?

- ○ English
- ○ Chinese
- ○ Japanese
- ○ Korean
- ○ Spanish
- ○ French
- ○ Tagalog

Other (please specify)

11. Please indicate any other languages you speak in the box below.

12. Have you lived in any country besides the United States?

- ○ Yes
- ○ No

13. If you answered Yes to the previous question, please indicate in the box below how many years you lived in the United States and how many years you lived in another country(ies) and specify which country(ies) you lived in.

Years in United States

Years in other country

Name of other country(ies)

14. The nursing program you graduated from was located in which region of the United States?

- Northeast
- South
- Central
- West

15. Please indicate if the college or university you graduated from is a private or public (state) institution.

- Public
- Private

16. What type of baccalaureate degree program did you graduate from?

- Traditional (generic 4-year program)
- Accelerated (second degree)

17. Do you hold any degrees in another discipline besides nursing?

- Yes
- No

18. If you answered Yes to the previous question, please indicate in the box below the focus or major of your additional degree(s).

19. If you answered Yes to Question #17, indicate how much of your total degree program focused on cultural content.

- 0%
- 1-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- More than 50%

Please describe further in the box below if you wish to do so.

20. Please indicate in the box below how many months you have been practicing as a newly licensed graduate.

21. Are you currently in orientation in clinical practice?

- Yes
- No

22. If you answered Yes to the previous question, does your orientation include a portion related to cultural concepts?

- Yes
- No

If Yes, please indicate in the box below what percentage of your orientation relates to cultural concepts.

23. Are you currently in a new graduate residency program?

- Yes
- No

24. If you answered Yes to the previous question, does your new graduate residency program include a portion related to cultural concepts?

- Yes
- No

If Yes, please indicate in the box below what percentage of your program relates to cultural concepts.

Part IV: TEACHING METHODS

This part of the survey will ask you questions about the teaching methods used in your nursing program.

25. Did your curriculum require you to take a course that focused entirely on cultural concepts?

- Yes
- No

26. If you answered Yes to the previous question, please indicate how many credits your course on cultural concepts was.

27. Were cultural concepts taught as a component in the curriculum?

- Yes
- No

28. If you answered Yes to the previous question, approximately how much of the total curriculum was dedicated to teaching cultural concepts?

- 0%
- 1-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- More than 50%

Please describe further in the box if you wish to do so.

29. If you answered No to Questions #25 and #27 above, please briefly describe how cultural concepts were addressed in your curriculum.

30. Were you required to complete a cultural immersion experience, or an experience which required you to work directly with clients of another culture?

- Yes
- No

31. If you answered Yes to the previous question, how many credit hours was this class worth?

32. If you answered Yes to Question #28, how many total hours per week did you spend working directly with clients of another culture?

Part V: CLINICAL CULTURAL COMPETENCY QUESTIONNAIRE (CCCQ): Knowledge

This survey has been adapted with permission from the Clinical Cultural Competency Questionnaire (CCCQ) developed by Robert C. Like, MD, MS, Professor and Director of the Center for Healthy Families and Cultural Diversity, Department of Family Medicine and Community Health,Rutgers Robert Wood Johnson Medical School. The CCCQ was used in a project entitled, "Assessing the Impact of Cultural Competency Training Using Participatory Quality Improvement Methods," funded by the Aetna Foundation.

(http://rwjms.rutgers.edu/departments_institutes/family_medicine/chfcd/grants_projects/aetna.html).

Any results obtained in future projects making use of the CCCQ are solely the responsibility of project investigators and do not necessarily represent the official views of the Aetna Foundation or its affiliates.

How KNOWLEDGEABLE are you about each of the following subject areas? (Select one number).

33. Demographics of diverse racial, and ethnic groups

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

34. Sociocultural characteristics of diverse racial and ethnic groups

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

35. Health risks experienced by diverse racial and ethnic groups

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

36. Health disparities experienced by diverse racial and ethnic groups

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

37. Sociocultural issues in:

	1 = Not at all	2 = A Little	3 = Somewhat	4 = Quite a Bit	5 = Very
Health Promotion/Disease Prevention	○	○	○	○	○
Reproductive Health/Pregnancy	○	○	○	○	○
Child Health	○	○	○	○	○
Adolescent Health	○	○	○	○	○
Adult Health	○	○	○	○	○
Geriatrics	○	○	○	○	○
Women's Health	○	○	○	○	○
Ethnopharmacology (variations in medication responses in diverse ethnic populations)	○	○	○	○	○

38. Different Healing Traditions (e.g. Traditional Chinese Medicine)

- ○ 1 = Not at all
- ○ 2 = A Little
- ○ 3 = Somewhat
- ○ 4 = Quite a Bit
- ○ 5 = Very

39. Historical and contemporary impact of racism, bias, prejudice and discrimination in health care experienced by various population groups in the United States

- ○ 1 = Not at all
- ○ 2 = A Little
- ○ 3 = Somewhat
- ○ 4 = Quite a Bit
- ○ 5 = Very

40. Office for Civil Rights August 30, 2000 Policy Guidance on the Title VI Prohibition Against National Origin Discrimination as it Affects Persons with Limited English Proficiency

- ○ 1 = Not at all
- ○ 2 = A Little
- ○ 3 = Somewhat
- ○ 4 = Quite a Bit
- ○ 5 = Very

41. Office of Minority Health's National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health Care

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

Part V: CLINICAL CULTURAL COMPETENCY QUESTIONNAIRE (CCCQ): SKILLS

How SKILLED are you in dealing with sociocultural issues in the following areas of patient care? (Select one number).

42. Greeting patients in a culturally sensitive manner

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

43. Eliciting the patient's perspective on health and illness (e.g. its etiology, name, treatment, course, prognosis)

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

44. Eliciting information about use of folk remedies and/or other alternative healing modalities

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

45. Eliciting information about use of folk healers and/or other alternative practitioners

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

46. Performing a culturally sensitive physical examination

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

47. Implementing a culturally sensitive treatment plan

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

48. Providing culturally sensitive patient education and counseling

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

49. Implementing culturally sensitive clinical preventive services

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

50. Providing culturally sensitive end of life care

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

51. Assessing health literacy

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

52. Working with medical interpreters

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

53. Dealing with cross-cultural conflicts relating to the plan of care

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

54. Dealing with cross-cultural adherence/compliance problems

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

55. Dealing with cross-cultural ethical conflicts

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

56. Apologizing for cross-cultural misunderstandings or errors

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

Part V: CLINICAL CULTURAL COMPETENCY QUESTIONNAIRE (CCCQ): Encounters/Situa...

How COMFORTABLE do you feel in dealing with the following cross-cultural encounters or situations? (Select one number).

57. Caring for patients from culturally diverse backgrounds

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

58. Caring for patients with limited English proficiency

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

59. Caring for a patient who insists on using or seeking folk healers or alternative therapies

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

60. Identifying beliefs that are not expressed by a patient or caregiver but might interfere with the treatment regimen

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

61. Being attentive to nonverbal cues or the use of culturally specific gestures that might have different meanings in different cultures

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

62. Interpreting different cultural expressions of pain, distress, and suffering

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

63. Advising a patient to change behaviors or practices related to cultural beliefs that impair one's health

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

64. Speaking in an indirect rather than a direct way to a patient about his/her illness if this is more culturally appropriate

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

65. Discussing "bad news" with a patient's family first rather than to the patient if this is more culturally appropriate

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

66. Working with health care professionals from culturally diverse backgrounds

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

67. Working with a colleague who makes derogatory remarks about patients from a particular ethnic group

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

68. Taking care of a patient who makes derogatory comments about your racial or ethnic background

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

PART V: CLINICAL CULTURAL COMPETENCY QUESTIONNAIRE (CCCQ): Attitudes

69. How IMPORTANT are each of the following factors in contributing to health disparities? (Select one number).

	1 = Not at all	2 = A Little	3 = Somewhat	4 = Quite a Bit	5 = Very
Genetics	○	○	○	○	○
Lifestyle	○	○	○	○	○
Environment	○	○	○	○	○
Poverty	○	○	○	○	○
Educational Status	○	○	○	○	○
Literacy Level	○	○	○	○	○
Ageism	○	○	○	○	○
Sexism	○	○	○	○	○
Racism	○	○	○	○	○
Classism	○	○	○	○	○
Disability Discrimination	○	○	○	○	○
Homophobia	○	○	○	○	○

70. Please specify any other factors that contribute to health disparities if not listed above and indicate your response related to that factor.

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

Other (please specify)

71. How IMPORTANT do you believe sociocultural issues are in your interactions with: (Select one number).

	1 = Not at all	2 = A Little	3 = Somewhat	4 = Quite a Bit	5 = Very
Patients					
Health Professional Colleagues					
Nursing Students					
Staff					

72. How AWARE are you of your own: (Select one number).

	1 = Not at all	2 = A Little	3 = Somewhat	4 = Quite a Bit	5 = Very
Racial, ethnic, or cultural identity					
Racial, ethnic, or cultural stereotypes					
Biases and prejudices					

73. How IMPORTANT do you feel it is for health care professionals to receive training in cultural diversity and/or multicultural health care?

- 1 = Not at all
- 2 = A Little
- 3 = Somewhat
- 4 = Quite a Bit
- 5 = Very

74. What are some potential challenges to integrating training about culturally competent health care in health care organizations and clinical practice?

75. Please offer any further comments or suggestions that you may have.

THANK YOU

Thank you for taking the time to complete this survey. Your responses will add to the body of nursing knowledge and will help educators provide quality education to nursing students. If you would like a copy of the study results, please fill in the next section with your contact information. If you would like to be entered into the drawing for the iPad mini, please indicate this in the following section and provide contact information.

If you would like to be entered into a drawing for a chance to win an iPad mini, please click on the following link: click here

APPENDIX C

CONTACT INFORMATION FORM

Enter to win an iPad mini!

Contact Information for Study Results and Drawing

Thank you for taking the time to complete this survey. Your responses will provide valuable data and will assist educators in planning curricular strategies as it pertains to cultural competence.

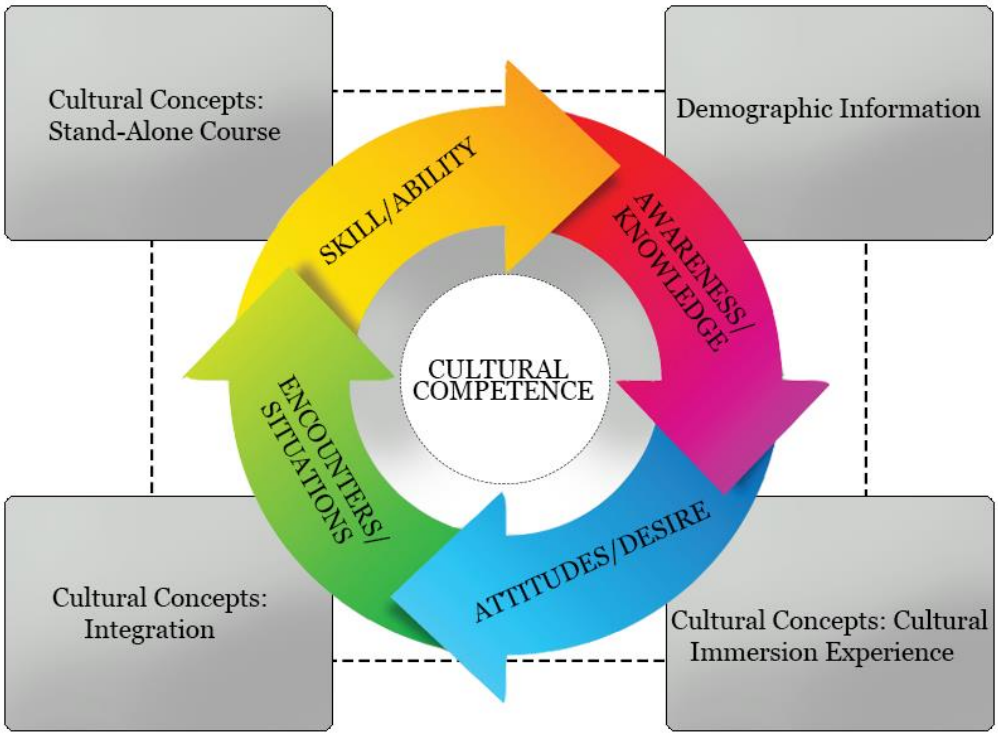
1. Please type in your email address or other desired method of contact if you would like a copy of the study results.

2. Please provide your contact information if you would like to be entered into the drawing to win an iPad mini. Your contact information will not be associated with your responses on the survey.

Name	
Address	
City/Town	
State/Province	
ZIP/Postal Code	
Country	
Email Address	
Phone Number	

APPENDIX D

EXPECTATIONS FOR CULTURAL COMPETENCE MODEL



APPENDIX E

PILOT SURVEY RECRUITMENT LETTER

Dear Pilot Study Participant,

You are invited to participate in a pilot survey research study for a future research study being conducted by a doctoral student at the University of Nevada, Las Vegas. The purpose of this study is to determine which teaching methods used in the curriculum is/are the best predictor(s) of cultural competence. This data will provide nurse educators with valuable information necessary to formulate teaching methods and make curricular decisions in a way that will promote the highest level of cultural competence upon graduation. Your participation in the pilot study involves answering the survey questions that are to be used in the study, and then answering questions about your experience and opinion regarding the survey.

The pilot study is being conducted to evaluate the survey questions as well as assess the functionality of the web-based format as the method of data collection. Please answer the questions at the end of the survey that pertain specifically to the pilot test. These questions are about how long it took to complete the survey, which part of the survey took the longest, if it was clear, understandable and easy to read, and if there was anything confusing or frustrating about taking the survey. If you volunteer to participate in this pilot survey, you will be asked to do the following:

1. Click on the link provided in this email and complete a 77-item questionnaire followed by a 7-item questionnaire pertaining to the survey experience.
2. Click on the NEXT button at the bottom of each page to move forward.
3. Continue on to the 7-item pilot survey questionnaire after completing the study survey.
4. Click the SUBMIT button at the end of the questionnaire.
5. Note the THANK YOU page at the end of the questionnaire, which indicates you are finished.

If you agree to participate, please return this survey within 7 days of receipt of this email. Your participation is greatly appreciated. There may be no direct benefits to you for participating in this pilot study, however, the information you provide will assist faculty members in developing curricular strategies in the area of cultural competence.

Please click on the following link to enter the survey:

https://www.surveymonkey.com/s/PILOTCC

Thank you for your time and consideration,

Dr. Patricia Alpert
Principal Investigator
University of Nevada, Las Vegas
Contact: 702-895-3810

Angela Silvestri-Elmore
PhD Doctoral Student Investigator
University of Nevada, Las Vegas
Contact: 413-668-6034

APPENDIX F

PILOT SURVEY

The Predictors of Cultural Competence Pilot Survey

PILOT SURVEY

Please answer the following questions about your experience and opinion with taking this survey.

76. How many minutes did it take you to complete the survey? (This time period includes reading the portion on Description of the Study and Consent).

77. Which part of the survey took you the longest to complete?

- Part I: Description of Study and Consent
- Part II: Screening Questions
- Part III: Demographic Information
- Part IV: Teaching Methods:
- Part V: Clinical Cultural Competency Questionnaire

Please describe further in the box below if you wish to do so.

78. Was everything on the survey clear and easily understandable?

- Yes
- No

If No, please describe further in the box below.

79. Was the survey easy to read?

- Yes
- No

If No, please describe further in the box below.

The Predictors of Cultural Competence Pilot Survey

80. Was there anything confusing about the questions?

- Yes
- No

If Yes, please describe further in the box below.

81. Was there anything frustrating about the survey?

- Yes
- No

If Yes, please describe further in the box below.

82. Are there any suggestions you have that may help to improve the survey?

APPENDIX G

LETTER TO DEANS/DIRECTORS/CHAIRPERSONS

Dear Dean/Director/Chairperson,

Your nursing program is invited to participate in a research study conducted by a doctoral student at the University of Nevada, Las Vegas (UNLV). The study is titled *The Predictors of Cultural Competence in the Baccalaureate Nursing Curriculum: Implications for Nursing Education*. The purpose of this study is to determine which teaching methods used in the curriculum is/are the best predictor(s) of cultural competence. This data will provide nurse educators with valuable information necessary to formulate teaching methods and make curricular decisions in a way that will promote the highest level of cultural competence upon graduation. Study participants will be graduate nurses who are currently practicing that graduated within 1 year from the time the survey is administered. With approval from UNLV's Institutional Review Board (IRB) and with your permission, we are requesting you to forward an email with the informed consent and invitation to participate to graduates of your nursing program who graduated within the 12 months from the time of implementation of this study. The email will also contain a link to the survey. You will also be asked to advertise the link on your program's professional Facebook® page if you have one.

Participants will receive a survey electronically through Survey Monkey. It will take approximately 30 minutes to complete. The survey will ask questions about demographic data, teaching methods, cultural knowledge, cultural skills, cultural encounters/situations, cultural attitudes, and education and training specifically related to cultural content. Interested participants will be entered into a drawing to receive an iPad mini if they wish to do so.

If you have any questions, you can contact Angela Silvestri-Elmore, Student Investigator, at silves25@unlv.nevada.edu. If you would like a copy of the study results, please send me your contact information and where you would like the results to be sent.

Thank you for your time and consideration in facilitation of this research study.

Dr. Patricia Alpert
Principal Investigator
University of Nevada, Las Vegas
Contact: 702-895-3810

Angela Silvestri-Elmore
PhD Doctoral Student Investigator
University of Nevada, Las Vegas
Contact: 413-668-6034

APPENDIX H

INITIAL RECRUITMENT LETTER

Dear Nursing Graduate,

Congratulations on your recent accomplishment of becoming a licensed registered nurse. You are invited to participate in a research study being conducted by a doctoral student at the University of Nevada, Las Vegas (UNLV) titled *The Predictors of Cultural Competence in the Baccalaureate Degree Nursing Curriculum: Implications for Nursing Education*. The purpose of this study is to determine which teaching methods used in the curriculum is/are the best predictor(s) of cultural competence. This data will provide nurse educators with valuable information necessary to formulate teaching methods and make curricular decisions in a way that will promote the highest level of cultural competence upon graduation.

In the email you received, there is a link to the survey powered by Survey Monkey. Click on the link and follow the instructions to begin taking the survey. It will take approximately 30 minutes to complete. The survey will remain open for 1 month, and you will receive a reminder email in 2 weeks. The survey will ask questions about demographic data, teaching methods, cultural knowledge, cultural skills, cultural encounters/situations, cultural attitudes, and education and training specifically related to cultural content. If you wish, you will be entered into a drawing to receive an iPad mini. Follow the directions at the end of the survey to be entered.

Thank you for your time and we appreciate your careful consideration as you answer the survey questions. If you have any questions, please contact the Principal or Student Investigator.

Dr. Patricia Alpert
Principal Investigator
University of Nevada, Las Vegas
Contact: 702-895-3810

Angela Silvestri-Elmore
PhD Doctoral Student Investigator
University of Nevada, Las Vegas
Contact: 413-668-6034

APPENDIX I

REMINDER RECRUITMENT LETTER

Dear Nursing Graduate,

Congratulations on your recent accomplishment of becoming a licensed registered nurse. This is a reminder that you are invited to participate in a research study being conducted by a doctoral student at the University of Nevada, Las Vegas (UNLV) titled *The Predictors of Cultural Competence in the Baccalaureate Degree Nursing Curriculum: Implications for Nursing Education*. If you have already completed the survey, we thank you for your time and ask you to please disregard this email. The purpose of this study is to determine which teaching methods used in the curriculum is/are the best predictor(s) of cultural competence. This data will provide nurse educators with valuable information necessary to formulate teaching methods and make curricular decisions in a way that will promote the highest level of cultural competence upon graduation.

In the email you received, there is a link to the survey powered by Survey Monkey. Click on the link and follow the instructions to begin taking the survey. It will take approximately 30 minutes to complete. The survey will remain open for 1 month. The survey will ask questions about demographic data, teaching methods, cultural knowledge, cultural skills, cultural encounters/situations, cultural attitudes, and education and training specifically related to cultural content. If you wish, you will be entered into a drawing to receive an iPad mini. Follow the directions at the end of the survey to be entered.

Thank you for your time and we appreciate your careful consideration as you answer the survey questions. If you have any questions, please contact the Principal or Student Investigator.

Dr. Patricia Alpert
Principal Investigator
University of Nevada, Las Vegas
Contact: 702-895-3810

Angela Silvestri-Elmore
PhD Doctoral Student Investigator
University of Nevada, Las Vegas
Contact: 413-668-6034

APPENDIX J

RECRUITMENT ADVERTISEMENT SAMPLE

(to be printed by deans/directors/chairpersons)

ARE YOU A NEW GRADUATE RN CURRENTLY IN PRACTICE?

If so, you may be eligible to participate in a research study!

PURPOSE OF THE STUDY: To collect data to identify the predictors of cultural competence in the baccalaureate degree nursing program.

WHO IS ELIGIBLE: Recent nursing graduates within the last 12 months, at least 18 years of age who graduated from a BSN program accredited by CCNE or ACEN in the United States.

The research study will take approximately 30 minutes of your time and there is NO financial cost to you for participating!

Confidentiality will always be maintained.
Your contact information will never be shared with anyone and the only persons who have access to survey responses are the Principal Investigator and Student Investigator of the study.

WHAT YOU NEED TO DO TO BE A PARTICIPANT: You will be asked to answer survey questions online by a specified date. The survey will be available via a web link emailed to you. You will be asked about demographic information, teaching methods used in your nursing program, and your perception of your ability to care for patients of another culture.

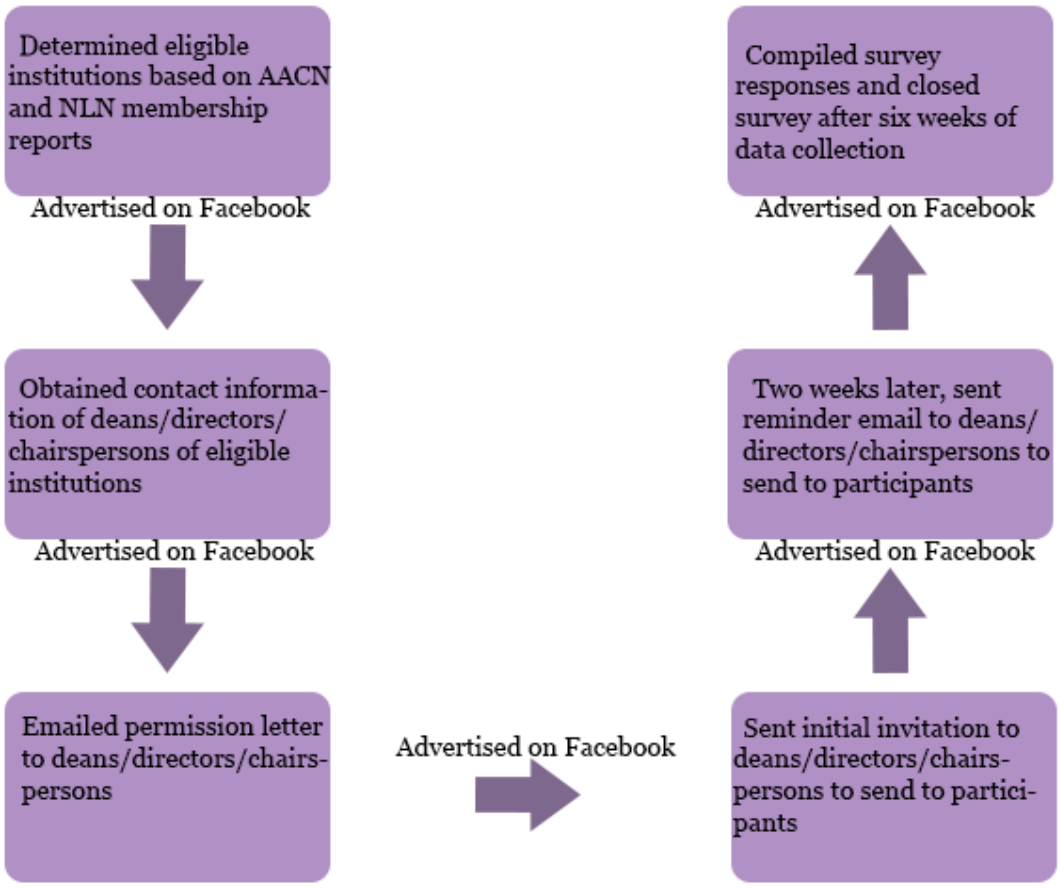
HOW TO BECOME A PARTICIPANT: Contact the Student Investigator at silves25@unlv.nevada.edu. The Student Investigator will send you the email containing the survey link.

PARTICIPANTS WILL RECEIVE: The chance to win an iPad mini. Enter into the drawing by following the directions at the end of the survey. Your contact information will not be correlated with your survey responses.

CONTACT INFORMATION: If you have questions about this research study, please contact the investigators.
Principal Investigator: Dr. Patricia Alpert, University of Nevada, Las Vegas, School of Nursing, Phone: 702-895-3810
Student Investigator: Angela Silvestri-Elmore, MSN, RN, University of Nevada, Las Vegas, School of Nursing, Phone: 413-668-6034

APPENDIX K

SAMPLING PROCEDURES



APPENDIX L

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

Biomedical IRB – Exempt Review
Deemed Exempt

DATE: October 24, 2014

TO: **Dr. Patricia Alpert,** School of Nursing

FROM: Office of Research Integrity – Human Subjects

RE: Notification of IRB Action
Protocol Title: The Predictors of Cultural Competence in the Baccalaureate Degree Nursing Curriculum: Implications for Nursing Education
Protocol # 1409-4942

This memorandum is notification that the project referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

PLEASE NOTE:
Upon Approval, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI – HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this project to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced project has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI – HS of its closure.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 702-895-2794.

Office of Research Integrity – Human Subjects
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047
(702) 895-2794 • FAX: (702) 895-0805 • IRB@unlv.edu

APPENDIX M

DEMOGRAPHIC VARIABLES

Type of health care facility currently working for

How the participant received study information

Age in years and sex

Race/ethnicity

Primary language spoken, any other spoken languages

Countries lived in besides the U.S., number of years lived in the U.S. and/or in another country, name of any other countries lived in

Nursing program location

Type of nursing program (public or private)

Other degrees held besides nursing degrees, focus of other degrees held, percentage focus on culture in other degree programs if applicable

Number of months practicing

Currently in orientation in clinical practice, focus of orientation on cultural concepts

Currently in a new graduate residency program, focus of new graduate residency program on culture

APPENDIX N

TYPE OF HEALTH CARE FACILITY CURRENTLY WORKING FOR

Type of Health Care Facility	Participants % (number)
Acute care	73% (92)
Rehabilitation	5.6% (7)
Long-term care	3.2% (4)
Sub-acute care	0.8% (1)
Home health	2.4% (3)
Hospice	1.6% (2)
Acute care and long-term care	1.6% (2)
Dialysis clinic	1.6% (2)
Sub-acute care and outpatient clinic	1.6% (2)
Acute care and home health in mental health	0.8% (1)
Acute care and sub-acute care	0.8% (1)
University health clinic	0.8% (1)
Travel nursing giving immunizations	0.8% (1)
Outpatient clinic	0.8% (1)
Long-term care, rehabilitation, and sub-acute care	0.8% (1)
Acute care and hospice	0.8% (1)
Same-day surgery	0.8% (1)
Sub-acute care and hospice	0.8% (1)
Acute care and rehabilitation	0.8% (1)
Acute care, sub-acute care, and hospice	0.8% (1)

Finding % (number) reported by participants

APPENDIX O

PATTERN AND STRUCTURE MATRIX FOR PCA WITH OBLIMIN ROTATION OF THREE FACTOR SOLUTION OF CCCQ KNOWLEDGE SUBSCALE ITEMS

Item	Pattern coefficients			Structure coefficients			Communalities
	C #1	C #2	C #3	C #1	C #2	C #3	
K56. Geriatrics	**.865**	.068	-.311	**.785**	.282	-.009	.701
K55. Adult health	**.839**	-.079	-.019	**.807**	.195	.239	.657
K51. Health promotion	**.833**	.086	-.152	**.811**	.326	.142	.682
K54. Adolescent health	**.675**	.038	.325	**.795**	.339	**.557**	.730
K53. Child health	**.630**	.041	.351	**.760**	.333	**.569**	.692
K3. Health risks	**.604**	-.004	.245	**.684**	.255	**.443**	.520
K57. Women's health	**.542**	.151	.267	**.680**	.394	**.481**	.557
K52. Pregnancy	**.493**	.169	.271	**.638**	.396	**.473**	.509
K8. Civil rights	-.103	**.875**	-.041	.174	**.831**	.131	.704
K9. CLAS standards	-.076	**.864**	.058	.230	**.853**	.237	.733
K6. Healing traditions	.078	**.735**	-.058	.302	**.747**	.141	.565
K7. Historical impact	.227	**.565**	-.010	**.411**	**.638**	.198	.452
K58. Ethnopharm	.250	**.435**	.253	**.477**	**.577**	**.438**	.481
K2. Sociocultural traits	.024	.029	**.806**	.300	.228	**.821**	.676
K1. Demographics	-.163	.223	**.785**	.170	.354	**.784**	.667
K4. Health disparities	.199	-.159	**.584**	.339	.045	**.612**	.418

Note: major loadings for each item are bolded

APPENDIX P

PATTERN AND STRUCTURE MATRIX FOR PCA WITH OBLIMIN ROTATION OF FOUR FACTOR SOLUTION OF CCCQ SKILLS SUBSCALE ITEMS

Item	Pattern coefficients				Structure coefficients				Communalities
	C #1	C #2	C #3	C #4	C #1	C #2	C #3	C #4	
S11. Interpreters	**.925**	-.187	.026	.131	**.814**	.127	.262	-.171	.713
S12. Plan-of-care	**.830**	.000	-.012	-.207	**.904**	.373	.378	-.521	.854
S13. Adherence	**.678**	.102	.011	-.309	**.839**	**.460**	**.417**	**-.606**	.808
S14. Ethics	**.593**	.344	-.104	-.204	**.760**	**.592**	.327	**-.507**	.724
S15. Apologizing	**.580**	.185	.303	.173	**.699**	**.462**	**.535**	-.215	.616
S4. Folk healers	-.098	**.950**	-.044	-.012	.246	**.900**	.288	-.268	.822
S3. Folk remedies	-.026	**.885**	.155	.136	.312	**.890**	**.438**	-.196	.821
S9. End-of-life care	.161	**.517**	.229	-.066	.467	**.687**	**.512**	-.375	.572
S5. Physical exam	.117	**.474**	.297	-.251	**.504**	**.714**	**.612**	-.554	.719
S2. Perspective	-.046	-.036	**.897**	-.118	**.451**	**.514**	**.907**	-.402	.835
S1. Greetings	.090	.189	**.760**	.004	.329	.331	**.866**	-.358	.795
S6. Treatment plan	.269	.148	.358	-.331	**.588**	**.493**	**.633**	-.607	.658
S10. Health literacy	-.033	-.174	.261	-.792	.306	.172	**.458**	-.814	.725
S7. Patient education	.215	.309	.006	-.551	**.544**	**.571**	**.400**	-.736	.702
S8. Preventive services	.207	**.456**	-.075	-.526	**.551**	**.676**	.363	-.728	.778

Note: major loadings for each item are bolded

APPENDIX Q

PATTERN AND STRUCTURE MATRIX FOR PCA WITH OBLIMIN ROTATION OF TWO FACTOR SOLUTION OF CCCQ ENCOUNTERS/SITUATIONS SUBSCALE ITEMS

Item	Pattern coefficients		Structure coefficients		Communalities
	C #1	C #2	C #1	C #2	
E1. Diverse caring	**.872**	-.063	**.852**	.208	.730
E10. Diverse colleagues	**.811**	-.130	**.770**	.122	.609
E2. Limited English	**.790**	-.099	**.760**	.146	.586
E5. Gestures	**.739**	.172	**.793**	**.402**	.655
E6. Pain expressions	**.670**	.136	**.712**	.344	.523
E4. Identifying beliefs	**.541**	**.433**	**.675**	**.601**	.626
E11. Derogatory peer	-.324	**.833**	-.065	**.732**	.631
E9. Bad news	.129	**.767**	.368	**.807**	.667
E12. Derogatory patient	-.068	**.747**	.164	**.726**	.531
E8. Speaking	.335	**.616**	**.527**	**.720**	.620
E7. Behavior change	.375	**.567**	**.551**	**.684**	.595
E3. Folk healer	.372	**.508**	**.530**	**.623**	.513

Note: major loadings for each item are bolded

APPENDIX R

PATTERN AND STRUCTURE MATRIX FOR PCA WITH OBLIMIN ROTATION OF FOUR FACTOR SOLUTION OF CCCQ ATTITUDES SUBSCALE ITEMS

Item	Pattern coefficients				Structure coefficients				Communalities
	C #1	C #2	C #3	C #4	C #1	C #2	C #3	C #4	
A12. Lifestyle	**.787**	.186	.016	.122	**.760**	-.061	-.202	.321	.623
A14. Poverty	**.776**	.129	-.181	-.102	**.767**	-.150	-.370	.139	.629
A13. Environment	**.690**	.003	-.096	.100	**.749**	-.246	-.335	.314	.580
A15. Educational status	**.673**	-.186	-.145	-.069	**.755**	-.426	-.404	.170	.634
A16. Literacy level	**.486**	-.371	-.181	-.042	**.643**	-.569	**.535**	.173	.596
A11. Genetics	**.474**	-.309	.216	.160	**.543**	-.403	-.062	.287	.414
A5. Training	**.453**	-.189	.001	.120	**.544**	-.339	-.226	.270	.343
A18. Sexism	-.106	-.928	.060	.080	.177	-.886	-.207	.143	.802
A19. Racism	-.014	-.896	-.008	-.004	.258	-.894	-.279	.095	.800
A112. Homophobia	-.212	-.760	-.157	.071	.088	-.752	-.337	.127	.615
A110. Classism	.184	-.743	.026	-.113	.368	-.777	.240	.018	.637
A111. Disability	.113	-.719	-.123	-.107	.339	-.752	-.360	.030	.639
A17. Ageism	.106	-.684	-.076	.009	.340	-.740	-.322	.131	.568
A33. Nursing students	-.095	-.071	-.924	.069	.241	-.334	-.929	.229	.875
A32. Professionals	.055	.038	-.917	.012	.340	-.262	-.925	.201	.860
A34. Staff	.086	-.069	-.873	.030	.394	-.368	-.928	.232	.877
A31. Patients	.168	-.076	-.563	.093	.398	-.311	-.658	.259	.485
A43. Bias/prejudice	.004	.015	-.062	**.863**	.263	-.102	-.226	**.874**	.767
A41. Identity	-.055	-.076	-.047	**.850**	.223	-.170	-.218	**.852**	.735
A42. Stereotypes	.105	.127	-.026	**.803**	.302	-.004	-.178	**.824**	.698

Note: major loadings for each item are bolded

APPENDIX S

POTENTIAL CHALLENGES TO INTEGRATING TRAINING IN HEALTH CARE AND PRACTICE

Difficult to implement in practice

Many different cultures and learning about all of them in a timely manner is difficult

Group-think, pack mentality, resistance to change in an overwhelmingly changing field

Access to an interpreter

Compliance by health care providers

Lack of interaction during practicing of learned concepts

Belonging to a majority group

Time, funding, resources, money, level of general importance

Nursing school taught so students could pass the NCLEX

Asking uncomfortable questions

Bias and prejudices

Patient compliance

Lack of implementation of learned material into practice

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Dissertation/Thesis Title: The Predictors of Cultural Competence in the Baccalaureate Degree Nursing Curriculum: Implications for Nursing Education

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