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The Effect of a Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence

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THE EFFECT OF A TRANSCULTURAL EDUCATIONAL INTERVENTION ON DIRECT CARE NURSES' CULTURAL COMPETENCE

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Abstract

Background: Cultural competency in health care and in many other industries is capturing remarkable momentum due to the rapid growth of multiculturalism in the United States (U.S.). It is projected that the numbers of culturally diverse people will continue to grow, and an imminent shift in demographics is certain to occur. Nevertheless, despite multiple efforts to either eliminate or reduce health and health care disparities among minorities and vulnerable population, morbidity and mortality rates are still robust due to multi-factorial causes. Furthermore, the current racial mismatch between nurses and the general population in the U.S. continues to show a persistent racial gap, which can inadvertently contribute to even further health disparities among minorities.

Purpose: The purpose of this study was to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute health care setting.

Theoretical Framework: Campinha-Bacote's the Process of Cultural Competence in the Delivery of Health care Services framework provided theoretical guidance for this study.

Methods: A cross-sectional, quasi-experimental pretest-posttest design was used to evaluate the effect of transcultural education on direct care nurses' cultural competence, using Campinha-Bacote's (2002) Inventory for Assessing Cultural Competence Among Healthcare Professionals Revised (IAPCC-R).

Results: A volunteered convenience sample of 50 nurses was sought to take part in this study. However, data was gathered from only 44 direct care nurses working at the specified acute health care setting. There was a statistically significance in the mean gain scores for participants' cultural knowledge, cultural desire, and total cultural competence scores. Findings from this

inquiry indicated that a well-structured transcultural educational intervention can have positive overall effects and improvement on nurses' cultural competence.

Hypothesis 1 for Research Question 1 was not supported; in a test of reliability, it was found that the awareness subscale had a Cronbach's alpha coefficient of .088, which was so minimal that it was deemed unreliable and hence could not be used for hypothesis testing. Hypothesis 2 for Research Question 2 was supported and indicated that this transcultural educational intervention had significantly improved cultural knowledge of direct care nurses. A one-sample, one-tailed *t*-test was conducted on the revised knowledge gain scores to evaluate whether the mean was significantly greater than 0. The sample's knowledge mean gain scores ($M = 0.49$, $SD = 0.65$) was significantly greater than 0, $t\ (43) = 4.96$, $p < .001$. The effect size as measured by Cohen's $d = 0.75$ indicated a large effect.

Hypothesis 3 for Research Question 3 was supported. The transcultural educational intervention significantly improved cultural desire of direct care nurses. A one-sample, one-tailed *t*-test was conducted on the desire gain scores to evaluate whether the mean was significantly greater than 0. The sample's mean gain score ($M = 0.16$, $SD = 0.37$) was significantly greater than 0, $t\ (43) = 2.94$, $p = .003$. The effect size as measured by Cohen's $d = 0.43$ indicated a medium effect. Hypothesis 4 for Research Question 4 was supported. The transcultural educational intervention improved total cultural competence scores (for cultural knowledge and cultural desire), the intervention had a very statistical significant. A one-sample, one-tail *t*-test was conducted on the revised total cultural gain scores to evaluate whether the mean gain score was significantly greater than 0. The sample mean ($M = 0.31$, $SD = 0.41$) was significantly greater than 0, $t\ (43) = 5.01$, $p < .001$. The effect size as measured by Cohen's $d = 0.76$ indicated a large effect.

Finally, Hypothesis 5 for Research Question 5 was not supported. Demographic variables, such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training failed to serve as predictors of cultural competence. A multiple linear regression analysis was conducted to evaluate how well participants' demographic variables predicted cultural competence gain scores. The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, p = .76) with an R2 = 0.11. The sample multiple correlation coefficient was 0.33 indicating a weak association between demographic variables and cultural competence.

Conclusion: Results from this study emphasized the need to integrate transcultural education to frontline nurses in acute health care settings. Moreover, educational pedagogies such as a didactic lecture format can have the propensity to improve nurses' cultural knowledge, cultural desire, and total cultural competence scores. Nurses have professional and ethical calling to seek opportunities in order to either acquire, or maintain cultural competency in practice. Future studies can build on the findings obtained from this study to expand the body of knowledge in transcultural nursing. For instant, future studies can explore cultural skills, awareness, and cultural encounters by adding experiential component to their studies.

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DEDICATION

I dedicate this tortuous journey to my father's soul. His passing away more than 5 years ago had turned my life and my world upside down. One of his dreams was to be present today, witnessing my achievement. He had always pushed me to step out of my comfort zone, and he had always been an inspiration to me with every step of my life. Even though, it is hurtful for parents to let go of their children at a young age, he was determined that I get my chance in life by giving me the opportunity to explore life abroad. Although he is not physically present here today, I know deep in my heart that his soul has never left me and has always given me the drive to keep on pushing.

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Finally, I would like to dedicate this work to the voices of minorities, disfranchised individuals, vulnerable people, and any ethnic group who have ever felt underserved and/or not served in accessing health care due to their cultural backgrounds. I hope with this work I was able to echo some of the barriers you encounter in your lives every day.

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CHAPTER ONE

Cultural competency in health care has captured a transcendental attentiveness due to the rapid growth of diversity and multiculturalism within the United States (U.S.). Furthermore, cultural competency has been explored as a potential strategy to improve quality of care and eliminate health and health care disparities among minorities and vulnerable groups (Jeffreys, 2006; Betancourt, Green, and Carrillo, 2002; Betancourt, 2006). This discerned growth of multiculturalism within the U.S. society has grown immensely because the U.S. has become a favorable destination for many immigrants and refugees in the past few decades. Additionally, advances in technology as depicted by the eclectic growth of globalization have also contributed to the spread of multiculturalism. Nonetheless, health and heath care disparities among minorities remain elusive and grave despite efforts to eliminate them. To that end, there is growing evidence in the literature that lack of culturally competent care among health care professionals can be a major contributor to increased health disparities since such provision is becoming more complex and puzzling to everyday nursing practice (Jeffreys, 2006; Purnell, 2009; Campinha-Bacote, 2007).

In responding to the current demographic shift witnessed in the U.S. and consequently in health care, health care professionals and health care systems are faced with the challenge of how to effectively and safely care for patients from different cultures. Culture with its perplexing intricacies must be understood and addressed by the health care provider in order to deliver culturally safe, congruent, and responsive care. Additionally, the linguistic needs of the culturally diverse patient must be addressed as well in order to deliver safe treatments free from obscurity caused by miscommunication and/or misunderstanding. Culturally diverse patients

usually present an extensive range of perceptions, attitudes, lifeways, and values regarding health and illness formed by their social and cultural backgrounds (Leininger & McFarland, 2002).

As cultural diversity continues to flourish within the U.S. society, it has become more evident to nursing educators, administrators, and legislators the significance of preparing registered nurses (RN), who are well-versed with cultural matters to safely address the health care needs of the culturally diverse patient. Approximately 80% of the three million working nurses in the U.S. are Caucasian females providing care to increasing culturally diversified patients with disregard to their cultural values, beliefs, and lifeways (Jeffreys, 2006; Leininger & McFarland, 2006; U.S. Department of Health and Human Services, 2010). Therefore, this hiatus in nursing diversity may contribute to even more exacerbation of health disparities among culturally/racially diverse patients. Hence, equipping direct care nurses with cultural competence education can have the potential to reduce such disparities due to cultural incompetence among nurses. Leininger and McFarland (2002) argued that lack of transculturally competent nurses presents a severe barrier in meeting the health needs of the culturally diverse patient.

The intent of this quantitative study was to evaluate the effectiveness of cultural competence education in nursing practice, where the patient-nurse encounter usually occurs. Direct care nurses in acute health care settings are commonly underrepresented in transcultural nursing research, since most researchers focus primarily on nursing students. This segment of the nursing profession is the most predominant workforce in health care that interacts with patients routinely and most often. Henceforth, this study had the inspiration of representing this segment of the nursing profession by trying to estimate the effectiveness of offering cultural competence educational intervention in nursing practice rather than in academia.

Background of the Study

Cultural diversity has proliferated profoundly in recent years in every aspect and in every corner of our lives. This robustness of diversity and multiculturalism in the U.S. has motivated health care professionals and systems to pursue cultural competence education as a tool to combat health disparities and unsafe practices that might pose safety risks on minorities' health. Previous researchers have elucidated to the importance of offering cultural competence education to health care providers, such as direct care nurses as a strategy to reduce health disparities (Campinha-Bacote, 2007; Jeffreys, 2006; Purnell, 2009; Leininger & McFarland, 2002, 2006; Institute of Medicine [IOM], 2001, 2010). Such offering may empower direct care nurses and give them the tool to become culturally competent providers and hence reduce health disparities.

Furthermore, although some of the works of anthropologists and nursing theorists pushed the topic of cultural competence to the forefront of health care policy, it was the Institute of Medicine's (IOM) (2001) landmark report *Crossing the Quality Chasm: A New Health System For The 21st Century* that served as the trigger to the evolvement of cultural competence in health care settings, especially acute care hospitals. Moreover, this report signified the importance of offering cultural competence education to nurses since they compose the majority of health care professionals working in acute health care settings. Unfortunately, the current statistics on the number of actively working nurses compared to the diversity of the population continues to show a substantial racial gap in the U.S. health care delivery systems, due to fact that the majority of working nurses are Caucasian whose views of illness, health, and wellness are completely dissimilar than their culturally diverse patients (Jeffreys, 2006; Purnell, 2009, 2014; Campinha-Bacote, 2002, 2007, Leininger & McFarland, 2002, 2006).

Cultural Competence

Cultural competence has been addressed amply for over 100 years by many scientists and scholars, especially in social sciences and anthropology (Leininger & McFarland, 2002). Medical anthropologists took the lead at the time to further understand cultural competence in health care. These anthropologists examined the dynamics of the patient-physician relationships within its cultural contexts and within a patient-centered approach (Somntha, Beach, & Cooper, 2008). Since the focus of this study was directed at examining the effect of cultural competence education in an acute health care setting, it is imperative to define what cultural competence means in health care.

It is obvious that the term "cultural competence" is saturated in health care literature; however, it is clear that this notion has a dual-concept composition that should be defined separately to eliminate any conceptual ambiguity. Foremost, the concept "culture" has been defined by Leininger and McFarland (2002) as, "the learned, shared, and transmitted knowledge of values, beliefs, and lifeways of a particular group that are generally transmitted inter-generationally and influence thinking, decisions, and actions in patterned or certain ways" (p. 47). Second, the term "competence" has been defined as "having the capacity to function effectively as an individual or an organization within the context of cultural beliefs, practices, and needs presented by patients and their communities" (Anderson, Scrimshaw, Fullilove, Fielding, & Normand, 2003, p. 68). Nonetheless, the most salient and widely accepted definition of cultural competence in the literature views cultural and linguistic competence as, "a set of congruent behaviors, attitudes and policies that come together as a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situations" (Cross, Bazorn, Dennis, & Issacs, 1989, p. 9).

Furthermore, a more novel definition of cultural competence in health care was found to entail:

> Developing an understanding of the patients' communities being served, as well as individual patients' health beliefs and behaviors; considering how these factors interact with the health care system in ways that may prevent diverse populations from obtaining quality health care; and devising strategies to effectively address and monitor them through several interventions. (Betancourt, 2006, p. 4)

A health care professional who has learned cultural competence will routinely engage in assistive, supportive, facilitative, or enabling acts that are tailored to meet patients' cultural values, beliefs, and lifeways in order to provide quality health care. Culturally competent care involves respecting the diversity of culturally diverse patients and respecting their cultural dynamics, values, and beliefs, which can affect health and health care (Lehman, Fenza, & Hollinger-Smith, 2012).

Other concepts have been used interchangeably with cultural competence, such as cultural congruence, cultural awareness, and cultural sensitivity. Leininger and McFarland (2006) defined culturally congruent care as, "culturally based care knowledge, acts, and decisions used in sensitive and knowledgeable ways to appropriately and meaningfully fit the cultural values, beliefs, and lifeways of clients for their health and wellbeing, or prevent illness, disabilities, or death" (p. 15). The perpetual interest of pledging provision of culturally safe and sensitive care to culturally diverse patients led directly to the inception of the discipline of transcultural nursing in the nursing profession. Madeline Leininger was the first to coin the term transcultural nursing in the mid-1950s. Leininger defined transcultural nursing as "a discipline of study and practice focused on comparative culture care differences and similarities among and

between cultures in order to assist human beings to attain and maintain meaningful and therapeutic health care practices that are culturally based" (Leininger & McFarland, 2006, p. 16).

The impact of multiculturalism can be felt locally and globally. The impetus to render culturally competent nursing care has been embraced by multiple organizations as a strategy to improve patients' outcomes and reduce health and health care disparities. The development of transcultural nursing by Madeline Leininger recognized the importance of such transformational phenomenon early on and articulated the need to prepare culturally knowledgeable, sensitive, and intelligent nurses in an effort to reduce health and health care disparities among minorities. The Agency for Healthcare Research and Quality (AHRQ) (2014) asserted, "Reducing health disparities and achieving equitable health care remains an important goal for the U.S. healthcare system. Cultural competence is widely seen as a foundational pillar for reducing disparities through culturally sensitive and unbiased quality care." (para. 1)

Historical Evolution of Cultural Competence

Historically, it is worth noting that the concept diversity in general was first used by Herodotus, an ancient Greek historian, back in the 4th century B.C. with his description of differences in customs and traditions between Greeks and other nations such as Egyptians, Lydian, Scythians, Medes, Assyrians, and Persians (Zander, 2007). Despite diversity of the people who travelled to the U.S. in search of religious freedom, the monoculture of Northern Europe remained the dominant culture for many decades (McKenzie, 2008). In addition, the surge of involuntary migrations as depicted by slavery eventually brought some diversifications in the population's canvas. Nonetheless, Northern European culture was still the dominant culture of settlers who enjoyed the utmost wealth and success in every aspect of their lives, and intended to retain such privilege. Additionally, social injustice was evident with the passing of

Jim Crow Laws, which mandated the segregation of Blacks from public amenities (McKenzie, 2008).

The rise of the Civil Rights Movement from 1945-1965 brought some forms of social and legal changes, such as the rescinding of Jim Crow Laws, along with some reform in immigration laws. All these factors eventually played a pivotal role in changing the profile of the U.S. demography. For example, East-Asian immigration increased from mid-1960s, and the Vietnam War led to even more significant influx of refugees into the U.S. (McKenzie, 2008). Subsequently, this rapid growth and change in population make-up at the time posited a challenge on social and public education systems whose staff were dominantly from a mono-White culture. Educators at the time did not feel competent to teach children of different ethnic and cultural backgrounds using curriculums based entirely on European intellectual models (McKenzie, 2008).

Generally, the true inception of cultural competence dates back to the 1930s, when scholars from anthropology and psychology met to discuss the relationship between personality traits and culture. These meetings mistakenly concluded the ethnocentric notion that personalities with its robust dynamics were largely universal. Yet, when psychologists in the 1950s and 1960s were interested in studying cross-cultural personality traits, a problem arose when they tried to apply a Western personality scale on patients from different ethnicities; they noticed challenges with such culturally biased application. Ultimately, the concept of "cultural competence" was not born until the 1970s, when these psychologists started confronting the innate prejudices and biases that were present in their studies, and an emphasis on reducing risk of cultural bias was imparted (Zander, 2007).

In nursing, however, the historical evolution of cultural competence dates back to Florence Nightingales' work with soldiers during the Crimean War and her work with the Australian Aboriginal people. This contribution made Florence Nightingale the first transcultural and international nurse in modern history (Zander, 2007). As a matter of fact, the New England Hospital for Women and Children was the first to accept patients of different cultures, and its school of nursing was the first school to accept nursing students of different ethnicities in 1876. For example, Mary Mahoney was the first Black nurse student to graduate from this school in 1879 (Zander, 2007).

Furthermore, another influential nursing theorist who contributed to the historical evolution of cultural competence in modern nursing was Madeline Leininger. In the early 1950s, Madeline Leininger worked as a clinical mental health specialists in a child guidance center with slightly disturbed children of diverse cultural backgrounds. It was during that time when she observed a vast difference in the care of these children and realized the limited research conducted on the relation between culture and care. It was clear that most health care institutions had failed to include culture as a component of the healing, caring, and medical treatment practices (Leininger & McFarland, 2006).

Madeline Leininger was the first to set the stage for the discipline of transcultural nursing in 1970 in her first book, *Nursing and Anthropology*. Leininger's theory of *Culture Care: Diversity and Universality* has its tenets from anthropological annotations and studies of culture, values, beliefs, and practices; "it promotes understanding of both the universally held and the common understandings of care among humans as well as the culture-specific caring beliefs and behaviors that define any particular caring context or interaction" (American Association of Colleges of Nursing, 2008, p. 8). In her theory, Leininger proposed three theoretical predictions

to aid nurses in delivering culturally congruent care. First, culture care preservation and or maintenance; which refer to those facilitative and assistive professional acts that help cultures retain or maintain beneficial care beliefs and values to face handicaps and death. Second, culture care accommodation and/or negotiation refer to those accommodating or assistive acts that help cultures adapt to or care for their health and wellbeing. Finally, culture care re-patterning and/or restructuring refer to assistive or enabling professional actions and mutual decisions that would help people to reorder, or restructure their lifeways for better health care patterns and outcomes (Leininger & McFarland, 2006).

Unfortunately, clients who experience culturally incongruent nursing care will show signs of cultural conflict, noncompliance, and distress. Leininger further postulated that culture, caring, and nursing were all interwoven with each other, and they must be teased out to further comprehend the intertwining relationship within a cultural context. Some of the philosophical assumptions that were derived from Leininger's theory were: (a) Care is the essence and central to nursing; caring is essential to curing, for there can be no curing without caring; (b) Culture care is the synthesis of the two major constructs that will help in understanding the account for health, and culture care values and beliefs are embedded in the individuals' world view, philosophy of life, and the ethno-historical and environmental context; (c) Every culture has generic folk emic and professional etic care to be discovered and used for culturally congruent care (Leininger & McFarland, 2006).

Other nursing theorists who ultimately contributed to the advancement of transcultural nursing include, but not limited to: Larry Purnell, Joyce Giger and Ruth Davidhizar, and Josepha Campinha-Bacote. These nursing theorists devised transcultural frameworks that were very influential in the growth of transcultural nursing in modern era. For example, the Purnell model

for cultural competence has many applications in nursing and in other disciplines. However, there are two focal tenets for this model. First is the notion that views cultural competence as an ongoing and dynamic process. Second is the bright idea that learners during their cultural competence journey move in a linear continuum; moving from unconsciously incompetent, to consciously incompetent, to consciously competent, and finally they arrive at the mastery phase of being unconsciously competent (Purnell, 2009).

Purnell's model composed of 12 layers and has a pictorial image of a circle with multiple layers. These layers however move from general to specific. For example, the outermost layer denotes global society, then community, then family, and then person. The final inner layer on the other hand represents health, which has 12 domains that make up the conceptual framework (Purnell, 2009). For instance, the first domain is overview/heritage, which include information regarding country of origin, current residence, economics, and reasons for emigration, educational status, and occupation. Moving toward more specific is the second domain of communication. In this domain, notions related to verbal and non-verbal communications are discussed. Other domains include family role and organization, workforce issues, bio-cultural ecology, high-risk behaviors, nutrition, pregnancy and childbearing practice, death rituals, spirituality, healthcare practice, and finally health care practitioner.

Furthermore, this model has close to 20 assumptions. Some of these assumptions include all healthcare professionals need similar information about cultural diversity; all healthcare professionals share the metaparadigm of global society, community, family, person, and health; one culture is not better than another; cultures are just different; biases can be minimized with cultural understanding; there are primary and secondary characteristics of culture; learning

culture is an ongoing process and develop in different ways, but primarily through cultural encounter; and, finally, cultural awareness improves caregivers' awareness (Purnell, 2009).

Other influential transcultural nursing theorists include Giger and Davidhizar who developed the Transcultural Assessment Model. This theoretical framework was developed to assist nursing students during cultural encounters and it has five metaparadigms: (a) transcultural nursing and culturally diverse nursing, (b) culturally competent care, (c3) culturally unique individuals, (d) culturally sensitive environments, and (e) health and health status based on culturally specific illness and wellness behavior (Giger & Davidhizar, 2008, p. 5). Additionally, this model asserts that each individual is culturally unique and should be assessed according to the six assumptions that affect health care: (a) communication, (b) space, (c) social organization, (d) time, (e) environmental control, and (f) biological variations.

First, communication encompasses the whole world of human interaction and behavior. Communication is the vehicle by which an individual's culture is interchanged and preserved. It includes both verbal and non-verbal communications that are learned by each culture. Second, space refers to the physical space and distance between people when they interact. All communication transpires in the context of space. There are four kinds of space (intimate, personal, social, and public) (Giger & Davidhizar, 2008).

Third, social organization refers to the method in which a cultural group organizes and aligns itself around the family group. For example, family structure, religious values and beliefs, and role assignments may all relate to ethnicity and culture. Fourth, time is a vital facet of interpersonal communication. Culture varies in their orientation to time. For instance, some cultures can be past, present, or future oriented. Fifth, environmental control refers to an individual's intrinsic ability to control nature and to plan and direct aspects in the environment

that affect them. Some cultures believe in their internal ability to control the environment, whereas other cultures believe in the environment's ability to control their lives. Finally, biological differences, particularly genetic variations, exist between individuals in dissimilar cultures (Giger & Davidhizar, 2008).

Campinha-Bacote's theoretical framework, the Process of Cultural Competence in the Delivery of Healthcare Services was developed in 1991 to assist health care professionals and health care systems to render culturally competent care. This model views cultural competence as "ongoing process in which the health care provider continuously strives to achieve the ability to work within the cultural context of the client (individual, family, community)" (Campinha-Bacote, 2002, p. 181). Moreover, this model requires health care professionals to see themselves as "becoming" culturally competent instead of only "being" culturally competent and to view the process of cultural competence not as a final destination, but rather as a journey. Five cultural constructs make up this model; these are cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. The process of cultural competence requires learners to integrate these five constructs of cultural competence since these five constructs have dependent relationships with each other. However, cultural desire is considered the soul and spirit for this model and in an essence; it is considered the fuel that energizes health care professionals during their journey to becoming culturally competent providers. Assumptions for this theoretical framework exist but will be discussed under the theoretical framework section.

The nursing profession was the frontier and forerunner in recognizing the complexities culture plays in rendering responsive, sensitive, and safe care. Leininger (1991) asserts, "Human beings of any culture in the world have a right to have their culture care values known, respected,

and appropriately used in nursing" (p. 21). Recognizing and appreciating the socio-cultural and linguistic needs of patients led to the development of transcultural nursing as a discipline in response to the projected increase of diversity in the U.S. (Jeffreys, 2006; Purnell, 2009; Leininger & McFarland, 2002).

Direct Care Nurses and the Acute Healthcare Setting

Cultural incompetence can exacerbate health disparities among minorities due to a mismatch between nursing diversity and the U.S. population, which can represent a major barrier to meeting the unique health needs of culturally diverse patients (Betancourt, Green, & Carrillo, 2002; Jeffreys, 2006). Presently, the majority of working nurses are homogeneous Caucasian nurses providing care to increasingly culturally heterogeneous patient populations with disregard to bio-cultural ecology, ethno-biology, ethnic epidemiological variations, ethnic pharmacology variations, and patients' views of wellness and illness (Campinha-Bacote, 2002; Purnell, 2009; Leininger & McFarland, 2006). According to a study conducted by Health Resources and Services Administration (HRSA) (2016), during the period between 2008 and 2010, nurses accounted roughly for three and half million healthcare workers, with the vast majority working in hospital settings. However, 83.2% were Whites, in contrast only 16.8% of nurses were of ethnic or minority backgrounds.

The American Nurses Association (ANA) defines nursing as:

> The protection, promotion, and optimization of health and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, groups, communities, and populations.

The Florida Board of Nursing, on the other hand defines registered nurses (RN) "are any persons licensed in Florida to practice professional nursing; Section 464.003(4), Florida Statutes". Both professional nurses and registered nurses are used interchangeably in this study. However, for the purpose of this research, the terms registered nurse, RN, professional nurse, frontline nurse, and direct care or acute care nurse will be defined as any person who is legally licensed by the Florida Board of Nursing to actively practice nursing in an acute healthcare setting or organization in which the research will be conducted. Furthermore, acute healthcare setting or organization is defined as a hospital-based setting or acute inpatient care setting in which patients receive care on a short-term basis. This setting can include acute care inpatient nursing units, emergency department, intensive care, and surgical care.

At the heart of the nursing profession is caring. However, focal to caring and to nursing resides cultural care. If nurses are to provide holistic, comprehensive, and patient-centered care, they have to consider culture as a cornerstone to their care. Rendering culturally competent care by the hands of nurses is a must, and it is part of the professional role and the code of ethics of nurses. The National League for Nursing, for example, ensures that nurses provide culturally competent health care services. Within the scope of professional nursing practice, nurses are expected to actively seek opportunities to obtain cultural competence education (Jeffreys, 2006). Currently, it is unfortunate to see a paucity of minority nurses in practice to meet the unique health needs of the increasing numbers of culturally diverse patients (Robinson, 2005). In that sense, there is an overt disparity in minorities' presence in nursing education, organizational leadership, public health, and research. Unfortunately, such ill representation might have unfavorable impacts on improving clinical outcomes, enhancing patients' satisfaction, and reducing health and health care disparities. Lancellotti (2008) argued that according to the

American Association of Colleges of Nursing's (2005) report, lack of diversity among nursing providers has directly been linked to increased health disparities, and has been regarded as a product of antiquated and ethnocentric nursing educational strategies.

Nursing education continues to have some forms of racism in its curriculum. For example, the acknowledgment of the nursing discipline as a science was conditioned by its embracement of the empiricist quantitative approach in nursing research. Nonetheless, this paradigm has some "White Eurocentric" philosophy embedded in its underpinnings that promoted discrimination. Similarly, the ethnocentric view of "normalcy" of patients is rooted within the nursing curriculum. However, this view of normalcy looks at criteria that were explicitly tailored to that of a White Anglo-Saxon protestant patient, with complete disregard to the normalcy view of other races and ethnicities (Lancellotti, 2008).

Regulatory and Mandating Agencies

Several regulatory and mandating agencies have recognized the need for cultural competence among health professionals, such as nurses due to changes in U.S. demographics. Some agencies have provided standards for culturally competent care and have implemented initiatives to combat health and health care disparities among minorities (Larsen & Reif, 2011). For example, one of the overarching goals of the Healthy People 2010, 2020 initiatives was to improve the quality of healthcare and reduce health disparities among minorities by achieving culturally competent care (Anderson et al., 2003; United States Department of Health and Human Services, 2009). Furthermore, the Joint Commission (2009), the U.S. Department of Health and Human Services Office for Civil Rights (1998), and the Boards of Directors of the American Organization of Nurse Executives (2005) have also placed emphasis on the need to implement strategies to combat health and health care disparities by providing standards for

culturally and linguistically competent care and by ensuring health care providers and organizations are fulfilling them (Delgado et al., 2013; Larsen & Reif, 2011).

Moreover, the U.S. Department of Health and Human Services Office of Minority (OMH) in 2001 proposed the need for providing cultural and linguistic competence as a strategy for reducing disparities. One of its contributions was the publication of The National Standards on Culturally and Linguistically Appropriate Services, known as CLAS Standards in 2001. These standards focused on approaches of appropriately addressing the cultural and linguistic needs of minorities (Swanson, 2012). Furthermore, these 14 standards provided the blueprint for incorporating cultural competence education in all continuums of heath care systems and health care education. These standards address three themes: culturally competent care, language access services, and organizational support for cultural competence (Beamon, Devisetty, Hill, Huang, & Shumate, 2006).

Moreover, the Institute of Medicine (IOM) in its 2010 report, *The Future of Nursing: Leading Change, Advancing Health* echoed the importance of introducing cultural competence teaching in nursing education. Furthermore, it stressed the need to prepare culturally competent nursing workforces to meet the health needs of diverse population across the lifespan, since the majority of the healthcare workforce is composed primarily of nurses. It has been liberally documented in the literature that culturally competent care has been directly linked to a reduction in health and health care disparities among minorities and vulnerable groups, and hence, it has been linked to improving clinical outcomes as well as increasing patients' satisfaction and compliance with their care (Betancourt, 2006; Giger et al., 2007; IOM, 2003; Larsen & Reif, 2011). Therefore, it is rather essential that the vast majority of health care forces "direct care nurses" are culturally prepared to provide culturally congruent, sensitive, and safe nursing care.

One strategy to reducing health care disparities due to rendering culturally incompetent nursing care is education specifically, transcultural education targeted at direct care nurses in acute healthcare settings.

Health and Health Care Disparities

The astounding surge of multiculturalism in the U.S. has potentiated health and health care disparities for the underserved and underrepresented minorities. Health disparities were defined by Healthy People 2020 as those health differences that are related to social, economic, and/or environmental disadvantages creating barriers to health "based on their race; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion" (Healthy People, n.d.). Additionally, the Institute of Medicine (IOM) (2003) defined health care disparities as "differences in treatment experienced in the quality of healthcare received by racial and/or ethnic minorities even when access to care is equal" (p. 3).

Healthy People 2020 include a group of initiatives that were initially established by the United States Department of Health and Human Services (USDHHS) with focus on disease prevention and health promotion. Healthy People 2020 initiatives build on four previous Healthy People initiatives, which are:

1. 1979 Surgeon General's Report (Healthy People) with focus on health promotion and disease prevention.
2. Healthy People 1990, also with focus on health promotion and disease prevention.
3. Health People 2000: National Health Promotion and Disease Prevention Objectives.

4. Healthy People 2010: Objectives for Improving Health.

As the demographic canvas in the U.S. becomes more diversified with an increase in minorities' plurality, health and health care disparities become astoundingly more prevalent and pervasive. According to the 2012 U. S. Census Bureau, 12.9% of the populations are from foreign-born countries, and 33.1% speak other languages besides English (Dudas, 2012). Currently, more than 329 languages are spoken, and more than 32 million people speak languages other than English (Anderson, Scrimshaw, Fullilove, Fielding, & Normand, 2003). Based on the 2010 U.S. Census Bureau, Hispanics are the fastest growing population in the U.S, and it is projected that this segment of the population will eventually be the minority majority in the near future. This unparalleled shift in demographics left healthcare systems and professionals unprepared to meet the challenging health care needs, which consequently resulted in political and social emphasis on reducing health and health care disparities among minorities. However, despite numerous efforts, health and health care disparities among minorities remain grave. For example, African Americans suffer higher rates of morbidity and mortality from just about every major cause of death including cardiovascular disease, cancer, diabetes, and HIV/AIDS (Giger et al., 2007).

There are multifaceted contributing factors to increased health and health care disparities among minorities and culturally diverse patients. For example, some of these factors are known as determinants of health, and they can be biologically, physically, environmentally or societally imposed. According to the U.S. Department of Health and Human Services (2011), the World Health Organization (WHO) defines social determinants of health as "the conditions in which people are born, grow, live, work, and age that can contribute to or detract from the health of individuals or communities" (p. 2). There are different categories that determinants of health fall

under including, policymaking practices, social factors, health services, individual behaviors, and biological and genetic factors. Policymaking practices are those policies that were set forth by the federal, state, and local governing bodies in an effort to improve health. For example, increasing taxes on tobacco products resulted in a reduction of smokers. Social factors on the other hand are a reflection of the social and physical conditions of the environment in which people are born, live, work, and age. Some examples of social factors are exposure to crime, violence, and social disorders (Healthy People, n.d.).

Health services include quality and access to health services. Individual behaviors include behaviors that can impact health, such as smoking and drug use compared to health behaviors such as physical activity and dieting. Biological and genetic factors include biological factors such as aging, where the elderly are more prone to disease than younger adults, and genetic factors, such as sickle cell disease that is more prevalent among West Africans and Mediterranean people (Healthy People, n.d.). Unfortunately, due to such factors, minorities and vulnerable groups will continue to be burdened by chronic illness, disabilities, and even death. For example, the National Healthcare Disparities Report (NHDR) documented that:

> Ethnic minorities receive inferior quality of care and face more obstacles in seeking care including preventive care, acute treatment, or chronic disease management than do non-Hispanic White patients. Minority groups experience rates of preventable hospitalizations that are, in some cases, almost double that of non-Hispanic Whites. African Americans have higher hospitalization rates from influenza than other populations. African American children are twice as likely to be hospitalized and more than four times as likely to die from asthma as non-Hispanic White children. (U.S. Department of Health and Human Services, 2011, p. 6)

Barriers to Achieving Equality in Health Care

Many barriers to optimizing health status and clinical outcomes of minorities exist. Some of these barriers include language barrier, lower socioeconomic status (represented by their income and educational status), increasing health care costs, and fulfilling social justice in accessing health care and rendering culturally competent nursing care. The Agency for Healthcare and Quality (AHRQ) asserted, "Access to care measures include facilitators and barriers to care and health care utilization experiences of subgroups defined by race and ethnicity, income, education, availability of health insurance, limited English proficiency, and availability of a usual source of care".

Social justice. Dr. Martin Luther King Jr. declared at the Second National Convention of the Medical Committee for Human Rights, "Of all forms of inequality, injustice in health care is the most shocking and inhumane" (1966). Furthermore, the World Health Organization (WHO, 2008) asserted, "Social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death." Nonetheless, achieving social justice in health care can be sectioned as follows. First, achieving social justice is within the context of accessing a complex and challenging health care delivery systems. Second, achieving social justice is within the context of rendering culturally competent nursing care.

Responsibility to achieving social justice in accessing health care was conjured internationally in 1978 with the publication of The Declaration of Alma-Ata at the International Conference on Primary Health Care. In addition, it was addressed again in 1986 at The Ottawa Charter for Health Promotion international conference. Both articulated the importance of achieving "health for all" and the need to bridge the gap of equity in accessing health care. The Alma-Ata International Conference declared that health is a state of physical and social

wellbeing and not simply the absence of diseases, and it is considered an ultimate human right. However, the attainment of the highest level of health is the responsibility of the social, economic, and health sectors (WHO, n.d.). The Ottawa Charter for Health Promotion on the other hand focused on health promotion. It built on the progress made through The Declaration of Alma-Ata by emphasizing health promotion to attain "health for all." It reiterated that health promotion should focus on achieving equity in health and ensuring that equal opportunities and resources are present to enable people to achieve their highest level of health. One of its fundamentals was achieving social justice and equity in accessing health care (WHO, n.d.). Unfortunately, disparities in health and health care continue to mount despite such efforts. The Agency for Healthcare Research and Quality (2014) reported the following disparities in accessing health care:

1. Blacks had worse access to care than Whites for 32% of access measures.
2. Asians had worse access to care than Whites 17% of access measures.
3. American Indians and Alaska Natives (AI/ANs) had worse access to care than Whites 62% of access measures.
4. Hispanics had worse access to care than Whites for 63% of access measures.
5. Poor people had worse access to care than high-income people for 98% of access measures.

Astonishingly, even though we live in the wealthiest country in the world, the sad truth remains that over 45 million people in the U.S. have limited or no insurance coverage (Centers for Disease Control and Prevention, n.d.). These marginalized and disfranchised minorities exhibited the worst heath status due to demographic discrimination such as employment, education, and income (Papadimos, 2007). Health insurance status continues to display a barrier

for minorities. For example, in 2009, Blacks under age 65 were less likely than Whites to have health insurance, and AI/ANs under age 65 were less likely than Whites to have health insurance (AHRQ, n.d.).

The Patient Protection and Affordable Care Act was signed into law by President Obama on March 23, 2010. By January 1, 2014, all Americans were required to acquire healthcare coverage. Such initiatives had great influence on tackling the challenges faced by minorities due to lack of insurance coverage. For example, in March 2015, the CDC reported that the average number of uninsured populations during the period from January to September 2014 was 11.4 million less than the average in 2010. In April 2015, the percentage of adults who were uninsured fell from 18% in 2013 to 11.4% in 2015 (CDC, n.d.). Such initiatives can have a direct impact on improving equity, equality, and quality in accessing health care and have a positive impact on reducing health and health care disparities for minorities and vulnerable populations. The American Hospital Association argued that although there had been some progresses made in reducing health disparities among minorities, quality gaps continues to persist. For example, a recent AHRQ report noted that over 60% of disparities in quality of care have either stayed the same or worsened for Blacks, Asians and poor populations, whereas nearly 60% of disparities, including but not limited to quality, have stayed the same or worsened for Hispanics (Umbdenstock & Lofton, 2007).

Sadly, the presence of racial biases and racism in medicine was exposed by the IOM's landmark 2002 report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. In this appalling report, a critical review of over 100 studies revealed that minorities were less likely than Whites to receive needed services, even when insurance and ability to pay were equivalent. Furthermore, lack of insurance negatively affected the quality of care received by

minorities more significantly than any other demographic or economic barrier. Examples of health care disparities found in this report included that minorities were less likely than Whites to receive cardiac care, less likely than Whites to receive kidney transplant or dialysis, less likely than Whites to receive advanced HIV medications, and more likely to receive undesirable procedures, such as lower limb amputations (Smedley et al., 2002).

Moreover, the 2001 Surgeon General's report, *Race, Culture and Ethnicity and Mental Health* demonstrated compelling evidence on the presence of racial biases and racism in mental health for minorities. Mental health disparities for minorities were evidence by misdiagnosis, underrepresentation, overrepresentation, and improper treatment. Disparities were present in psychopharmacological treatment, resulting in minorities' improper mental health treatment (Campinha-Bacote, 2007). While the issue of mental illness stigmatization is present and alive in healthcare, minorities exhibited the worst consequences due to racial discrimination and racism in mental health treatment. For example, in a meta-analysis study conducted by Pieterse, Neville, Todd, and Carter (2012) that reviewed 66 studies conducted between January 1996 and April 2011, findings confirmed that African American adults witnessed the most incidences of mental illness discrimination. As a matter of fact, this study concluded that Blacks who suffered from racism in mental illness had psychological responses that were very similar to responses from traumas, such as somatization, interpersonal sensitivity, and anxiety.

In nursing, the American Nurses Association's (2010) position statement asserted that within the code of ethics for nurses is a call to move beyond the rhetoric of universal human rights to attention on social justice. This code of ethics alerts nurses to be cognizant of societal influences and their consequences on care (ANA, 2010). Social justice is central to both the ANA's code of ethics and its social policy statement, which is defined as "acting in accordance

with fair treatment regardless of economic status, ethnicity, age, citizenship, disability, or sexual orientation" (American Association of Colleges of Nursing, 2008, p. 29). Rendering culturally competent care aligns with achieving social justice by improving health care outcomes and by reducing health and health care disparities among culturally diverse patients secondary to providing culturally competent nursing care. Rendering culturally incompetent nursing care can lead to social injustices of marginalized minorities due to increases in their health disparities. Sigma Theta Tau International Honor Society of Nursing (STTI) recognized cultural diversity and cultural competence with the publication of its stance in 1999 called *Community Through Diversity: A Diversity Statement for Sigma Theta Tau International.* This blueprint outlined the role cultural diversity plays in creating community that is grounded on respect and responsibility (Wilson, Sanner, and McAllister, 2003). Furthermore, cultural diversity creates pathways to support the myriad of cultures encountered by nurses; nursing fulfill the cultural needs of their patients through an environment of inclusivity, personal and professional development, and stimulation to think differently. STTI's vision is to create a global cadre of nurses who will lead in nursing scholarship, knowledge, and technology to improve global health. In fact, several professional health care organizations reiterated their commitment to social justice in nursing as well, such as The International Council of Nurses (ICN), ANA, and the Transcultural Nursing Society (TCNS) (Jeffreys, 2006; Campinha-Bacote, 2007). Social justice is considered a fundamental framework to advocate for reducing and eliminating health care disparities by ensuring that basic human rights of accessing quality care is fulfilled.

Furthermore, social justice is congruent with Rawls' theory of justice, which has three main elements. First, a just society will guarantee basic rights to all people; second, benefits of the most advantageous members of a society should also benefit the least advantageous

members. Finally, some things may benefit only the least advantageous (Rogers & Kelly, 2011). Moreover, and in accordance with the World Health Organization, health is believed to be a basic human right and not a privilege. Rogers and Kelly (2011) argued that even though health disparities are difficult to eliminate, efforts should be focused on restricting and reducing them. This stance is consistent with Rawls' tenet that efforts must be made to identify and work to eliminate and reduce acts of discrimination in order for the least healthy people in society to achieve the basic human right of good health (Rogers & Kelly, 2011). Moreover, social justice as a concept has been addressed immensely in health care literature. For example, Clingerman (2011) elaborated even further by stating:

> Social justice provides framework for the standard and encourages understanding of the context relevant to the lives of vulnerable groups. In contrast to the traditional bioethical principle of distributive justice that focuses on a personal system of right and wrong, social justice targets fairness and energizes culturally competent nurses to act in ways to encourage tolerance, equity, knowledge, and respect of human dignity. (p. 337)

In addition, Douglas et al. (2009) proposed a set of standards that can be influential in incorporating cultural competencies in nursing practice, education, and organizational leadership. One of these standards was incorporating social justice within the context of delivering competent transcultural nursing care. In this standard of social justice, the authors asserted, "Nurses shall promote social justice for all. The applied principles of social justice guide nurses' decisions related to the patient, family, community, and other healthcare professionals. Nurses will develop leadership skills to advocate for socially just polices" (Douglas et al., 2009, p. 259). Nurses' primary role is to obtain and seek cultural knowledge different from their own, so they are able to identify and challenge racial inequalities in health care access, treatment, and

outcomes. Furthermore, nurses are to demonstrate leadership skills by demonstrating respect and advocacy for elimination of health inequalities and disparities (Douglas et al., 2009).

Ethics of Cultural Competence

The ethical dilemma that stems from rendering culturally incompetent care can be demise to some of the ethical principles that guide our nursing profession, such as justice-based, rights-based, virtue-based, and duty-based. Additionally, realizing and glorifying ethical pillars, such as beneficence, non-maleficence, prima facie, and veracity obliges healthcare leaders and officials to critically cross-examine the current approaches employed toward achieving cultural competence and in essence embark on more effective approaches to enhance cultural safety and social justice in accessing the hoops and hurdles of healthcare systems. Moreover, the ethical dilemma resultant from rendering incompetent transcultural nursing care is depicted by collective healthcare injustices inflicted on minorities and vulnerable groups. For example, one dominant ethical challenge that causes incongruences and inequities among minorities is realizing cultural safety. The Nursing Council of New Zealand defined cultural safety as, "Effective nursing practice of a person or family from another culture that is determined by that person or family" (Doutrich et al., 2014, p.17). Furthermore, cultural safety is an essential model that illustrates how the sense of self is connected to safe and ethical care of patients (Doutrich et al., 2014). Cultural safety is essential constituent to cultural competency, and it can be viewed as power inequality between the patient and the nurse (Montenery, Jones, Perry, Ross, & Zoucha, 2013). Nurses need to be cognizant of the power gab between themselves and their patients. To be culturally safe, nurses need to assess the current social, economic, and political differences between themselves and their patients. Patients become at risk for culturally unsafe practice

when nurses ignore, disempower, diminish, and compromise cultural identity (Campinha-Bacote, 2007).

Both the IOM's 2001 report *Crossing the Quality Chasm* and the 2002 report *Unequal Treatment* addressed patients' safety concerns regarding lack of cultural competence among health care providers and health care systems. According to the IOM, patient safety is not only concerned with safety issues alone, such as not adhering to a treatment plan, or wrongfully inflicting harm on others by administering the wrong medication. Essentially, patient safety "entails avoiding misdiagnosis, preventing patients from exposure to unnecessary risks; ensuring informed consent, and improving provider-patient communication as a method of addressing ethnic disparities in health care" (Betancourt, 2006, p. 7). Furthermore, Emmanuel Kant asserted in his moral philosophy of the formula of humanity's "critical imperative" that everyone "exists as end in himself, not merely as a means for arbitrary use by this or that: he must in all his actions, whether they are directed to himself or to other rational beings always be viewed at the same time as an end" (Papadimos, 2007, p. 2). Consequently, humans in themselves are not viewed as means to other people's ends, purposes, or pleasures; rather, humans should be treated in a humane and respectful way signifying their worth. Hence, when addressing the notion of rendering culturally competent care, the approach should be examined from an ethical scope, and it should be reiterated by policymakers that rendering culturally competent care is a fundamental human right and not a privilege.

In addition, Rogers and Kelly (2011) argued that ethical principles of non-maleficence, beneficence, and autonomy are all well established in health research. Nonetheless, the ethical principle of justice has received less consideration and recognition by researchers and scholars in healthcare. Social justice as a framework aligns with human rights and illuminates how the

burdens and benefits of society should be equally, fairly, and equitably distributed. Cultural competence has an ethical and a moral opus that enhances patients' autonomy and fosters justice (Pacquiao, 2008). The International Council of Nurses (ICN) in 1973 articulated this ethical and moral value very eloquently by postulating that rendering culturally competent care to minorities is a basic human right and not a privilege.

As the U.S. demographic canvas continues to become more colorful, it is crucial for direct care nurses to deliver culturally competent nursing care. Multiple researchers and regulatory or mandating agencies have identified such necessity (IOM, 2001; 2002; JACHO, 2009; Smedley, Stith, & Nelson, 2002; U.S. Department of Health and Human Services Office of Minority [OMH], 2001) Moreover, reducing and/or trying to eliminate health and health care disparities should be examined from the ethical lens, that in doing so, it is a right and not a privilege, and it should be considered as a basic human right. The nursing profession led the path toward delivering culturally competent nursing care with the birth of transcultural nursing back in the 1950s. However, health and health care disparities are still mounting; hence, it is imperative to overcome this challenge by preparing culturally competent nursing cadre through cultural competence education.

Problem Statement

Lack of cultural competence among health care professionals can perpetuate health and health care disparities among minorities and vulnerable groups (Purnell, 2014). As the demographic mosaic in the U.S. continues to become more vibrant, lack of cultural competence among health care professionals, such as direct care nurses can contribute to increased morbidity and mortality, thus causing increased length of stay and increased health care expenditure. The CDC in its 2013 Morbidity and Mortality Weekly Report (MMWR) on health disparities in the

U.S. alluded to the prevalence of health and health care disparities among minorities. For instance, Non-Hispanic Black adults were at least 50% more likely to die of heart disease or stroke than their non-Hispanic White counterparts. Furthermore, infant mortality rate for non-Hispanic Blacks is more than double the rate for non-Hispanic Whites, and the prevalence of diabetes is higher among Hispanics and non-Hispanic Blacks, than among non-Hispanic Whites.

Additionally, addressing the cultural needs of racial/ethnic patients can enhance satisfaction and compliance with prescribed care. There is compelling evidence in the literature to allude to the notion that lack of cultural competence among health care professionals can contribute to increased dissatisfaction with the quality care and might cause noncompliance with the treatment regimen, poor adherence to medications and health promotion strategies, and poor health outcomes (Betancourt, Green, and Carrillo, 2002; Smedley et al., 2002; U.S. Department of Health and Human Services Office of Minority [OMH], 2001). Therefore, empowering nurses with sustainable transcultural nursing education can enhance their attitudes, knowledge, skills, and self-efficacy when encountering culturally dissimilar patients. Moreover, patients who have their cultural and linguistic needs met might have better adherence and compliance with treatment regimen, producing better clinical outcomes (Betancourt et al., 2005).

Unfortunately, few studies in nursing research have explored the effects of transcultural educational interventions in nursing practice where the patient-nurse interaction most frequently occurs. Many scholars in nursing shifted their focus to addressing cultural competence educational needs in nursing academia rather than in practice. Transcultural nursing education is becoming an indispensable tool and an important component of today's health care to provide holistic and patient-centered nursing care. Transcultural nursing education can guide nurses in providing culturally appropriate, responsive, and sensitive care to people from different cultures,

while respecting their dignity, worth, and rights. Culturally competent nurses will be prepared to assess the cultural care needs of their patients and to skillfully assimilate the cultural values, beliefs, and lifeways in their nursing care (Miller et al., 2008).

Purpose of the Study

The chief purpose of this cross-sectional, quasi-experimental study was to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. Additionally, this study examined if demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention.

Definitions of Key Terms

Transcultural Education Intervention

For the purpose of this research, transcultural educational intervention is defined as the educational theoretical didactic that will be administered to direct care nurses. This didactic educational intervention was delivered in a lecture format via video presentation and addressed only the affective and cognitive learning domains of participants.

Direct Care Nurses

For the purpose of this research, direct care nurses are defined as any professional person who is licensed to practice nursing in the state of Florida and who is actively employed as a staff nurse working in acute health care settings with a minimum of one year of experience.

Acute Healthcare Setting

For the purpose of this research, acute healthcare setting is defined as any facility that provides services for the treatment of acute health conditions and on a short-term basis only. It can include, however, both inpatient and outpatient services.

Total Cultural Competence Level

For the purpose of this research, total cultural competence level is defined based on Campinha-Bacote's (2007) framework of the Process of Cultural Competence in the Delivery of Healthcare Services.

Theoretical definition. Cultural competence level is the degree of cultural proficiency practitioners have. It indicates how competent nurses are in rendering culturally competent care during a cultural encounter. It includes the application of knowledge, attitudes, and skills required by direct care nurses to provide culturally appropriate, safe, and congruent care. Furthermore, to be culturally competent is to have the capacity to move freely and adequately through the five phases of cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounter (Campinha-Bacote, 2007).

Operational definition. Cultural competence level was operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R) (2002). Total cultural competence level takes into account the total scores of all the constructs and subscales of the theoretical framework. Participants are classified according to their total scores and can be categorized as: (a) Culturally Proficient (91-100), (b) Culturally Competent (75-90), (c) Culturally Aware (51-74), and (d) Culturally Incompetent (25-50). Cultural competence for this study was operationalized initially by calculating the total scores for cultural awareness, cultural knowledge, and cultural desire. Nonetheless, due to low

reliability index of the cultural awareness subscale, total cultural competence was revised to include only the total scores of cultural knowledge and cultural desire scores.

The five constructs of cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire were theoretically and operationally defined based on Campinha-Bacote's (2007) framework of the Process of Cultural Competence in the Delivery of Healthcare Services.

Cultural Awareness

Theoretical definition. Cultural awareness, "is 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, 2007, p. 27).

Operational definition. Cultural awareness was operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R) (2002). Five items comprised the cultural awareness subscale; they were items numbers 1, 2, 3, 15, and 18 (Campinha-Bacote, 2007). High score for the construct cultural awareness equaled 20 points, whereas low score equaled 4 points. Scores ranged from (4 = *very aware*, 3 = *aware*, 2 = *somewhat aware*, and 1 = *not aware*).

Cultural Knowledge

Theoretical definition. Cultural knowledge, "is the process of seeking and obtaining a sound educational base about culturally diverse groups" (Campinha-Bacote, 2007, p. 37).

Operational definition. Cultural knowledge was operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Five items composed the cultural knowledge subscale; they were items numbers 6, 8, 10, 11, and 12 (Campinha-Bacote, 2007). High score for the construct cultural

knowledge equaled 20 points, whereas low score equaled 4 points. Scores ranged from (4 = *very knowledgeable*, 3 = *knowledgeable*, 2 = *somewhat knowledgeable*, 1 = *not knowledgeable*).

Cultural Skill

Theoretical definition. 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, 2007, p. 49).

Operational definition. Cultural skill can be operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Five items compose the cultural skill subscale; they are items numbers 5, 9, 20, 21, and 22 (Campinha-Bacote, 2007). High score for the construct cultural skill will equal 20 points, whereas low score will equal 4 points. Scores range from (4 = *very comfortable*, 3 = *comfortable*, 2 = *somewhat comfortable*, 1 = *not comfortable*).

Cultural Encounters

Theoretical definition. Cultural encounter, "is the act of directly interacting with clients from culturally diverse backgrounds" (Campinha-Bacote, 2007, p. 71).

Operational definition. Cultural encounters can be operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Five items compose the cultural encounters subscale; they are items numbers 14, 16, 17, 23, and 25 (Campinha-Bacote, 2007). High score for the construct cultural encounters will equal 20 points, whereas low score will equal 4 points. Scores range from (4 = *very involved*, 3 = *involved*, 2 = *somewhat involved*, 1 = *not involved*).

Cultural Desire

Theoretical definition. Cultural desire, "is the motivation of the health care professional to "want to" engage in the process of becoming culturally aware, culturally competent; not the "have to" (Campinha-Bacote, 2007, p. 21).

Operational definition. Cultural desire was operationalized by means of the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Five items composed the cultural desire subscale; they were items numbers 4, 7, 13, 19, and 24 (Campinha-Bacote, 2007). High score for the construct cultural desire equaled 20 points, whereas low score was equaled 4 points. Score ranged from (4 = *strongly agree*, 3 = *agree*, 2 = *disagree*, and 1 = *strongly disagree*).

Research Questions and Hypotheses

RQ 1. Will there be a significant increase in direct care nurses' cultural awareness after completing the transcultural educational intervention?

H 1. Direct care nurses' average cultural awareness gain scores as measured by the IAPCC-R are greater than zero.

RQ 2. Will there be a significant increase in direct care nurses' cultural knowledge after completing the transcultural educational intervention?

H 2. Direct care nurses' average cultural knowledge gain scores as measured by the IAPCC-R are greater than zero.

RQ 3. Will there be a significant increase in direct care nurses' cultural desire after completing the transcultural educational intervention?

H 3. Direct care nurses' average cultural desire gain scores as measured by the IAPCC-R are greater than zero.

RQ 4. Will there be a significant increase in direct care nurses' total cultural competence after completing the transcultural educational intervention?

H 4. Direct care nurses' average total cultural competence gain scores as measured by the IAPCC-R are greater than zero.

RQ 5. Will there be a significant relationship between participants' demographic variables (such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training) and participants' total cultural competence gain scores?

H 5. Participants' cultural competence gain scores are significantly predicted by age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training

Theoretical Framework

The theoretical framework that guided this study was the Process of Cultural Competence in the Delivery of Healthcare Services developed by Campinha-Bacote in 1991. The underpinnings of this theoretical framework were based on the tenets of Leininger's transcultural theory. Furthermore, this theoretical framework views cultural competence as "ongoing process in which the health care provider continuously strives to achieve the ability to work within the cultural context of the client (individual, family, community)" (Campinha-Bacote, 2002, p. 181). Additionally, embedded within this model is the belief that cultural competence is not a one-time event, but rather, it is an ongoing multidimensional and dynamic process, by which the learner engages in a lifelong learning mission to assimilate cultural competence as an internal belief system.

This conceptual model requires health care professionals to see themselves as "becoming" culturally competent instead of only "being" culturally competent and to view the process of cultural competence not as a commonplace destination, but rather as a journey. Five cultural constructs make up this theoretical framework: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire (see Figure 1). The process of cultural competence requires learners to have the affinity to integrate and incorporate these five constructs of cultural competence since these five constructs have an interrelationship with each other; the larger the intersected area gets, the more culturally competent the learner becomes (Campinha-Bacote, 2002).

Evolution of the Theoretical Framework

The inception of this model began in 1969 when Campinha-Bacote was pursuing her undergraduate studies in Connecticut. Being from a Cape Verdean heritage (and unable to fit the race nomenclature of either White or Black) encouraged Campinha-Bacote to start pondering about cultural concerns. After completing her doctoral work, she explored transcultural nursing and medical anthropology. Both Leininger's (1978) work in transcultural nursing and Pedersen's (1988) work in the area of multicultural development assisted her in developing the constructs of her conceptual framework (Campinha-Bacote, 2002). The constructs of the conceptual model are depicted in Figure 1.

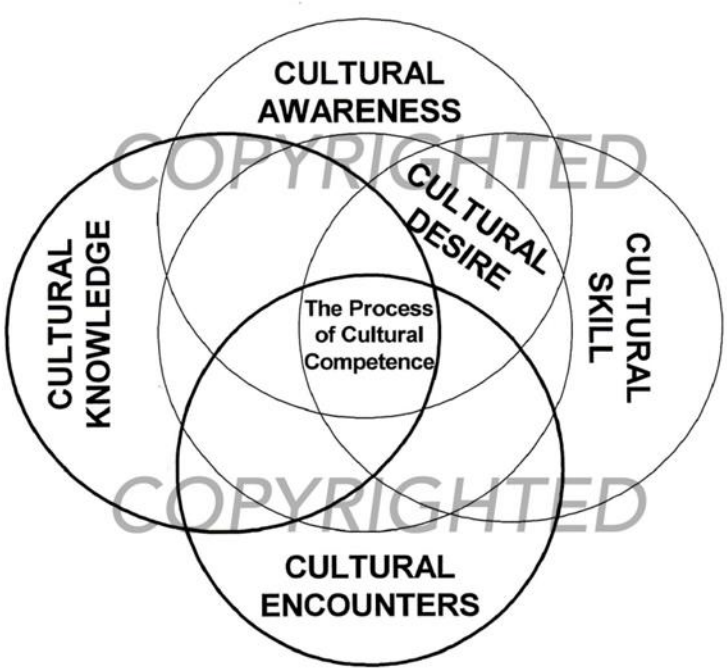

Figure 1. The process of cultural competence in the delivery of health care services (Campinha-Bacote, 1998). Copyrighted by Campinha-Bacote (1998); Reprinted with Permission from Transcultural C.A.R.E. Associates.

The first construct of the process of cultural competence is cultural awareness. This construct addresses the affective or attitudinal learning domain, and it calls upon us to deliberately examine our own personal biases and prejudices that we hold against people who are different from us, to reduce the risk of cultural imposition (Campinha-Bacote, 2007). Furthermore, cultural awareness requires the learners to self-examine their own cultural beliefs, prejudices, and biases before examining other patients' cultural belief. Being culturally aware of other ethnicities prevents us from developing cultural imposition. Leininger argued that cultural imposition is "the tendency of an individual to impose their beliefs, values, and patterns of behavior on another culture" (Leininger & McFarland, 2002, p. 51). Campinha-Bacote asserted that cultural biases are so ingrained in our minds that they are not readily available to the conscious mind. In seeking cultural awareness, there must be a commitment to cultural

openness, which is a lifelong position that encourages cultural self-awareness and development of cultural skills (Campinha-Bacote, 2007).

The second construct is cultural knowledge. This construct addresses the cognitive learning domain. In this construct, the learner seeks opportunities to gain knowledge about the culture of others. In obtaining this knowledge, health care providers should integrate three issues: (a) health-related beliefs and cultural values, (b) disease incidence and prevalence, and (c) treatment efficacy. First, health-related beliefs and cultural values emphasize taking into consideration the clients' worldview of how they view and interpret their own illness and how this view guides their thinking and their health-seeking behaviors. Second, knowledge in disease incidence and prevalence requires competence in the field of bio-cultural ecology and the knowledge of the variations of epidemiological data to better guide decisions about the appropriate modalities of treatment. Finally, treatment efficacy, which calls for obtaining cultural knowledge in areas, such as ethnic pharmacology that focuses on studying variations in drug metabolism among ethnic groups (Campinha-Bacote, 2002).

The third construct is cultural skill. This construct addresses the practical/psychomotor learning domain. This construct requires from health care providers to be able to appropriately collect historical data, and perform culturally sound physical assessments on their clients. In doing so, it is very essential to consider physiological variations, such as body structure, skin color, visible characteristics, and laboratory variations when conducting a culturally based physical assessment. The ability to perform culturally based physical exam will enhance clients' responses, participation, and adherence to plan of care.

The fourth construct is cultural encounters. This construct addresses the practical/ psychomotor learning domain. Cultural encounter is the process that encourages health care

providers to engage in the cross-cultural interactions with patients from different ethnicities. Furthermore, this encounter will refine or modify the health care providers' views of different cultures, thus enhancing cultural sensitivity and tolerance. Cultural encounters also encompass assessing the clients' linguistic needs. Fulfilling the linguistic needs has to be conducted by a trained interpreter to ensure accuracy of data collected (Campinha-Bacote, 2002).

The final construct is cultural desire. This construct addresses the affective learning domain, and it is considered the soul to all constructs. It encourages health care professionals to "want to", rather than "have to," engage in the process of becoming culturally competent. This construct is considered a pivotal construct of cultural competence that provides the energy for the culturally competence seekers in their journey toward competence (Campinha-Bacote & Campinha-Bacote, 2009). Cultural desire involves the concepts of caring and love, which are virtues and should be applied to the health professions (Campinha-Bacote, 2007). One aspect of cultural desire is cultural humility, which is referred to as, "A critical aspect of cultural desire. It is the quality of seeing the greatness in others and coming into the realization of the dignity and worth of others" (Campinha-Bacote & Campinha-Bacote, 2009, p. 38). Moreover, cultural humility is defined as, "a lifelong commitment to self-evaluation and self-critique, re-addressing the power imbalances in the client-professional relationship and developing mutually beneficial partnerships with communities on behalf of individuals and defined populations" (Campinha-Bacote, 2007, p. 26).

According to Campinha-Bacote, these five cultural constructs of the theoretical framework have an interdependent and an interrelated relationship with each other, and they must be addressed and experienced. The intersection between these five constructs is a true depiction of the process cultural competence. As the intersected area becomes larger, health care

providers become more immersed with the constructs of the model and are on their journey toward becoming unconsciously culturally competent professionals.

Relationship of the Study to Campinha-Bacote's Theoretical Framework

Campinha-Bacote's theoretical framework was developed with a primary purpose of aiding health care providers in rendering culturally sensitive, congruent, and safe care to the increasing multicultural and diverse patients' population. It has been developed also as a pedagogical framework that can assist nursing students in grasping and comprehending the elements and essence of cultural competence. There were many reasons for choosing this theoretical framework as a compass to guide this study. For example, its breadth and yet simplicity for comprehending the constructs of cultural competence made it an idyllic choice to achieve the aims of the study.

This study has a direct relation to Campinha-Bacote's theoretical framework. First, this research is foundationally bound by Campinha-Bacote's theoretical framework, since the three constructs of the theoretical framework (cultural awareness, cultural knowledge, and cultural desire) paved the way and provided the guidance needed to deliver the transcultural educational intervention. It was projected based on the adapted model shown (see Figure 2.) that due to the methodological approach of a cross-sectional design utilizing a lecture didactic format that only two learning domains will be affected the most; these include the affective and the cognitive learning domains. Therefore, only three constructs of cultural competence (cultural awareness, cultural knowledge, and cultural desire) were affected the most by the transcultural intervention. First, cultural awareness; it was hoped that a heightening in participants' cultural awareness will be displayed by taking an active role in self-examining their own personal cultural biases, stereotypes, prejudices, and assumptions that they hold about individuals from different racial

and cultural backgrounds, while preventing and limiting cultural imposition. In addition, multiple researchers have demonstrated that delivering cultural competence educational intervention can produce an improvement in participants' cultural awareness, such as Mareno and Hart (2014); Noble, Nuszen, Rom, and Noble (2014); and Riley and York (2012).

Second, it was projected that the cultural knowledge construct of the adapted model will be influenced by the transcultural educational intervention as well. An abundance of previous studies showed positive correlations between transcultural education and participants' cultural knowledge, such as Hunter and Krantz (2010), Delgado et al., (2013), and Noble et al., (2014). Finally, it was projected that this study would have an effect on enhancing participants' cultural desire. The postulation was that an enhancement in both cultural awareness and knowledge would eventually produce an enhancement in participants' cultural desire to seek opportunities and have the motivation to be culturally engaged, and to "want to" rather than "have to" be involved in the process of becoming culturally competent.

The three constructs of cultural awareness, knowledge, and desire of the adapted model have an intertwined relationship with each other as well. An enhancement of one construct will cause enrichment in another, eventually causing an overall improvement in participants' cultural competence. Campinha-Bacote's constructs of cultural competence have entwined relationships also. The intersected area of all of the five constructs represents the process of cultural competence among healthcare professionals. Unlocking the puzzle of cultural competence will depend greatly on the relationship each construct plays with each other. As the intersected area widens and gets larger, so would the process of cultural competence.

Moreover, cultural competence education is considered a multidimensional learning process that incorporates the three learning domains (cognitive, psychomotor, and affective) to

produce culturally competent nurses and students. Cultural awareness and cultural desire both target the affective learning domain of learners. This domain is concerned with values, attitudes, and beliefs of learners, and it is considered a very vital toward accomplishing true cultural competence education. Cultural knowledge on the other hand targets the cognitive learning domain. This domain focuses predominantly on knowledge outcomes and intellectual abilities, and it is considered the foundation for all other learning domains.

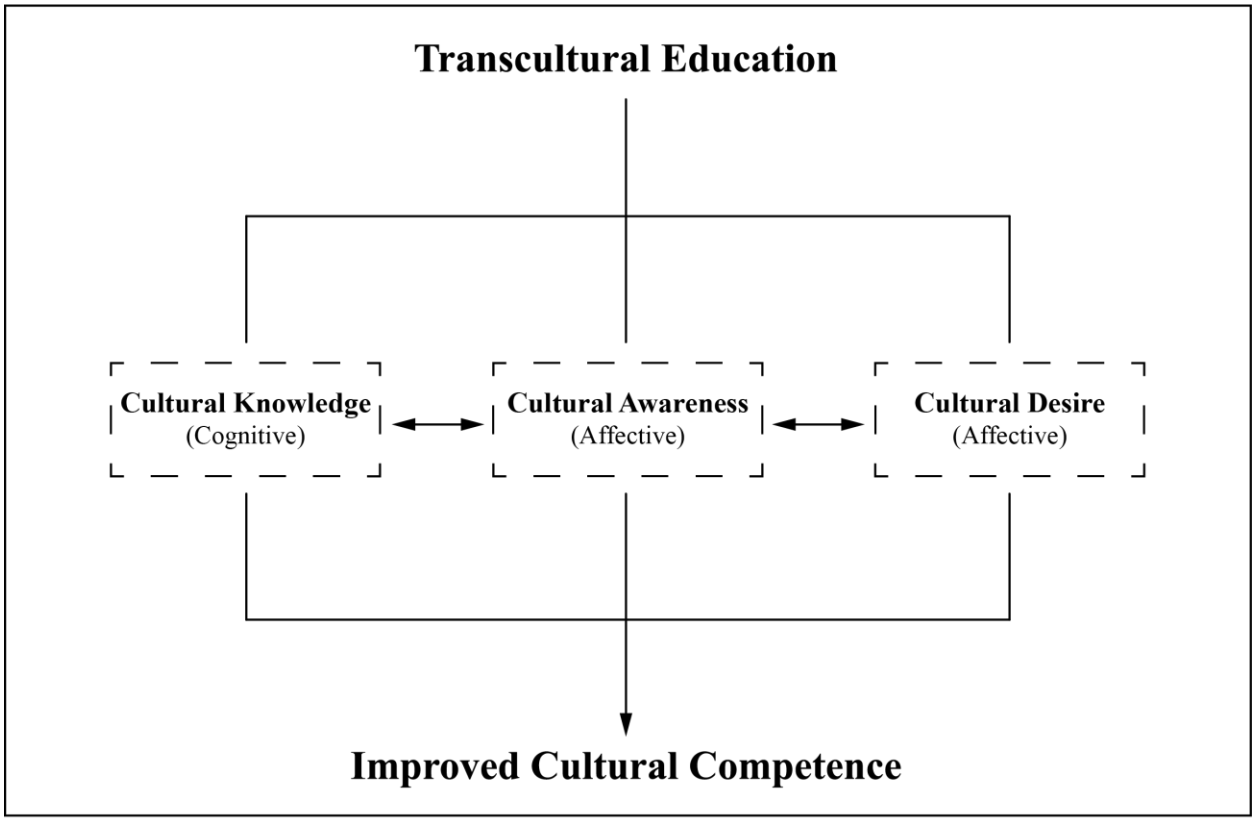

Figure 2. The Process of Cultural Competence in the Delivery of Healthcare Services (Campinha-Bacote, 1998, adapted by Abualhaija, 2016).

The proliferations of diversity and multiculturalism in health care have motivated health care professionals and systems to seek cultural competence education as a tool to battle

disparities and unsafe practices, which might pose safety risks on minorities' health. Campinha-Bacote's conceptual model of cultural competence is a theoretical framework that heath care professionals, such as nurses can use as an underpinning for developing and implementing culturally responsive and congruent healthcare services (Campinha-Bacote, 2002). Moreover, many scholars have used this theoretical framework and its instrument very successfully in rendering cultural competence educational offerings nationally and internationally.

Assumptions (Theoretical and Researcher)

Theoretical Assumptions

Campinha-Bacote (2007) addressed six basic assumptions for this model:

1. Cultural competence is a process, not an event; a journey, not a destination; dynamic, not static; and involves the paradox of knowing (the more you think you know; the more you really do not know; the more you think you do not know; the more you really know).
2. Cultural competence consists of five inter-related constructs: cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounters.
3. The spiritual and pivotal construct of cultural competence is cultural desire.
4. There is variation within cultural groups as well as across cultural groups (intra-cultural variation).
5. Cultural competence is an essential component in rendering effective and culturally responsive care to all clients.
6. All encounters are cultural and sacred encounters.

Researcher's Assumptions

The following assumptions were made about the respondents and cultural competence by the researcher:

1. Cultural competence education has been used more in nursing academia than in practice, where the cultural encounter usually occurs.
2. Each participant will complete the pretest-posttest honestly and without assistance.
3. Each participant will fully understand the pretest-posttest questionnaires.
4. Each participant will answer the questions truthfully, completely, and without bias.
5. The researcher assumes that the IAPCC-R tool has a high validity and reliability and consequently will produce similar results for this study.
6. The researcher assumes that the theoretical framework is supported by empirical evidence and is reliable and valid.

Significance of the Study

Cultural plurality in the U.S. is proliferating swiftly. However, health and health care disparities among minorities continue to rise paradoxically. The continuous increase of health disparities among minorities and culturally diverse patients obliges health care professionals and organizations to be attentive to the various cultural needs of patients. Equipping nurses with the power to render culturally competent care is a fulfillment of such objective. Offering nurses the privilege to be culturally intelligent and culturally empowered can be achieved by meeting their cultural educational needs through offering a transcultural educational intervention. Hence, this study used the quantitative approach of a quasi-experimental pretest-posttest design to examine the notion that equipping direct care nurses with a transcultural educational intervention can result in improvements in their cultural competence, thus providing culturally safe, sensitive, and competent nursing care.

Significance of the Study to Nursing

Multiculturalism is growing immensely in the U.S. society and consequently in health care. It has been extensively documented that racial and ethnic minorities are disproportionately burdened by chronic illness, disability, and reduced access to health services compared to their White counterparts. To that end, providing cultural competence education has the potential to reduce health disparities and improve access to healthcare (Campinha-Bacote, 2002; Jeffreys, 2006; Maddalena, 2009; Purnell, 2009). This study's aim was to evaluate the effects of offering a transcultural educational intervention on direct care nurses' cultural competence in one acute health care setting. Previous studies have identified significant positive associations between nurses' cultural competence and the level of the care they deliver. A nurse who possesses a higher level of cultural competence will face culturally diverse patients with more confidence and agility, thus improving clinical outcomes, enhancing patients' satisfaction, and reducing health disparities.

Furthermore, this study might contribute to nursing science by the following. First, this study might contribute to the development of effective cultural competence educational offerings in nursing practice by evaluating the effectiveness of such intervention on direct care nurses' cultural competence. Second, this study might contribute to nursing science by closing the gap in the literature because it will shift the focus on frontline nurses rather than nursing students. Finally, this study might contribute to increasing nursing educators', practitioners', and researchers' awareness of the importance of embracing cultural competence education as a strategy to reducing health disparities, improving patients' satisfaction, and enhancing clinical outcomes.

Implications for Nursing Education

The findings from this study might have the ability to increase nursing educators' awareness to the proceeds of integrating similar educational interventions into their educational pedagogies. With increasing myriad numbers of minorities in the U.S., it is pivotal to prepare nurses who are well equipped with knowledge, values, and skills needed to face cultural impediments. Moreover, this study might illuminate the need to shift focus toward addressing the disease process and management that are specific to different ethnicities. Hence, it is equally imperative for nursing curricula to address such disparities in nursing education. For example, educating nursing students and nurses about different disease processes, ethnic-epidemiology, ethnic-pharmacology, and ethnic-ecology can assist in conceptualizing how culture can be intertwined with the clinical manifestation and the clinical presentation of these patients (Campinha-Bacote, 2002). Ultimately, nursing educators have the responsibility to educate and prepare culturally sensitive and culturally competent nurses. Consequently, this study might accentuate the need to incorporate and develop less ethnocentric and more ethno-sensitive nursing curricula that address the cultural needs of the increasingly culturally diverse population.

Furthermore, there is a growing body of literature and mandating regulatory and accrediting laws to support the need of incorporating cultural competence education to health care professionals as a strategy to reduce health and health care disparities. Incorporating ongoing, evidence-based, family and patient-centered cultural competence frameworks into nursing education will be a key factor to producing culturally aware, knowledgeable, and skillful nursing workforce that would eventually have an impact on reducing health and health care disparities.

Likewise, a closer look at the demographic makeup of nursing faculties in the U.S. reveals a mirror image reflection of the overall current nursing demographics. The majority of the nursing faculties are Caucasian educators (AACN, n.d.). Nursing educators should be transparent and have the responsibility to accept their cultural shortcomings. Nurse educators should be culturally competent to produce culturally competent nurses of the future (Jeffreys, 2006). A self-assessment of educators' cultural competence level might warrant the implementation of transcultural education to nursing faculties as part of their annual competencies.

Implications for Nursing Practice

The results of this study might be of great importance to nursing practice by underlining the benefits of rendering culturally competent, patient-centered nursing care. For example, one significant outcome would be reducing health and health care disparities among minorities and vulnerable populations. Previous research had positively correlated between delivering cultural competence education and reducing health and health care disparities among minorities. Furthermore, encouraging racial concordances between health care providers and patients can contribute to improving satisfaction and establishing trust among patients and caregivers. Eventually, promoting such notion can improve patients' compliance and trust with the prescribed care (Taylor & Alfred, 2006).

Moreover, offering cultural competence education to nurses has shown to boost their awareness, knowledge, attitudes, skills, and self-efficacy (Campinha-Bacote, 2002; Purnell, 2009; Jeffrys, 2006). Additionally, this study might contribute to nursing practice by increasing nurses' self-awareness of their own cultures and other cultures; thus enhancing their cultural sensitivity and eliminating cultural imposition. In addition, improving knowledge of patients'

cultural beliefs, attitudes, and values regarding the symptomology, disease process, disease management, and healthcare-seeking behaviors might have positive consequences on improving patients' satisfaction and compliance with the prescribed care, subsequently improving clinical outcomes.

Implications for Nursing Research

The outcomes of this study might provide the catalyst for encouraging more research on cultural competence as diversity continues to proliferate in the U.S. This study might heighten the need to redirect nursing research toward increasing knowledge of various diseases that are specific to different racial and ethnic groups. Furthermore, this study might provide the impetus needed for promoting nursing research into cultural matters such as healing practices, folk medicines, and patients' views of illness and wellness. Likewise, there is still a common scarcity in evaluating the significance of the effect of transcultural educational interventions in nursing practice. Previous nursing research has focused primarily on evaluating such offerings on nursing students rather than on direct care nurses (Hunter & Krantz, 2010; Noble et al., 2014; Riley & York, 2012; Soule, 2014; Torsvil & Hedlund, 2008).

Implications for Health/Public Policy

Health officials and public policymakers are placing more emphasis on cultural competence as a strategy to eradicate and minimize health disparities among minorities and vulnerable population. Appreciating the benefits of such study by exposing topics such as health and health care disparities, inequalities, and social injustices in accessing health care among minorities would be highly valued. This study might confirm to policy makers the significance of providing cultural competence education to health care professionals as a tactic to reduce health and health care disparities.

Cultural competence education can enhance patients' care by improving communication between patients and their health care providers and by improving access to complex health care systems. Equally important are the financial gains of reducing health care expenditures by reducing health disparities and improving clinical outcomes when rendering culturally competent and safe care. Moreover, this study might shed the light on the need to implement strategies to recruit and retain minorities in the nursing profession and in health care, which might improve patients' clinical outcomes.

Scope/Limitations of the Study

The scope of this study was to examine the effect of a transcultural educational intervention on direct care nurses' cultural competence in one acute healthcare setting in Central Florida. These direct care nurses usually spend the majority of their working hours at bedside and in close contact with their patients throughout their shifts. Moreover, these particular nurses experience multiculturalism frequently due to the hospital's geographical proximity to tourists' attraction parks in Central Florida and due to the dense diverse clienteles they serve.

There were some limitations to this specific study. For example, one limitation was embedded in its purpose, which was to examine the effect of cultural competence educational intervention on direct care nurses' cultural competence in only one acute healthcare setting. If the inclusion criteria were more comprehensive by including other settings of the healthcare continuum, such as sub-acute care settings, skilled nursing facilities, palliative, and home health care nurses, this study might have a broader insight on cultural competence in health care settings. Furthermore, if the inclusion criteria were more inclusive by including other ancillary staff and supportive nursing team members such as, nursing assistants, unit secretaries, nursing

administrators, and nursing care managers, this might have offered additional intuitions regarding cultural competence in health care settings as well.

Another limitation to this study was present in its methodological approach by conducting this research as a cross-sectional study. If the approach was a longitudinal approach for example, then the results of the study would have better validated by showing the longitudinal effect of cultural competence education. Furthermore, extraneous factors that could not be controlled by the researcher might have an impacted this study. For example, temperature and weather factors, amount of time to conduct the study, participants' pervious experiences with cultural competence and or cultural questionnaires.

Threats to External and Internal Validity

Rigor in quantitative research is expressed in terms of validity and reliability. Validity refers to the accuracy of inferences, and the extent to which an instrument accurately reflects the concept being examined. The inferences can be expressed by external and internal validity.

External Validity

External validity refers to the degree of generalizability of the results and whether inferences about the observed causal relationships will withstand deviations in person, setting, time, or measure of the outcome (Polit & Beck, 2012). One limitation to this study existed in its external validity. The findings of this study could not be generalized due to lack of randomization during sampling. The convenience sampling of one particular healthcare setting and participants precluded the results from being generalized to the larger population.

Internal Validity

Internal validity refers to the notion that the results are directly related to manipulating the independent variable, and not due to competing variables, such as extraneous variables. To

control for threats of internal validity, cultural competence was measured using an instrument with proven validity and reliability. Threats to internal validity include maturation and history. Maturation threats refer to those changes that happen due to passing of time and not due to the effect of the independent variable (Polit & Beck, 2012).

History threats on the other hand, refer to the occurrence of external events that takes place concurrently with the independent variable and can affect the results of the study (Polit & Beck, 2012). In other words, what might happen to participants from beginning to end of the study while the independent variable is being manipulated? To control for both maturation and history threats, data were collected at one time during the discourse of the cultural educational intervention that was offered to nurses. Another example of a threat to internal validity in this study might be testing sensitization. This threat could not be controlled due to the nature of the design itself of pretesting then post-testing participants causing familiarity with the question items of the Campinha-Bacote's instrument.

Chapter Summary

Chapter One discussed the importance of transcultural education as a strategy to reduce health and health care disparities among minorities. The background of the problem revealed that despite multiple efforts to eradicate inequalities, health and heath care disparities among minorities' remains grave. The problem statement and purposes of this study with the theoretical framework that guided this study were fully explained. Additionally, definitions of key terms, assumptions, significance of the study, significance of the study to nursing, implications for nursing education, nursing practice, nursing research, health/public policy, scope and limitations, and threats to external and internal validity were fully examined. Chapter Two will follow with an extensive review of the literature.

CHAPTER TWO

REVIEW AND CRITIQUE OF THE LITERATURE

The core purpose of this cross-sectional, quasi-experimental study was to estimate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. Additionally, this study examined if demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention.

An extensive review of the literature was conducted to better understand the phenomenon cultural competence in nursing and other disciplines. Furthermore, Campinha-Bacote's theoretical framework was explored in the literature to further examine relationships and associations between the theoretical framework and cultural competence. Major databases in the field of nursing, medicine, and education were explored using search engines such MEDLINE, SAGE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochran, ProQuest, Google Scholar, and PubMed. Key words used included cultural competence, cultural competence education, diversity, minorities' health, transcultural nursing, and Campinha-Bacote. This research imposed a limitation to only English language and subject of interest, and encompassed a period from 2002 to the present day. Based on the analysis of the review, the following content areas were selected: cultural competence in nursing, interdisciplinary cultural competence, and previous applications and integration of Campinha-Bacote's theoretical framework.

Cultural Competence in Nursing

Cultural competency continues to gain interest in both academia and in practice across the health care spectrum due to increased multiculturalism in the U.S. Moreover, competency in both cultural and linguistic needs of culturally diverse patients are being examined and used by health care professionals and health care systems as a strategy to reduce health and health care disparities among minorities. Research has shown that cultural competence education has positive impacts on both the health care provider and the health care recipient.

In a quantitative study, Hunter and Krantz (2010) used a quasi-experimental pretest-posttest control group design to examine the cultural competence level of graduate nursing students using the constructivist paradigm. Their research questions were as follows: (a) Can educational experience, built on constructivist learning theory tenets change students' perceptions, attitudes, knowledge, and skills in the area of cultural competence? (b) Will any change result in significant upward movement in levels of cultural competence using nominal categories of culturally incompetent, culturally aware, culturally competent, and culturally proficient? (c) Does the delivery method, online or traditional classroom influence the degree of change?

The convenience sample composed of (n = 76) students who were enrolled in this course; (n = 52) students were enrolled online in the summer term, whereas (n = 24) students were enrolled in the classroom during the fall term. The researchers used Campinha-Bacote's Inventory for Assessing the Process of Cultural Competence Among Healthcare Professional-Revised (IAPCC-R) (2002) instrument. Data analysis was achieved by using inferential measures found in the SPSS version 14.0. Findings of this study echoed the importance of providing cultural competence to nursing students. The first research question regarding change

in cultural competence scores from pretest to posttest was answered using a one-sample *t*-test. Research question two regarding change in nominal categories of cultural competence raw scores were converted to the nominal categories of culturally incompetent, culturally aware, culturally competent, and culturally proficient using criteria provided by Campinha-Bacote (2003). Chi-squared analysis of nominal change was calculated from pretest to posttest for all students. The third question regarding influence of instructional medium was assessed by comparing the performance of learners in the online and classroom section using independent sample *t*-tests for the interval level raw scores and by using chi-squared tests for comparison of the nominal categories suggested by Campinha-Bacote (2003).

There were significant positive changes ($p < 0.001$) found in the cultural competence scores and sub-scores from pretest to posttest for all learners in both teaching modalities. Nonetheless, when nominal categories were used for pretest-posttest analysis, significant differences emerged for cultural knowledge, cultural skill, cultural desire, and overall cultural competence. The researchers found no statistical differences between traditional and online teaching. Findings illustrated the significance of providing cultural education as a tool to improve cultural competence among nursing students. Recommendations for this study suggested significant implications for education and research. The results of the study supported the effectiveness of cultural competence based on the constructivist paradigm. Moreover, the findings showed that with regard to modalities of cultural education of online versus traditional class platforms, nurse educators should have more confidence in the potential of the effectiveness of culture education.

A quantitative study conducted by Dawson and Lighthouse (2010) examined the level of perceived transcultural self-efficacy of family nurse practitioners (FNPs) in prescribing.

Furthermore, the researchers' aim was to examine any association between participants' demographic characteristics and their total self-efficacy scores. The researchers used a descriptive correlational design to examine the presence of any association between sample characteristics and overall self-efficacy scores. A modified version of the Self-Efficacy for Cultural Competence scale developed by Assemi, Cullander, and Hudmon was used as a measurement tool. This tool however was designed to assess pharmacy students' confidence in providing culturally competent care. This 12-item Likert-type scale has not been used in the FNPs population, but has produced rigorous psychometric measures in pharmacy students' population.

A convenience sample of (n = 27) participants (63% response rate) in southeastern Washington who responded to the 43 surveys that were mailed was chosen. Data analysis was achieved by using inferential measures found in the SPSS version 14.0. First, descriptive statistics (frequencies and measures of central tendency) were used to describe and summarize the sample. Due to a small sample size, nonparametric measures (Mann-Whitney, Kruskall-Wallis, and Spearman Rho) were used to determine differences in scale scores and selected sample characteristics, such as age, gender, and years of experience, religion, and ethnicity. Furthermore, Cronbach's α was calculated to determine the level of the modified instrument's internal consistency. Total Self-Efficacy (TSE) was used to assess relationships between self-efficacy and sample characteristics.

In their findings, the researchers emphasized the need for providing cultural competence training across all spectrums of nursing practice. Although FNPs reported moderate confidence in their self-efficacy for prescribing, 89% of participants emphasized the need for more education with focus on ethno-pharmacology and cultural diversity. Nevertheless, using Mann-

Whitney U statistical test, a significant difference was demonstrated in scale scores of gender. Male respondents had significantly higher TSE scores than female respondents ($p = 0.02$). However, there was no other significant relationship between total self-efficacy and sample characteristics. Recommendations for this study echoed the important implications of cultural educations to NPs and NP educators. Although NPs felt a moderate level of confidence during their cultural interaction, more research is needed. Moreover, the researchers recommended the replication of this study in a different geographical location with a larger sample. Furthermore, they recommended that research is needed to examine clients' perceptions when they receive culturally competent care.

A quantitative study conducted by Delgado et al. (2013) echoed the importance of providing cultural competence education to front-line nursing staff. The aims of this study were first to estimate the baseline cultural competence in this population and to measure the transcultural competence level of nurses prior to the implementation of a cultural training program, and then compare it at 3 and 6 months after attending the cultural education. The researchers used a quasi-experimental design to investigate their phenomenon of interest. A convenience sample of ($n = 111$) nursing staff at a large Midwestern medical center was selected. The sample included registered nurses, patient care assistants, and unit secretaries. Data analysis was achieved by using inferential statistics present in JMP software (version 8.0 SAS Institute Inc., Cary, NC). First, descriptive statistics were reported using means and standard deviations for IAPCC-R scores and frequencies and percentages for categorical variables. A chi-square test was used to determine any statistical significance with sample's demographics, such as role within the department of nursing, gender, ethnicity, and travel outside U.S. The Wilcoxon rank-sum test was used to determine statistical significance for years of service within stated role, age,

education, and number of additional cultural classes taken. Moreover, analysis of variance (ANOVA) test was used to compare the means across three times intervals. A two-sample *t*-test was used to compare means between pretest and posttest score. Finally, multiple regression analysis was used to examine differences across time while adjusting for demographic variables.

The researchers used Campinha-Bacote's Inventory for Assessing the Process of Cultural Competence Among Healthcare Professional-Revised (IAPCC-R) (2002) instrument. The researchers found no statistical differences in demographics characteristics across the three time intervals (baseline, 3 months, and 6 months). Nonetheless, multiple regression analysis revealed that while adjusting for variables of age, gender, education role, years of experience, travel outside the United States, number of additional cultural classes taken, and race/ethnicity to eliminate the possibility that even small differences could confound the comparison of scores across time. After adjusting for these variables, time period remained statistically significant ($F(2, 204) = 3.45$, $p = 0.03$). Precisely, the adjusted average differences between baseline and 3 months score was 2.34 points ($p = 0.02$); the same estimate was 2.09 points ($p = 0.04$) for 6 months compared with baseline.

Baseline cultural competence results indicated that the majority of the participants (91%) were in the subscale of culturally aware, but only 9% were in the subscale of culturally competent. At 3 months, 88% of the participants scored within the culturally aware subscale, and 12.5% of the participants had an increase in the subscale culturally competent. At 6 months, scores remained at a similar level. Cultural competence scores differed significantly across the three time intervals, with both 3 and 6 months scores significantly higher ($p = 0.02$ and $p = 0.03$, respectively) than the baseline score. ANOVA compared the differences in means of the IAPCC-R over three time points found no significant differences between the mean scores for 3

and 6 months ($p = 0.87$). The results of this pilot study further emphasize the need to incorporate cultural competence education to frontline nurses since the majority of the working nurses are Whites rendering nursing care to an increasing culturally diverse patients' population. Recommendations of this study included the importance of incorporating additions to the curricula related to ethnic pharmacology and biological variations. Moreover, they emphasized the need to add qualitative research to focus on changes in participants' beliefs and behaviors after cultural competence education. Additionally, researcher recommendations for future research were to focus on generational and ethnicity as factors affecting level of cultural competence among nurses.

In a qualitative study, Soule (2014) used the descriptive grounded theory approach in an attempt to contribute to the development of a cultural competence theoretical framework to guide knowledge development and integration of cultural competence in healthcare education. The purposive sample composed of ($n = 20$) English-speaking participants from different disciplines such as nursing, medicine, and social sciences. Data were gathered via semi-structured face-to-face and telephone interviews that lasted 60-90 minutes. Data were analyzed following the procedures of within-case and across-case analyses.

The initial analysis included line-by-line coding using Atlas.ti v5.2 to identify common themes and then constant comparison across the data identified recurrent themes. The final step was generating categories for the emerged themes. Findings provided the grounded theory and framework were based on three themes that crossed four domains of cultural competence. Elements of cultural competence included, awareness, engagement, and application as they play in different ways across four domains of cultural competence. These four domains include interpersonal, intrapersonal, system/organization, and global. Furthermore, cultural competence

is a fluid, dynamic process that progress from awareness to engagement and application. The researchers recommended the need to address cultural competence at an international level including interdisciplinary involvements. Additionally, the plethora of cultural concepts such as cultural sensitivity, cultural awareness, cultural safety, cultural proficiency, and cultural empathy might contribute to further conceptual ambiguity regarding cultural competence. Further research is needed regarding how cultural competence may be interrelated to other concepts.

In a qualitative study, Torsvik and Hedlund (2008) used an ethnographic approach to explore how nursing students develop cultural competence by reflective practice during cultural encounters between students from Tanzania and Norway. The purposive sample composed of four Norwegian and 10 Tanzanian nursing students. Data were gathered through participatory observation, students' log, and focus group interviews. Data were analyzed and categorized according to the following procedure: (a) categories and coding for core schemes (b) search for meaningful topics within or across schemes, and (c) validation through feedback from students.

The findings were indicative of the cultural differences between the two groups, and three themes emerged. First, the Norwegian students emphasized nurse-patient relationships. Second, the Tanzanian students demonstrated collective approach in nursing characterized by nurse-relative-patient relationships. Finally, the Tanzanian students emphasized curing attributes with skillful performance of procedures. The results of this study emphasized the impact of cultural immersion teaching methodology on improving nursing students' cultural awareness and competence. The researchers did not include any recommendation for further research and education. However, they emphasized the fruitful results of cultural immersions experiences among students of different cultures. The opportunities such encounters provide to students

include sharing thoughts and reflecting on value systems and personal practices might contribute to bringing nursing practice a step forward in cultural competence.

Nursing research emphasizes the importance of rendering culturally competent care in an attempt to reduce health disparities among culturally diverse patients. It is evident that providing culturally competent care has positive consequences on both the providers and the recipients of such care. For example, improving providers' cultural competency by offering cultural educational intervention may have desired consequences on improving clinical outcomes and patients' satisfaction, improving access to health care, and subsequently reducing health and health care disparities. Furthermore, cultural competence education has a desired effect on improving nurses' cultural awareness, attitudes, values, knowledge, and self-efficacy. This improvement in health care professionals overall cultural competency has ramification on improving clinical outcomes and reducing health disparities. Nonetheless, there is a gap in nursing research on estimating the significance of the effect of transcultural educational intervention in nursing practice.

All of these studies recognized a medium of addressing cultural competence education for nursing students. Both qualitative and quantitative researchers re-emphasized the significance of such offering on improving nursing students' level of cultural competence both at the undergraduate and graduate level. Cultural competence is considered an ongoing and dynamic process and not a one-time event. The significance of these studies is that they provided a measure for addressing cultural competence in nursing education only, with disregard to its effectiveness in nursing practice. Although, commonalities between direct care nurses and nursing students do exist, however, there is a substantial paucity in nursing research regarding

addressing the significance of offering cultural competence education to nursing staff in acute healthcare settings.

This study addressed such gap by evaluating the effectiveness of a cultural competence educational intervention on direct care nurses' cultural competence in acute healthcare settings. Finally, there is a gap in the literature because most nursing research on cultural competence has focused mainly on raising awareness regarding the importance of cultural competence in nursing academia without considering nursing practice in the equation. Therefore, it is hoped this study contributed to closing such gap by increasing awareness in nursing practice.

Interdisciplinary Cultural Competence

Other disciplines parallel to nursing also emphasized the significance of cultural competence education as a strategy to improve quality and outcomes. The rapid growth of multiculturalism in the U.S. has brought some challenges in trying to understand the cultural intricacies clients bring to the table. To stay competitive in today's ever-changing markets, industries with its vast products and services must be sensitive and attentive to the cultural and linguistic needs of their clients and customers. To gain further insight into understanding cultural competence, other research trajectories embarked on by other disciplines were examined.

For example, in a qualitative study, Kai et al. (2007*)* highlighted the importance of providing cultural competency education to health care providers to reduce health disparities and improve access to healthcare. In this grounded theory approach, the researchers stressed the importance of addressing healthcare practitioners' perception when encountering patients from different ethnicities. The sample consisted of 18 focus groups and a purposive sample of 106 health professionals of different disciplines, in primary and secondary care settings working with diverse patients in Midland of the United Kingdom. Data analysis was achieved by using

constant comparison, enabling emerging themes to be incorporated and explored in subsequent interviews to develop categories. Additionally, coding was assisted by using N-Vivo software. Data saturation was achieved with the evidence of no more new categories and themes emerged.

Findings of this study heightened the anxiety level that health care professionals exhibit when working with patients of different ethnicities, which might contribute to even more health disparities. In addition, findings were indicative of the critical opportunities to empower health care providers with cultural competence education in order to respond more effectively. Nevertheless, two themes emerged that provided the foundation to their grounded theory: First, "uncertainty" which should be recognized and acknowledged to deliver a more responsive care. Second, there is a need to shift the emphasis away from "knowledge-based cultural expertise toward greater focus on the patient as an individual" (Kai et al., 2007, p. 7). Finally, the authors stressed the need to acknowledge the different dimensions of cultures such as gender, social backgrounds, and education during cultural encounters.

In the discipline of human services, Caldwell et al. (2008) conducted a qualitative descriptive study to explore the definitions of multicultural competence given by frontline human services providers (FLSP). The researchers defined FLSP as those providers such as case management, social services, and agency staff members, who have no formal training in counseling, but serve in that role. The sample consisted of 99 participants who were enrolled in two cultural competency workshops. Data for 34 participants were collected at the first workshop in 2001, and then data from the remaining 65 participants were collected in the fall of 2002 workshop. Data analysis was achieved by using thematic analysis to provide different perspectives in definitions of multicultural competence. Additionally, collected data was mailed to auditors and group checking was used to validate the accuracy of the merging themes. Seven

thematic definitions emerged from this data analysis: color-blindness, client-focused, acknowledgment of cultural differences, textbook consistent, resource-driven, skills-based, and self-integrated.

This study addressed the gap in the multicultural competence counseling (MCC) literature regarding the cultural competency level of FLSP. Six of the seven themes demonstrated some level of multicultural competence consistent with literature. Nevertheless, the color-blindness theme demonstrated multicultural incompetence. This theme focused on similarities of people as the optimum outcome with disregard to differences between clients and counselors, which has a negative effect on the interaction. This "color-blindness" was a direct product of White privilege and institutional racism in the U.S. The authors of this study recommended that the topic of discussing multicultural competence goes beyond MCC staff to include other disciplines. Moreover, the researchers affirmed that the pinnacle of success for multicultural movement will be greatly enhanced by the contributions of multicultural competence scholars to improving public health.

In the discipline of pharmacy, Cooper, Vellurattil, and Quinones-Boex (2014) conducted a descriptive quantitative study to determine pharmacy students' perceptions regarding cultural competence training, cross-sectional cultural experiences during advanced pharmacy practices experiences (APPEs), and perceived comfort levels with various cultural encounters. Additionally, a secondary objective of this study was to identify which characteristics (demographics, education, and training) were associated with fourth-year (P4) students' perceived ability in providing culturally competent care and determine the need for further cultural competence education. The sample consisted of (n = 124) fourth-year (P4) pharmacy students at a Midwestern University Chicago College of Pharmacy, who were asked to complete

a questionnaire at the end of their fourth APPE. This questionnaire consisted of five parts with 54 questions, and was designed to be completed within 10 minutes. The first part asked students to complete demographic data. The second part consisted of Likert scale questions (1 = none, 5 = a lot) about students' previous cultural competence training. The third part of the questionnaire consisted of free-response type questions that asked students to describe their prior cultural competence experiences.

The fourth part addressed students' level of comfort during cultural encounters and responses were measured using the Clinical Cultural Competence Questionnaire (CCCQ), which was developed to assess physicians' level of cultural competence. The last part of the survey consisted of a section that students could write comments and feedback. Data were analyzed using PASW version 18.0; descriptive statistics were used to report all survey questions, whereas chi-square test was performed to analyze sample characteristics (i.e. demographics), which were associated with P4 students' perceived ability in cultural competence.

Response rate for the survey was 76%, only 124 students responded to the survey. Most students received some form of cultural competence education while attending other institutions. Fifty-two students (39.1%) reported that a cultural competence event occurred during their APPEs. Of the 52 responses received regarding students' level of comfort with providing culturally competent care, 60% were "quite a bit." Furthermore, students reported comfort when encountering homosexual, patients with disability, and patients of different cultural background. Caucasian students were more comfortable than students of other races with caring for mental health patients ($p = 0.004$). Students who identified themselves as having a specific faith/religion were less comfortable than other students with patients with disabilities ($p = 0.020$), homosexual patients ($p =. 0104$), and patients who did not make eye contacts ($p = 0.049$),

and were less likely to be attentive to nonverbal cues or culturally specific gestures ($p = 0.022$). Sixty-seven point five percent (67.5%) of the participants believed that they had received sufficient cultural competence, whereas 47.2% believed that the university should incorporate more cultural training experiences for students.

This study was the first study of its kind to examine pharmacy students' (P4) level and perceptions of cultural competence, so it was difficult to compare the finding with other studies. However, this study contributed to filling the gap in the literature on the topic of cultural competence among pharmacy students. For example, students' responses can be used to identify areas in which students might benefit from more cultural competence training programs and by identifying gaps in the training. Furthermore, this study supports the notion of incorporating different approaches in delivering cultural competence training. The researchers' recommendations included revising pharmacy students' curricula to include training in cultural competence areas with which students were uncomfortable. Furthermore, there is an opportunity to expand this study by assessing and including other pharmacy students across the country to convey superior perspectives.

In the field of athletic training, Marra, Covassin, Shingles, Canday, and Mackowiak (2010) conducted a correlational quantitative study to assess level of cultural competence among certified athletic trainers (ATs) in their delivery of health care services, and to examine the relationship between cultural competence and gender, ethnic/racial background, years of athletic training experiences, and National Athletic Trainers' Association (NATA) District. A survey questionnaire was distributed to 13,567 students, international, and regular ATs. A total of (n = 3102) participants completed the survey, for a response rate of only 22.86%. The Cultural Competence Assessment Inventory (CCA) was used to measure participants' level of cultural

competence provision. The CCA instrument was distributed to eligible participants electronically via survey monkey website. Data were analyzed using SPSS (version 15.1; SPSS Inc., Chicago, IL). Data analysis was conducted by first using univariate descriptive statistics, and then inferential statistics using analysis of variance (ANOVA) on each of the independent variables (gender, race, years of experience, and district).

Findings of the study revealed that ATs self-reported a high level of cultural competence, while the CCA results showed a lower level of cultural competence within the delivery of healthcare services. The results further showed that participants who had some form of cultural competence training (53.8%) scored higher than participants who had not received any form of cultural training. Moreover, females ATs scored higher on cultural competence levels than males ATs, ATs of different racial or ethnic background scores were higher than Caucasians counterparts. However, the results showed differences between level of cultural competence and years of experience and district. This study was limited due to the fact of the scarcity of studies with focus on cultural competence among ATs. The study, however, concluded an emphasis on cultural competence education in the delivery of healthcare services since ATs' (with previous exposure to cultural educational training experiences) scores were higher than ATs without cultural training exposure. Moreover, this study provided a baseline for athletic training educators as further inquiry on the topic warranted further inquiry. The researchers' recommendation included that educators and employers can use the study's result to develop diversity training educational programs for ATs and athletic students.

In the discipline of commerce and industry, Neal Goodman (2012) wrote an article describing the beneficial outcomes of implementing cultural competence training in the commerce and industry workforce. First, the author referred to "culture competence" as "culture

intelligence," which is, in essence, a transformative depiction of the necessary skills needed in today's multiculturalism. The author further defined cultural competence as the process of "acquiring awareness of self and others; recognizing ethnocentrism; understanding the consequences of cultural assumptions; and learning ways to promote effective working relations" (Goodman, 2012, p. 47). According to the writer, a key factor to optimizing performance in the global market was by making employees aware of their own cultural perspectives or misunderstanding, which will eventually lead to understanding the larger worldview. He further emphasized that learning about how to interact with people of different cultures is "a delicate art" that requires more than the basic knowledge of that culture. Making employees aware of their own cultural shortcomings can help them avoid potential errors and correct their cultural misconception. The author further highlighted the need to invest in sustainable cultural competence training programs with well-defined goals and measurable outcomes.

In the discipline of case management, Nancy Hudecek (2002) wrote an article discussing cultural competence for conceptual clarity purposes. First, the author gave abundant definitions of other concepts used interchangeably with cultural competence and then, she offered strategies that would help case managers to be culturally competent. The author defined culture as implying integrated patterns of human behaviors that includes thoughts, beliefs, values, and religions. Additionally, the author defined competency as implying consistency and congruency in demonstration of behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables them to work effectively in cross-cultural situation.

Moreover, the author defined cultural competence as the integration and utilization of knowledge about individual or groups into specific practices, and the attitudes that would eventually generate quality service, thus producing even better outcomes. Next, the author

revealed five strategies that can be used to gain competence during cultural encounters: (a) value cultural diversity, (b) have the capacity for cultural assessment, (c) be conscious of the "dynamics" inherent when cultures interact, (d) institutionalize cultural knowledge, and (e) develop adaptations to service delivery reflecting an understanding of diversity. The author further confirmed that integrating these five elements must be part of daily practices and must be integrated in every level of the health care delivery system. They should be reflected in attitudes, structures, policies, and services.

Other disciplines comparable to nursing have also accentuated the impact of cultural competence education and intelligence on the quality of services provided. They emphasized the need to understand culture with its implicit and explicit dynamics, and the need to appreciate clients' cultural views, attitudes, lifeways, and values to better serve them. For example, providers should be aware of their own cultural beliefs, biases, and shortcomings to be truly sensitive to different cultures, thus preventing cultural imposition. Understanding multiculturalism is essential to be successful in today's competitive markets. There is a concordance with the nursing profession regarding the significance of mastering cultural competence through cultural education. Cultural competence is fluid and never static or stagnating at one phase. Actually, it is a lifelong multidimensional learning process that unceasingly moves across the cultural competence continuum from unconsciously incompetent to eventually unconsciously competent.

Qualitative research presented some themes resonated with cultural incompetence among providers. For example, Kai et al. (2007) reminisced on cultural ambiguity when confronting clients of different cultures. "Uncertainty" was a theme that emerged to represent the scale of the complexity and unease felt by providers when encountering clients from different cultures.

Furthermore, Caldwell et al. (2008) identified a theme that is so often covertly hidden within the contexts of cultural encounters; this theme was "color-blindness" that demonstrated cultural incompetence of providers when they focused only on similarities rather than on differences within each cultural group (intra-cultural differences). Different disciplines such as in nursing recognized the value of cultural competence education and knowledge to better serve clients and produce fruitful cultural encounters. However, there was a gap in reviewing other disciplines since none of the previous studies examined the effectiveness of a cultural educational intervention on the quality of services.

Moreover, these studies showed the importance of educating staff about culture with its intricacies. Multiculturalism has proliferated tremendously in the U.S. in the past few decades. This proliferation, however, brought with it some challenges and robustness to different kinds of industries including health care. Understanding the cultures of those clients we serve requires from us perseverance and a commitment to be sensitive to their cultural needs. Exposing what lies beyond the tip of the iceberg of cultural competence is a lifelong commitment of continuing cultural education. Like an iceberg, part of the culture is above water, but what lies below the tip is the difficult challenge that all health care providers have to understand and maintain. As a matter of fact, these invisible cultural characteristics are what make a culture alive and hence, it is our duty to be aware of such phenomena and to actively seek opportunities to pursue cultural competency.

The previous studies in nursing and outside of nursing signified the importance of cultural competence education to be competitive and to overcome the challenges each culture brings with it to the table. This study tried to offer direct care nurses the opportunity to move in a linear manner on the continuum of cultural competence, moving from unconsciously

incompetent, to consciously incompetent, and finally to consciously competent. Most of nursing research focused primarily on nursing students. There is a clear gap in nursing when it comes to addressing the cultural education needs of direct care nurses. Those nurses compose the majority of the working nursing profession; they are primarily Caucasian nurses whose views of health, illness, and wellness are entirely different than their culturally diverse patients. This study attempted to invoke nursing professional awareness and spur interest to shift the focus more on direct care nurses in acute health care settings. Furthermore, this study might empower these nurses to be culturally aware and knowledgeable and to have the desire to pursue cultural encounters with their culturally diverse patients; eventually providing them with the tools during their journey toward cultural competence.

Previous Applications and Integration of Campinha-Bacote's Theoretical Framework

Campinha-Bacote's theoretical framework, the Process of Cultural Competence in the Delivery of Healthcare Services has been used abundantly in nursing and in other disciplines as a theoretical framework to either implement or compliment cultural educational interventions. Furthermore, this theoretical framework with its instrument have been used by various scholars to discover possible associations that might exist between cultural competence and other demographic variables, such as age, ethnicities, gender, and work experiences. The simplicity and the breadth of this theoretical framework enticed many scholars in nursing and outside of nursing to explore such theoretical framework in practice, research, education, or policy development. Additionally, Campinha-Bacote's tool, the Inventory for Assessing the Process of Cultural competence Among Healthcare Professionals-Revised (IAPCC-R), has proven to be reliable and valid tool by multiple studies nationally and internationally, and it has been used repeatedly to gauge achievement of cultural competence among students.

In the field of physical therapy, Lee, Litwin, Cheng, and Harada (2012) conducted a quantitative correlational study to investigate whether existing measures of social responsibility and cultural competence capture potential association between two groups of physical therapists (PTs) with varying international experiences. The hypothesis was that PTs with multiple international experiences (≥ 3) would demonstrate a positive relationship between these two constructs of social responsibility, as measured by the Core Values Self-Assessment of Social Responsibility, and cultural competence as measured by Campinha-Bacote's (2002) Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R).

The convenience sample consisted of two physical therapist groups, one group who had few international experiences (n = 32), and another group who had multiple international experiences (n = 23). The sample was retrieved from the American Physical Therapy Association's (APTA) online member directory. Data analysis was conducted using Predictive Analysis Software (PASW) statistics 18.0. First, descriptive statistics described and summarized the nominal characteristics of the participants. Next, inferential statistics included chi-square for nominal categories, Mann-Whitney U for ordinal categories, and an independent sample t-test for the ratio intervals were performed. Cronbach's α was used to assess the internal consistency of cultural competence and social responsibility subscales. Finally, Pearson's r correlation was computed to determine the strength of the association between IAPCC-R and social responsibility.

Findings of the study found no statistical significant difference for social responsibility total mean scores between the two groups of PTs. However, there was a statistical significant difference between the two groups of PTs for total mean IAPCC-R scores (F = 0.678, p = 0.023).

The data from the two groups were analyzed separately using Pearson's *r* correlation to determine the strength of the correlation between social responsibility and IAPCC-R total scores. The correlation of the social responsibility and cultural competence was greater for PTs with multiple international experiences than those with few international experiences. Nonetheless, social responsibility was moderately and positively correlated with cultural competence (r = 0.627, p = 0.001). The findings of this study supported the hypothesis that PTs with multiple international experiences demonstrated positive relationship between social responsibility and cultural competence indicating that the relationship between social responsibility and cultural competence may exist. This study also demonstrated that there is a positive correlation between international experience and physical therapists' cultural competence. Finally, this study may confirm to physical therapist educators the importance of integrating social factors into cross-cultural education curricula.

In the field of nursing education, Mareno and Hart (2014) conducted a quantitative study to compare the level of cultural awareness, knowledge, skills, and comfort of nurses with undergraduate and graduate degrees when encountering patients from diverse population. The researchers used a prospective, cross-sectional, descriptive design using Campinha-Bacote's theoretical framework as a conceptual model. This study took place in a southeastern state, where 2000 surveys were mailed to prospective nurses. Of the 2000 surveys mailed, only 374 surveys were returned with a response rate of only 19.3%. A total of 41.1% of participants (n = 150) had undergraduate degrees, while 58.9% (n = 215) had a graduate nursing degrees. The instrument that was used to measure level of cultural competence was, The Clinical Cultural Competency Questionnaire (CCCQ), developed by Like (2004) and revised by Krajic, Strabmayer, Karl-Trummer, Novak-Zezula, and Pelikan (2005). This instrument has been used

to measure nurses' perception of their cultural awareness, knowledge, skills, and comfort level when caring for patients from culturally diverse population. The subscales use a 5-point Likert scale, with scores ranging from 0 (not at all) to 4 (very), with an additional option (doesn't apply). Additionally, the researchers developed a nine-item demographic questionnaire that included: zip code, age, gender, culture/ethnicity, highest nursing degree, years as a licensed nurse, employment status, primary working setting, and language spoken other than English.

Data analysis was achieved by using SPSS version 18.0. First, descriptive statistics were computed to describe, organize, and summarize the sample. Next, inferential statistics using independent sample *t*-tests were used to compare subscale scores from the CCCQ and cultural diversity amounts between nurses with undergraduate degrees and graduate degrees. To compare differences in cultural competency, an independent sample *t*-test was used; the results showed only one significant finding based on education level. Nurses with undergraduate degrees scored lower on the knowledge subscale ($M = 2.10$, $SD = 0.084$) than nurses with graduate degrees ($M = 2.29$, $SD = 0.079$); the difference was statistically significant ($t\ (359) = -2.1$, $p < 0.05$). Meanwhile, the mean scores for the subscales awareness, skills, and comfort level did not vary considerably between the two groups.

In examining cultural diversity training, both undergraduate (84%) and graduate nurses (72.6%) reported minimal cultural training in the workplace, whereas no workplace training for undergraduate measured 13.7%, and no workplace training for the graduate measured 27.4%. Moreover, in examining the amount of continuing education on cultural diversity, both groups reported very little continuing education was obtained. However, the differences in the mean scores for cultural diversity training in the work place were statistically significant ($t\ (359) = 3.289$, $p < 0.01$). The findings of this study signified the imperative need of incorporating

cultural competency courses into both undergraduate and graduate level nursing programs. Recommendations from this study centered on the importance of providing cultural competence education to both undergraduate and graduate nursing students. Moreover, the first step of such education should target first increasing in both cultural awareness and knowledge among nursing students. This should then be followed by providing opportunities for students to practice these cultural skills and gain comfort during their cultural encounters.

In the field of nursing education, Noble et al. (2014) conducted a quantitative quasi-experimental study to evaluate the effectiveness of cultural competence educational intervention for first-year undergraduate nursing students in Israel. The researchers used an independent sample *t*-test with a control group to measure the effectiveness of such intervention. The convenience sample composed of $n = 146$ first-year nursing students divided into two groups. First, it included control group ($n = 88$) nursing students at two separate nursing schools, who did not receive the cultural educational intervention. Second, the sample included a treatment group ($n = 58$) nursing students from one school, who received the cultural educational intervention, which consisted of a 2-hour lecture presented by faculty member. Additionally, the researchers asked students to prepare and deliver a group presentation about the diverse cultural groups in Israel based on Campinha-Bacote's theoretical framework.

Data collection was achieved by administering a demographic instrument that was developed by the researchers, which included questions about gender, age, religion, religious identity, immigrant status, ethnicity, and previous attendance at workshop or courses in cultural diversity. Furthermore, the researchers used Campinha-Bacote's (2007a) Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Data analysis was performed using SPSS version 12.0 for Windows. First,

descriptive statistics were calculated for demographic variables, and then level of cultural competence was computed using the IAPCC-R tool. Differences in demographic variables for the control and treatment groups were analyzed using an independent sample *t*-test and chi-square test. Moreover, to determine the relationship that might exist between participants' background data and IAPCC-R, nominal variables were analyzed by one-way analysis of the variances (ANOVA) and interval variables by Pearson's correlations. The relationship between participants' background data and Campinha-Bacote's (2007a) five constructs were analyzed by multivariate analysis of variance (MANOVA) with repeated tests with the group being a between subject factor.

Participation results of the study yielded a response rate of 94% for the treatment group and 75% for the control group. In investigating the relationship between the demographic variable of age and IAPCC-R total scores, Pearson correlation was used, and for the investigation of the relationship with nominal and ordinal variables and the IAPCC-R scores, ANOVA was used. None of the relationships were significant. However, there was a significance when using chi-square tests to examine the demographic variables for gender, religious identity, and religious observance for both control and treatment groups. There was an increase in the mean the total scores in the intervention group, with no increase in the control group. All of the five subscales of Campinha-Bacote's IAPCC-R tool showed a statistical significance between mean scores of the pretest posttest for the treatment group alone.

Findings from this study emphasized the need to incorporate transcultural educational intervention into nursing curriculum as a method to increase students' cultural competence and sensitivity. Moreover, evidence-based teaching strategies should be made available to nursing faculties in order to disseminate transcultural nursing knowledge among nursing students.

Recommendations of this study for research and practice included the importance of providing evidence-based teaching strategies to nursing faculties to facilitate effective cultural competence education. These teaching strategies should be disseminated in nursing education, seminars, and conferences. Moreover, future studies in nursing education should consider using Campinha-Bacote's conceptual framework more often in nursing practice.

In the field of nursing education, Riley and York (2012) conducted an exploratory descriptive and correlational quantitative study to examine cultural competence among practicing nurses returning to school for their bachelor degree in nursing (RN-BSN). The aim of this study was to provide evidence for nursing educators to tailor curriculum development for this students' population. A convenience sample of $n = 55$ students completed the survey that was sent to 76 students. Campinha-Bacote's conceptual framework, the Process of Cultural Competence in the Delivery of Health Care Services, was the theoretical framework used in this study. Moreover, for data collection, two tools were used: Campinha-Bacote's instrument, the Inventory for the Process of Cultural Competence Among Healthcare Professionals-revised (IAPCC-R), and an additional demographic survey that focused on gender, race, age, years of nursing experience, and previous nursing education. This study was a secondary analysis of data collected during the implementation of a Department of Health and Human Services, Health Resources and Services Administration Nurse Education Practice and Retention grant. The research was conducted at two schools of nursing accredited by the Commission on Collegiate Nursing Education.

IAPCC-R scores ranged from 52-91 points with an average of ($M = 75.3$, $SD = 7.59$); 26 participants were recognized as culturally aware and 26 participants were recognized as culturally competent. However, the highest mean score was in the cultural desire subscale; meanwhile, the lowest scores were in the cultural knowledge subscale. Using Pearson's r, all

constructs had positive relation with the total IAPCC-R scores and several correlations were found between individual constructs. No significant relationship was found between gender and race and the IAPCC-R total scores.

A one-way analysis of variance (ANOVA) showed a significance difference in the total scores for age ranges (F (3, 48) = 2.955, p = 0.05). The effect size was large (0.156), and post hoc analysis using Tukey HSD test revealed the age range of 20-30 years (M = 78.9, SD = 6.64) scored significantly higher than the age range of 41-50 (M = 72.1, SD = 8.19). Furthermore, ANOVA tests also identified a significance difference in the cultural skill construct scores, with youngest respondents, aged 20-30 years, recording the highest mean scores, M = 35.6, n = 16,(χ^2 (3, 52) = 9.518, p = 0.023). No other significance was found with regard to age. A weak, negative correlation was found between years of nursing experience and total IAPCC-R scores (r = -0.294, p = 0.05). Additionally, individual construct scores were also examined for correlation to years of experience; moderate, negative correlations were found between years of experience and both cultural knowledge construct (r = -0.342; p = 0.05) and the cultural skill construct (r = -0.347, p = 0.05). Despite limitations of this study, it is considered one of the few studies that examined cultural competence among practicing nurses returning to school for their bachelor degree in nursing (RN-BSN). Thus, it adds new knowledge about cultural competence of practicing nurses who are entering an RN- BSN program. The findings of this study invited more research needed to target this specific population.

Different disciplines in health care have also used Campinha-Bacote's theoretical framework, the Process of Cultural Competence in the Delivery of Healthcare Services, in their research endeavors. Additionally, Campinha-Bacote's instrument, the Inventory for Assessing the Process of Cultural Competence Among Healthcare Processionals (IAPCC-R*)* has been used

extensively by researchers and has proven to be a reliable and valid instrument by many scholars. Nonetheless in nursing, previous utilization of Campinha-Bacote's theoretical framework have focused primarily on nursing students. Few scholars have attempted to examine the effectiveness of cultural competence of practicing nurses using this particular theoretical framework. Cultural competence education is a vital component of nursing in practice. With the remarkable increase of cultural diversity myriad in the U.S., health care professionals and systems must be keened to various cultures to provide quality and safe care.

Additionally, the previous studies illuminated some light regarding the importance of providing cultural competence education in undergraduate and graduate level schooling. The first prerequisite when teaching cultural competence is to target increasing cultural awareness and knowledge among students and then to redirect the emphasis toward sharpening cultural skills through practice and improving cultural psychosocial skills. Furthermore, there is a thriving need to incorporate transcultural education into nursing curricula and to incorporate evidence-based teaching strategies among nursing faculty. Nursing faculty should be culturally competent to deliver effective cultural competence to their students.

Campinha-Bacote's theoretical framework has been used effectively in both qualitative and quantitative research in nursing and in other disciplines. This model was first created to assist nurses in their daily nursing care of patients from diverse cultures. The constructs of the theoretical framework guides clinical practice, research, education, and policy development (Campinha-Bacote, 2007). Campinha-Bacote (1998) asserted that the process of becoming culturally competent occurs in phases as persons travel through their journey from being culturally novice to becoming culturally competent. Nonetheless, there is paucity to applying this framework in nursing practice. Most scholars have focused predominantly on nursing

students with insufficient studies in nursing practice. This study attempted to address such gap by applying this theoretical framework in nursing practice. Nursing practice is considered the soul of the nursing profession. This study also assessed the effectiveness of transcultural educational intervention in practice by using both Campinha-Bacote's theoretical framework and instrument.

Different fields in healthcare and outside healthcare can apply Campinha-Bacote's theoretical framework as a guide to gain cultural competence. As a matter of fact, this model blends the fields of transcultural medicine, medical anthropology, cross-sectional psychology, theology, transcultural nursing, and hospital administration (Campinha-Bacote, 2007). The process of "becoming" rather "being" culturally competent is a journey and not a destination. It is an ongoing process of continually seeking opportunities to become culturally competent. The five constructs of Campinha-Bacote's conceptual framework allow learners to comprehend the learning process not in a linear design but rather in a cyclical progressive format, where all cultural constructs interact with each other repetitively. The juncture of these five cultural constructs represents the magnitude of being culturally competent. Previous scholars have used this model for its capability of being theorized and operationalized on the continuum of cultural competence. The learner will be able to understand the conceptual components of the model, and the teacher will be able to measure the magnitude of the learning process by operationalizing the constructs of the theoretical framework.

Chapter Summary

Chapter Two provided a detailed overview concept cultural competence as utilized by previous scholars and researchers. The literature review and critique yielded three content areas: cultural competence in nursing, interdisciplinary cultural competence, and previous applications

and integrations of Campinha-Bacote's theoretical framework. There is a palpable gap in nursing research regarding employing cultural competence education to direct care nurses. This hiatus in nursing research has shown significance in underrepresenting many working nurses in the U.S. Chapter Three will follow with an extensive discussion of the methodology process.

CHAPTER THREE

METHODS

The fundamental purpose of this quantitative cross-sectional, quasi-experimental study was to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. Moreover, this study examined whether demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention.

Quantitative design is an empirical science that employs only physical and empirical data to answer researchers' questions. It uses numerical data to find the truth and meanings about reality; there is no existence for innate ideas or beliefs. Quantitative research emerged from a branch of philosophy called logical positivism. The term positivism was initially coined by the French philosopher Auguste Comte (1798-1857) in the 19th century. Comte who was influenced by the British philosophers Locke and Hume argued that all real knowledge results from experience and rejected metaphysics and the metaphysical views of the world. However, interestingly positivism can be traced back to the writings of Francis Bacon (1561-1626) two centuries before (Crotty, 1998).

Major tenets of positivism include the fact that knowledge can only be produced on the basis of direct observation and only accepting empirical evidence as valid evidence. Thus, things that cannot be seen cannot be accepted as evidence and true. The other tenet is that the task of the science is that of attempting to isolate, analyze, and understand causes of human behavior; hence, it is grounded on logical justification. Positivism is based on absolute objectivity, where religion, ethics, and metaphysics are rejected and only math, logic, and natural science are

accepted. Finally, the prima facie tenet of positivism is the principle of verifiability, which contends that no statement is meaningful unless it is capable of being verified (Crotty, 1998).

Ontologically, the positivist approach asserts that only one reality exists in the universe, and it is the researcher's duty to discover and expose the truth. Epistemologically, the positivist paradigm has its stance in objectivism. In objectivism, the truth is stand free, and knowledge depends on human interactions with these objects, causing knowledge. Post-positivism is considered a more modernized form of positivism that developed as a result of the relentless criticism of positivism. Positivism emphasized objectivity and empirics with the ontology that only one reality exists in the universe. However, post-positivism contended that such reality can never be fully explained due to limitations to the nature of human beings' sensory and intellects (Denzin & Lincoln, 1994). Post-positivism denotes to a lesser strict positivist approach, as it does not believe in strict cause and effect relationships, but rather recognizes that all cause is a probability that may or may not occur (Creswell, 2013).

There are four kinds of research designs that are commonly used when conducting quantitative inquiry. These designs are descriptive research, correlational research, quasi-experimental research, and experimental research. Descriptive research is considered an observational, non-experimental design; its primary purpose is to observe, describe, and document facets of situations as they naturally occur. Correlational design is used when the researcher is studying the effect of a potential cause that he/she cannot manipulate. Its primary goal is to examine relationships between variables; this relationship, however, is associative in nature and does not mean causality (Polit & Beck, 2012).

Quasi-experimental design is also called "controlled trials without randomization" that involves an intervention without randomization and some might even lack control (Polit & Beck,

2012). The goal of quasi-experimental research is to examine a causal relationship or to determine the effect of one variable on another (Burns & Grove, 2007). Finally, experimental research is an objective, systematic, highly controlled investigation for the purpose of predicting and controlling a certain phenomenon (Burns & Grove, 2007). Experimental research is also called randomized controlled trial (RCT), in which the researcher plays an active role, instead of a passive observer. This is considered the golden standard in research, and it is characterized by three hallmarks (manipulation, control, and randomization) (Polit & Beck, 2012).

Research Questions and Hypotheses

This study had different research questions and hypotheses that were tested to examine the relationships among the variables of this study.

RQ 1. Will there be a significant increase in direct care nurses' cultural awareness after completing the transcultural educational intervention?

H 1. Direct care nurses' average cultural awareness gain scores as measured by the IAPCC-R are greater than zero.

RQ 2. Will there be a significant increase in direct care nurses' cultural knowledge after completing the transcultural educational intervention?

H 2. Direct care nurses' average cultural knowledge gain scores as measured by the IAPCC-R are greater than zero.

RQ 3. Will there be a significant increase in direct care nurses' cultural desire after completing the transcultural educational intervention?

H 3. Direct care nurses' average cultural desire gain scores as measured by the IAPCC-R are greater than zero.

RQ 4. Will there be a significant increase in direct care nurses' total cultural competence after completing the transcultural educational intervention?

H 4. Direct care nurses' average total cultural competence gain scores as measured by the IAPCC-R are greater than zero.

RQ 5. Will there be a significant relationship between participants' demographic variables (such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training) and participants' total cultural competence gain scores?

H 5. Participants' cultural competence gain scores are significantly predicted by age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training.

Quantitative Inquiry

Quantitative research is a systematic, deductive, objective, and formal empirical examination of observable phenomena, in which numerical data are used to obtain knowledge about the universe via statistical and mathematical techniques (Burns & Grove, 2007). The goal of quantitative inquiry is to quantify and analyze data obtained from a sample, and then generalize those findings to the parent population. Quantitative research represents the traditional, positivist scientific method in which deductive reasoning is employed to generate predictions that can be tested in the real world (Polit & Beck, 2012).

Cross-Sectional and Quasi-Experimental Design

A cross-sectional research study involves collection of data once the phenomenon of interest is captured during a single point of time. This design is appropriate for describing the status of the phenomenon or for describing relationships among the phenomenon of interest at a

fixed point of time (Polit & Beck, 2012). This design was appropriate for this study because data collection of the phenomenon occurred at one time, before and after offering of the cultural competence educational intervention. Quasi-experimental design on the other hand comprises an extensive range of non-randomized intervention studies. These designs are often used when it is not logically feasible or ethical to conduct randomized controlled trials (Harris et al., 2005). Quasi-experimental designs are studies that try to show the effect of an intervention on a certain variable without randomization. The goal of quasi-experimental research is to examine a causal relationship or to determine the effect of one variable on another (Burns & Grove, 2007).

There are many rationales for selecting such design to pursue this study. First, this design permitted the researcher to make inferences on the effect of such intervention by examining differences in the pre-posttest mean gain scores of participants. Second, the feasibility of conducting randomization was difficult to pursue in this particular clinical setting. One of the major fortes of quasi-experimental design is its practicality in allowing the researcher more flexibility during the implementation phase of the study. Furthermore, "quasi-experimental design introduces the researcher control when full experimental rigor is not possible" (Polit & Beck, 2012, p. 223). For example, it provides the researcher some form of pragmatism in the clinical setting when introducing a nursing intervention, such as the proposed transcultural educational intervention.

A quasi-experimental pretest-posttest without control group design was utilized in this study to determine the causal-effect relationships between the independent variable, transcultural educational intervention, and the dependent variables of Campinha-Bacote's three cultural constructs (cultural awareness, cultural knowledge, and cultural desire) and total cultural competence scores. Additionally, descriptive statistics was computed in order to describe,

organize, and summarize the collected data and participants' demographics. Finally, cultural competence gain scores of the demographic variables were expounded further for possible associations that might exist with cultural competence gain scores. This study attempted to examine differences first from within participants by investigating the causal-effect relationships between the independent variable and the dependent variables, and then it attempted to investigate differences from between participants by investigating the differences between cultural competence gain scores across all demographic variables. The use of this method in this study enabled the researcher to draw conclusions that might have implications for nursing education, nursing practice, nursing research, and public health policy.

Setting

The central aim of this study was to examine the impacts of introducing a cultural competence educational intervention on frontline nurses' cultural competence working in an acute healthcare setting. Moreover, nurses from prospected nursing units, such as medical/surgical units, progressive care units, intensive care unit, emergency department, surgical services, mother/infant unit, and outpatient services were the targeted sample for the study. The specific setting for this study took place in a large urban metropolitan hospital in the heart of Central Florida. This setting is rich with its abundant nursing services offered to different multiethnic patient populations. Moreover, this hospital employs close to 700 nurses, which allowed the researcher convenience sampling and easier accessibility. Furthermore, this location exposes nurses routinely to culturally diverse patients from different parts of the world.

Additionally, this hospital is conveniently located in the heart of Osceola County and in close proximity to the other three counties of Central Florida (Polk, Orange, and Lake counties), which are highly populated with multi-ethnic groups. As of 2012 Osceola's County census

report, there were 287,416 people, and 92,526 households residing in this county. The racial makeup of the county composed of 38.2% Non-Hispanic Whites, 13.0% Non-Hispanic Blacks, 0.7% Native Americans, 3.0% Asians, and 0.2% Pacific Islanders, and 2.5% from two or more races. Nonetheless, 47.8% of the population composed of Hispanics or Latinos of any race (U.S. Census Bureau, 2010). As indicated before and according to the census demographic report, this specific county is rich with its multicultural population; this made this specific healthcare setting an ideal choice to pursue this study.

Sample

Quantitative research often employs different sampling techniques to get a true depiction of the target population. Ideally, to obtain a 100% representation of participants, researchers more likely will need to study the entire population, which is impossible, costly, and unfeasible. Therefore, sampling techniques are usually used as strategies to replicate the general population's stand on the issues that researchers are trying to answer. Sample is considered a subset of the population, and it refers to taking a portion of a population or universe as representative of the entire population and universe (Kerlinger & Lee, 2000; Polit & Beck, 2012).

Two types of sampling techniques are used in research. First, in nonprobability sampling, participants or elements are chosen by nonrandom methods, such as purposive and convenience sampling. Nonetheless, one shortcoming of these sampling techniques is the fact that not every element of the population has an equal opportunity of being selected. Additional examples of nonprobability techniques include consecutive sampling, quota sampling, and snowball sampling. The second technique is probability sampling, which involves random selection of participants or elements. This sort of sampling allows participants' equal

opportunity of representation, which is the golden approach in sampling. Examples of probability sampling include simple random, systematic random, stratified random, random cluster, stratified cluster, and complex multi-stage random (Polit & Beck, 2012).

Since the purpose of this study was to examine the effect of a transcultural educational intervention on direct care nurses' cultural competence in one acute healthcare setting, probability sampling was not selected. Hence, this study employed a non-probability convenience sampling technique. It is worth noting though that convenience sampling includes subjects who are available, or can be easily recruited. One weakness to this kind of sampling is that the findings cannot be generalized because it is considered a biased sampling technique, due to the fact that it does not allow for equal representation of the entire population. Nonetheless, many scientific researchers presently use convenience sampling in their experiments (Johnson & Christensen, 2008).

Projected Sample Size

In quantitative research, sample size calculation is needed in order to make inferences about the population with a given level of confidence. In general, the larger the sample size, the greater the degree of representation the sample would have, and the lessor sampling errors might ensue during data collection (Polit & Beck, 2012). Moreover, calculating the precise sample size relies on the type of data and distribution. For example, elements that should be taken into account while estimating sample size include consideration of the alpha error, beta error, clinically meaningful difference, and the variability of the standard deviation. Furthermore, other elements that should be considered are available funding, support facilities, and ethics of subjecting participants to research, and finally the primary research question that the researcher wants to investigate (Gogtay, 2010).

Various guidelines in the literature estimate a sample size. Some scholars believe that when using a rule of thumb, a sample should not be less than 100 participants in quantitative inquiries; others, however, agree on 30-40 participants, whereas others believe that for each variable, 10-15 participants should be calculated (Gray, Williamson, Karp, & Dalphin, 2007; Porteny & Watkins, 1993; Wilson, Voorhis, & Morgan, 2007). Nonetheless, this study aimed for a sample size of 50 participants.

Sample Size by Power Analysis

Power analysis is the procedure of estimating the sample size for a study, and the probability of detecting an effect and differences or relationships that exist in the population (Burns & Grove, 2007). In determining the sample size for this study, G*Power 3.1 analysis was used. G*Power 3.1 is a computer software that can calculate the sample size based on alpha level (α), effect size (ES), and power size (1-*b*). Nonetheless, determining the right sample size is influenced by three factors: power, effect size, and significance level (Munro, 2005). Power allows for the reduction of type II error by rejecting the null hypothesis. The effect size, on the other hand, is the degree to which the null hypothesis is false; which portrays the magnitude of the effect the independent variable has on the dependent variable. The significance level is the probability of rejecting a true hypothesis, making a type I error (Munro, 2005).

Based on the calculation for one-sample *t*-test, an estimated sample size of 27 participants was needed to assess the magnitude of the gain scores for each cultural subscale, when using significance level ($\alpha = 0.05$), power level beta (β) of 0.80 (1-b), and a medium effect size of 0.5. Furthermore, for multiple regression analysis, an estimated sample size of 49 participants was needed to evaluate how well age, gender, ethnicity, birthplace, previous exposure to cultural competence training, level of education, and years of nursing experience predicted total cultural

competence gain scores, when using significance level ($\alpha = 0.05$), power level beta (β) of 0.80 (1-b), and a large effect size (f^2) of 0.35.

Inclusion Criteria

The inclusion criteria consisted of the following:

1. Participants must be 18 years old or older
2. Participants must possess the ability to speak, comprehend, write, and read English
3. Actively employed nurses working in the specified acute healthcare setting
4. Nurses who are assigned to a clinical care unit of the specified acute healthcare setting
5. Willing to participate entirely in the educational intervention
6. Full-time, part-time, and temporary direct care nurses working either day, or night shift with a minimum of one year of experience

Exclusion Criteria

The exclusion criteria consisted of the following:

1. Participants younger than 18 years old
2. Unable to read, comprehend, write, and speak English
3. Any nurses who are working in a nonclinical or direct care nursing within the specified healthcare setting
4. Unwilling to participate entirely in the educational intervention
5. Non-direct care personnel, such as nursing administration, executives, care management, or other ancillary support staff
6. Nurses with less than one year of experience

Ethical Considerations/Protection of Human Subjects

When conducting research that involves human participants, careful considerations must be undertaken to ensure ethical principles such as beneficence, respect for human dignity or autonomy, non-maleficence, and justice are followed to ensure protection of human rights (Polit & Beck, 2012). In response to the historical atrocities of human rights violation and crimes in conducting research, governing bodies nationally and internationally established codes of ethics that researchers must adhere to while conducting research. Examples of these research crimes and atrocities included the Nazi medical experiments of the 1940s; the Tuskegee syphilis study in the U.S. (1932-1972); Willowbrook study during the 1960s; and Dr. Green's studies in the 1980s in Auckland, New- Zealand, who denied cervical cancer treatment for some women just to study how the disease progresses.

At a national level, the Belmont Report (1978) Code of Ethics was established and adopted by the National Commission for Protection of Human Subjects by the Federal government of the US. However, this report focused on three crucial ethical principles: beneficence, respect for human dignity or autonomy, and Justice. First is the ethical principle of beneficence, which obliges researchers to minimize harm and maximize benefits. Second, respect for human dignity or autonomy includes the right to self- determination and full disclosure. Finally, the ethical principle of justice includes fairness and equity in conducting research (Polit & Beck, 2012). Another prominent ethical principle in research includes non-maleficence, which is defined as the right to protection from harm and discomfort. The Belmont Report led the U.S. government to establishing the Institutional Review Boards (IRB). These are external committees whose main function is to approve and ensure that human rights are fully protected by researchers.

Internationally, protection of human rights was ensured by the establishment of the Nuremburg Code (1949) and the Declaration of Helsinki (1964, 2000). Other disciplines, such as psychology, sociology, and medicine established their own ethical codes. However, in nursing, the ANA issued in 1995 the *Ethical Guidelines in Conduct, Dissemination, and Implementation of Nursing Research*, and in 2001 published a revised *Code of Ethics for Nurses with Interpretive Statements* (Polit & Beck, 2012). All these initiatives were very instrumental in minimizing risks participants might endure during research.

After approvals from Barry University's Institutional Review Board (IRB) (see Appendix A) and Florida Hospital's IRB (Appendix G) were obtained, the researcher sought hospital administrators' approval to conduct the study. A letter was sent to the vice president and Chief Nursing Officer (CNO) to seek permission to access participants (see Appendix C). After administrator's approval was obtained, the researcher distributed flyers in designated areas as approved by the hospital's policy (see Appendix E). This flyer contained the following information: (a) name of the study, (b) aims of the study, (c) inclusion criteria for participants, (d) location of the educational intervention, (e) time frames of the educational intervention, and (f) researcher's contact numbers along with the advisor and Barry University's IRB representative numbers.

Guidelines for conducting human research were followed meticulously. After all administrative approvals were obtained, and prior to conducting the educational intervention, the researcher's assistant completed the third-party confidentiality agreement as per Barry University's IRB recommendation (see Appendix L). The researcher's assistant also completed a one-hour orientation that was delivered by the researcher regarding the study's objectives, procedures, and ensuring protection of participants' human rights.

In addition, before starting the educational intervention session, the researcher's assistant met with all participants and preceded by distributing the cover letter (see Appendix B). The cover letter contained the following information: (a) title of the study, (b) aims of the study; (c) procedural steps taken during the study; (d) length of the educational intervention; (e) brief description of the tools; and (f) researcher's, advisor's, and Barry University's IRB representative contact numbers. Moreover, participants were notified by the researcher's assistant that completion of the survey and the intervention implies their consent to participate in the study.

Furthermore, the researcher's assistant informed participants of their rights during the study prior to participating in the study. For example, their right of anonymity will be assured; no identifiable data of any sort will be collected. Next, their participation in this study is completely voluntary, and they have the right to discontinue the study at any time without any sort of penalties. In addition, the researcher's assistant explained any possible risks and/or benefits that might occur during the discourse of the study. All participants were assured of no harm, deceit, or coercion will transpire throughout the study. Moreover, participants were assured that they can refuse to answer any question(s) during the survey or the intervention. Likewise, all participants will be given a $10 Target gift certificate as a token of appreciation for their participation at the beginning of the intervention. Finally, all data will be kept locked off site at the researcher's home office in a secure cabinet for a period of 5 years upon completion of the study. After this period, the researcher will destroy all data via shredding.

Access and Recruitment Procedures

Following IRBs' approvals, the researcher sent a letter requesting access to the participants to the vice president and Chief Nursing Officer (CNO). Then, the researcher sent an

email to the Director of Clinical Excellence and Nursing Education and the Director of Human Resources to discuss the intent, objectives, and procedures of this educational program. After administrators' approval was granted (see Appendix D), the researcher began recruiting participants by distributing flyers in designated areas as permitted by the hospital's policy (see Appendix E). Moreover, the researcher sought approval form the hospital's administrator to obtain a list of all nurses' emails in order to send an in-house email with the attached flyer to elicit more participation. The researcher included in the email his contact information to answer any questions. Finally, the researcher conveyed that a $10 Target gift certificate would be presented to all participants at the beginning of the educational intervention as a token of appreciation and with disregard to their completion of the study.

Data Collection Procedures

A substantial step in conducting a study is to clearly identify how the data will be collected, organized, and analyzed. Data collection for this study was implemented once IRBs' permissions were granted and administrators' approval was obtained. The researcher's assistant proceeded at the beginning of each intervention by distributing the cover letter to all participants. Then, the researcher's assistant explained in detail the contents of the letters, including title, aims, time frame, and contact numbers if they should have any questions or concerns. Next, the researcher's assistant made it clear that their consent to participate is implied when they agree to take part in the study. In addition, participants were assured that their rights would be protected to the highest regard and extent. For example, their right to discontinue the study was guaranteed, and their participation was completely voluntary without coercion. Furthermore, their anonymity will be completely secured and protected; no identifiable data of any sort would be collected at any point during the study.

The researcher's assistant explained that for each participant, there was a specially numbered folder. These folders were numbered from 1-50 and each folder had a demographic survey, a pretest, and a posttest questionnaire that was numbered to correspond with the folder. For example, folder number one contained demographic questionnaire number one, pretest questionnaire number one, and posttest questionnaire number one. This technique allowed the researcher the ability to match the answers for all the demographic, pretest, and posttest questionnaires precisely, and hence, permitted him the capability to look for any statistical significance.

In addition, the researcher's assistant explained that the cover letter serves as consent to participate in the intervention. As a token of appreciation, all participants were presented with a $10 Target gift certificate at the beginning of the educational intervention. Once participants gave their volunteered consents, the researcher's assistant proceeded by distributing the tokens of appreciation, and then the demographic questionnaires were distributed (see Appendix J). The demographic questionnaire is composed of 11 questions, and it took participants roughly 5-10 minutes to complete. Upon completion of demographic questionnaire, the researcher's assistant collected the questionnaires and placed them in a secure locked box labeled "Demographic Questionnaires" that was only accessible by the researcher. After collecting all of the demographic questionnaires, the researcher's assistant distributed the IAPCC-R pretest tools of Campinha-Bacote (see Appendix K). Furthermore, the researcher's assistant explained that there are 25 items to be answered on a 4-point Likert scale, and the duration to complete the pretest will take approximately 10-15 minutes. Upon completion of the pretest, the researcher's assistant collected all questionnaires and placed them in a secured box labeled "Pretest Questionnaires," which was placed in the front of the classroom.

Transcultural Educational Intervention

After completing both the demographic and the pretest questionnaires, the researcher's assistant explained the procedures of the educational intervention. First, the researcher's assistant explained the objectives of the educational intervention, and then a cultural competence lecture didactic was offered in the form a video presentation. This educational intervention video presentation called "*Cultural Competency: Problem Solving*" (see Appendix M) was professionally prepared by an educational company that focuses on teaching cultural competence to health care professionals, and it lasted 20 minutes to complete. Moreover, this educational video presentation focused on raising awareness of cultural diversity in healthcare, and enhancing cultural knowledge. Ultimately, this transcultural educational intervention concentrated on three cultural constructs of Campinha-Bacote's theoretical framework; these were cultural awareness, cultural knowledge, and cultural desire.

Cultural awareness as stated before is situated in the affective learning domain and addresses the emotional side of learners. The participant will receive, respond, value, organize, and internalize values of cultural competence. Cultural knowledge on the other hand is positioned in the cognitive learning domain and addresses the acquisition of knowledge during the learning processes of comprehension, application, analysis, synthesis, and evaluation. Finally, cultural desire is situated in the affective learning domain and addresses learners' attitudes, behaviors, and emotions. Additionally, due to the method of teaching, this cultural intervention in a lecture pedagogical format only; the practical/psychomotor learning domain was not examined. For example, the theoretical constructs of cultural skills and cultural encounters of Campinha-Bacote's theoretical framework were not investigated during this intervention.

Immediately after completing the educational intervention, the researcher's assistant preceded by distributing the IAPCC-R posttest instruments of Campinha-Bacote. After completion of the posttest questionnaires, the researcher's assistant collected the posttest results and placed them in a secured box located in the front of the classroom labeled "Posttest Questionnaires." The entire educational intervention took approximately 1 hour to complete. This time segment allowed for 10 minutes for demographic questionnaires to be completed, 15 minutes for pretest surveys to be completed, 20 minutes for the transcultural education video presentation, and finally 15 minutes for the posttest surveys to be completed.

Finally, the researcher's assistant thanked all participants and assured them that all collected data will be safely secured electronically on a flash drive and on an external drive that are accessible only to the researcher. Moreover, all hard copy data will be securely stored and locked in a cabinet at the researcher's home office that is only accessible by the researcher and will be kept for a period of 5 years upon completion of the study. After 5 years, the researcher will destroy all data via shredding. The researcher's assistant further explained that all data will be entered in SPSS software for statistical analysis and the findings of the study might be disseminated in professional journals, presentations, or any other scholarly work or form. Lastly, all participants were reminded again of the contact numbers listed in the cover letter if they should have questions or concerns.

Instruments/Measures

Theoretical instruments provide investigators means to measure and operationalize each construct of any given theoretical framework. Furthermore, instruments in a sense provide numerical values that can be computed to give statistical and quantifiable meanings for each construct of theoretical frameworks. Polit and Beck (2012) asserted that quantitative inquiries

derive data through the measurement of variables; this measurement, however, involves assigning numerical value to reflect the amount of attribute that exist in an object or a person, using a precise set of rules. The process of measurement for this study was achieved by using two sets of tools (researcher's developed demographic questionnaire and Campinha-Bacote's IAPCC-R instrument).

Demographic Instrument

The researcher developed a structured demographic instrument to compute statistics for all participants (see Appendix J). First, univariate descriptive statistics were calculated. For example, measures of central tendency were computed by calculating the modes, medians, and means. Second, measures of variability or dispersion were computed, such as range, variance, and standard deviation. Demographic variables such as age, gender, ethnicity, birthplace, previous exposure to cultural competence training, level of education, and years of nursing experience were collected, organized, and analyzed. Afterward, parametric statistics measured the magnitude each variable had on the dependent variable of cultural competence mean gain scores post exposure to the educational intervention.

This instrument is composed of 11 questions and took participants approximately 5-10 minutes to complete. Item 1 is a nominal categorical level that inquired about participants' birthplace; item 2 inquired about language spoken, this is also a nominal level of measurement; item 3 inquired if participants speak other languages beside English; item 4 inquired about participants' preference for which language they communicate with others. Item 5 inquired about highest level of education of participants, this is an ordinal level of measurement. The intent of this question was to show if any correlation existed between level of education and their cultural competence mean gain scores. Item 6 inquired about any previous cultural educational

and/or training opportunities participants had in the past. The intent of this question was to show if any relationship existed between participants' previous cultural educational experiences and their cultural competence mean gain scores post exposure to the educational intervention. Item 7 addressed gender; this is also nominal level of measurement. This question examined if any association existed between gender and their cultural competence gain scores. Item 8 inquired about employment status, this is a nominal level of measurement. Item 9 inquired about participants' race, this also a nominal level of measurement and was intended to show if race correlated with participants' cultural competence gain scores.

Item 10 addressed age, which is a ratio level of measurement. This specific question examined if there was any association between participants' age and their cultural competence gain scores post exposure to the educational intervention. Finally, item 11 inquired about years of nursing experience. This is a ratio level of measurement, and it was intended to show if any association existed between years of nursing experience and their cultural competence mean gain scores.

Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R)

The second tool that was used in the study was Campinha-Bacote's instrument, the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R) (2002) (see Appendix K). This tool was used to operationalize the three constructs of the theoretical framework (cultural awareness, cultural knowledge, and cultural desire) and total cultural competence. This tool is a formal written document designed to assess the level of cultural competence among healthcare professionals, such as healthcare clinicians, educators, and students (Campinha-Bacote, 2007). This particular instrument is an updated form

of Campinha-Bacote's previous instrument, (IAPCC) that was initially developed in 1997, which was based on her theoretical model of cultural competence, The Process of Cultural Competence in the Delivery of Healthcare Services. In 2002, Campinha-Bacote revised her 1997 model by adding another construct "cultural desire;" hence, the formerly IAPCC was amended to the IAPCC-R to reflect this change.

The Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R) is a pencil and paper self-assessment tool that measures participants' level of cultural competence in healthcare delivery systems. This tool is composed of 25 question items that assess all five constructs of cultural competence. Each construct has five items that participants respond to on a 4-point Likert scale. For example, responses can range from strongly agree, agree, disagree, and strongly disagree; to very aware, aware, somewhat aware, and not aware; very knowledgeable, knowledgeable, somewhat knowledgeable, not knowledgeable; very comfortable, comfortable, somewhat comfortable, not comfortable; and very involved, somewhat involved, not involved. Scores for the IAPCC-R range from 25-100 and are classified into four levels of cultural competence: (a) Culturally Proficient (91-100), (b) Culturally Competent (75-90), (c) Culturally Aware (51-74), and (d) Culturally Incompetent (25-50) (Campinha-Bacote, 2007).

Psychometric Measures

Rigor in quantitative research is expressed in terms of reliability and validity. Reliability is defined as the degree of consistency and stability of an assessment instrument. There are different types of reliability, such as internal consistency reliability, test-retest reliability, parallel forms reliability, and inter-rater reliability. Validity on the other hand refers to the accuracy of inferences and the extent to which an instrument accurately reflects the concept being examined.

Furthermore, validity refers to how well a test measures what it is supposed to measure (Burns & Grove, 2007; Johnson & Christensen, 2008; Polit & Beck, 2012).

Reliability. Reliability refers to the degree of consistency with which an instrument measures a variable (Porteny & Watkins, 1993). The IAPCC-R has high reported reliability established by multiple studies. The instrument's author calculates the average reliability coefficient Cronbach's alpha as 0.83. Additionally, the IAPCC-R has been used vastly in nursing and in other disciplines nationally and internationally to aid in delivering cultural competence. For example, at a national level, this instrument has been used in Florida, North Carolina, Minnesota, New York, Texas, Pennsylvania, Nebraska, Maryland, Washington, New Jersey, Massachusetts, and Missouri. These national studies have reported an average reliability coefficient of Cronbach's $\alpha = 0.83$. Examples of these studies include but are not limited to Noble (2007); Kardong-Edgren (2007); Morris (2007); Giles (2008); Wilbur (2008); Kardong-Edgren et al. (2010) (Campinha-Bacote, 2007).

Internationally, this instrument has been used in Portugal, Japan, Sweden, Finland, Italy, New Zealand, Ireland, South Korea, Denmark, Guam, Thailand, Iran, China, Turkey, and England. However, these studies reported an average reliability coefficient of Cronbach's $\alpha = 0.76$ (Campinha-Bacote, 2007). Examples of these studies include but are not limited to Olt & Emami, (2006); Huttunen, (2006); Ndiwane (2006); Kock (2009); Hazan-Hazoref and Uram, (2009); Dean and Veenstra, (2008); Kawashima, (2008); and Jirwe, (2008) (Campinha-Bacote, 2007).

Validity. Validity is defined as the degree to which an instrument measures what it is intended to measure. Several types of validity exist: content validity, face validity, criterion validity, and construct validity (Polit & Beck, 2012). Content validity refers "to the degree to

which items in an instrument adequately reflects the content domain being measured" (Porteny & Watkins, p. 680, 1993). Face validity on the other hand refers to "the assumption of validity of a measuring instrument based on its appearance as a reasonable measure of a given variable" (Porteny & Watkins, p. 683, 1993). For this instrument, content and face validity were achieved through expert panels, and through a review of the literature of cultural competence in healthcare delivery that identified awareness/attitudes, skill and knowledge as domains of cultural competence. Criterion validity on the other hand refers to the extent to which an instrument is assessed on another and an external outcome. This measurement of the outcome however can be either concurrent or predictive (Polit & Beck, 2012). Criterion validity for the IAPCC-R was not reported in the literature.

Construct validity refers to the degree to which a theoretical construct is measured by an instrument (Porteny & Watkins, 1993). Construct validity of the IAPCC-R is based on Campinha-Bacote's theoretical framework of cultural competence in healthcare delivery. Construct validity was addressed by Capell et al. (2008). Findings from this study revealed an inverse relationship between cultural competence (as measured by the IAPCC-R) and ethnocentrism (as measures by the Ethnocentrism Scale). Moreover, construct validity was addressed by Mesler (2013), whose findings indicated a direct relationship between students' level of cultural competence (as measured by the IAPCC-R) and their level of confidence in performing general transcultural skills (as measured by the Transcultural Self-Efficacy Tool-TSET) (Campinha-Bacote, 2007).

Data Analysis Plan

Data Storage and Cleaning

The researcher's assistant ensured that all of the demographic, pretest, and posttest questionnaires were completed and placed in the correct labeled boxes. The researcher who has the sole access securely locked these boxes and transported all collected data from the hospital to the researcher's home office. Before any data entry, all questionnaires were examined for full completion. Any surveys with more than 30% missing data were disqualified from the study (Creswell, 2007).

Afterward, all completed data were entered into the software, Statistical Package for the Social Sciences (SPSS) version 22.0 for statistical analysis. To ensure absence of any outliers, and for data cleaning, a frequency distribution using a boxplots was performed. Finally, all collected data were stored in two different ways. First, electronic data were stored on a flash drive and on an external hard drive. Second, all hard data were stored at the researcher's home office in a secure cabinet for a period of five years upon completion of the study. After 5 years, the researcher will destroy all data via shredding.

Data Analysis

Before analysis of data, all fundamental data were examined for normal distribution and homogeneity of variance. To validate for normal distribution of the data, the Kolmogorov-Smirnov's (K-S test) was administered. Furthermore, since there was only one group in the sample, there was no assumption regarding the variance of the dependent variable being equal for all groups. Finally, assumptions for multiple regression analysis, such as normality, absence of multicollinearity of the independent variables, presence of a linearity, homoscedasticity or the inclusion of only relevant variables into analysis were ensured (Munro, 2005).

Additionally, factor analysis was performed in order to reveal any relationship might exist between latent variables or factors and the outcomes of the intervention. Factor analysis is usually used to explore whether there are underlying latent variables or factors that can explain the patterned correlations within a set of observed variables. One good advantage to factor analysis is that it allows the researcher the ability to reduce large amount of data into a smaller and manageable set of data (Munro, 2005). Moreover, factor analysis discovers concealed patterns and sees how they can overlap; it can also aid in assessing the internal reliability of a measure and it can investigate the quality for individual items (Kerlinger & Lee, 2000). Generally speaking, there are two types of factor analysis. First, Confirmatory Factor Analysis (CFA); this type of technique is used for verification when the researcher has previous knowledge about the structure of his/her data. Moreover, CFA is usually used for hypothesis testing, since it allows the researcher the ability to discover if a relationship between a set of observed variables and their underlying constructs exists. Second, Exploratory Factor Analysis (EFA); the researcher usually uses this technique when he/she has no prior knowledge of the structure of the data. It is a good technique to explore patterns because it provides a method of explaining variance among observable variables by using fewer and newly generated factors. This type of factor analysis is the most commonly used type of factor analysis, and it is not based on any prior theory (Polit & Beck, 2012). For this study, the researcher used CFA to reveal any relationship might exist between latent variables or factors and the outcomes of the intervention. After ensuring absence of any outliers using frequency distributions, data were analyzed using both descriptive and inferential statistics. First, univariate descriptive statistics were used to calculate measures of central tendency such as mode, median, and mean. Subsequently, measures of variability were computed, such as range, variance, and standard deviation.

Demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were collected, organized, and analyzed in appropriate charts.

Next, parametric statistics were used to measure the magnitude each variable might have on the dependent variable of cultural competence mean gain scores post exposure to the educational intervention. For example, a one-sample *t*-test was used to examine participants' cultural mean gain scores for cultural awareness, knowledge, desire, and total cultural competence scores. Then, multiple regression analysis was used to evaluate whether demographic variables, such as age, gender, race, birthplace, educational level, and years of nursing experience were reliable predictors of participants' cultural competence gain scores.

Chapter Summary

This chapter discussed the scheme that was used in the methodology phase of this research. This chapter included an overview of the design, setting and sampling, ethical considerations, access and recruitment procedures, instrumentation, and data analysis plan. Currently, the substantial shift in demographics along with the increase of immigration influx in the U.S. places an ethical and professional burden on health care providers and systems to deliver culturally safe, competent, and congruent care. Chapter Four will follow with the results of the study.

CHAPTER FOUR

FINDINGS OF THE STUDY

The chief purpose of this cross-sectional, quasi-experimental study was to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. In addition, this study examined if demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention. This chapter is presented in the following sections: sample description, results of psychometric estimation including exploratory and confirmatory data analysis, restatement of the research questions and hypotheses with testing for each hypothesis.

Cultural competence is becoming an essential constituent in today's health care arena as diversity continues to flourish profoundly in the U.S. Transcultural nursing education is one approach that nurses and health care organizations can use to combat some of the health disparities encountered by minorities. Transcultural nursing education can aid nurses in rendering culturally appropriate, responsive, and sensitive care to people from different cultures, while respecting their dignity, worth, and rights. Culturally competent nurses are prepared to assess the cultural care needs of their patients and to skillfully integrate patients' cultural values, beliefs, and lifeways in their nursing care (Miller et al., 2008).

Subsequently, it is crucial for nurses in every sector of health care to gain cultural knowledge and skills to deliver culturally appropriate care. Cultural competence education has been well documented in the literature as an effective tool for nurses and nursing students to attain their cultural educational needs (Campinha-Bacote, 2007; Douglas et al., 2009; Jeffreys,

2006; Purnell, 2009). Nonetheless, there are still some disparities in evaluating the effects of cultural competence education in nursing practice, especially in acute health care settings since most nursing scholars work in the academic sectors, and hence their focus would be on addressing the educational needs of their students. While this consequence can be anticipated, this has left bedside nurses without adequate representation in transcultural research.

The data for this cross-sectional, quasi-experimental study was collected through convenience sampling that was sought at two transcultural educational sessions in a hospital located in Central Florida. Originally, 50 nurses agreed to take part in the study; however, due to missing data on some of the questionnaires, data was restricted to only 44 usable questionnaires. Initially, these nurses completed a researcher-developed demographic questionnaire and the pretest questionnaires of Campinha-Bacote's IAPCC-R instrument. Next, they participated in the transcultural educational intervention video presentation, and immediately afterward, they completed the posttest questionnaires of Campinha-Bacote's IAPCC-R tool. After completion of the surveys, all questionnaires were screened and examined by the researcher for full completion.

Data were then entered into the IBM SPSS.v.22, and both descriptive and inferential statistics were computed to describe and analyze the data. First, descriptive statistics including frequency distributions were used to describe the demographic variables of the sample, such as birthplace, primary language, preferred spoken language, level of education, employment status, gender, race, and any previous training or exposure to cultural competence experiences. The computable ratio demographics of age and years of experience were also analyzed by calculating the means, standard deviations, and the ranges. Next, since the IAPCC-R instrument was based on a Likert scale; the test answers were converted from texts to numerical values. Furthermore, some of the pretests and posttest of the IAPCC-R test scores were reversed coded so a higher

number on the questionnaires reflected the intended higher value and meaning of the question. The values were then categorized into three subgroups of the IAPCC-R classifications of cultural competence. These three subgroups were culturally aware, culturally competent, and culturally proficient.

The effectiveness of the transcultural educational intervention was tested by calculating the change in participants' mean gain scores from the pretest to posttest. The one-sample *t*-test examined participants' cultural competence gain scores for the IAPCC-R components of cultural awareness, cultural knowledge, and cultural desire. Since a gain score is the numerical difference between pretest and posttest, a score of zero would show no difference or no improvement in the cultural subscales, whereas any mean gain score greater than zero would indicate a statistical significance and an improvement in the given cultural subscale. In addition, a one-sample *t*-test was performed again to evaluate participants' total cultural gain scores after attending the transcultural educational intervention. Finally, a multiple linear regression analysis was performed to evaluate how well participants' demographics, such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training predicted cultural competence.

Sample Description

A total of 50 direct care nurses working in a hospital located in Central Florida enrolled in the transcultural educational interventions. This acute health care setting is located in a large metropolitan area in the southeastern region of the U.S. with considerable numbers of multiethnic workers and culturally diverse residents and visitors who often seek healthcare services at this facility due to its close proximity to the major attraction areas in Central Florida.

Response Rate and Post Hoc Power Analyses

A total of 50 direct care nurses voluntarily agreed to take part in the transcultural educational sessions. Of the 50 nurses enrolled, only 46 participants completed the educational sessions entirely (indicating a response rate of 92%). However, two questionnaires of the 46 surveys had more than 50% of the data missing; therefore, they were eliminated. Subsequently, data for this study were restricted to only 44 usable questionnaires that had less than 20% of the data missing.

A post hoc power analyses were conducted to estimate the powers, which resulted from the sample size. G*Power 3.1 analysis software was used to estimate the power for each hypothesis. For hypotheses 1, 2, 3 and 4 using a one sample *t*-test, the analysis showed a power of 0.91 indicating an adequate sample size using a medium effect size. Nonetheless, for hypotheses 5 using multiple regression analysis with seven predictors, the analysis showed a power of only 0.71 indicating that the power was below the recommended value of 0.80. Nonetheless, this lower power value imposed a limitation on this specific hypothesis.

Characteristics of the Sample-Descriptive Results

Table 1 describes the frequency distributions for the participant's birthplace, primary language spoken, and preferred language spoken. The sample consisted of 44 direct care nurses working on both day and night shifts. More than half of the participants were born in the U.S. *n* = 23 (52.3%) compared to *n* = 21 (47.4%) who identified as being born outside of the U.S. Furthermore, the majority of nurses specified English as their primary language *n* = 32 (72.7%), and English as their preferred spoken language *n* = 34 (77.3%). Moreover, the table shows that the Filipino participants reported more than one language in the demographic questionnaires as their primary language, such as Filipino/Tagalog, English/Tagalog, and Tagalog alone.

Nevertheless, the researcher opted to record exactly what participants indicated on their responses.

Table 1

Frequency Distribution of Demographic Data for Birthplace, Primary Language, & preferred Language Spoken

	Category	Frequency	Percentage
Country	USA	23	52.3
	Philippines	8	18.2
	India	3	6.8
	Jamaica	3	6.8
	Canada	2	4.5
	Bahamas	1	2.3
	Brazil	1	2.3
	Guyana	1	2.3
	Haiti	1	2.3
	Puerto Rico	1	2.3
	Total	44	100.0
Primary Language			
	English	32	72.7
	Filipino/Tagalog	3	6.8
	Bisaya	1	2.3
	Creole	1	2.3
	English/Tagalog	1	2.3
	Filipino	1	2.3
	Hindi	1	2.3
	Malayalam	1	2.3
	Portuguese	1	2.3
	Spanish	1	2.3
	Tagalog	1	2.3
	Total	44	100.0
Preferred Language Spoken			
	English	34	77.3
	Any (English/Spanish)	2	4.5
	Creole	1	2.3
	Either (Tagalog/English)	1	2.3
	English(work)/Patios(home)	1	2.3
	Filipino	1	2.3
	Gujarati	1	2.3
	No preference	1	2.3
	Spanish	1	2.3
	Missing	1	2.3

Total	44	100.0

Table 2 displays the sample characteristics for educational level, previous training or exposure to cultural competence education, gender, employment status, and race. The majority of nurses *n* = 28 (63.6 %) reported having their bachelor's degrees, compared to only *n* = 9 (20.5%) of the sample reported having associate degrees. Additionally, more than half of nurses *n* = 25 (56.8%) reported having previous cultural competence training or exposure to some sort of cultural competence education. Most of the sample were primarily female nurses *n* = 37 (84.1%). This rate is also comparable with the current nursing demographic of gender in the U.S. All participants also *n* = 44 (100%) reported full-time employment status at the specified facility. Finally, Caucasian nurses comprised the highest rate of nurses *n* = 17 (38.6 %).

Table 2

Frequency Distribution of Demographic Data for Level of Education, Previous Cultural Training, Gender, Employment Status, & Race

	Category	Frequency	Percentage
	Bachelor's	28.0	63.6
Degree	Associate	9.0	20.5
	Master's	6.0	13.6
	Doctorate	1.0	2.3
	Total	44.0	100.0
Previous Training			
	Yes	25	56.8
	No	16	36.4
	Missing	3	6.8
	Total	44	100.0
Gender			
	Women	37	84.1
	Men	7	15.9
Employment Status	Full-time	44	100
Race	White	17	38.6
	Asian	11	25.0
	Black	10	22.7
	Hispanic	4	9.1
	Pacific Islander	1	2.3
	Other	1	2.3
	Total	44	100.0

Table 3 describes the means, standard deviations, and ranges for age and years of nursing experience. The mean age for the sample was 39.55 years with standard deviation of 10.40, and a range age between (23-63) years. Coincidently, this mean age is a mirror image reflection of the recent average age for nurses in the U.S. In addition, the sample had an average of 9.24 years for nursing experience with a standard deviation of 7.08 and a range of (1-32) years.

Table 3

Mean and Standard Deviation for Age and Experience

Category	Mean	Stand. Deviation	Range
Age	39.55	10.40	23-63
Experience	9.24	7.08	1-32

Next, participants' pretest scores were calculated and organized according to Campinha-Bacote's IAPCC-R scoring. Table 4 illustrates the levels of cultural competency of participants at pretest and before participating in the transcultural educational intervention. The majority of the nurses were culturally aware *n* = 32 (73%), whereas *n* =11 (25%) of the nurses were at a higher level of culturally competence.

Table 4

Level of Cultural Competency at Pretest

Level of Competency	Frequency	Percentage
Aware	32	73
Competent	11	25
Proficient	1	2
Total	44	100

Results of Psychometric Estimations

Exploratory Data Analysis & Reliability

The data were explored to determine the values of the scores for all scales in addition to the subscales for the IAPCC-R. First, items 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, and 25 of the IAPCC-R questionnaire were reverse coded so that higher scores reflect higher levels of cultural competence. For example, some of these questions will delineate a lower and completely opposite value than what the author intended in her instrument. As a result, by reverse coding the item questions, each higher level of answer corresponded with a

higher numerical value. For example, question number 2 of the IAPCC-R asks participants the followings question, "I feel that cultural competence is an going process." The answers for this question are: strongly agree, agree, disagree, and strongly disagree. If the researcher assigned a numerical value of 1 to reflect option number one of strongly agree, this will yield an opposite and a lesser numerical value, so instead, these options were reverse coded to reflect the following: 4 = *strongly agree* ,3 = *agree*, 2 = *disagree*, and 1 = *strongly disagree*.

For purposes of assessing reliability of the IAPCC-R instrument, the pretest and posttest questionnaires were combined and Cronbach's alpha coefficient was computed. The finding of the analysis was that the cultural awareness subscale had low reliability with Cronbach's alpha coefficient = .088. Hence, it could not be used in the hypothesis testing, and therefore, it was completely eliminated (see Table 5).

Table 5

Reliability Statistics for Cultural Subscales

Cultural Subscale	Cronbach's Alpha Coefficient	Number of items
Cultural Awareness	.088	5
Cultural Desire	.814	5
Cultural Knowledge	.665	5
Revised Cultural Knowledge	.861	4
Total Cultural Competence	.799	10

Furthermore, since the cultural construct of awareness was eliminated, the total scores for cultural competence encompassed only cultural knowledge and cultural desire question items. Consequently, by eliminating the unreliable awareness subscale, this improved the overall

validity of the total cultural gain scores. The reliability of the total cultural score was satisfactory as shown in Table 5 with Cronbach's alpha coefficient of .799.

The computation of Cronbach's alpha coefficient for the cultural knowledge subscale showed a moderate reliability of .665. Therefore, all the question items for this cultural subscale were examined individually for reliability. It was noted that question eleven had a low reliability index. This question seemed confusing to some participants as it had a negative-negative connotation, which might have caused unreliability in the results. Hence, by eliminating this question, the reliability index of the cultural knowledge score improved significantly from Cronbach's Alpha coefficients .665 to .861 (see Table 5). Subsequently, this revised knowledge score, which is based on those four remaining items, will be used for hypothesis testing. Next, the reliability of the cultural desire scale was computed. After analysis, it was determined that it was satisfactory with a Cronbach's Alpha coefficient of .814.

Confirmatory Factor Analysis

Confirmatory factor analysis was performed to reveal any relationship might exist between latent variables or factors and the outcomes of the intervention. Alpha factoring (to maximize reliability of factors) with Varimax rotation was conducted on the items from the revised cultural knowledge (K) and the cultural desire (D) subscales. The two factors accounted for 56% of the variance in the nine items. Table 6 shows the factor loadings that were above 0.50. All the cultural knowledge questions loaded high on Factor 1 and all the cultural desire questions loaded high on Factor 2. This reinforced confidence in using the cultural knowledge and cultural desire subscales.

Table 6

Factor Loadings

Item	Factor Load	
	1	2
K6	.690	
K8	.791	
K10	.788	
K12	.718	
D4		.586
D7		.822
D13		.631
D19		.622
D24		.628

Assumption of Normality

Before starting analysis of the collected data, assumptions of normality were examined for the cultural gain scores. First, since there was only one group in the sample, there was no assumption regarding the variance of the dependent variable being equal for all groups. Subsequently, there was no test of equality or homogeneity of variance required. Next, normal distributions were examined for all of the subscales. First, the distribution of the cultural desire subscale was examined for normal distribution of the data. The data analysis revealed that the gain scores for cultural desire were found to be sufficiently close to normal to satisfy the assumptions of a *t*-test as shown in Figure 3.

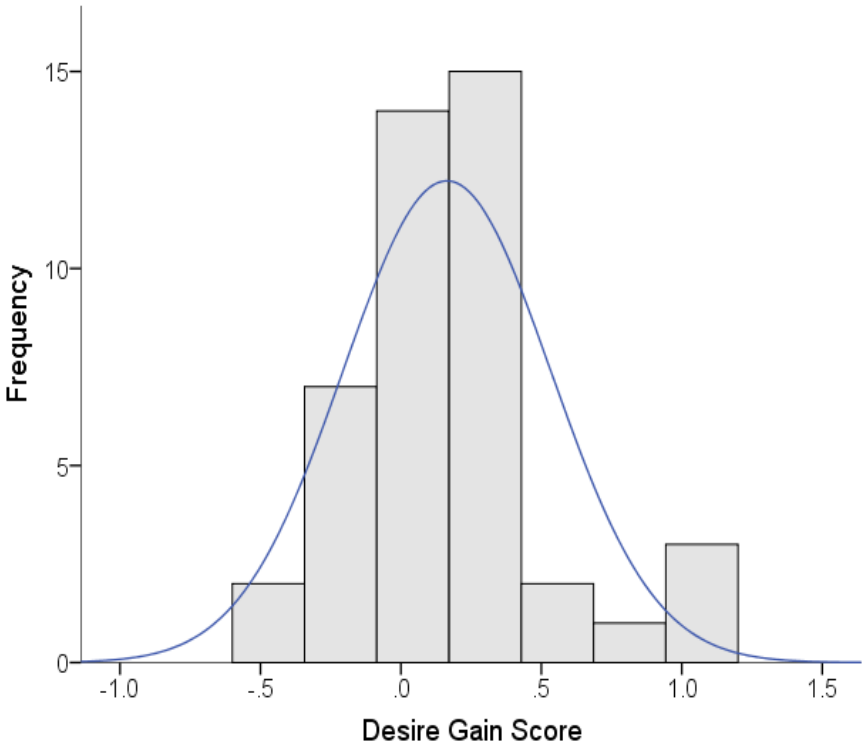

Figure 2. Histogram of the distribution of gain scores for the cultural desire subscale.

Furthermore, a one-sample Kolmogorov-Smirnov goodness of fit test on the cultural desire gain scores was conducted to confirm that the hypothesis of normal distribution cannot be rejected, Kolmogorov-Smirnov $Z = 1.29$, $p = .07$.

Next, the cultural knowledge gain scores were examined for normal distribution. Although the one-sample Kolmogorov-Smirnov test rejected the assumption of normality, Kolmogorov-Smirnov $Z = 1.40$, $p = .04$, the histogram in Figure 4 on the other hand showed that the revised cultural knowledge gain scores were sufficiently normally distributed to allow the use of a *t*-test. In addition, since the *t*-test is robust to violations of the assumption of normality, the important idea is not whether the distribution significantly different from normality, but rather whether the deviation from normality is sufficiently severe to make the *t*-test unviable.

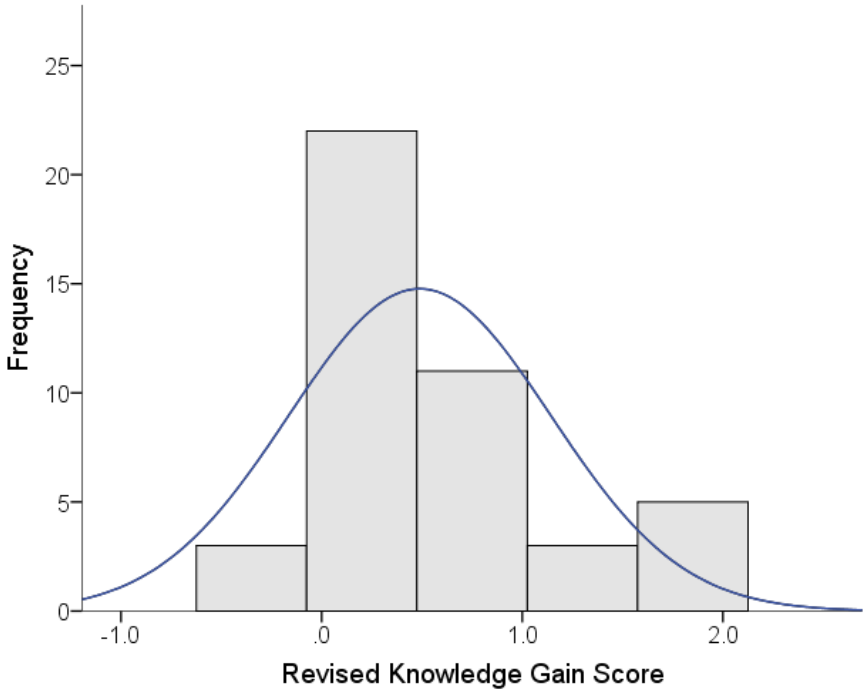

Figure 3. Histogram of the distribution of revised cultural knowledge gain score.

Finally, the revised total cultural competence gain scores were examined as well for normal distribution. After analysis, it was concluded that the revised total cultural competence gain scores were sufficiently normal to satisfy the assumption of one-sample *t*-test as shown in Figure 5. A one-sample Kolmogorov-Smirnov goodness of fit test on the total gain scores was conducted to confirm that the hypothesis of normal distribution cannot be rejected, Kolmogorov-Smirnov $Z = 1.19$, $p = .11$.

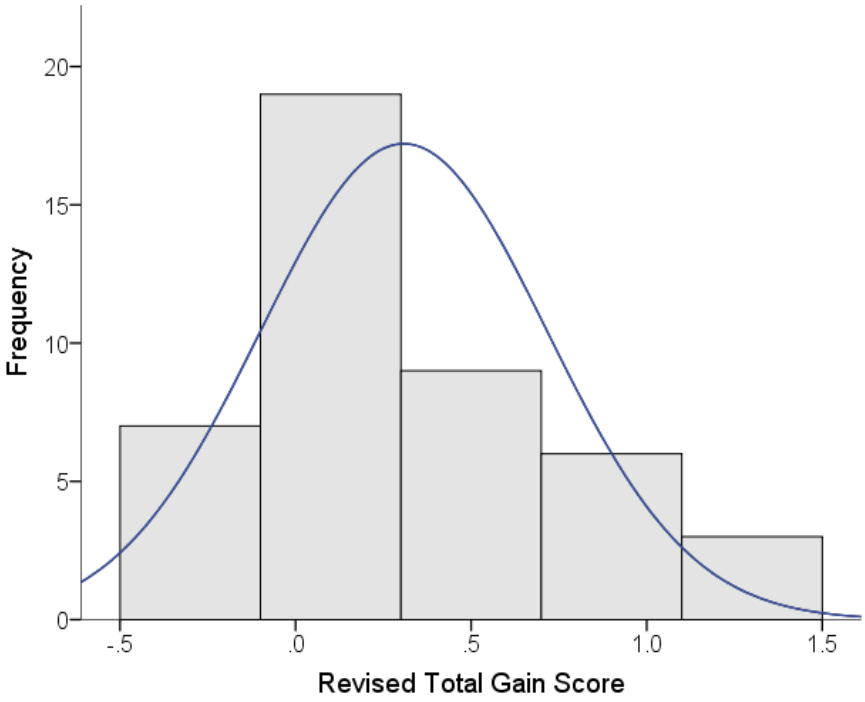

Figure 4. Histogram of the distribution of revised total gain score.

Restatement of Research Questions and Hypotheses

The central purpose of this cross-sectional, quasi-experimental study was to assess the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. Furthermore, this study examined whether demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention.

This study sought to answer the following research questions and test the corresponding hypotheses:

RQ 1. Will there be a significant increase in direct care nurses' cultural awareness after completing the transcultural educational intervention?

H 1. Direct care nurses' average cultural awareness gain scores as measured by the IAPCC-R are greater than zero.

This research question addressed the affective or the attitudinal learning domain of direct care nurses, and it was structured to show the effects of the transcultural educational intervention on direct care nurses' cultural awareness. As mentioned earlier, the cultural awareness subscale was unreliable with a Cronbach's alpha coefficient = 0.088. Hence, the cultural awareness scores could not be used to test the hypothesis or answer the research question.

RQ 2. Will there be a significant increase in direct care nurses' cultural knowledge after completing the transcultural educational intervention?

H 2. Direct care nurses' average cultural knowledge gain scores as measured by the IAPCC-R are greater than zero.

This research question addressed the cognitive learning domain of direct care nurses and focused on examining participants' cultural knowledge gain scores after completing the transcultural educational intervention. A one-sample, one-tailed *t*-test was conducted on the revised cultural knowledge gain scores to evaluate whether the mean was significantly greater than 0. If the main gain score was significantly greater than zero, then the posttest scores were significantly greater than the pretest scores. The sample mean cultural knowledge gain scores ($M = 0.49$, $SD = 0.65$) was significantly greater than 0, $t\ (43) = 4.96$, $p < .001$. The effect size as measured by Cohen's $d = 0.75$ indicated a large effect. Hence, the research hypothesis was accepted and the null was rejected. The mean gain score of 0.49 shows participants essentially moved half a step on the instrument's scale moving half away from "somewhat knowledgeable" to "knowledgeable."

RQ 3. Will there be a significant increase in direct care nurses' cultural desire after completing the transcultural educational intervention?

H 3. Direct care nurses' average cultural desire gain scores as measured by the IAPCC-R are greater than zero.

This research question was structured to show the effects of a transcultural educational intervention on direct care nurses' cultural desire gain score after completing the transcultural educational intervention. This research question addressed the affective learning domain of direct care nurses. A one-sample, one-tailed *t*-test was conducted on the cultural desire gain scores to evaluate whether the mean was significantly greater than zero. If the mean gain score was significantly greater than zero, then the posttest scores were significantly greater than the pretest scores. The sample mean ($M = 0.16$, $SD = 0.37$) was significantly greater than 0, $t\ (43) = 2.94$, $p = .003$. The effect size as measured by Cohen's $d = 0.43$ indicated a medium effect. Therefore, the research hypothesis was accepted.

RQ 4. Will there be a significant increase in direct care nurses' total cultural competence after completing the transcultural educational intervention?

H 4. Direct care nurses' average total cultural competence gain scores as measured by the IAPCC-R are greater than zero.

This question was structured to show the effects of a transcultural education intervention on direct care nurses' total cultural gain scores post-intervention. This research question addressed both the affective and the cognitive learning domains of direct care nurses. A one-sample, one-tailed *t*-test was conducted on the revised total cultural gain scores to evaluate whether the mean was significantly greater than zero. The sample mean ($M = 0.31$, $SD = 0.41$)

was significantly greater than 0, t (43) = 5.01, $p < .001$. The effect size as measured by Cohen's $d = 0.76$ indicated a large effect. Hence, the research hypothesis was accepted.

RQ 5. Will there be a significant relationship between participants' demographic variables (such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training) and participants' total cultural competence gain scores?

H 5. Participants' cultural competence gain scores are significantly predicted by age, gender, ethnicity, birthplace, previous exposure to cultural competence training, level of education, and years of experience as a nurse.

A multiple linear regression analysis was conducted to evaluate how well age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training predicted total cultural competence gain scores. The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, $p = .76$) with an $R^2 = 0.11$. The regression model accounted only for 11% of the variance in cultural competence. The sample's multiple correlation coefficient was 0.33 indicating low association between demographic variables and cultural competence (see Table 7). The null hypothesis of no relationship between total cultural competence gain scores and demographic predictors was not rejected. Hence, the study failed to reject the null hypothesis; the intervention worked equally well for everyone.

Table 7

Regression Analysis Summary for Age, Birthplace, Gender, Race, level of education, Years of Nursing Experience, and Previous Exposure to Cultural Competence Training Predicting Total Cultural Competence Gain Scores

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	t	Sig.
(Constant)	.329	.476			
Age	.002	.009	.057	.260	.796
USA	-.124	.220	-.152	-.564	.576
Women	.042	.185	.039	.228	.821
White	.297	.199	.358	1.492	.145
Degree	-.073	.116	-.115	-.631	.533
Experience	-.009	.013	-.163	-.733	.466
Previous	.071	.146	.085	.485	.631

Note. R2 = 0.11 (N = 44, p = .76)

Chapter Summary

This chapter discussed the findings of the study. This chapter included sample description, characteristics of the sample-descriptive results, results of psychometric estimation including exploratory data analysis, reliability, confirmatory factor analysis, then restatement of research questions with the corresponding hypotheses, and the statistical tests and findings for each research question and hypothesis.

A convenience sample of 50 nurses was recruited from a large metropolitan acute care hospital in central Florida. However, only 44 usable surveys were utilized in the analysis phase. Using power analysis with a significance level of 0.05, power value of 0.80, and medium-effect size, a sample of 27 nurses were needed to conduct a one-sample *t*- test, whereas for multiple

regression analysis a sample size of 49 participants was needed. All collected data were examined first for assumptions of normality, linearity, and multicollinearity.

After assumptions of normality were satisfied, descriptive statistics summarized and analyzed the demographic variables of the sample. The majority of the sample were Caucasian, female nurses with high levels of advanced nursing education. Moreover, the sample had a substantial number of multiethnic nurses who were born outside the U.S. and reported a high percentage of prior cultural competence educational experiences or exposures.

Internal consistencies were examined for the three cultural subscales of cultural awareness, cultural knowledge, cultural desire, and the total cultural competence subscales. The cultural subscale of awareness was found to be unreliable, and therefore it could not be used in the analysis phase, so hypothesis one was not tested. Consequently, only cultural knowledge, cultural desire, and total cultural competence score were tested. Nonetheless, the increase for the mean gain scores for participants was greatest for the cultural knowledge subscale with a mean gain score $M = 0.49$ which was significantly greater than 0, $p < .001$, with a large effect size Cohen's $d = 0.75$; thus, hypothesis 2 supported research question 2. In addition, the cultural desire gain scores were significantly greater than zero, ($M = 0.16$, $p = .003$) with a medium effect size, Cohen's $d = 0.43$, hence hypothesis 3 supported research question 3. Furthermore, the mean gain scores for revised total cultural scores were very statistically significant with a mean greater than 0, ($M = 0.31$, $p < .001$) and a large effect size with Cohen's $d = 0.76$; therefore, hypothesis 4 supported research question 4.

Finally, the effectiveness of the transcultural educational intervention was unrelated to the demographic characteristics of participants. The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, $p = .76$). The

sample multiple correlation coefficient was 0.33, showing a weak association. Hence, hypothesis 5 did not support research question 5. Chapter Five will follow with summary of the findings, discussion, and conclusions of the study.

CHAPTER FIVE

SUMMARY AND DISCUSSION

The aim of this cross-sectional, quasi-experimental study was to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence in an acute healthcare setting. Furthermore, this study examined if demographic factors such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural intervention. This chapter is presented with summary of the findings, discussion of the findings including demographic and background characteristics, findings from hypotheses and relationship between major study variables, significance of the study, significance of the study to nursing with implications for nursing education, nursing practice, nursing research, and health/public policy. Strengths and limitations were also discussed followed by recommendations and conclusions.

Summary of the Findings

The demographic shift in the U.S. population as a result of increased diversity has motivated health care professionals and systems to deliver culturally congruent, safe, and competent care. The unrivaled numbers of Caucasian nurses providing care to patients from different cultural or ethnic backgrounds have also placed a calling on the nursing profession to recognize this phenomenon as a possible contributor to increased health disparities among minorities. It also mandated the nursing profession to act upon this challenge by ensuring proper cultural education is available to nurses (AACN, 2005; Delgado et al., 2013; Jeffreys, 2006; Lancellotti, 2008; Larsen & Reif, 2011).

Lack of cultural competence among health care professionals and systems can propagate health and health care disparities among minorities and vulnerable groups (Campinha-Bacote, 2007; Purnell, 2014). The Agency for Healthcare Research and Quality (AHRQ) recognized in its 2008 National Healthcare Disparities Report, the perpetuation of disparities in health care for racial and ethnic minorities. For example, Black patients with diabetes had higher incidents of lower extremity amputations. In addition, pregnant Black females had insufficient prenatal care in the first trimester compared to Whites. Furthermore, disparities remained high for Hispanics and Blacks in new AIDS cases. For instance, in 2008, the percentage of new AIDS cases was more than nine times as high for Blacks than Whites and was more than three times as high for Hispanics than Whites. Finally, American Indian/Alaska Native adults were less likely than Whites to receive colorectal cancer screening, and American Indian/Alaska Native women were twice as likely as White women to lack prenatal care.

In general, nursing scholars have placed more emphasis on nursing students than practicing nurses in their cultural inquiries, as more knowledge usually originates from academia than from nursing practice. Nonetheless, this study contended that when offering direct care nurses transcultural educational opportunities, a discernible improvement in their cultural competence could occur. Hence, this study utilized a quantitative, quasi-experimental approach using a pretest/posttest design with one-sample *t*-test to evaluate the effectiveness of transcultural educational intervention on direct care nurses' cultural competence. In addition, multiple regression analysis was used to explore whether some of the demographic variables of the participants could serve as predictors for cultural competence. Campinha-Bacote's theoretical framework guided this study; however, only three constructs of her theoretical framework (cultural awareness, cultural knowledge, and cultural desire) were tested during this study.

Additionally, her instrument the IAPCC-R (2002) was used to measure the magnitude of cultural competence among participants, and a researcher-developed demographic questionnaire was also used to describe the sample and further to identify whether demographic variables of participants can serve as predictors for cultural competence. The transcultural educational intervention took place in one acute health care setting in Central Florida. This specific acute health care facility is located in a large urban metropolitan area that has numerous multiethnic nurses on staff. A convenience sample of 50 participants was recruited for this study. After screening all survey questionnaires, only 44 surveys were useable to conduct the statistical analyses.

Scores from the posttest indicated positive changes in participants' cultural knowledge, cultural desire, and total cultural competence mean gain scores after attending the transcultural educational intervention; participants improved in both the cognitive and the affective learning domains. In examining internal consistency for the IAPCC-R instrument, it was discovered that the cultural awareness subscale was unreliable, and hence, it could not be used in hypothesis testing. However, the greatest increase was in the cultural knowledge subscale with a mean gain score significantly greater than 0, ($M = 0.49$, $p < .001$) with a large effect size.

Moreover, the cultural desire mean gain score was significantly greater than 0, ($M = 0.16$, $p = .003$) with a medium effect size. In addition, the mean gain score for the revised total cultural scores was very statistically significant with a mean gain score greater than 0, ($M = 0.31$, $p < .001$) with a large effect size. Finally, the effectiveness of the transcultural educational intervention was unrelated to demographic characteristics of the participants. The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, $p = 0.76$). The sample multiple correlation coefficient $r = 0.33$ showing a weak association between demographic variables of participants and total cultural competence

gain scores. Only 11% of the variance in the dependent variable of cultural competence were accounted for by variance in the independent variables of the sample's demographics.

Demographic and Background Characteristics

All participants answered a researcher-developed demographic questionnaire. This instrument had 11 elements and served two main objectives. First, this tool was used for descriptive purposes by describing some of the sample's demographic factors (such as birthplace, primary language, other languages spoken, preferred language spoken). Second, this tool was used for inferential purposes by using some of the sample's demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training as possible predictors of cultural competence among nurses.

The sample for this study consisted of full-time direct care nurses working in an acute health care setting on both day and night shifts. The majority of the sample reported English as their primary and preferred language. Furthermore, the average age for the sample was 40 years old, which was similar to the 2015 national average age of 48.8 years old. (National Council of State Boards of Nursing, 2016). In addition, the majority of nurses were females (84.1%); this also was very consistent with the current demographics of working nurses. In 2015, the National Council of State Boards of Nursing (NCSBN) reported that the majority of nursing workforce was predominately females (87.3%). Furthermore, the majority of the sample was composed of Whites; this also is comparable with current demographics for nurses. According to HRSA (2016), the majority of the nursing workforces in the U.S. were consisted of Caucasians nurses (83.2%).

Interestingly, this sample had a higher frequency of multiethnic non-White nurses. This finding is usually atypical of the general population of nurses and can be attributed to the hospital's approach of hiring foreign nurses as part of their recruitment strategies to compensate for the nursing shortage. Additionally, the sample had a high rate of nurses who had or have been exposed to cultural competence training $n = 25$ (56.8%). This variation might be attributed to the hospital's cultural competence training program called TAP (Transcultural Assimilation Program) that all foreign-born nurses have to attend as part of their orientation. Coincidently, some of the findings from this study might have been affected by the TAP program and the increased frequency of non-Whites nurses. For example, the majority of nurses had high self-perceived cultural awareness; this might be attributed to these two reasons. The subject matter is that this study's sample was unique compared to the general population of nurses.

Regarding educational attainment, the majority of nurses $n = 28$ (63.6%) had bachelor degrees, compared to those with associate degrees $n = 9$ (20.5%). This characteristic is higher than the national average. According to HRSA (2016), 55% of the nursing workforce have a bachelor degree or higher. This high characteristic of higher education might be attributed to the hospital's strategy of actively recruiting and hiring baccalaureate prepared nurses and encouraging staff nurses who have associate degrees to pursue higher levels of education by offering incentives, such as tuition assistance. This initiative is part of the hospital's long-term goal to attain a magnet status. Magnet designation is considered a prestigious recognition given by the American Nurses' Credentialing Center (ANCC) to hospitals that achieve excellence in nursing practice and meets a set of standards designed to measure quality of their nursing care (ANCC, n.d.). Some scholars have correlated between educational levels of participants and cultural competence. For example, Hart and Mareno (2016); Mahabeer (2009); and Reyes,

Hadley, and Davenport (2013) found that nurses with higher levels of education reported higher levels of cultural competence.

Another demographic variable that this study examined was years of nursing experience as a potential predictor of participants' cultural competence. The average years of nursing experience for this study's sample was 9 years. This study found no relationship between number of nursing experience years and cultural competence. Nevertheless, other studies examined the variable of years of nursing experience and its impacts on cultural competence of participants, such as Steinke, Riner, and Shieh (2014) and Casillas et al. (2015). These studies concluded that years of experience had a positive impact on cultural competence; whereas Diaz, Clarke, and Gatua (2016) found no association between cultural competence and years of experience.

Findings from Hypotheses and Relationship between Major Study Variables

According to Campinha-Bacote (2002), cultural competence is considered an "ongoing process in which the health care provider continuously strives to achieve the ability to work within the cultural context of the client (individual, family, community)" (p. 181). Moreover, cultural competence is viewed as a multidimensional fluid process, by which the learner engages in a lifelong learning journey to assimilate cultural competence. Cultural competence starts first with the individual self-examining his/her own cultural belief system. Subsequently, appreciating the individual's own cultural identity, values, beliefs, and lifeways will aid in understanding dissimilar cultures, thus promoting cultural sensitivity (Campinha-Bacote, 2007).

Furthermore, Campinha-Bacote's theoretical framework requires health care professionals to see themselves as "becoming" culturally competent rather than "being" culturally competent and to view the process of cultural competence not as a final destination but

rather as a journey. There are five cultural constructs that structure this theoretical framework. These are cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. In addition, the intersected area of these five constructs represents the magnitude of cultural competence. The larger and wider the intersected area gets, the more culturally competent the learner becomes. This study, however, focused on testing only three cultural constructs of Campinha-Bacote's theoretical framework, which are cultural awareness, cultural knowledge, and cultural desire.

Hypothesis one. Direct care nurses' average cultural awareness gain scores as measured by the IAPCC-R was greater than zero.

This hypothesis aimed at identifying whether participants' cultural competence average gain score for the subscale cultural awareness was affected by the transcultural educational intervention. As mentioned earlier, in a test of reliability for the awareness subscale, it was found that a Cronbach's alpha coefficient of .088 was so minimal that it was deemed unreliable. Consequently, this hypothesis could not be tested.

The unreliable finding of this cultural construct might be specific to this unique sample. For instance, most participants reported high self-perceived cultural awareness, which might have raised the question of possible biases in the results. This might be attributed to the reason that more than half the sample had some sort of cultural competence education experiences in the past. Moreover, this consequence might be attributed to the fact that this specific hospital hires a good portion of its staff from outside the U.S., which is typical of metropolitan hospitals in the U.S., and all of these nurses had to attend The Transcultural Assimilation Program (TAP) as part of their orientation. Hence, although the internal consistency for the awareness subscale had low reliability; nonetheless, this might be unique to this sample, which had more than average

participants with past exposure to cultural competence education, and had a high rate of foreign nurses who are required to attend the TAP training program as part of their orientation and hiring.

Nevertheless, there are some studies that have reported limited and/ or lower reliability for the IAPCC-R subscales. For instance, Behra-Horenstein, Garvan, Moore, and Catalanotto (2012) reported in their study limitations of the IAPCC-R, such as lack of published research on its factor analysis and inter-item correlations. For example, in a study conducted in Sweden examining nursing students and practicing nurses level of cultural competence, the researchers reported low to moderate reliability for the IAPCC-R with Cronbach α ranging from (-0.01 to 0.65). Additionally, in another study conducted in Taiwan, the researchers found weak reliability and weak internal structure for the tool, while in the U.S., another study reported weak internal consistency and low item-total correlation for the IAPCC-R (Behra-Horenstein et al., 2012). Another study conducted by Beer and Chipps (2014) reported also lower reliability for the cultural knowledge construct with a Cronbach $\alpha = 0.304$ to moderate reliability for the cultural encounters with a Cronbach $\alpha = 0.671$. Furthermore, Kardong-Edgren et al. (2010) also reported limitations of the IAPCC-R in their study. They reported reliabilities on subscales with Cronbach's alphas of .36, .56, .42, .42, and .75 for cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Other studies that reported limited reliabilities for the IAPCC-R include, Ho and Lee (2007), Loftin et al. (2013), and Harkess, Kaddour, (2015).

In general, there are some clear variations in reporting reliability limitations for the IAPCC-R. However, what was striking for this study is that most participants went into the intervention with more than average self-perceived cultural awareness. This can be attributed to

the reasons mentioned previously, which might have impacted the results for the cultural awareness subscale.

Nonetheless, the question items for the awareness subscale were items 1, 2, 3, 15, and 16 of the IAPCC-R tool. Question 1 focused on examining an individual's competency concerning different ethnic groups. Question 2 inquired about having the cognizance to feel that cultural competence is an ongoing process. Question 3 inquired about having the awareness that factors such as geographical location, gender, religious affiliation, sexual orientation, and occupation are considered areas of concern when seeking cultural competence. Question 15 inquired about having the awareness of at least two institutional barriers that prevent cultural/ethnic groups from seeking healthcare services. Finally, question 16 inquired about having the awareness of an individual's stereotyping attitudes, preconceived notions, and feelings toward members of other ethnic/cultural groups. The sample for this study might have a higher level of cultural awareness regarding all of these questions because participants reported high rate of previous cultural training, and the sample had high frequency of foreign nurses who attended the TAP educational program as part of their hiring processes.

Hypothesis two. Direct care nurses' average cultural knowledge gain scores as measured by the IAPCC-R was greater than zero.

This hypothesis aimed at identifying whether participants' cultural competence average gain score for the subscale cultural knowledge was affected by the transcultural educational intervention. The transcultural educational intervention was presented in a didactic lecture format via video presentation. This presentation targeted both the cognitive and the affective learning domains of participants. The findings of this study concluded that the cultural knowledge subscale had the most improvement in the mean gain scores after the educational

intervention. The educational intervention was successful in improving participants' cultural knowledge.

Cultural knowledge is defined as "the process of seeking and obtaining a sound educational base about culturally diverse groups" (Campinha-Bacote, 2007, p. 37). In this construct, the learner seeks opportunities to gain knowledge about the culture of others. In obtaining this knowledge, health care professionals should integrate three issues: health-related beliefs and cultural values, disease incidence and prevalence, and treatment efficacy. First, health-related beliefs and cultural values emphasize taking into consideration the clients' worldview of how they view their own illness, and how this view guides their thinking and their health-seeking behaviors. Second, knowledge in disease incidence and prevalence requires competence in the field of bio-cultural ecology and the knowledge of the variations of epidemiological data to better guide decisions about the appropriate modalities of treatment. Finally, treatment efficacy which calls for obtaining cultural knowledge in areas, such as ethnic pharmacology, which focuses on studying variations in drug metabolism among ethnic groups (Campinha-Bacote, 2002).

A one-sample, one-tailed *t*-test was conducted on the revised cultural knowledge gain scores to evaluate whether the mean gain score was significantly greater than zero. The sample mean of ($M = 0.49$, $SD = 0.65$) was significantly greater than 0, $p < .001$, with a large effect size. Therefore, the alternative hypothesis was accepted. Previous research on cultural competence concluded that cultural knowledge is highly affected by cultural competence education, such as Steinke et al. (2014), Chen, McAdams-Jones, Tay, and Packer (2012); Delgado et al. (2013); Mareno and Hart (2014), Noble et al., (2014); and Riley and York (2012). These previous

studies confirmed the importance of integrating evidence-based cultural educational offerings in nursing to foster and enrich cultural knowledge.

Although participants reported high frequencies of prior cultural competence trainings or cultural exposure opportunities, this study was able to enhance their cultural knowledge. Fundamentally, cultural knowledge is considered a catalyst toward realizing cultural competence. It has been well documented in the literature that cultural competence has a consequence of reducing health disparities among minorities (Campinha-Bacote, 2007; Jeffreys, 2006; Purnell, 2002). Thus, investing in implementing cultural competence educational programs in nursing practice might improve minorities' health by reducing health disparities and medical errors. After all, patients who have their cultural needs met are more likely to follow the prescribed care and hence might have optimal clinical outcomes.

This study as mentioned before was able to have a large effect size and the most improvement on nurses' cultural knowledge. The educational delivery method via didactic format has yielded an improvement in participants' cognitive learning domains. The relationship between the independent variable of the transcultural educational intervention and the dependent variable of improved cultural knowledge of participants was clearly demonstrated by this educational intervention. The intervention was successful in bringing a change in the cultural knowledge of participants. Consequently, this change gives beneficial implications for nurses in academia and in practice.

Hypothesis three. Direct care nurses' average cultural desire gain scores as measured by the IAPCC-R was greater than zero.

This hypothesis aimed at showing whether participants' cultural desire average gain scores were affected by the transcultural educational intervention. This hypothesis addressed

learners' affective learning domain and claimed that the transcultural educational intervention will improve participants' cultural competence desire average gain scores. According to Campinha-Bacote (2002), cultural desire is considered the spirit to all cultural constructs. Furthermore, cultural desire encourages health care professional to "want to" rather than "have to" engage in the process of becoming culturally competent. This construct is considered a pivotal construct that fuels the energy for cultural competence seekers during their journey toward competence (Campinha-Bacote & Campinha-Bacote, 2009).

A one-sample, one-tailed *t*-test showed that the cultural desire gain mean score was significantly greater than 0, ($M = 0.16$, $p = .003$) with a medium effect size. Hence, the research hypothesis was accepted. These results corresponded with previous studies that postulated that cultural competence education can improve learners' cultural desire subscale, such as Steinke et al. (2014), Chen et al. (2012); Delgado et al. (2013); Mareno and Hart (2014); and Amerson (2010).

The findings from this study showed that the transcultural educational intervention did change the sample's mean gain score for the subscale cultural desire. Although, this change had a medium effect, most participants wanted to be involved in the process of "want to" rather than "have to" become culturally competent. The delivery method of educational offering via didactic format was successful in changing and enhancing participants' cultural desire. After watching the video presentation, nurses were driven to take an active role in their journey to becoming culturally competent and had a commitment to care for patients from culturally diverse groups. Furthermore, nurses were motivated to care for ethnic patients, and they had a passion of caring for clients from culturally/ethnically diverse groups. This illustrates the need for nursing both in academia and in practice to integrate such offerings into their curricula.

Implementing or integrating such intervention can fulfill the ultimate purpose of the process of cultural competence, which is achieving cultural desire.

Hypothesis four. Direct care nurses' average total cultural competence gain scores as measured by the IAPCC-R was greater than zero.

This hypothesis contended that participants who attended the transcultural educational intervention would have an overall improvement in their total cultural competence mean gain scores. Total cultural competence gain scores were revised to refer only to the total scores of both cultural knowledge and cultural desire subscales. This hypothesis addressed both the affective and the cognitive learning domains of direct care nurses. The revised total cultural competence mean gain scores was significantly greater than 0, ($M = 0.31$, $p < .001$). This outcome was very statistically significant with a large effect size. Subsequently, the research hypothesis was accepted. This finding is consistent with previous research, which correlated cultural competence education and improved cultural competence of participants such as Ballestas and Roller (2013); Delgado et al. (2013); Amerson (2010); Hart and Mareno (2016); Noble et al. (2014); and Meydanlioglu, Arikan, and Gozum (2015).

Generally, the findings from this study illustrated that a transcultural educational intervention via a didactic format can have a positive improvement on participants' total cultural competence mean gain score. The findings were very statistically significant and had a large effect size, implying the importance of integrating such teaching pedagogies into nursing curricula both in practice and in academia. Producing cultural competent nursing students who will eventually deliver culturally competent nursing care has positive outcomes on improving quality of care received by ethnic or culturally diverse groups. Hence, frontline nurses in practice can also benefit from such teaching modalities. Thus, incorporating an ongoing cultural

educational offering can improve the quality of nursing care and therefore might have an effect on reducing health disparities among minorities.

Hypothesis five. Participants' cultural competence gain scores are significantly predicted by age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training.

The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, p = 0.76) with R2 = 0.11. The sample multiple correlation coefficient was 0.33 indicating a weak association between the variables; so, it failed to reject the null hypothesis. Only 11% of the dependent variable of cultural competence scores were predicted by the independent variables of participants' demographics. The transcultural educational intervention worked well with all participants, and hence, the findings from this study did not correlate sample demographics with cultural competence. This study found that even though the sample had different attributes, eventually their demographic characteristics could not serve as predictors of cultural competence. Actually, this educational intervention worked well with all participants regardless of age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training.

Different researchers had contrasting and competing outcomes regarding correlating demographic variables (such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training) with cultural competence. Some studies correlated some demographic variables with cultural competence, whereas other studies like this one could not find any relationship between demographic variables and cultural competence. This might have implications for nursing research to pursue meta-analyses and meta-regression studies that can examine the correlation of demographic variables and cultural

competence. For example, Beer and Chipps (2014) reported no significant relationship between participants' demographics and cultural competence except for race. In their study, Black participants scored higher on the IAPCC-R scores than White participants. On the other hand, Riley and York (2012) found an inverse relationship between students' age and cultural competence. For instance, younger students between the ages of (20-30) years old scored higher on the total IAPCC-R scores than older students between the ages of (41-50) years old. In addition, Noble et al. (2014) found no relationship existed between age and cultural competence using Campinha-Bacote's (2007) IAPCC-R. However, there was significant correlation for gender, religious identity, and religious observance. Other studies that investigated demographic variables and cultural competence include but not limited to: Bauce, Kridli, and Fitzpatrick (2014); Meydanlioglu, Arikan, and Gozum (2015); Volberding, (2015); and Diaz et al. (2016).

Significance of the Study

This study offered a venue toward evaluating cultural educational offerings delivered to direct care nurses in acute health care settings. The nursing literature is liberally saturated with research directed at nursing students both in the undergraduate and the graduate curricula. Nonetheless, this study aimed at evaluating the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence, specifically in an acute health care setting. Producing culturally competent frontline nurses could have a desired consequence of reducing health disparities among minorities and culturally diverse patients.

Significance of the Study to Nursing

The current demographic statistics in the U.S. shows a substantial racial shift due to the increasing numbers of ethnic or cultural groups. Nevertheless, there are paradoxical inequalities in achieving health or accessing health care channels for this growing population. This study

sought to contribute to the body of nursing knowledge by evaluating and investigating the change of cultural competence among frontline nurses using a transcultural education intervention via a didactic format. The findings from this study have vital implications for nursing education, nursing practice, nursing research, and health and public policies.

Implications for Nursing Education

The findings from this study suggest that practicing nurses typically gain cultural knowledge, desire, and overall cultural competence when their cultural educational needs are addressed. Therefore, it is rather vital that nursing educators embrace such interventions into their core curricula in both academia and practice. A good demonstration of fostering cultural competence is to holistically target the three learning domains (cognitive, affective, and psychomotor) of nursing students during cultural competence education offerings. For example, a good scheme might be to delivering a didactic lecture format on cultural values, beliefs, and health seeking behaviors of diverse clients, thus targeting the cognitive and the affective learning domains of students. Then, educators can target the psychomotor learning domains of students by allowing cultural competence simulations experiences in the school laboratories, and afterward encouraging students to apply these cultural concepts and norms in clinical settings.

Additionally, the findings from this study suggest that cultural knowledge can be enhanced by cultural competence educational offerings in didactic designs. More educational offerings can focus on disease processes and disease management that are specific to different ethnicities and minority groups in nursing education. For example, teaching nursing students and practicing nurses the various disease processes, ethnic-epidemiology, and ethnic-pharmacology can help them conceptualize how clinical manifestations are greatly entwined

with patients' cultural beliefs and values regarding illness and wellness (Campinha-Bacote, 2002, 2007).

The findings from this study also suggest that the current numbers of minority nursing students are marginal. Hence, nursing schools should have strategies and initiatives to recruit and retain minority students into their nursing programs. Hospitals as well should implement policies to recruit, train, and retain minority nurses in their cadre. Consequentially, patients typically comply better with their care if they receive that care from a nurse with the same cultural/ethnic backgrounds (Taylor & Alfred, 2006).

Implications for Nursing Practice

The outcomes from this study have implications for nursing practice by elucidating the positive impacts of offering cultural competence education to bedside nurses in acute health care settings. Research has positively correlated between delivering cultural competence education and reducing health and health care disparities by rendering culturally competent and acceptable care (IOM, 2010; Dilworth-Anderson, Pierre, & Hilliard, 2012; Williams & Mohammed, 2013). This study suggests that educating nursing staff on culture has shown to boost their cultural knowledge, cultural desire to "want to" rather than "have to" seek cultural encounters, and their overall cultural competence. As the threads of our cultural fabrics continue to change, it is important then that health care organizations have culturally sensitive and knowledgeable nursing staff. Furthermore, cultural competence has shown to improve patients' satisfaction and compliance with care (Campinha-Bacote, 2002; Purnell, 2009).

The findings from this study further reiterate the demographic disparities of ethnic representation in nursing practice. The vast majority of the nursing profession in practice is consisted mainly of Caucasian female nurses who have completely different cultural beliefs,

worldviews, and values than their patients (Campinha-Bacote, 2002; Purnell, 2009; Leininger & McFarland, 2006). Therefore, educating frontline nurses on cultural barriers faced by culturally diverse patients might build trust between nurses and their patients, and eventually improve patients' compliance with the treatment regimen. Furthermore, this study suggests that frontline nurses collectively need to advocate within their health care organizations locally and globally for support and funding of initiatives intended to enable nurses to deliver culturally congruent nursing care. This ultimately will lead to strides in improving minority and vulnerable populations' clinical outcomes.

Implications for Nursing Research

This study suggests that there is a need to include frontline nurses within the body of transcultural nursing research as diversity continues to prosper in the U.S. Moreover, when examining whether a transcultural educational intervention can bring a change in participants' overall cultural competence, this study was limited to addressing only three dimensions of cultural competence. These were cultural knowledge, cultural desire, and total cultural competence. Hence, this consequence open the doors for more research in order to examine more comprehensively the effects of culturally based interventions on direct care nurses' cultural awareness, cultural skills, and cultural encounters.

Furthermore, since this study could not correlate demographic variables of participants with cultural competence, this outcome presented implications for nursing research to invite further research by conducting meta-analysis and meta-regression studies that can examine holistically the correlation of demographic variables and cultural competence. This implication will provide some clarity regarding whether demographic variables of participants such as the ones selected for this study could play a major role in predicting cultural competence.

Implications for Health/Public Policy

The nursing profession encompasses the majority of health care workforce in the U.S. However, these mainstreams of nurses are not well represented in the decision-making process of health and public policies. Furthermore, although allocation of healthcare funding in the U.S. is becoming more stringent, policy makers must have in their agenda the notion of training this majority of health care providers on matters of culture and addressing the well-being of minorities and vulnerable individuals. After all, such investment will harvest better return on investment by reducing health disparities among minorities and improve their access to health care.

This study sought to ascertain that transcultural educational intervention usually produces an overall improvement in nurses' cultural competence in acute health care settings. Hence, this improvement will have a cascaded effect on enhancing patients' compliance with the prescribed care and reduce health disparities. Moreover, this study emphasized the need to implement strategies to recruit and retain minorities in the nursing profession and in health care, which might improve patients' clinical outcomes longitudinally. It is well documented that racial concordances between health care providers and patients improve patients' compliance with the prescribed care (Taylor & Alfred, 2006). Hence, health officials should have in their schema the initiatives to invest in recruiting, training, and retaining minority nurses into the nursing profession.

Strengths and Limitations of the Study

Findings from this study have provided some awareness regarding evaluating the effectives of transcultural educational intervention among direct care nurses in practice, especially in acute health care settings. These findings can be utilized in the future to help in

creating cultural educational pilot programs tailored towards this population to decrease their cultural stress and anxiety when they encounter culturally dissimilar patients. This study presented a number of strengths and limitations. These strengths and limitations are discussed in the sections below.

Strengths

A variety of important strengths were identified for this study, which might have enhanced the findings significantly. These include:

- This study is one of few studies that evaluated the effects of transcultural educational intervention on direct care nurses' cultural competence in practice, especially in an acute health care setting. Some of the outcomes of this study were marked improvements in nurses' cultural knowledge, cultural desire, and total cultural competence.
- The findings from this study signify crucial implications in the nursing profession to be attentive to the benefits of transcultural educational offerings to bedside nurses in acute health care settings. Producing culturally competent nurses will yield positive clinical outcomes by reducing health disparities and improve access to health care among minorities (Betancourt, 2002; Betancourt, Green, Carrillo, & Park, 2006).
- The demographic makeup of the sample in this study was somewhat similar to the parent population of direct care nurses in acute health care settings. Therefore, results are cautiously generalizable to the direct nurses' population working in metropolitan hospitals across the U.S.
- This study makes an important contribution to the nursing literature by addressing an important gap regarding examining the effects of culture competence educational offerings among bedside nurses in acute health care settings.

- The instrument used for this study, the IAPCC-R had high reported validity and reliability indices nationally and internationally.

Limitations

This research was subject to few limitations, which might have affected the assumptions drawn from this study. These include:

- One of the main limitations to this study was its limited generalizability**,** which can be caused by its sampling techniques.
- Lack of randomization during sampling. Data for this study were collected using convenience sampling only; thus the outcomes could not be generalized to the parent population.
- Using a small sample size to gather the data. If the sample size was larger, the findings of this study would have depicted the nurses' population more accurately.
- Lack of control during sampling. For instance, by using only a treatment group without control, we could not truly compare the findings between the control and the treatment groups to definitely relate the findings to the intervention.
- Lack of heterogeneity of the sample. The majority of the participants were Caucasian female nurses recruited from one state located in southeastern part of U.S.
- The methodological approach of collecting the data in a cross-sectional design. If this study used a longitudinal approach, this might have better demarcation regarding the effects of such intervention on direct care nurses' long-term cultural competence.
- All participants used self-report questionnaires that increased the risk for bias. Usually, this type of questionnaires can be controversial because of its subjective nature (Burns & Grove, 2007; Polit & Beck, 2012).

- This study was unable to utilize participants' demographic variables as predictors of cultural competence.
- The study was unable to investigate the other components of Campinha-Bacote's theoretical framework, such as cultural awareness, cultural skills, and cultural encounter.

Recommendations for Future Study

This study sought to examine the effects of a transcultural educational intervention in one acute health care setting specifically in Central Florida. The aim of this inquiry was to evaluate this effectiveness in nursing practice, especially acute health care settings. After all, these nurses represent the largest segment of the nursing workforce canvas. The findings from this study added to the body of nursing knowledge; however, they have elicited more questions and thus more recommendations for additional research.

One recommendation for future studies may be to examine the long-term effects of transcultural education on direct care nurses' cultural competence. For example, future studies might examine the effects at different time intervals, such as 3 months, 6 months, and 1 year to systematically evaluate the long-lasting effects on nurses' retention and assimilation of learned cultural values. In addition, future studies may pursue mixed method approaches to address this phenomenon in a holistic fashion. Qualitative research will add great richness and naturalistic uncontrived depiction of acute health care nurses' perceptions of transcultural educational intervention, and how it might influence their cultural competence and practice.

Future studies may also investigate the possible associations between health care professionals' demographics and cultural competence by conducting meta-analyses and meta-regression studies to predict if demographic variables are predictors of cultural competence. Additionally, future studies may address the other three dimensions of Campinha-Bacote's

theoretical framework of cultural awareness, cultural skills, and cultural encounters that this study was unable to investigate. Moreover, future studies can explore the influence of transcultural education from the patients' perspective. For instance, these studies can explore patients' perceptions and attitudes after receiving culturally competent care by culturally trained nurses. Lastly, this study can be replicated in different regions of the U.S. using more heterogeneous sample to evaluate the effects of such intervention in different locations.

Conclusions

The core purpose of this study was to evaluate the effect of a transcultural educational intervention on direct care nurses' cultural competence in on acute health care setting. In addition, this study examined whether demographic variables such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training were predictors of cultural competence gain scores after completing the transcultural Intervention. This study took place at a large urban metropolitan hospital in Central Florida. The unique geographical location of this hospital with its close proximity to major attraction areas in Central Florida instigated the researcher to examine the effects of cultural competence education among these nurses. These nurses usually encounter an influx of culturally diverse tourists who routinely seek care at this facility. Furthermore, this hospital is geographical located in the midst of a highly populated area with numerous culturally/racially diverse residents who seek medical care at this facility.

A volunteered convenience sample was sought from these nurses who took part in this study. Campinha-Bacote's theoretical framework, the Process of Cultural Competence in the Delivery of Healthcare Services guided this study. In addition, her instrument the IAPCC-R and a researcher-developed demographic survey were used to gather data from 44 direct care nurses

working in the specified acute health care setting. Findings from this inquiry indicated that a well-structured transcultural educational intervention using didactic format could have positive overall improvement on nurses' cultural competence.

This study hypothesized that a transcultural educational intervention using a didactic lecture format via a video presentation will significantly improve cultural awareness of direct care nurses. Nonetheless, in a test of reliability, this cultural construct was found to have a low reliability index with a Cronbach's alpha coefficient of .088; therefore, it could not be used for testing hypothesis one. In addition, this study hypothesized that this transcultural educational intervention can significantly improve cultural knowledge of direct care nurses. The findings were confirmatory and validated the hypothesis. Essentially, cultural knowledge had the greatest improvement among direct care nurses. The sample mean ($M = 0.49$, $SD = 0.65$) was significantly greater than 0, $p < .001$, with a large effect size on participants' cultural knowledge. Moreover, this study hypothesized this transcultural educational intervention can significantly improve cultural desire of direct care nurses. The results were affirmative as well supporting this hypothesis. The cultural desire gain mean score was significantly greater than 0. ($M = 0.16$, $p = .003$), with a medium effect size.

Likewise, this study hypothesized that the transcultural educational intervention will improve mean total cultural competence scores (for cultural knowledge and cultural desire). The results were confirmatory; the intervention had a very statistical significance on improving the revised total cultural competence mean gain scores for participants. The mean gain score was significantly greater than 0, ($M = 0.31$, $p < .001$), with a large effect size. Finally, the last hypothesis examined whether demographic variables, such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training

were predictors of cultural competence gain scores after completing the transcultural intervention. The linear combination of predictors was not significantly related to total cultural competence gain scores, (F (7, 33) = 0.59, p = 0.76), R2 = 0.11. The sample multiple correlation coefficient was 0.33 indicating a weak association between the variables. The transcultural educational intervention worked well with all participants as this study did not correlate sample's demographics with cultural competence.

This study had significant implications for the nursing profession. For example, this study concluded that nurses usually gain cultural knowledge and cultural desire when their cultural educational needs are met. Therefore, it is rather significant that nursing educators in academia and in practice include such interventions into their core curricula. In addition, this study invites more inquiries into investigating other components of the process of cultural competence, such as cultural awareness, cultural skill, and cultural encounters and to examine nurses' demographic variables as predictors of cultural competence.

Cultural competence in health care will continue to be a matter that will need to be scrutinized constantly as the demographic mosaic in the U.S. continues to flourish. In addition, changes in health care reform and policies might have ramifications on minorities' and vulnerable populations' health. Hence, highlighting the benefits of transcultural education offerings in nursing practice has a great paramount of reducing health and health care disparities among minorities. Finally, social justice in accessing health care will continue to be an ongoing predicament in health care. Nonetheless, Dr. Martin Luther King Jr. declaration at the Second National Convention of the Medical Committee for Human Rights, "Of all forms of inequality, injustice in health care is the most shocking and inhumane" (1966) can serve as a compass to all

health care professionals, systems, and policymakers to genuinely address health and heath care disparities among minorities and disfranchised population.

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APPENDIX A

BARRY UNIVERSITY

IRB APPROVAL LETTER

Barry University
Division of Academic Affairs

Institutional Review Board
11300 NE 2nd Avenue, Miami, FL 33161
P: 305.899.3020 or 1.800.756.6000, ext. 3020
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Research with Human Subjects
Protocol Review

Date:	April 4, 2017
Protocol Number:	170402
Title:	The Effect of a Transcultural Education Intervention on Direct Care Nurses' Cultural Competence
Approval Date:	April 4, 2017
Name:	Mr. Nashat Abualhija 152 Alfani Street Davenport. FL 33896
Sponsor:	Dr. Ferrona Beason - Nursing

Dear Mr. Abualhija:

On behalf of the Barry University Institutional Review Board (IRB), I have verified that the specific changes requested by the IRB have been made. Therefore, I have granted final approval for this study as exempt from further review.

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved by the IRB. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form.

It is a condition of this approval that you report promptly to the IRB any serious, unanticipated adverse events experienced by participants in the course of this research, whether or not they are directly related to the study protocol. These adverse events include, but may not be limited to, any experience that is fatal or immediately life-threatening, is permanently disabling, requires (or prolongs) inpatient hospitalization, or is a congenital anomaly cancer or overdose.

The approval granted expires on April 19, 2018. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with and IRB Application for Continuing Review (Progress Report) summarizing study results to date.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB point of contact, Mrs. Barbara Cook at (305)899-3020 or send an e-mail to **dfeldman@barry.edu** . Finally, please review your professional liability insurance to make sure your coverage includes the activities in this study.

Sincerely,

David M. Feldman, PhD
Chair, Institutional Review Board
Barry University
Department of Psychology
11300 NE 2nd Avenue
Miami Shores, FL 33161

Cc: Dr. Ferrona Beason

Note: Note: The investigator will be solely responsible and strictly accountable for any deviation from or failure to follow the research protocol as approved and will hold Barry University harmless from all claims against it arising from said deviation or failure.

APPENDIX B

BARRY UNIVERSITY

PARTICIPANTS' COVER LETTER

Approved by Barry University IRB
Date: 4/07/17
Signature:

Barry University
Cover Letter

Dear Research Participant:

Your participation in a research project is requested. The title of the study is "The Effect of A Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence." The research is being conducted by Nashat Abualhaija, a student in the College of Nursing and Health Sciences at Barry University, and is seeking information that will be useful in the field of Transcultural Nursing. The core purpose of this cross-sectional, quasi-experimental study is to estimate the significance of the effectiveness of transcultural educational intervention on cultural competence level of direct care nurses in an acute healthcare setting. Furthermore, this study will also examine the effect of transcultural educational intervention in practice rather than in academia. It is hoped that the findings from this study may increase awareness among nursing professionals on the importance of providing transcultural education to direct care nurses in an effort to reduce health and health care disparities among minorities. We anticipate the number of participants to be 50. Participants will be provided with a $10.00 Target gift card as a token of appreciation. If you decide to participate in this research, you will be asked to do the following: First, complete a researcher-developed demographic questionnaire composed of 11 questions which you place in a labelled box. The duration for this questionnaire will be 15 minutes. Then, a pretest, composed of 25 questions will be administered. The duration for this test will be15-20 minutes. Second, a transcultural education in the form of a video presentation will be offered. The duration for this video will be 30 minutes. Immediately, after the educational intervention, a posttest composed of 25 questions will be administered. The duration for the posttest will be 15 minutes. The entire process should take approximately 1.5 hours to complete.

Your consent to be a research participant is strictly voluntary, and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects on your employment or wages. There are no known risks to you due to your involvement in this study. Although there are no direct benefits to you, your participation in this study may help our understanding of the beneficial effects of providing transcultural education programs on a continuous basis to direct care nurses in acute healthcare settings nationally. As a research participant, information you provide will be kept anonymous, that is, no names or other identifiers will be collected on any of the instruments used. Data will be kept in a locked file in the researcher's home office. By completing and returning this survey you have shown your agreement to participate in the study.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Nashat Abualhaija at (407) 520-7772, my supervisor, Dr. Ferrona Beason at (305) 899 3800, or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020. Thank you for your participation.

Nashat Abualhaija

APPENDIX C

BARRY UNIVERSITY

LETTER TO ADMINISTRATORS OF THE ACUTE HEALTH CARE SETTING

July 15, 2016

Dear Madam/Sir:

My name is Nashat Abualhaija and I am a PhD student in the College of Nursing at Barry University in Miami Shores, Florida. I will be conducting a research study entitled, "The Effect of a Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence in An Acute Healthcare Setting." The core purpose of this cross-sectional, quasi-experimental study is to evaluate the effectiveness of a transcultural educational intervention on cultural competence level of direct care nurses in an acute healthcare setting.

My goal is to collect data from approximately 50 direct care nurses at your facility. To reach this goal, I will be seeking permission to post the enclosed flyer at your facility so that staff nurses will learn of this study and volunteer their participation. Moreover, I will be requesting permission to attend nursing staff meetings to discuss the aims of the study and answer any questions. Finally, I will be seeking your permission to send an email to all staff nurses requesting their volunteered participations in the study.

The nurses will be approached either face-to-face or in groups. They will be asked to complete a demographic questionnaire which will take approximately 10 minutes to complete. No information will be collected regarding you or your facility. Then a pretest questionnaire will be administered to participants, which should take 15 minutes to complete. Immediately, afterward, a transcultural educational intervention will be offered via a video presentation about the impacts of cultural competence. Finally, a posttest will be offered to all participants. All participants will complete the questionnaire anonymously. No identifiers will be linked to the participants. They will be given a small token of appreciation (equivalent to $10.00). I will be available at that time to answer any questions and to address any concerns they might have. Participants may withdraw from the study at any time without penalty. There are no risks involved in their participation.

All participants will be instructed to place their completed questionnaires in a locked box which, only accessible by me. All collected data will be destroyed after five years via shredding, as required by Barry University.

I thank you very much for your consideration. Should you have any questions or concerns, I may be reached at [redacted], or email [redacted]. My advisor, Dr. Ferrona Beason may be contacted, at [redacted], or via email at [redacted].

Sincerely,

Nashat Abualhaija

APPENDIX D

BARRY UNIVERSITY

LETTER OF PERMISSION FROM ADMINISTRATOR OF THE ACUTE HEALTH CARE SETTING

FLORIDA HOSPITAL
CELEBRATION HEALTH
The skill to heal. The spirit to care.®

07/19/2016

Dear Nash

It is my pleasure to inform you of our approval granting you permission to conduct your proposed study Titled "The Effect of Transcultural Education Intervention of the Cultural Competence of Direct Care Nurses at An Acute Healthcare setting" at Florida Hospital Celebration Health. Furthermore, we are granting you access to prospected participants for your data collection as per the Florida Hospital Policy.

If you have any needs in the future please do not hesitate to call me. I am looking forward to reading the results of your study. I wish you the best.

Sincerely

Patricia Toor, RN, BS, MSN

Vice President Florida Hospital Celebration Health

***APPENDIX* E**

BARRY UNIVERSITY

RECRUITMENT FLYER

Transcultural Educational Research

Dear direct care nurses

You are invited to participate in a transcultural educational intervention research. The purpose of this study is to evaluate the effectiveness of a transcultural educational intervention on direct care nurses' cultural competence level in an acute healthcare setting.

You participation will help us further understand the impacts of transcultural educational intervention on direct care nurses' cultural competence. The findings of this study may contribute to the development of an effective transcultural educational intervention by evaluating the effectiveness of such intervention. Furthermore, this study may contribute to increasing nursing educators', practitioners', and researchers' awareness of the importance of embracing cultural competence education as a strategy to reduce health disparities, improving patients' satisfaction, and enhancing clinical outcomes among minorities and culturally diverse patients.

To Participate: You have to be either a full-time, part-time, per diem, or seasonal temporary direct care nurse working at this facility, with a minimum of one year experience.

A demographic questionnaire without personal information and a pretest survey will be administered. Next, a video presentation will be offered, then a posttest questionnaire will be administered. The entire session should last approximately one hour to complete. All participants will receive a $10 Target gift certificate.

The Researcher: Nashat Abualhaija, MSN, RN, is a doctoral candidate in Nursing at Barry University. Miami Shores, Florida. For questions and concerns please contact the researcher at [redacted] or by email: [redacted]; my advisor Dr. Ferrona Beason at [redacted] or by email at [redacted]; or the contact person for Barry University's Institutional Review Board, Barbara Cook at (305) 899-3020 or toll-free at 1-800-765-6000, extension 3020, or by email at bcook@barry.edu.

APPENDIX F

BARRY UNIVERSITY

PERISSION AND EXTENSION TO USE IAPCC-R

TRANSCULTURAL C.A.R.E.

Clinical, Administrative, Research
& Educational Consultation
in Transcultural Health Care

J. Campinha-Bacote,
PhD, MAR, PMHCNS-BC, CTN-A, FAAN

Transcultural Healthcare Consultant

Date: July 14, 2016
To: Mr. Nashat Abualhaija

From: Dr. Josepha Campinha-Bacote
President, Transcultural C.A.R.E. Associates
RE: **Contractual Agreement for Limited Use of Campinha-Bacote's Model of Cultural Competence in a Dissertation**

This letter grants one-time permission to Mr. Nashat Abualhaija to copy my 1998 model of cultural competence as it appear on my website at http://transculturalcare.net/the-process-of-cultural-competence-in-the-delivery-of-healthcare-services/ in his dissertation.

TIME FRAME: Permission to use my model is a one-time use between July 25, 2016 through December 31, 2016 when he submits it to the professor in this paper.

RESTRICTIONS OF COPYING: This permission only allows Mr. Nashat Abualhaija the copying/ reprinting of my model in his academic paper. **He agrees that my models cannot be copied for any other reason outside of this paper.** This includes, but not limited to, not being copied in another formal or informal publication, a journal article, in another academic paper, handouts for presentations, nor for any PowerPoint or Poster presentations or in any hard copy or electronic formats for presentations or for any other purpose.

Abualhaija will use the following citation when citing my model in his dissertation:

The Process of Cultural Competence in the Delivery of Healthcare Services
Copyrighted 1998 by Campinha-Bacote,
Reprinted with Permission from
Transcultural C.A.R.E. Associates

GOVERNING LAW: All parties acknowledge that this Contractual Agreement for Limited Use of Campinha-Bacote's Models of Cultural Competence is a valid contract. This contract shall be governed and construed under the laws of the State of Ohio, except as governed by Federal law. Jurisdiction and venue of any dispute or court action arising from or related to this contract shall lie exclusively in or be transferred to Hamilton County Municipal Court, Hamilton County Court of Common Pleas, or the Federal Court situated in the County of Hamilton, Ohio.

ATTORNEY'S FEES AND COSTS: In any action to enforce any provision of this Agreement, the prevailing party will be awarded reasonable attorney's fees and costs.

Dr. Josepha Campinha-Bacote — 7/14/16 Date

Mr. Nashat Abualhaija — 07/17/16 Date

☎513-469-1664
513-469-1764
meddir@aol.com

www.transculturalcare.net

11108 Huntwicke Place
Cincinnati, Ohio 45241

Fw: Extension to use the The process of Cultural Competence in the Delivery o...

Abualhaija, Nashat (Barry Student) <nashat.abualhaija@mymail.barry.edu>

Mon 1/16/2017 2:11 PM

Inbox

To: nashhapyy2@msn.com <nashhapyy2@msn.com>;

Sent using OWA for iPhone

From: Meddir@aol.com <Meddir@aol.com>
Sent: Monday, January 16, 2017 2:56:12 PM
To: nashhapyy2@msn.com; Abualhaija, Nashat (Barry Student)
Subject: Re: Extension to use the The process of Cultural Competence in the Delivery o...

Thank you for respecting our contractual agreement of the limitations of using my copyrighted model and asking for an extension. This will be a one-time extension.

This email formally grants permission to you for an extension to use my 1998 model of cultural competence in your academic proposal when you submit it to your professor, only. This limited permission is granted from January 15, 2017 through June 15, 2017.

Respectfully,

Contact Information:
Josepha Campinha-Bacote, PhD, MAR, PMHCNS-BC, CTN-A, FAAN
President, Transcultural C.A.R.E. Associates
11108 Huntwicke Place
Cincinnati, Ohio 45241
Ph: 513-469-1664
Fax: 513-469-1764
Email: meddir@aol.com
Website: www.transculturalcare.net

APPENDIX G

FLORIDA HOSPITAL INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

Florida Hospital
Institutional Review Board
901 N. Lake Destiny Road
Suite 400
Maitland, FL 32751
Telephone: (407) 303-5581
Fax: (407) 303-2567
FWA: 00002060

June 30, 2017

To: Nashat Abualhaija, MSN

On June 30, 2017 the IRB approved the following through June 29, 2018 inclusive.

Review Type:	Exempt Review
Title:	The Effect of a Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence
Principal Investigator:	Nashat Abualhaija, MSN
IRB number:	1049664-2
Exempt Category:	1
Documents reviewed:	• Advertisement - 0622 Flyer for Recruiting Participants.docx (UPDATED: 06/23/2017) • Application Form - 0601 Nash's HRP-200 FORM - Initial Review Application.fh2.pdf (UPDATED: 06/1/2017) • Consent Form - 0622 Consent_mlm comments.docx (UPDATED: 06/23/2017) • Data Collection - 0603 IAPCC-R tool p.2.png (UPDATED: 06/3/2017) • Data Collection - 0603 IAPCC-R tool p.1.png (UPDATED: 06/3/2017) • Data Collection - 0603 IAPCC-R Scoring Key.png (UPDATED: 06/3/2017) • Data Collection - 0603 IAPCC-R contract.png (UPDATED: 06/3/2017) • Letter - Scientific Review Outcome Letter IRBNet 1049664-1.pdf (UPDATED: 05/31/2017) • Other - VOID 0614 Protocol 1049664_mlm comments.docx (UPDATED: 06/14/2017) • Other - VOID 0614 Consent_mlm comments.docx (UPDATED: 06/14/2017) • Other - HRP-201 FORM - Nash Revised 06_13.pdf (UPDATED: 06/13/2017) • Other - Training Video.docx (UPDATED: 06/1/2017) • Other - VOID 0531 Nash's COVER LETTER.docx (UPDATED: 06/1/2017)

	• Other - VOID 0531 Nash's HRP-504 - TEMPLATE Protocol_Prospective-R.docx (UPDATED: 05/31/2017) • Protocol - 0622 Protocol 1049664_mlm comments.docx (UPDATED: 06/23/2017) • Questionnaire/Survey - Demographic Questionaire.docx (UPDATED: 06/13/2017)

Before June 29, 2018, you are to submit a continuing review to request continuing approval or closure. If the IRB does not grant continuing review, approval of this protocol ends after June 29, 2018.

Copies of any approved consent documents, consent scripts, or assent documents are published.

In conducting this study, you are required to follow the requirements in "INVESTIGATOR GUIDANCE: Investigator Obligations (HRP-800)."

If you have any questions, please contact the Florida Hospital IRB at 407-303-5581 or FH.IRB.general@flhosp.org. Please include your project title and IRBNet ID number in all correspondence with this office.

Sincerely,

IRB Office

APPENDIX H

FLORIDA HOSPITAL OFFICE OF SPONSORED PROGRAMS

CERTIFICATE OF INSTITUTIONAL CLEARANCE

FLORIDA HOSPITAL
Office of Sponsored Programs
901 N. Lake Destiny Rd., Suite 400
Maitland, FL 32751
407.303.7756

OFFICE OF SPONSORED PROGRAMS
CERTIFICATE OF INSTITUTIONAL CLEARANCE

Sponsor Protocol #	1049664
PI:	Nashat Abualhaija, MSN
Project Title:	[1049664-1] The Effect of a Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence
APPROVED as of:	July 5, 2017

Congratulations! Florida Hospital's Office of Sponsored Programs has given Institutional Approval to the research study identified above in accordance with institutional Policy, Procedures and Standards.

If a conflict of interest exists for one or more investigators or study team members, it is the Principal Investigator's responsibility to be aware of any Financial Conflict of Interest Management Plan(s) that may be in place.

It is the Principal Investigator's responsibility to determine if a study needs to be registered on ClinicalTrials.gov. The following link may be helpful in determining if your study needs to be registered: https://clinicaltrials.gov/ct2/manage-recs/background.

It is the responsibility of the Principal Investigator and Research Department to notify the OSP of any amendments to the Protocol and/or Informed Consent which may impact any legal agreement(s), amendments to any applicable legal agreement(s), and any publications arising from the study. In addition, it is the responsibility of the PI to notify the OSP if any study team members come under Federal Sanction(s), including Debarment and/or Suspension(s).

Please refer to the Florida Hospital IRBNet ID# in all communications and documents related to this project.

If you have any questions about research policy and procedures, research budgets or if we may assist you in any way, please feel free to contact the OSP.

Sincerely,

Office of Sponsored Programs

"To Extend the Healing Ministry of Christ through Research"

APPENDIX I

FLORIDA HOSPITAL NURSING AND ALLIED HEALTH SCIENCE REVIEW COMMITTEE APPROVAL LETTER

FLORIDA HOSPITAL
The skill to heal. The spirit to care.®

May 31, 2017

Dear FH Researcher:

Your research proposal, *The Effect of A Transcultural Educational Intervention on Direct Care Nurses' Cultural Competence* has been reviewed by the Florida Hospital Nursing and Allied Health Scientific Review Committee (SRC). The following determination was made:

- ☐ Approved as submitted
- ☒ Approved with recommended changes as indicated on the attached review summary (changes are not required, only recommended).
- ☐ Contingent approval with required changes
- ☐ Changes required (see review summary), with resubmission of project
- ☐ Approval denied for the following reason: Click here to enter text.

A summary of reviewer comments is attached for your review. If you have any questions, please feel free to contact me.

Sincerely,

Sandra Galura PhD, RN
Chair
Florida Hospital
Nursing and Allied Health Scientific Review Committee

cc: Office of Research Administration (ORA)

APPENDIX J

BARRY UNIVERSITY

DEMOGRAPHIC QUESTIONNAIRE

Barry University

DEMOGRAPHIC QUESTIONAIRE

1. In what country were you born?
2. What is your primary language?
3. Do you speak other languages? If yes, please specify ( ).
4. What language do you prefer for communicating with others?
5. What is your highest level of education?
6. Have you had any previous cultural educational and training opportunities? If yes, please specify ( ).
7. What is your gender?
8. What is your employment status?
9. What do you call your race? Please choose from the followings:
    a) African-American/Black----------
    b) American Indian or Alaska Native----------
    c) Asian----------
    d) Native Hawaiian or other Pacific Islander----------
    e) White----------
    f) Hispanic----------
    g) Other, please specify----------
10. In what year were you born?
11. How many years of nursing experience do you have?

APPENDIX K

CAMPINHA-BACOTE'S (2002) INVENTORY FOR ASSESSING CULTURAL COMPETENCE AMONG HEALTH CARE PROFESSIONALS REVISED (IAPCC-R)

Barry University

Campinha-Bacote's (2002), the Inventory for Assessing Cultural Competence Among Healthcare Professionals Revised (IAPCC-R)

APPENDIX L

BARRY UNIVERSITY

THIRD-PARTY CONFIDENTIALITY AGREEMENT

Confidentiality Agreement

As a member of the research team investigating "The Effect of a Transcultural Educational Intervention on the Cultural Competence of Direct Care Nurses in an Acute Healthcare Setting", I understand that I will have access to confidential information about study participants. By signing this statement, I am indicating my understanding of my obligation to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about study participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the persons who participated in the study.
- I understand that all information about study participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information unless specifically authorized to do so by office protocol or by a supervisor acting in response to applicable protocol or court order, or otherwise, as required by law.
- I understand that I am not to read information and records concerning study participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
- I understand that a breach of confidentiality may be grounds for disciplinary action, and may include termination of employment.
- I agree to notify my supervisor immediately should I become aware of an actual breach of confidentiality or situation which could potentially result in a breach, whether this be on my part or on the part of another person.

Signature	Date	Printed Name
[signature]	7/3/2017	Aksa Chacko RN
[signature]	07/03/17	NASHAT ABUALHAIJA

APPENDIX M

TRANSCULTURAL EDUCATION VIDEO PRESENTATION

“Cultural Competency: Problem Solving” Training Video

APPENDIX N

BARRY UNIVERSITY

RESEARCH QUESTIONS AND HYPOTHESES DATA SHEET

Research Questions and Hypotheses Data Sheet

#	Research Questions	Research Hypotheses	Instrument	Statistical Test
RQ1 & H1	Will there be a significant increase in direct care nurses' cultural awareness after completing the transcultural educational intervention?	Direct care nurses' average cultural awareness gain scores as measured by the IAPCC-R are greater than zero.	Campinha-Bacote's (2002), the Inventory for Assessing Cultural Competence Among Healthcare Professionals Revised (IAPCC-R).	A one-sample *t* test will be conducted to determine the amount of change in the mean gain scores of participants' cultural awareness.
RQ2 & H2	Will there be a significant increase in direct care nurses' cultural knowledge after completing the transcultural educational intervention?	Direct care nurses' average cultural knowledge gain scores as measured by the IAPCC-R are greater than zero.	Campinha-Bacote's (2002), the Inventory for Assessing Cultural Competence Among Healthcare Professionals Revised (IAPCC-R).	A one-sample *t* test will be conducted to determine the amount of change in the mean gain scores of participants' cultural knowledge.
RQ3 & H3	Will there be a significant increase in direct care nurses' cultural desire after completing the transcultural educational intervention?	Direct care nurses' average cultural desire gain scores as measured by the IAPCC-R are greater than zero.	Campinha-Bacote's (2002), the Inventory for Assessing Cultural Competence Among Healthcare Professionals Revised (IAPCC-R).	A one-sample *t* test will be conducted to determine the amount of change in the mean gain scores of participants' cultural desire
RQ4 & H4	Will there be a significant increase in direct care nurses' total cultural competence after completing the transcultural educational	Direct care nurses' average total cultural competence gain scores as measured by the IAPCC-R are greater than zero.	Campinha-Bacote's (2002), the Inventory for Assessing Cultural Competence Among Healthcare Professionals	A one-sample *t* test will be conducted to determine the amount of change in the mean gain scores of participants' total cultural

	intervention?		Revised (IAPCC-R).	competence
RQ5 & H5	Will there be a significant relationship between participants' demographic variables (such as age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training) and participants' total cultural competence gain scores?	Participants' cultural competence gain scores are significantly predicted by age, birthplace, gender, race, level of education, years of nursing experience, and previous exposure to cultural competence training.	Researcher's Developed Demographic Questionnaire.	A multiple regression analysis will be used to predict if participants' demographic variables correlate with cultural competence.

APPENDIX O

BARRY UNIVERSITY

VITA

1998	BSN, University of Alabama at Birmingham Birmingham, AL
1998-1999	Staff nurse, Carraway Methodist Medical Center Birmingham, AL
1999-2001	Pool staff nurse, Orlando Regional Medical Center Orlando, FL
2000-2001	Staff nurse, Leesburg Regional Medical Center Leesburg, FL
2001-Present	Nursing supervisor, Florida Hospital Celebration Health Celebration, FL
2005	MSN, University of Phoenix, Orlando, FL