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The Perceived Cultural Self-Efficacy of Respiratory Therapists and Nurses: a Comparative Study
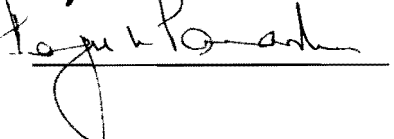
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THE PERCEIVED CULTURAL SELF-EFFICACY OF RESPIRATORY

THERAPISTS AND NURSES:

A COMPARATIVE STUDY

By

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ABSTRACT

THE PERCEIVED CULTURAL SELF-EFFICACY OF RESPIRATORY THERAPISTS AND NURSES:

A COMPARATIVE STUDY

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Given the changing minority demographics of the US population and their consequent diverse healthcare needs, it is imperative that healthcare workers become culturally competent (Benkert et al., 2005). Respiratory Therapists (RTs), a large part of this healthcare team are increasingly interacting with this diverse population. The purpose of this study was to investigate the current levels of cultural self-efficacy in practicing RTs and how they compare to nurses.

The Cultural Self-Efficacy Scale (CSES) survey tool, the demographic questionnaire, and a return envelope were sent to 1000 respiratory therapists and 1000 nurses. The CSES measures the confidence in knowledge and skills of healthcare workers in providing transcultural care using a 5 point likert scale. The CSES is divided into three subscales: cultural concepts, cultural skills, and cultural patterns. Descriptive statistics were used to

analyze the data and where needed differences were evaluated using an independent t-test, $p < 0.05$.

Four hundred and eighty three surveys were returned for a response rate of 22.4%. The returned surveys were broken down by profession as follows: 182 respiratory therapists, 258 nurses, and 10 were both professions. Reliability of the CSES using Cronbach's alpha coefficient was 0.977. The participants were primarily Caucasian with an average age of 47-49 years, who had earned at least an associate's degree or a bachelor's degree. Combined, the two samples had an average of 19-22 years of work experience. The mean total CSES scores for the RTs were 3.40 and 3.41 for the nurses, indicating confident to moderately confident cultural self-efficacy. There was no significant difference between RTs and the nurses in the overall CSES levels; however they differed in cultural skills, with nurses scoring higher than RTs.

Overall the results of this study suggest that RTs have average levels of confidence in providing care to a culturally diverse population. Interestingly, their levels of confidence matched other healthcare providers (nurses), despite having had no formal education in cultural diversity. It is highly possible that their years on the job may have contributed to the acquisition of this skill (19-22 yr). This study provides preliminary data on this very important subject.

CHAPTER I

INTRODUCTION

Background

Cultural Self-Efficacy.

Self-efficacy, or confidence, is defined as one's perception about their capabilities of performing specific tasks (Bandura, 1977). It is developed through acquiring knowledge through verbal persuasion, skill through performance accomplishment, and vicarious experience in how to handle different situations. An individual's level of self-efficacy determines one's behavioral patterns in certain situations. When applied to understanding different cultures, self-efficacy is important in caring for culturally diverse patients. Cultural self-efficacy defines a healthcare professionals' ability to provide cultural congruent care to a culturally diverse patient population in terms of planning healthcare and evaluating the outcomes of the care provided (Alpers & Zoucha, 1996).

Respiratory therapists and nurses provide care to all patients regardless of age, gender, race or ethnicity and need to be knowledgeable of different cultures. Knowledge of different cultures helps foster a strong sense of cultural self-efficacy. A strong sense of cultural self-efficacy will help

respiratory therapists and nurses better approach situations involving culturally diverse patients. Without confidence, healthcare providers may be ineffective in promoting and maintaining health and preventing disease. With culturally confident healthcare providers, patient satisfaction and quality improvement increase and overall racial and ethnic disparities decrease (Betancourt, Green, & Carrillo, 2002; Hagman, 2006; LaVeist, Richardson, Richardson, Relosa, & Sawaya, 2008). As healthcare providers improve their relationship with their patients, there is greater acceptance of the healthcare provider, thus leading to increased trust, better communication, and improved diagnoses and treatments of illnesses (Hagman, 2006; LaVeist, Richardson, Richardson, Relosa, & Sawaya, 2008). The overall quality of healthcare will improve as healthcare providers, such as respiratory therapists and nurses, are more understanding of cultural differences.

Respiratory Therapist as Healthcare Providers.

In 1943 the first group of on the job trained inhalation technicians managed the first post surgical patients in Chicago (Weilacher, 1998). The first on the job training program was developed by Dr. Edwin R. Levine. Four years later Dr. Levine and a group of doctors, nurses, oxygen orderlies, and other interested parties chartered the Inhalation Therapy Association (ITA), a non-for profit organization governing the future of inhalation therapy, which eventually became respiratory therapy. Frameworks for the ITA governance

and education model were developed from the older health societies, such as the American Medical Association, the American Society of Anesthesiologists, the American Thoracic Society, and the American College of Chest Physicians. As the need for and the number of respiratory therapists grew over the years, the ITA eventually became the American Association for Respiratory Care (AARC) in 1986. Respiratory therapy has established itself as an important part of the healthcare team in various clinical settings to assist and support in the diagnosis, treatment, and management of pulmonary patients of all ages.

Respiratory therapy education consists of the same didactic curriculum used in other healthcare professional education programs under the provision of various physician organizations (CAAHEP, 2003). Until 2008, standards for respiratory care education were overseen by the Commission on Accredidation of Allied Health Education Programs (CAAHEP), as well as the Committee on Accredidation for Respiratory Care (CoARC). Together, they formulated standards for respiratory care education that includes content surrounding general education (e.g. English, mathematics, and social science), as well as basic science education (e.g. microbiology, anatomy and physiology, chemistry, and physics). Additional standards consist of respiratory specific content, such as medical gas and humidity therapy, lung inflation and bronchial hygiene therapy, and most importantly, management of mechanical ventilation. According to the standards and guidelines, cultural

awareness/diversity may be included in the educational curriculum, if necessary as required by state or institutional accreditation (CAAHEP, 2003). If cultural diversity training is not required by the educational institution, implementation of cultural diversity training may not be incorporated in individual healthcare professional entry level education programs, as such those located in New Jersey. Nursing education, on the other hand, does provide cultural diversity education to their students as required by the professional licensing organization (Nursing, 2005).

The nursing and the respiratory therapy professions share similarities in their scope of practice with subtle differences when addressing the cardio-respiratory system. Both professions perform skills that include obtaining a health history, performing physical assessments, and providing patient education. A nurses' scope of practice includes the diagnosis and treatment of physical and emotional health problems through evaluation, education, counseling, and the provision of supporting or restoring life and well being (Nursing, 2005). A respiratory therapist practices with skills in the diagnosis and treatment of patients also through evaluation, education, and counseling, with expertise specifically related to the cardio-respiratory system (Care, 2002).

A major similarity between nurses and respiratory therapists, as well as all other healthcare professions, is that all patients regardless of age, gender,

race, or ethnicity must be provided treatment. By 2050, shifts in population growth will result in the United States' population being over 50% Hispanic or of a nonwhite minority, including African American and Asian American (Bernstein & Edwards, 2008). The changing demographics of the population along with the changing healthcare needs will require respiratory therapists and nurses to be knowledgeable of cultural diversity. A lack of cultural understanding can limit a nurses' or a respiratory therapists' scope of practice, by the inability to accurately evaluate culturally diverse patients effectively, thus possibly leading to improper diagnoses, treatment, education, and medical follow-up.

The ability to provide culturally congruent care is a necessity of all healthcare providers, especially respiratory therapists and nurses. To provide culturally congruent care, respiratory therapists and nurses must be confident in their abilities to assess and plan healthcare regiments and evaluate the outcomes of the care provided for patients of different cultures. The ability to care for patients relies on trust and communication. Cultural self-efficacy enhances trust and communication between a respiratory therapist or a nurse and their patient. Numerous research studies evaluated practicing nurses and nursing students to provide evidence that the nursing profession has attempted to advance the profession in becoming more culturally confident (Alpers & Zoucha, 1996; Bernal & Froman, 1987; Bernal & Froman, 1993; Hagman, 2006; Joseph, 2004; Kardong-Edgren, et al., 2005; Kulwicki &

Bolonik, 1996; Liu, Mao, & Barnes-Willis, 2008). Although, the levels of cultural self-efficacy range from low or moderate to high, the range leads one to believe that the nursing profession as a whole, are not necessarily prepared to provide care to culturally diverse patients.

Purpose

The purpose of this study is to measure the cultural self-efficacy of respiratory therapists and nurses using the Cultural Self-Efficacy Scale (CSES). The CSES measures the confidence of healthcare professionals in caring for culturally diverse patients. To date, there is no research studying the levels of cultural self-efficacy of respiratory therapists; consequently, the level of cultural self-efficacy of respiratory therapists is unknown. In contrast, cultural self-efficacy in nursing has been researched extensively. Comparing cultural self-efficacy levels of respiratory therapists and nurses will help ascertain how respiratory therapists compare to nurses.

Research Problem.

Currently, a literature search revealed no published data on the cultural self-efficacy of respiratory therapists. The population of the United States is changing; consequently, respiratory therapists, as all healthcare

professionals, need to advance knowledge and skills in developing a stronger sense in cultural self-efficacy especially with the changes occurring in healthcare.

Research Questions.

1. What are the overall levels of perceived cultural self-efficacy of respiratory therapists?

2. What are the levels of perceived cultural self-efficacy of respiratory therapists based on each of the Cultural Self-Efficacy Scale (CSES) subscales?

3. How do the levels of perceived cultural self-efficacy in licensed respiratory therapists compare to the levels of perceived cultural self-efficacy in licensed, registered professional nurses?

4. Is there a relationship among demographic characteristics and cultural self-efficacy?

Hypotheses.

Hypothesis One: There is a significant difference between respiratory therapists and nurses in overall cultural self-efficacy levels.

Hypothesis Two: There is a significant difference between respiratory therapists and nurses on each of the subscales of the CSES.

Hypothesis Three: There is a relationship between demographic variables and cultural self-efficacy in respiratory therapists.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Cultural self-efficacy is defined as a process in which healthcare providers constantly attempt to attain skills and knowledge and improve their confidence to work with culturally different people (Bernal & Froman, 1993). It involves awareness and sensitivity, knowledge, skill, and desire to provide culturally congruent care. Cultural self-efficacy has been studied in practicing nurses, nursing educators, and nursing students. The levels of cultural self-efficacy varied across the spectrum from low to high (Alpers & Zoucha, 1996; Bernal & Froman, 1987; Bernal & Froman, 1993; Hagman, 2006; Joseph, 2004; Kardong-Edgren et al., 2005; Kulwicki & Bolonik, 1996; Liu, Mao, & Barnes-Willis, 2008). The range can attest to a possible lack of readiness to care for culturally diverse patients.

Furthermore, the research attempted to identify different demographic variables that can possibly predict cultural self-efficacy. Education, age, years of experience, ethnicity, education level, and specialty area did not associate with cultural self-efficacy (Bernal & Froman, 1987; Hagman, 2006). Sharing ethnicity with patients, gender, cultural content taught in nursing

programs or in continuing education, and experience with many different cultures did associate with cultural self-efficacy (Bernal & Froman, 1993; Joseph, 2004; Kardong-Edgren et al., 2005; Liu, Mao & Barnes-Willis, 2008).

By 2050, more than 50% of the population will be part of a minority group including, African America, Hispanic, and Asian American (Bernstein & Edwards, 2008). Healthcare workers need to be prepared to address the needs of the expected increase in diversity of the projected patient population (Benkert, Tanner, Guthrie, Oakley, & Pohl, 2005; Kardong-Edgren, et al., 2005). The shifting demographics of the population means there will be a multitude of different cultures that healthcare providers need to be aware of and understand in order to provide high quality healthcare. It is important to be knowledgeable of different cultures and to have a strong sense of cultural self-efficacy because of the changing demographics in the population of the United States.

What is Culture?

Culture can be defined as a personal or a groups' set of values, beliefs, and daily living patterns including everyday behaviors (Cortis, 2003; Leininger, 1978). Culture can be further defined as a set of beliefs, practices, customs, norms, likes, dislikes, and behaviors which an individual learns during one's years of socialization and is shared among groups (Betancourt, Green, & Carrillo, 2002). Culture can encompass religion, race, ethnicity,

age, gender, nationality, and language, as well as socioeconomic status, social class, physical and mental ability, and sexual orientation to name a few. Furthermore, subcultures can exist within a larger culture (Erlen, 1998).

Culture Influences on Healthcare

Culture determines how a person views health and disease (George, 2001). Ideas on health, disease, diet, and supplements all stem from a patient's culture. Cultural influences on dietary requirements can aid in the management of health and disease, and one example is in the Hindu religion (Blendon, et al., 2007).

Culture will also define the rules set for caring for ill individuals, as well as whom to seek for assistance in regards to health and disease (Cortis, 2003). Familismo in the Latino community dictates that the immediate and extended family of the patient is valued as reliable providers of help and support (Caballero, 2006). Decisions on healthcare are discussed with the entire family before implementation or changes to treatment regiments are made. Muslim families follow the same centrality of family in their culture (Hammoud, White, & Fetters, 2005; Laird, Amer, Barnett, & Barnes, 2007).

Perception and physical understanding of health and illness are also affected by culture (Erlen, 1998; Williams, 2007). A healthcare provider of western medicine may relay information on a patient's illness based on what is read in a textbook. A patient's culturally driven understanding of disease

may not be related to textbook information but rather to environmental information, such as, drinking or eating the disease. Pain perception is another example of a culturally driven concept (Ramirez, 2003). Variations in pain perception and how to deal with pain may differ between cultures.

The balance of "hot" and "cold" energy or "dry" and "moist" properties given to food, supplements, and medicines is another example of a culturally-driven concept (George, 2001; Laird, Amer, Barnett, & Barnes, 2007). Certain cultures believe that disease occurs when the balance of "hot" and "cold" or "dry" and "moist" is disrupted in one direction. Accordingly, treatment of the illness would be provided from the opposite force to help restore the energy balance.

Cultural differences that exist between healthcare provider and patient must be viewed as such, different, not wrong (George, 2001). Healthcare providers must respect the fact that their patients are going to have differing views on health and disease. By understanding culture through the process of cultural self-efficacy healthcare providers will be able to combine a patient's view on health and disease with their own and provide a forum to work closely with the patient to obtain a positive healthcare outcome.

Cultural Differences and Communication

Culture affects the various aspects of communication (Smith, 2001). A lack of communication or miscommunication can occur when people are

faced with situations that are culturally different from their own (Murphy, Censullo, Cameron, & Baigis, 2007). Differences in the spoken language and actual verbal contact are two characteristics of communication. With language as a major part of one's culture and with the increasing diversity in the United States, there is an increasing trend in limited English proficiency in the population (Reynolds, 2004). When a healthcare provider and a patient do not share the same language, barriers are created (Betancourt, Green, & Carrillo, 2002; Ramirez, 2003). Language barriers may contribute to the inability to provide culturally competent care (Starr & Wallace, 2009).

The provision of education is a common goal among all healthcare providers. Respiratory therapists educate patients on how to take their medications, the importance of compliance with those medications, the importance of using schedules to track symptoms of airway disease, and how to benefit from therapies. Language barriers can lead to poor exchange of information and may result in decreased quality in healthcare. If a patient does not understand the directions or misinterprets the directions provided by the respiratory therapist because of language barriers, the patient will be less likely to adhere to the therapy. The language barrier can affect the quality of healthcare resulting in inadequate treatment plans and poor patient outcomes (Cabana, Lara, & Shannon, 2007; Reform, 2004). Furthermore, non-adherence to therapy can increase morbidity and mortality associated with airway disease and may lead to death. Eliminating language barriers and

improving communication can definitely improve healthcare resulting in decreased morbidity and mortality. Not understanding culture can lead to cultural disparities and produce not so favorable effects on healthcare.

A lack of cultural self-efficacy can produce disparities in healthcare including a decrease in access to care, increased cost, and decreased quality leading to unfavorable outcomes. Healthcare providers need to be educated and trained to prepare to care for patients who are culturally and ethnically different from them. The nursing profession has attempted to prepare nurses in caring for patients from different cultures and to help develop cultural self-efficacy. The respiratory therapy profession has not started to provide cultural diversity education and training to aid in building knowledge and skills to care for culturally diverse patients. With education and training, respiratory therapists may become more confident in their cultural skills and knowledge, consequently helping to eliminate healthcare disparities.

Theoretical Model of Cultural Self-Efficacy

The concept of self-efficacy was introduced in 1977, by Albert Bandura in his theory of social cognition and self-efficacy (Bandura, 1977). His model states that a person's level of self-efficacy may dictate levels of behavior in various situations and how long that behavior is sustained. Self-efficacy is derived from four sources of information: performance accomplishments, vicarious experience, verbal persuasion, and physiological states. The first

contributing factor to developing cultural self-efficacy is performance accomplishment. Performance accomplishments are based on skill levels. If a person masters certain skills their level of confidence or self-efficacy increases. Higher levels of performance coincide with higher levels of self-efficacy and competence (Bandura, 1977). As skill or task mastery continues, the feeling of failure at that particular skill or task is reduced.

The next contributing factor to developing cultural self-efficacy is vicarious experience. Vicarious experience provides information to understand self-efficacy in the form of modeling (Bandura, 1977). Through modeling, a person can learn the right way and the wrong way to perform tasks. It is inferred that if another person can perform the task, so can I. Vicarious experience does not represent a good measure of a person's capabilities therefore does not contribute the same level of cognitive information to self-efficacy in comparison to personal accomplishment (Bandura, 1977). Verbal persuasion, the third contributing factor, allows the usage of communication to change a person's perspective of self-efficacy. Through talking a person can be led to believe they can change and cope with different situations. The final contributing factor, emotional arousal, provides a high level of information when developing self-efficacy (Bandura, 1977). Emotions produced in certain situations will affect efficacy levels and the resulting behavior. High stress situations inducing an increased arousal state may affect self-efficacy negatively and subsequently producing an

avoidance type of behavior. Decreasing that heightened arousal state through experience and modelling can lead to improved behavior and increasing self-efficacy. People who have higher levels of self-efficacy are more approachable and open in different types of situations.

Measuring Cultural Self-Efficacy

Bandura's theory of social cognition and self-efficacy was the framework used to develop the Cultural Self Efficacy Scale (CSES) (Bernal & Froman, 1987; Bernal & Froman, 1993). The tool was originally developed to measure the confidence or self-efficacy of nurses in caring for Puerto Rican, Black, and Southeast Asian patients (Bernal & Froman, 1987). Content for the tool was derived from anthropological and nursing literature representing areas of transcultural nursing concepts, skills, and knowledge. Thirty statements derived from the literature were checked for appropriateness and clarity by five expert public health nurses. The statements were divided into sections according to knowledge of cultural concepts, cultural patterns, and skills in performing transcultural care. Content in the statements were centered on health beliefs and practices, life-style patterns and practices, and cultural sensitivity. Self-perceived confidence in caring for each of the stated ethnic groups will be measured in each of the sections using a 5-point Likert scale. Table one defines self-efficacy based on the CSES. A score of 1 yields very little confidence and a score of 5 yields quite a lot of confidence with 3 indicating a neutral or noncommittal response.

Table 1.

Definitions of Levels of Cultural Self-Efficacy for CSES

CSES Level	Definition
1	Very little confidence
2	Little confidence
3	Neutral or noncommittal confidence
4	Moderate confidence
5	High confidence

The CSES underwent a revision that consisted of changes in the types of ethnic groups evaluated. The original CSES contained content regarding Black patients, Puerto Rican patients and Southeast Asian patients. In future revisions, content on Black and Southeast Asian patients remained in alignment with the original version of the CSES, but content about Latino/Hispanic patients in general was substituted for content specifically about Puerto Ricans (Kulwicki & Bolonik, 1996). Though there is no reasoning for the change, it is believed that general content on Latino/Hispanic patients will encompass all subcultures within the Latino/Hispanic culture instead of focusing on one subculture. Also, content

about Middle Eastern/Arab Americans and Native Americans was added along with information about Pacific Islanders (Kulwicki & Bolonik, 1996). Content about Pacific Islanders was combined with the content about Southeast Asians into one ethnic category.

In 2006, the CSES was further modified to include ethnic groups reflected in the population of New Mexico (Hagman, 2006). The investigator wanted to align the tool with the population. The population of New Mexico included the following ethnic groups: White, Hispanic, African American, Native America, and Asian. An expert panel including the original developers of the measurement tool reviewed the changes for content validity. Table two summarizes the measurement tool used to measure cultural self-efficacy. The table includes changes made to the tool to be more inclusive of different ethnic populations and corresponding validity and reliability/internal consistency.

Table 2.

Summary of the Cultural Self-Efficacy Scale

Reference	Number of items in scale	Ethnic Groups Evaluated in Tool	Populations studied	Internal Consistency	Validity
Bernal & Froman, 1987	30	Blacks, Puerto Ricans, Southeast Asians	Nurses	0.97	Not reported
Bernal & Froman, 1993	30	Blacks, Puerto Ricans, Southeast Asians	Nurses	0.97	yes
Kulwicki & Bolonik, 1996		Blacks, Latino/Hispanic, Asian/Pacific Islander, Middle Easterner/Arabic, Native American	Nursing Students	0.90-0.97	yes

Kardong-Edgren et al., 2005	30	Hispanics, Whites, Asians, African Americans	Nursing Faculty	0.87-0.98	No
Hagman, 2006** Tool used in study		White, Hispanic, African American, Native American, Asian	Nurses	0.86	yes

Cultural Self-Efficacy of Practicing Nurses and Nursing Educators

The initial study for measuring cultural self-efficacy of practicing nurses occurred in 1987 as a process to developing the Cultural Self-Efficacy Scale (Bernal & Froman, 1987). The study measured the level of cultural self-efficacy of 190 community health nurses in caring for three distinct cultural groups (Blacks, Puerto Ricans, and Southeast Asians). Details of the original tool are summarized previously in table two.

The mean scores for the three sections were 2.7, 2.4, and 3.05 for cultural knowledge, cultural patterns, and cultural skills, respectively. The scores indicated little confidence to neutral in relation to definitions of the level of confidence in correspondence to scale score described in table one. Furthermore, an analysis of variance (ANOVA) produced no differences in confidence levels across the three culture groups. Additionally, education, age, years of experience, and specialty area did not provide any predictive power on self-efficacy. There is no determination if the nurse's race/ethnicity had any predictive power on cultural self-efficacy levels since the information was not obtained. Based on this study, a nurse's level of confidence for taking care of Black, Puerto Rican, and Southeast Asian patients is low.

Reliability and validity of the CSES was further determined in 1993 using another population of community health nurses (Bernal & Froman, 1993). The purpose of the study was two fold: to further validate the CSES

using factorial validity and to identify relationships with demographic

characterstics and self-perceived self-efficacy. The CSES was used to

survey a cross section of community health nurses from around the nation.

Since identifying relationships between demographic characterstics and self-

efficacy played a major role in this study, the specific background information

including education, years of experience, the ability to speak another

language, experience in working with culturally different people, and the

respondent's own culture were obtained.

Two hundred and six nurses responded to the questionnaire. Overall

confidence ratings for the three ethnic groups were 3.08 for Blacks, 2.67 for

Hispanics, and 2.27 for Southeast Asians. Confidence levels for the three

culture groups was low. The respondent's own ethnicity played a major role

in developing cultural self-efficacy. Nurses had higher levels of cultural self-

efficacy when they shared ethnicity with their patients. For example, Black

nurses reported higher levels of confidence when caring for Black patients.

The same went for Latino nurses and for Southeast Asian nurses.

Furthermore, diversity of the patient population increased self-efficacy,

meaning more exposure to culturally different patients boosted confidence for

caring for those patients. Experience with culturally diverse patients helps

drive the knowledge and the desire to understand cultural diversity and to

enhance confidence.

Nurses at Army hospitals in the metropolitan Washington D.C. area were evaluated on their self-efficacy when caring for culturally diverse patients (Joseph, 2004). Another aspect of the study was determining if demographic characteristics have an effect on self perceived cultural self-efficacy when caring for culturally diverse patients. The demographic characteristics obtained for the study consist of age, gender, race/ethnicity, military/civilian employment status, level of education, length of Army service, experience, and inclusion of cultural diversity training in the nursing entry level education program.

The nurses at the Army hospitals reported low to moderate levels confidence when caring for culturally diverse patients (Joseph, 2004). The nurses' confidence in their transcultural skills for caring for African Americans was high and low for Asian Americans (Joseph, 2004), meaning they are more confident in caring for African American patients than Asian American patients. Furthermore, gender of the nurse was the only demographic characteristic to correlate positively with cultural self-efficacy. Male nurses were more confident in caring for culturally diverse patients than female nurses.

Self-perceived cultural self-efficacy was further studied in a group of nursing educators (Kardong-Edgren et al., 2005). Table Two describes the version of the CSES used to study the nursing educators. Nursing educators

had overall moderate levels of confidence in their knowledge of the cultures of the four groups evaluated. They also had moderate to high levels of confidence in their knowledge of cultural concepts and in their skills of cross cultural care across the groups. The moderate to high levels of confidence towards the four ethnic groups evaluated continues to provide an argument that experience may provide for better culturally congruent care.

Using the CSES, the self-efficacy of practicing nurses in caring for patients from specific cultures in New Mexico was investigated (Hagman, 2006). The population of New Mexico is comprised of five major ethnic groups: non-Hispanic White, Hispanic, Native American, African American, and Asian American. Overall CSES levels as well as the levels of the individual subscales of the CSES (cultural knowledge, cultural skill, and cultural patterns) were obtained. Specific demographic characteristics were also obtained to identify correlations with the CSES measurements. Specific demographic characteristics obtained include age, gender, years of experience, education level, practice setting, ethnicity, and whether the respondent studied Leininger's Theory of Culture Care Diversity and Universality.

Despite working with a diverse patient population in New Mexico, the 398 nurses reported only moderate levels of cultural self-efficacy with scores ranging from 2.47 to 4.67, depending on the subscale and ethnic group

evaluated. The highest CSES score was in knowledge of Middle Eastern and Arab family organizations and the lowest CSES score was in knowledge of Asian and Pacific Islander utilization of traditional folk health practices. Furthermore, demographic characteristics did not correlate with overall CSES scores. A past history of studying Leininger's theory did correlate with subscale CSES scores of understanding the cultural life patterns of white non Hispanic patients, Hispanic patients, African American patients, and Native American patients. Though no significant difference were reported between the groups using a two-way ANOVA, respondents who studied Leininger's theory reported higher cultural self-efficacy for all the ethnic groups in comparison to those who did not. Additionally, when using level of education and practice setting as independent variables, significant differences were reported for the Hispanic group in the level of education and the Hispanic group, the African American group, and the Native American group for practice setting. Generalizing the results of this study to other nursing populations may be difficult due the sample limitation of using only practicing nurses from New Mexico. Studying and comparing nurses from other locations would better summarize cultural self-efficacy levels.

Cultural Self-Efficacy of Nursing Students

Obtaining knowledge and understanding of different cultures may lead students to realize they are not prepared to provide culturally congruent care (Alpers & Zoucha, 1996). In a study of two groups of baccalaureate nursing students, one group of 32 senior nursing students who had cultural diversity content in a class and one group of 31 senior nursing students with no cultural diversity content exposure, demonstrated that students with minimal exposure to cultural diversity content realized they were not prepared to provide culturally congruent care. The investigators used the original CSES to measure cultural self-efficacy (Bernal & Froman, 1987; Bernal & Froman, 1993). Details of the original tool are described in Table Two. Descriptive statistics, t-tests, and chi squares showed that both groups were not significantly different in relation to age, ethnicity, and gender.

Based on the results of the CSES, students with no exposure to cultural diversity education in the classroom presented higher levels of confidence/competence when caring for patients who are Asian, African American, and Hispanic American. Specific differences in the groups based on t-tests were reported in being able to establish between inter- and intracultural diversity with the group not receiving cultural diversity training having significantly higher CSES scores. The group that did receive limited cultural diversity training reported significantly greater confidence and competence in understanding African American economic style of living and employment patterns and Hispanic beliefs towards modesty. No other factors

in the CSES produced significant differences, but the group who had no cultural diversity training reported higher levels of confidence when caring for Southeast Asian American patients whereas the group exposed to some cultural diversity content reported higher confidence levels when caring for African American and Hispanic patients. Based on the unusual findings between the two groups, it is believed that ignorance may play a role in how some students perceive their own cultural self efficacy and competence (Alpers & Zoucha, 1996). Students exposed to different topics of cultural diversity realize that they may not be ready to provide culturally congruent care and only experience with culturally different patients will they obtain the skills to provide appropriate care.

The confidence of baccalaureate nursing students in caring for different ethnic groups was further measured using the CSES (Kulwicki & Bolonik, 1996). The investigators in this study modified the original CSES to include assessing knowledge of cultural patterns of Middle Eastern and Arabic patients, Pacific Islander patients, and Native American Patients. The modified tool is described in Table Two. Seventy one graduating baccalaureate nursing students volunteered to take the CSES. There was no indication regarding how much cultural diversity training they received in their education program.

The graduating nursing students reported little or no confidence in caring for the five ethnic groups that were evaluated in the CSES. When analyzing mean scores between ethnic groups, the only significant difference reported was in relation to cultural skill. There was a significance difference between mean scores of the five ethnic groups evaluated and cultural skills. Ethnic differences in relation to the other two subscales of the CSES and the overall CSES were not reported. From this research study, it may be ascertained that graduating nursing students are not confident in their abilities to provide care to culturally different patients (Kulwicki & Bolonik, 1996). Further experience with different cultures in their future clinical experiences as practitioners may facilitate in improving their confidence levels.

Even as recently as 2008, studies are continuously investigating the self-efficacy levels of nursing students to determine if their level of preparation is adequate for taking care of culturally different patients. The self-perceived confidence levels of 43 graduating nursing students were measured using the original version of the CSES (Liu, Mao, & Barnes-Willis, 2008). The students were exposed to a diverse population in their clinical studies and had cultural diversity content delivered in their didactic component of their nursing program. This research study had two main purposes: to measure self perceived confidence levels and to identify demographic characteristics that may associate or relate to higher levels of cultural confidence.

An ANOVA was used to measure differences in confidence levels between the three cultural vignettes (African American, Hispanic, and Asian American) evaluated in the CSES. Independent t-tests were used to identify differences between the CSES measurements and demographic characteristics. Demographic characterstics collected for this study include gender, ethnicity, primary language, educational level, work experience with an interpreter, and travel experience. Overall self-efficacy ratings revealed that the students are moderately confident in their abilities to provide care to culturally different patients. The sample group also shows no significant difference in their confidence levels when caring for the three culture groups. Male student nurses provided a signifcantly higher level of cultural self-efficacy in relation to their female counterparts. No other demographic characteristics provided differences in cultural self-efficacy levels.

Conclusion

The research studies in practicing nurses, nursing faculty, and nursing students concentrated on understanding the cultural self-efficacy of the nursing profession and identifying demographics that enhance cultural self-efficacy. Identifying demographics can help pinpoint ways to help nurses better develop a strong sense of cultural self-efficacy. The overall levels of cultural self-efficacy of practicing nurses and nursing faculty indicates that they are only moderately confident (Bernal & Froman, 1993; Hagman, 2006;

Joseph, 2004; Kardong-Edgren et al., 2005) which indicates a possible lack of readiness for the caring of culturally diverse patients. Furthermore, nursing students have expressed that they are not fully prepared to care for culturally diverse patients even with exposure to different cultures (Alpers & Zoucha, 1996; Kulwicki & Bolonik, 1996; Liu, Mao & Barnes-Willis, 2008).

From a demographic variable perspective, experience with culturally diverse patients and sharing ethnicity with a patient increases confidence (Bernal & Froman, 1993; Kardong-Edgren et al., 2005) but the amount of experience did not drive the levels of confidence (Bernal & Froman, 1987; Hagman, 2006; Joseph, 2004). Implementing primary education and continuing education that includes direct hands-on experience with different cultures may help develop the strong sense of cultural self-efficacy needed to provide culturally congruent care.

CHAPTER III

METHODS

Research Design

A non-experimental, cross-sectional, exploratory research design was used to study the cultural self-efficacy of respiratory therapists and nurses. The aim of this study was to determine baseline cultural self-efficacy levels of a sample of respiratory therapists and nurses in the state of New Jersey. A second aim was to determine how the levels of cultural self-efficacy of respiratory therapists compare to the nursing profession. The study also identified demographic characteristics that associate or predict cultural self-efficacy in respiratory therapists and nurses.

Subjects

The subjects consisted of a random sample of licensed respiratory therapists and licensed, registered professional nurses in the state of New Jersey.

Demographics

Demographic characteristics included in the research study were identified in previous literature reporting on practicing nurses, nursing faculty, and nursing students. Table Three lists the demographic variables obtained

in this research study. The purpose for obtaining the demographics was to understand the sample populations and to identify if any of the demographic characteristics associate or predict cultural self-efficacy (Hagman, 2006; Kardong-Edgren, 2007; Liu, Mao, & Barnes-Willis, 2008; Schim, Doorenbos, & Borse, 2005; Starr & Wallace, 2009).

Table 3.

Demographic Variables

Age	Health profession (nursing or RT)
Gender	Location of practice setting
Race/ethnicity	Years of Experience
How long lived in United States	Ethnic group you have most experience with
Highest level of education attained	
Highest level of healthcare degree attained	Other languages spoken
	Worked or lived abroad? How long?
Primary practice setting	

Procedures

The names and addresses of licensed, registered professional nurses and licensed respiratory therapists were obtained from the respective New Jersey Licensing Boards. There are approximately 3,000 licensed respiratory therapists and 100,000 licensed, registered professional nurses in New Jersey. One thousand respiratory therapists and one thousand nurses were randomly selected and subsequently coded through the use of a computer program to be invited to participate in the study (Hagman, 2006). An envelope containing the solicitation/recruitment letter, the CSES survey tool with the demographic questionnaire, and a return envelope were sent to each respiratory therapist and nurse. The consent to participate in the research study, as indicated in the solicitation/recruitment letter, was implied with the returned, completed survey and questionnaire. Participant confidentiality was maintained through coding of the questionnaire and the resultant data. One month after the first mailing, a reminder letter to participate in the study was sent to each respiratory therapist and nurse. This action possibly helped increase the return rate of the surveys (Hagman, 2006).

Survey Instrument

The CSES measures the self-perceived cultural self-efficacy in caring for White, Hispanic, African American, Native American, and Asian patients. Details of the tool used in the research study are described in Table two. The CSES is divided into three sections according to statements based on (1)

knowledge of cultural concepts and cultural sensitivity, (2) knowledge of cultural patterns of the five ethnic groups evaluated, and (3) skills in performing transcultural care. The CSES measures self-efficacy using a 5 point Likert scale. A range of scores of 1 to 5 is obtained defining level of self efficacy. As described earlier, a score of 1 yields very little confidence and a score of 5 yields quite a lot of confidence with a score of 3 indicating a neutral or noncommittal response (Bernal and Froman, 1987)

Data Analysis

Data analysis was conducted using means and standard deviations of the overall CSES levels, as well as for the individual subscales including broken down by ethnic group evaluated in the CSES and for health profession (nursing versus respiratory therapy). An independent samples t-test ($p=0.05$) was used to compare the differences between the nursing profession and the respiratory therapy profession for the overall CSES, levels as well as for each subscale including broken down by each ethnic group evaluated.

Based on the level of data of the demographic characteristic (ratio/interval versus ordinal) the Pearson r correlation coefficient or the Spearman rho correlation coefficient was used to determine relationships between demographic characteristics and cultural self-efficacy measured using the CSES for both respiratory therapists and nurses.

The Cronbach's Alpha reliability coefficient was determined for the overall survey tool (Hagman, 2006).

SPSS 17.0 and PASW 18.0 (Chicago, IL) were used to perform the statistical analyses.

CHAPTER IV

RESULTS

Demographics

Two thousand surveys were distributed in the mail. One thousand were sent to licensed respiratory therapists and one thousand were sent to licensed, registered professional nurses. Four hundred and eighty three of the surveys were returned for an overall response rate of 22.4%. Other studies had response rates ranging from 18% to 84% (Bernal & Froman, 1993; Capell, Dean, & Veenstra, 2008; Hagman, 2006; Joseph, 2004; Kardong-Edgren, 2007; Liu, Mao, & Barnes-Willis, 2008; Sealy, Burnett, & Johnson, 2006). Though the 22.4% is lower than other studies, most of the other studies were a sample of convenience versus this study comprising of random sampling. Four hundred and fifty of the surveys were usable. The other thirty three surveys were not usable due to whole sections of the measurement tool missing. If individual questions within the tool were missing, the surveys were still used. The returned surveys were categorized down by profession as follows: 182 respiratory therapists, 258 nurses, and 10 were both respiratory therapists and nurses.

The respiratory therapy sample and the nursing sample were relatively similar when evaluating the demographic characteristics. Table four

summarizes the demographics of the respiratory therapists and the nurses. A

majority of the nurses (93%) and respiratory therapists (61%) were female.

The mean age for the respiratory therapists was 48 years with a range of 23

to 66 years of age. The mean age for the nurses was 50 with a range of 22 to

84 years of age. Respiratory therapists had an average of 19.5 years of

experience with a range of 1 to 40 years. Nurses had 23 years of experience

with a range of 0 to 62 years of experience. A majority of the respondents for

both respiratory therapists (73%) and nurses (81%) were white with Asian

being the next most common ethnicity at 9% in respiratory therapists and 8%

in nursing.

The most common highest health professional degree earned for

respiratory therapists was an associate's degree (64%) and a bachelor's

degree for nurses (43%). Respiratory therapy programs are mainly

associate's degree programs whereas nursing programs range from

certificate programs to doctoral programs. The percentages described and

summarized in Table Four coincide with the type of health profession

education available in these professions. A bachelor's degree was the

highest degree earned for both respiratory therapists and nurses at 36% and

38%, respectively.

A majority of the respiratory therapists (99%) and nurses (93%) were

trained in the United States, never lived or worked abroad (respiratory

therapists, 84%; nurses, 82%), and do not speak a second language (respiratory therapists, 81%; nurses, 82.2%). Of the respiratory therapists and nurses who do speak a second language, the two most common languages spoken were Spanish and Tagalog (a dialect of the Philipino language).

Table 4.

Demographic Characteristics of Respiratory Therapists and Nurses

Demographics	Nurse (n=258)	Respiratory Therapist (n=182)
Age, Mean	49.7	47.6
Gender, Frequencies (%)		
Female	241 (93.4%)	111 (61.0%)
Male	14 (5.4%)	68 (37.4%)
Years of Experience, Mean	22.77	19.54
Race/Ethnicity, Frequencies (%)		
Hispanic	5 (1.9%)	10 (5.5%)
African American	15 (5.8%)	13 (7.1%)
Native American	1 (0.4%)	2 (1.1%)
Asian	20 (7.8%)	16 (8.8%)

Middle Easterner/Arabic	0 (0%)	0 (0%)
White	209 (81.0%)	132 (72.5%)
Other	7 (2.7%)	4 (2.2%)

Highest Health Profession Degree Earned, Frequencies

(%)	37 (14.3%)	14 (7.7%)
Diploma	54 (20.9%)	117 (64.3%)
AS	111 (43.0%)	35 (19.2%)
BS	45 (17.4%)	8 (4.4%)
MS	3 (1.2%)	1 (0.5%)
PhD/MD	4 (1.6%)	5 (2.7%)
Other		

Highest Degree Earned, Frequencies (%)

Diploma	22 (8.5%)	8 (4.4%)
AS	40 (15.5%)	65 (35.7%)

BS	99 (38.4%)	66 (36.3%)
MS	46 (17.8%)	17 (9.3%)
PhD	2 (0.8%)	1 (0.5%)
MD/Dental	1 (0.4%)	0 (0%)
Other	2 (0.8%)	2 (1.1%)
Training in the United States, Frequencies (%)		
Yes	240 (93.0%)	181 (99.5%)
No	18 (7.0%)	1 (0.5%)
Lived or Worked Abroad, Frequencies (%)		
Yes	45 (17.4%)	30 (16.5%)
No	212 (82.2%)	152 (83.5%)
Speaks a Second Language, Frequencies (%)		
Yes	43 (16.7%)	33 (18.1%)
No	212 (82.2%)	147 (80.8%)

The internal consistency for the CSES was .97 indicating a high level of reliability.

Overall Perceived Cultural Self-Efficacy of Respiratory Therapists

The mean and standard deviation for the overall levels of perceived cultural self-efficacy using the CSES was 3.4 (.6). Respiratory therapists scored at the midpoint between confident and moderately confident.

Perceived Cultural Self-Efficacy of Respiratory Therapists *Based on the CSES Subscales*

The mean cultural self-efficacy scores for the CSES subscales in the respiratory therapists ranged from 3.3 to 3.6. The levels for each of the CSES subscales were identified at confident to moderately confident. Table Five displays the mean and standard deviations of the subscales of the CSES for the respiratory therapists. Table Six displays the mean and standard deviations of each ethnic group studied in the cultural patterns section of the CSES. The levels were identified as low confidence (2.6 for Native American patients) to midway between moderate and high confidence (4.2 for White patients).

Table 5.

Mean and Standard Deviations of Subscales of CSES for Respiratory

Therapists

N	Cultural Concepts	Cultural Skills	Cultural Patterns
182	3.6 (.8)	3.4 (.8)	3.3 (.6)

Mean (Standard deviation)

Table 6.

Mean and Standard Deviations of Cultural Patterns Broken Down

by Ethnic Group Studied for Respiratory Therapists

N	White	Hispanic	African American	Native American	Asian
182	4.2 (.7)	3.5 (.9)	3.4 (.9)	2.6 (1.0)	3.1 (1.0)

Mean (Standard deviation)

Perceived Cultural Self-Efficacy of Respiratory Therapists and Nurses

The cultural self-efficacy of respiratory therapists and nurses were 3.4.

The overall CSES levels are identified as confident to moderately confident.

Figure one displays the mean and standard deviations of the overall CSES

levels of the respiratory therapists and nurses. An independent t-test

revealed no significant differences between respiratory therapists and nurses in the overall CSES levels (Table Seven).
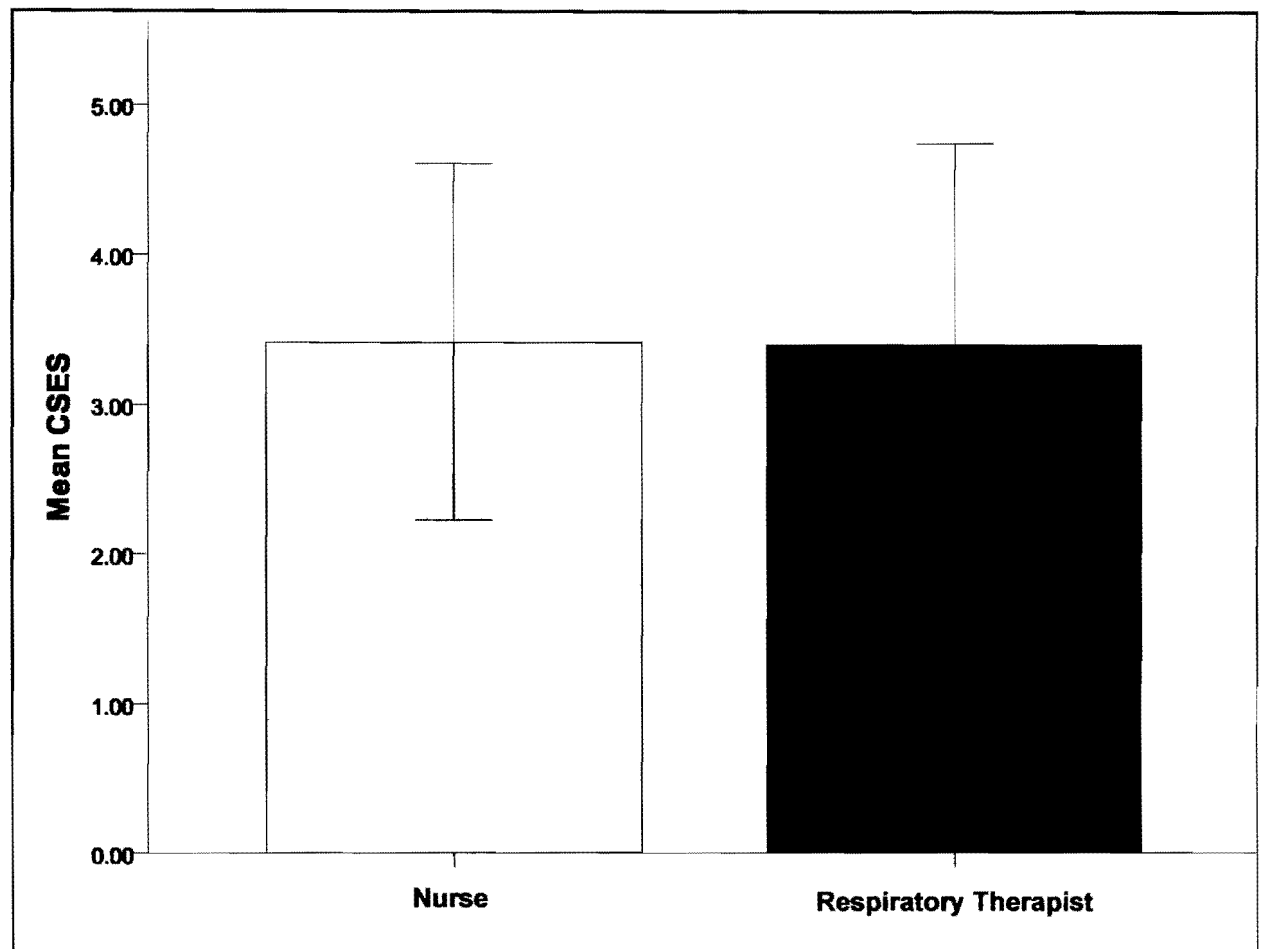

Figure 1. Means (±SD) for Overall Cultural Self-Efficacy Scale Levels for Respiratory Therapists and Nurses.

Table 7.

Independent T-test of Overall CSES Levels Between Respiratory

Therapists and Nurses

Profession	Mean	T	p
Respiratory Therapist	3.4 (.6)	.223	.824
Nurse	3.4 (.5)		

Mean (standard deviation)

      Unlike in the overall CSES levels, significant differences were found

between respiratory therapists and nurses when comparing the two samples

at the subscale level (Table Eight and Table Nine). Figure Two and Figure

Three illustrate those findings. Respiratory therapists and nurses both

perceive confidence to moderate confidence in the individual subscales.

Furthermore, the perceived level of confidence ranged from low to high

depending on which ethnic group was being evaluated. The two samples

perceived high cultural self-efficacy when caring for white patients, but low

cultural self-efficacy when caring for Native American patients. The levels of

perceived cultural self-efficacy were in the confidence to moderate confidence

range for knowledge of cultural patterns of Hispanic, African American, and

Asian patients. Respiratory therapists and nurses had significant differences

in the cultural skills subscale ($t=4.361$, $p< 0.01$) (Figure Two) as well as in the subscales regarding knowledge of cultural patterns of white patients ($t=2.131$, $p< 0.05$*) and Native American patients ($t=-4.126$, $p< 0.01$**) (figure Three). Even though both professions scored in the moderate range for cultural skills, nurses scored significantly higher indicating greater confidence when performing skills aligned with providing culturally congruent care. Furthermore, nurses have a better understanding of White cultural patterns; where as respiratory therapists have a better understanding of Native American cultural patterns.

Table 8.

Mean and Standard Deviations of Subscales of CSES

of Respiratory Therapists and Nurses

Profession	N	Cultural Concepts	Cultural Skills	Cultural Patterns
Respiratory Therapist	182	3.6 (.9)	3.4 (.8)**	3.3 (.6)
Nurse	258	3.6 (.9)	3.7 (.7)**	3.4 (.6)

**$p=.000$
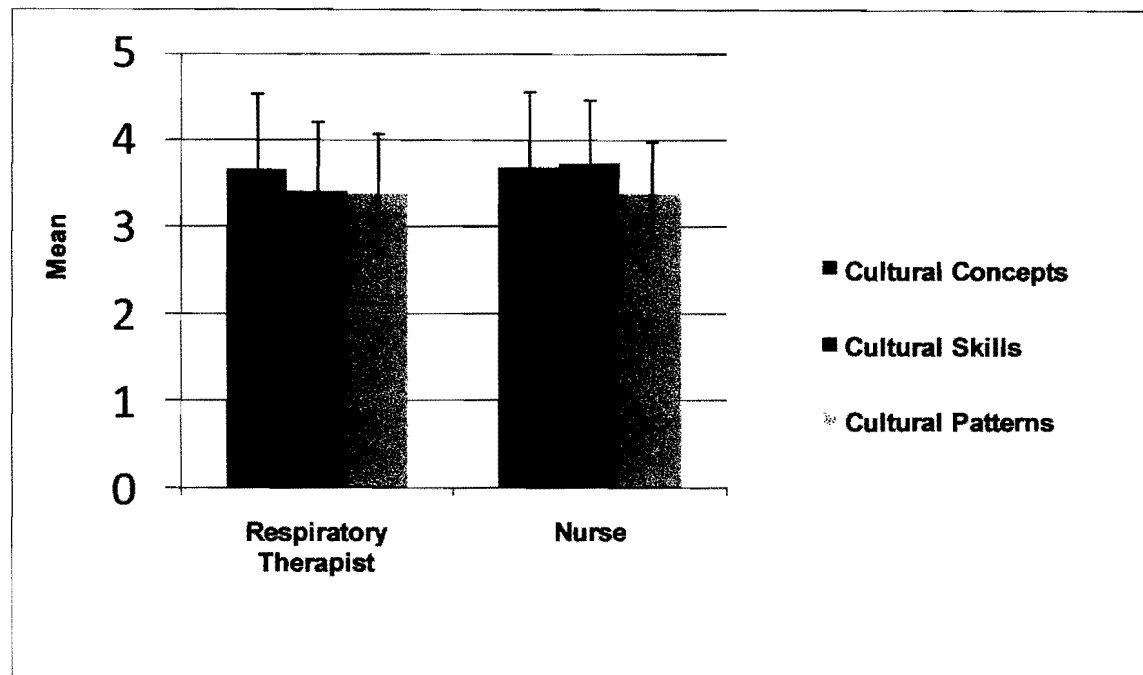
Figure 2. Means and Standard Deviations of the Cultural Concepts, Cultural

Skills, and Cultural Patterns Subscales for Respiratory Therapists and

Nurses.

Table 9.

Mean and Standard Deviations of Cultural Patterns Broken Down By Ethnic Group

Studied

Profession	N	White	Hispanic	African American	Native American	Asian
Respiratory Therapist	182	4.2 (.7)*	3.5(.9)	3.7 (.9)	2.6 (1.2)**	3.1 (1.1)
Nurse	258	4.4 (.7)*	3.6 (.8)	3.6 (.9)	2.2 (1.0)**	3.1 (1.0)

*p= .034; **p=.000
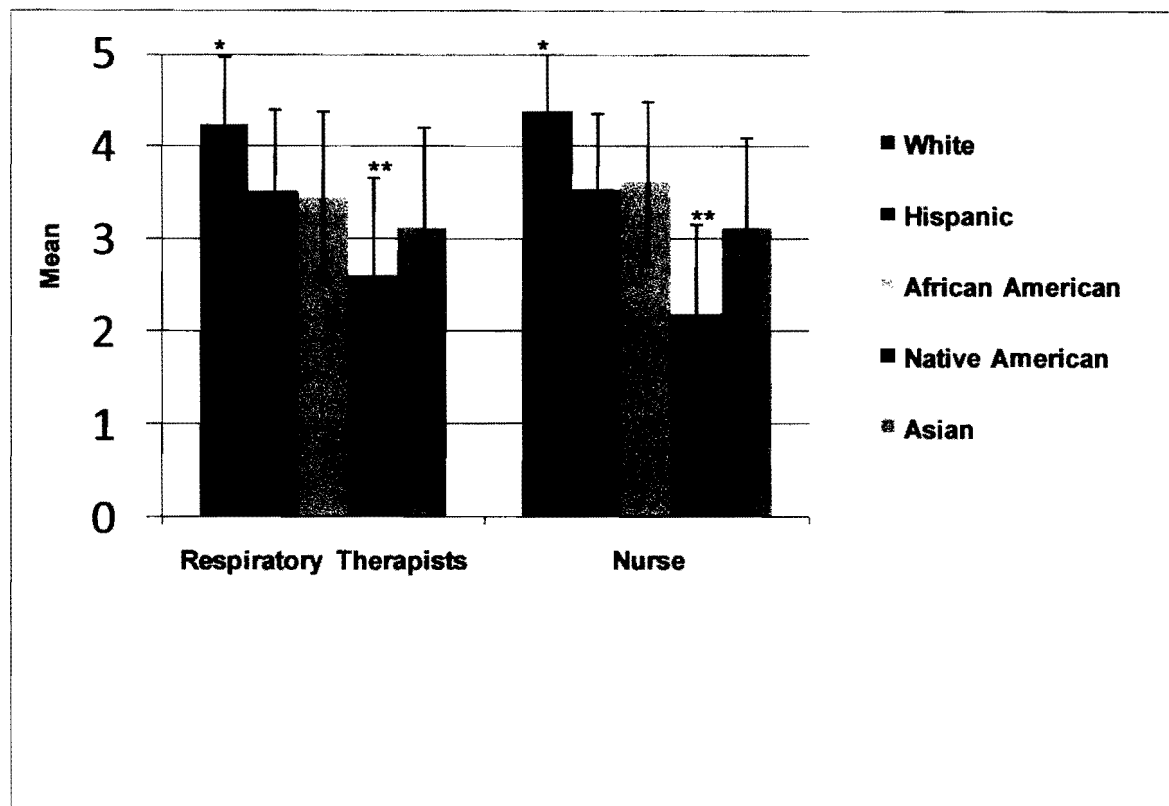
Figure 3. Means and Standard Deviations of Cultural Patterns Broken Down by Ethnic Group.

Associations between Demographics and Cultural Self-Efficacy in Respiratory Therapists and Nurses

Tables Ten and Eleven summarize the correlation analyses of various demographic characteristics in relation to overall CSES levels. No demographic characteristics significantly correlated with the overall CSES levels in respiratory therapists. Age, highest health professional degree earned, highest general degree earned, and speaking a second language all correlated significantly in nursing with the overall CSES levels. Though the correlations were significantly different, the levels were too weak to truly

consider if demographics have an effect on cultural self-efficacy in the nursing sample. The lack of an association between demographic variables and cultural self-efficacy was similar to earlier studies that found that demographic variables were not a predictor of cultural self-efficacy (Bernal & Froman, 1987; Bernal & Froman, 1993; Hagman, 2006) which were not consistent with other previous studies that did find associations with demographic variables, namely gender (Joseph, 2004; Liu, Mao & Barnes-Willis, 2008).

Table 10.

Correlations Using Pearson r Correlation Coefficient

Demographic	Respiratory Therapist	Nurse
Age	-.077	-.130*
Years of Experience	-.043	-.074
Years in the United States	-.064	-.075
Years Abroad	.049	-.092

*denotes significance at the 0.05 level (two tailed)

Table 11.

Correlations Using Spearman *rho* Correlation Coefficient

Demographic	Respiratory Therapist	Nurse
Gender	.025	-.009
Race/Ethnicity	-.064	-.073
Highest Healthcare Degree	-.021	.129*
Highest Degree	.037	.160*
Training in the US	-.031	-.059
Primary Practice Setting	-.003	.065
Location of Setting	.065	-.056
Lived or Worked Abroad	-.011	-.023
Second Language	-.097	-.140*

*denotes significance at the 0.05 level (two tailed)

CHAPTER V

DISCUSSION

Overall, the results of this study provide evidence supporting that respiratory therapists and nurses have moderate levels of cultural confidence. Both professions scored 3.4 on the overall Cultural Self-Efficacy Scale which falls in the neutral to moderate range. Nurses, compared with respiratory therapists, scored higher in their knowledge of cultural skills. For example, nurses were more confident in their use of an interpreter, taking a life history, performing a 24 hour diet review, entering an ethnically distinct community, providing patient advocacy, and performing participant observation. However, respiratory therapists and nurses scored equal in their knowledge of cultural concepts and cultural patterns. The results also demonstrated that both respiratory therapists and nurses scored highest (3.6 for both respiratory therapists and nurses) on their knowledge of cultural concepts suggesting that they had the most confidence in understanding basic knowledge of cultural concepts including definitions about culture, ethnicity, ethnocentrism, and cultural diversity. In contrast, both healthcare professions scored the lowest (3.3 for both respiratory therapists and nurses) on their knowledge of cultural patterns, for example knowledge with regards to family organization,

nutritional patterns, employment patterns, migration patterns, and others to name a few.

The respiratory therapists and nurses were most confident in providing care for White patients (4.2 and 4.3 for respiratory therapists and nurses, respectively) and least confident in providing care of Native American patients (2.6 and 2.1 for respiratory therapists and nurses, respectively). This is most likely due to the demographic makeup of the nursing and respiratory therapy samples, as well as the ethnic demographic subpopulations residing in the state of New Jersey. A majority of the respiratory therapists (n=132; 72%) and the nurses (n=209; 81%) in this study were White which reflects the population of the state of NJ (5,399,954; 62%) (U.S. Census Bureau, 2008); and several studies have shown that health care professionals are most comfortable taking care of patients of similar races and ethnicities (Hagman, 2006; Joseph, 2004; Kardong-Edgren, et al., 2005).

The second highest score for the cultural patterns subscale was for the Hispanic ethnic group (3.5 for respiratory therapists and nurses). It is understandable that health care professionals in New Jersey are comfortable in caring for Hispanic patients since the Hispanic ethnic group comprises the second highest population (16%) in NJ (U.S. Census Bureau, 2008). Currently, the Hispanic minority group is the fastest growing ethnic group in the United States (Liu, Mao, & Barnes-Willis, 2008). As experience with

Hispanic patients continues and grows, changes in the confidence levels of caring for Hispanic patients will most likely increase. It is important that healthcare professionals develop confidence when caring for Hispanic patients since this group is projected to be the majority group in the United States in the next few decades.

This is the first study measuring the level of cultural self-efficacy of respiratory therapists and the first to compare cultural self-efficacy of respiratory therapists and nurses. Multiple studies have assessed the cultural self-efficacy of practicing nurses and nursing educators (Bernal & Froman, 1987; Bernal & Froman, 1993; Hagman, 2006; Joseph, 2004; Kardong-Edgren, et al., 2005). Similar to this research, previous studies have reported moderate levels of cultural self-efficacy (average range=2.6-4.06). Furthermore, it has been found that graduating nursing students perceived moderate levels of cultural self-efficacy when caring for culturally diverse patients during their clinical portions of their programs (Alpers & Zoucha, 1996; Kulwicki & Bolonik, 1996; Liu, Mao, & Barnes-Willis, 2008). The students may perceive themselves as ready to care for ethnically different patients even though they are just starting in their careers. Once the students have some experience with different ethnic groups their realization may be that they are not as confident as they once perceived themselves to be (Alpers & Zoucha, 1996). Other healthcare professions, though the professions studied were not reported, were also assessed as having

moderate levels of cultural self-efficacy (Jones, Cason, & Bond, 2004). It appears that the levels of cultural self-efficacy, as reported in the literature, have consistently stayed at moderate levels for the last 20 years across a number of healthcare disciplines. A lack of or minimal cultural diversity education and minimal experience with different ethnic groups may keep the self-efficacy levels at moderate. Furthermore, healthcare professionals may believe that clinical skills are more of a priority to teach and learn, over the importance of understanding cultural diversity (Hobgood, Sawning, Bowen, & Savage, 2006; Kulwicki & Bolonik, 1996).

Respiratory therapists and nurses diverged in the cultural skills subscale, as nurses scored higher (average = 3.7) than respiratory therapists (average = 3.4). This divergence suggests that nurses are more confident in their cultural skills. Nurses spend more time with patients allowing them to build cultural skills that include using an interpreter, taking a 24 hour diet review, performing participant observation, providing patient advocacy, and taking a life history. More interaction with different ethnic groups increases experience with those ethnic groups (Bernal de Pheils & Saul, 2009; Caffrey, Neander, Markle, & Stewart, 2005). This coincides with a construct in Bandura's Theory of Self-Efficacy, specifically performance accomplishment. As a person continuously performs a task, they develop task mastery and increased confidence when performing that task (Bandura, 1977). As nurses spend more time with diverse patients and continue to develop their cultural

skills, their cultural self-efficacy will continue to build and strengthen. In addition, nurses also tend to use more of the available cultural diversity resources, which may explain the difference in confidence in the cultural skills subscale despite almost similar scopes of practice between respiratory therapists and nurses. With continued exposure to different ethnic groups and using services to aid in communication with these patients, nurses are more confident in their skills when caring for different ethnic groups.

Experience, and not education, may be a guiding factor in increasing confidence in caring for diverse patient populations (Bernal de Pheils & Saul, 2009). Respiratory therapists receive no cultural diversity training at the preparatory level, either in the classroom or in the clinical setting. It is not a requirement in the state of New Jersey to teach about cultural diversity in respiratory therapy programs (Care, 2002), whereas nurses do receive education in the cultural implications of healthcare (Nursing, Nursing Regulations, 2005). Despite the differences in didactic education on cultural diversity, the two professions studied scored similarly on the CSES, which was unexpected. One can speculate that experience (19 years for respiratory therapists, 22 years for nurses) may allow for the incremental development of overall cultural confidence and not necessarily attributed to primary entry-level education. This coincides with vicarious experience, a second construct in Bandura's Theory of Self-Efficacy (Bandura, 1977). Though vicarious experience does not contribute as much information as personal

accomplishment to developing cultural self-efficacy, experience with different ethnic groups allows one to be more approachable and to develop trust and to allow to further enhance their cultural skills.

Another explanation is that healthcare professionals may never attain a high level of confidence. Student nurses that received cultural diversity training and direct experience with patients from different ethnic groups realized they are not completely confident and prepared to care for culturally diverse populations (Alpers & Zoucha, 1996). Understanding and caring for culturally diverse patients is considered a process not an endpoint (Campinha-Bacote, 2002; Hagman, 2006). and being in the moderate range continues with the process of learning. Culturally sensitive healthcare professionals may believe that there is always something new to learn about different cultures.

Based on this research study, respiratory therapists and nurses are similar in respect to having basic knowledge of cultural concepts and cultural patterns, but respiratory therapists are lacking in their skills to provide culturally congruent care. Futhermore, understanding cultural patterns was in the low-end of the moderate range (mean=3.3) indicating general knowledge of different cultures is still a necessity to enhance cultural self-efficacy for both professions. This research provided a baseline level of cultural self-efficacy of respiratory therapists in New Jersey and identified an area to enhance

learning and skills to aid respiratory therapists in developing a strong sense of cultural self-efficacy and to become more culturally sensitive healthcare professionals.

CHAPTER VI

CONCLUSIONS AND LIMITATIONS

In conclusion, nurses have better cultural skills than respiratory therapists which is most likely due to the amount of time nurses spend with different types of patients in comparison to respiratory therapists. Nurses are given the opportunity to use different cultural skills because of the increased time spent with their patients. Respiratory therapists receive no training in cultural diversity, whereas nurses do, yet both professions scored similarly on the cultural concepts and cultural patterns subscales indicating that didactic education seemed to have no affect on knowledge of cultural concepts and cultural patterns. Contrary to what is believed and implemented, education to increase cultural self-efficacy may not be the solution based on the findings of the current research. This further argues that hands-on experience drives cultural self-efficacy of health professionals, which again, aligns with Bandura's Theory of Self-Efficacy, that continued use of specific tasks will increase confidence to perform those tasks. Learning and understanding cultures and skills to allow for better interactions with different ethnic groups should be a focus in respiratory therapy education. Expanded opportunities for hands-on clinical experience will promote increased cultural confidence,

and consequently improve healthcare for a culturally diverse patient population.

With the introduction of cultural diversity education the level of understanding of cross cultural care has increased in the healthcare disciplines studied including nurses, social workers, nursing assistants, and pharmacy students (Brathwaite, 2005; Brathwaite & Majumdar, 2006; Schim, Doorebos, & Borse, 2006; Poirier, Butler, Devraj, Gupchup, Santanello, & Lynch, 2009; Smith, 2001). Understanding of different cultures and the ability to provide culturally congruent care inceased significantly after an educational intervention (Brathwaite, 2005; Brathwaite & Majumdar, 2006; Schim, Doorebos, & Borse, 2006; Smith, 2001). Moderate levels increased to high levels after the implementation of cultural diversity training. Furthermore, actual immersion within cultures further increased an understanding of cross cultural care above the use of education alone (Caffrey, Neander, Markle, & Stewart, 2005).

Despite the type of education, whether it be primary education at the preparatory student level, continuing education for the practicing clinician, or immersion within cultures, the level of perceived ability to care for culturally diverse patients increased. Further research for respiratory therapists may consist of evaluating a cultural diversity training program that contains a clinical component centered on developing cultural skills. This type of

research can determine how well respiratory therapists perform cultural skills and how they retain and utilize their new learned skills.

A limitation of this study is the absence of questioning if the respiratory therapists and nurses received any level of cultural diversity training. Prior cultural diversity training could have possibly identified a demographic characteristic that could have related to higher levels of overall cultural self-efficacy. However, previous literature has supported that education, didactic and continuing, and immersion experiences improve levels of confidence.

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APPENDICES

Appendix A: Definition of Terms

Self-efficacy: The level of confidence that may dictate behavior in various

situations and how long that behavior is sustained.

Appendix B: Cultural Self-Efficacy Scale

Cultural Self-Efficacy Scale

Directions: Please indicate how much confidence you have about doing each of the behaviors listed below. Your responses are **completely confidential.** Please circle your response.

Confidence in my cultural concepts
and clinical skills

	Little Confidence				Quite a lot of Confidence
Distinguishing between inter and intra cultural diversity	1	2	3	4	5
Distinguishing between ethnocentrism and discrimination	1	2	3	4	5
Distinguishing between ethnicity and culture	1	2	3	4	5
Using an interpreter	1	2	3	4	5
Entering an ethnically distinct community	1	2	3	4	5
Advocacy	1	2	3	4	5
Performing a 24 hour diet review	1	2	3	4	5
Participant observation	1	2	3	4	5
Taking a life history	1	2	3	4	5

*Ethnocentrism: The emotional attitude that one's own ethnic group, nation, or culture is superior to all others.

*Ethnicity: Groups whose members share a common social and cultural heritage passed on to each successive generation

*Culture: Values, beliefs, norms, and practices of a particular group that are learned, shared, and guide thinking, decisions, and action in a patterned way.

Indicate five (5) confidence ratings for each cultural pattern: one for confidence with (A) the White, non-Hispanic Group, (B) a separate rating for Hispanic, (C) a third for African Americans, (D) a fourth for Native Americans, (E) a final for Asians. Please circle your responses.

1= Little Confidence and 5= Quite a lot of confidence

	White, non-Hispanic	Hispanic	African American	Native American	Asians
Family organization	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Role differentiation	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Child care practices	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Utilization of health systems	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Types of social support	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Utilization of traditional folk health practices	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Nutritional patterns	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Economic style of living	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Migration patterns	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Class structure	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Employment patterns	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Patterns of disease/illness	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Beliefs about health and illness	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Beliefs toward respect and authority	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Beliefs towards modesty	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Religious beliefs and patterns	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Appendix C: Demographic Questionnaire

Demographic Questionnaire

Please complete and return with completed CSES survey tool.

1. Age: _____

2. Gender: _____Male _____Female

3. Health Profession:

4. Number of years of experience: _____Years

_____ Nurse

_____ Respiratory therapist

5. Highest Health Professional Degree Earned:

_____Diploma degree

_____Associate's degree

_____Bachelor's degree

_____Master's degree

_____Doctorate degree

_____Medical degree/Dental degree

_____Other

6. Highest Degree Earned:

_____Diploma degree

_____Associate's degree

_____Bachelor's degree

_____Master's degree

_____Doctorate degree

_____Medical degree/Dental degree

_____Other

7. Did you receive your health profession training in the United States? _____yes _____no

8. Please state where you received your training?_____

8a. What year did you received your training?_____

9. Race/Ethnicity:

_____Hispanic

_____ African American

_____Native American

_____Asian

_____Middle Easterner/Arabic

_____White, non-Hispanic

_____Other_____(specify)

10. Primary Practice Setting:

_____Hospital

_____Extended care/Nursing Home

_____Community Health/Hospice

_____Education

_____Administration/Management

_____Other

11. Location of Setting:

_____Northern New Jersey

_____Central New Jersey

_____Southern New Jersey

13. Group you have most experience working with (check all that apply):

_____Hispanic

_____African American

_____Native American

_____Asian

_____Middle Easterner/Arabic

_____White, non-Hispanic

_____Other_____

14. How long have you lived in the United States?

_____Years

15. Have you ever lived or worked abroad?

_____Yes   _____No

15a. If the answer is yes, how long? _____Years

16. Speak another language at home besides English:

_____yes   _____no

16. If yes, what language? _____

Appendix D: Solicitation/Recruitment Letter

August 1, 2009

Dear Research Volunteer:

As a doctoral student in the Graduate Program in Health Sciences at Seton Hall University, I am conducting a dissertation research study on measuring the level of cultural self-efficacy or confidence of respiratory therapists and nurses.

With this research, I hope to understand the levels of cultural self-efficacy of respiratory therapists and nurses so the professions can better educate future students to care for ethnically diverse patients.

The survey tool and questionnaire will take 10 minutes to complete.

Along with this letter, you will find a cultural self-efficacy survey tool, a demographic questionnaire, and a self-addressed, stamped return envelope. After completion of the survey tool and the demographic questionnaire, the items can be mailed in the self-addressed stamped return envelope. The survey tool used in this study will be the Cultural Self-Efficacy Scale (CSES). The CSES survey tool is a self-assessment survey used to determine one's confidence in caring for patients from different cultures. It is a 25-item survey using a 5 point likert scale.

Participation in this research is completely voluntary and anonymous.

Identifiers, such as name and date of birth will not be solicited or used for this research. The contents in the envelope will be coded with a number. That number will be used for organizing the data obtained, not for identifying research subjects.

To maintain confidentiality, all data obtained will be placed into an excel spreadsheet using a password protected computer. The data will then be transferred to a designated USB memory key that will be stored in a locked office.

Please read through the information and return the completed survey and demographic questionnaire by mail before October 1, 2009.

Thank you for your participation in this research project.

(973) 313-6314
Seton Hall University
Institutional Review Board

Sincerely,

Linda B Birnbaum

JUN 24 2009

Linda Birnbaum

Approval Date

Doctoral Student, Graduate Program in Health Sciences, Seton Hall University

JUN 24 2010

Expiration Date

Appendix E: IRB Approval Letter

June 24, 2009

Linda Birnbaum
9 York Drive
Helmetta, NJ 08828

Dear Ms Birnbaum,

The Seton Hall University Institutional Review Board has reviewed your research proposal entitled "The Perceived Cultural Self-Efficacy of Respiratory Therapists and Nurses: A Comparative Study" and has approved it as submitted under exempt status.

Enclosed for your records is the signed Request for Approval form and the stamped Letter of Solicitation. Please only make copies of this stamped form.

Please note that, where applicable, subjects must sign and must be given a copy of the Seton Hall University current stamped Letter of Solicitation or Consent Form before the subjects' participation. All data, as well as the investigator's copies of the signed Consent Forms, must be retained by the principal investigator for a period of at least three years following the termination of the project.

Should you wish to make changes to the IRB approved procedures, the following materials must be submitted for IRB review and be approved by the IRB prior to being instituted:

- Description of proposed revisions;
- *If applicable*, any new or revised materials, such as recruitment fliers, letters to subjects, or consent documents; and
- *If applicable*, updated letters of approval from cooperating institutions and IRBs.

At the present time, there is no need for further action on your part with the IRB.

In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final decision.

Sincerely,

Mary F. Ruzicka, Ph.D.
Professor
Director, Institutional Review Board

cc: Dr. Valerie Olson

Please review Seton Hall University IRB's Policies and Procedures on website (http://www.provost.shu.edu/IRB) for more information. Please note the following requirements:

Adverse Reactions: If any untoward incidents or adverse reactions should develop as a result of this study, you are required to immediately notify in writing the Seton Hall University IRB Director, your sponsor and any federal regulatory institutions which may oversee this research, such as the OHRP or the FDA. If the problem is serious, approval may be withdrawn pending further review by the IRB.

Amendments: If you wish to change **any** aspect of this study, please communicate your request in writing (with revised copies of the protocol and/or informed consent where applicable and the Amendment Form) to the IRB Director. The new procedures cannot be initiated until you receive IRB approval.

Completion of Study: Please notify Seton Hall University's IRB Director in writing as soon as the research has been completed, along with any results obtained.

Non-Compliance: Any issue of non-compliance to regulations will be reported to Seton Hall University's IRB Director, your sponsor and any federal regulatory institutions which may oversee this research, such as the OHRP or the FDA. If the problem is serious, approval may be withdrawn pending further review by the IRB.

Renewal: It is the principal investigator's responsibility to maintain IRB approval. A Continuing Review Form will be mailed to you prior to your initial approval anniversary date. **Note:** No research may be conducted (except to prevent immediate hazards to subjects), no data collected, nor any subjects enrolled after the expiration date.

Appendix F: Approval Letter to Use Cultural Self-Efficacy Scale
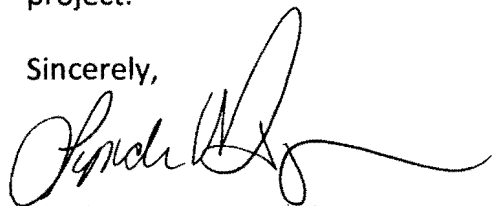
FLORIDA GULF COAST UNIVERSITY

April 21, 2009

Linda Birnbaum
9 York Drive
Helmetta, New Jersey

Dear Ms. Birnbaum,

Thank you for your recent correspondence regarding the Cultural Self Efficacy Scale (CSES) I used in my research. As you know, I adapted it from the original CSES with permission of the authors. I also had an expert panel review the changes I made. I am pleased that you feel it can be of use to you in your study. You have my permission to use my version of the CSES (sent under separate cover).

Please feel free to contact me if I can be of any assistance to you as you develop your research project.

Sincerely,

Lynda W. Hagman, PhD, RN, CCRN
Assistant Professor
Florida Gulf Coast University
College of Health Professions
School of Nursing