ASSESSING CULTURAL PROFICIENCY OF HEALTHCARE STUDENTS

A DISSERTATION

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Abstract

Cancer is devastating. Medical advances have resulted in the ability to diagnose cancer at its earliest stages and increase survivorship. Unfortunately, Black Americans possess a disproportionate cancer burden, with the highest mortality and lowest survival rate of any racial/ethnic group. Lung cancer is the most deadly, yet most treatable cancer.

The purpose of this research study was to determine the impact that the healthcare education program had on healthcare students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. In light of the data substantiating that health disparities stem from a combination of racial and ethnic inequities in the access of the healthcare system, healthcare professionals' low levels of cultural development, and the missed opportunities for promoting Black American tobacco cessation, the following questions were developed to frame the research:

Research Question #1: How will the level of healthcare students' cultural development change as a result of a healthcare education program? This question corresponds to the following hypotheses being tested in this study:

Methods to answer this question included evaluation of findings from 1) comparison of pre and post-program *Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals* – Revised (IAPCC-R) mean scores by degree of study and by gender; and 3) comparison of pre and post-program *Tobacco Cessation Assessment* (TCA) mean scores by degree of study and by gender.

Research Question #2: What is the relationship between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation? Methods utilized to answer this question included evaluation of findings from comparison of results of knowledge gains in TCA vs. IAPCC-R mean scores, including using the Pearson's correlation coefficient to determine existence and strength of the relationship.

Findings were 1) level of cultural development increased; 2) awareness of disparities regarding Black Americans and tobacco cessation increased; and 3) weak, but statistically significant relationship between higher level of cultural development and increased awareness of disparities regarding Black Americans and tobacco cessation. This study could serve as a model for future partnerships with researchers, faculty, and healthcare professionals, linking pre-profession preparation with continuing professional education.

Dedication

This day of completion was foreknown by those closest to me decades before I took my

first steps into these hallowed halls of academia. I dedicate this seminal work to my

immediate family who encouraged and believed in me:

To my Heavenly Father who began a good work in me and uplifted me to press on to the

mark of a higher calling on so many occasions.

To my parents, Reuben and Ellen, who set the bar very high, preparing me for higher

education immediately after I was born; for college was not a choice to be made, but an

inevitable destination, and who died so young from tobacco-related cancer and served as

the inspiration for my dissertation topic.

To my beloved husband, Raymond, who sacrificed so much that I might successfully

complete this journey; by believing, encouraging, supporting, helping, and loving me.

To my darling daughter, Lamaiya, whose ability to overcome adversities serves as a daily

inspiration that there is nothing to difficult to accomplish, who never let any barrier

prevent her from pursuing a college education and professional aspiration of

dancer/choreographer/educator.

To the rest of my immediate family who have encouraged and inspired me: my

grandparents, uncles, aunts, and cousins.

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The journey of a thousand miles began with that initial step, symbolizing a transition from an idea, a wish, and a hope to a possibility, a reality, a fact. This is not and was never intended to be a solo venture. And, as I traveled through my doctoral studies, there were many footprints along the way, in front of, behind, and beside me.

Michelle Glowacki-Dudka, Ph.D. (Dissertation Committee Chair) and I began our first day of class together (she as the professor and I as the student) at the university. She made a place in class for my integrating course content with professional practice; encouraged me on many levels; including entering the national discourse on adult education via conferences and presentations of my research.

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Miles S. Edwards, Ph.D., my dear friend and mentor, encouraged and counseled me at the beginning and throughout this journey via phone, email, and personal presence and, on occasion, traveled with me to the campus.

Marjorie Treff, Ph.D., my friend and colleague in the program, who carpooled with me and provided opportunities to critically reflect on academic, personal, and professionals issues, outside of the classroom.

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Chapter 1 Introduction

Overview

Black American patients, in Indiana and nationwide, have the highest lung cancer incidence and mortality rates of all racial and ethnic groups. Opportunities to reduce the lung cancer mortality rates are often missed in poor, disenfranchised, and Black American populations. These missed opportunities included providing physician-provided smoking cessation advice for Black American patients less often, compared to European American patients (Ferketich, Khan, & Wewers, 2006; Lopez-Quintero, Crum, & Neumark, 2006). This research study examined the impact of increasing healthcare students' awareness of ways in which healthcare professionals can increase the utilization of evidence-based tobacco cessation strategies in a culturally appropriate context. Research indicates that tobacco cessation strategies (i.e. nicotine replacement therapy, quit-lines, and counseling) are individually effective and prove to be even more effective in combination (National Institutes of Health, 2006).

Differences in cultural and socioeconomic status impact the method of communication, health literacy, and the utilization of healthcare professionals' recommendations. This research study determined whether a healthcare education program designed to change patient/healthcare provider relationship dynamics would increase awareness of tobacco-related disparities for Black American patients and students' level of cultural development. The healthcare education program was an

interactive lecture/presentation, titled, "African Americans and Tobacco Cessation." The students that were included in the study are those pursuing degrees in one of the following fields: 1) nursing, 2) medical assistant, 3) physician assistant, 4) health sciences, or 5) other healthcare field.

Cancer conjures up different meanings for each person, especially those who have a loved one or a friend diagnosed with this disease. For those who have or know someone who has lived more than five years after the initial diagnosis, there is the belief that there truly is life after cancer. Medical advances have resulted in the ability to diagnose cancer at its earliest stages and increase the survivorship of those who are afflicted.

For others there is a bleaker reality. They have not evidenced the message of hope and victory over a diagnosis of cancer. Cancer is the big "C." Cancer is only spoken of in hushed tones, never uttered out loud. Cancer is to be feared. It is better to not know. It is better to leave one's fate in God's hands. Cancer is a death sentence.

In reality, Black Americans possess a disproportionate cancer burden. Since, Black Americans have the highest mortality and lowest survival rate of any racial/ethnic group (American Cancer Society, 2007a), surviving cancer is not the reality for far too many.

Cancer disparities are often discussed in terms of income, education, and insurance coverage. But do these factors tell the whole story? Are there other factors that contribute to the cancer disparities?

Background and Professional Significance of the Study

According to the American Lung Association (2008), almost 90% of lung cancer cases are estimated to be caused by smoking. Black Americans suffer disproportionately from death due to tobacco-related cancer. Despite lower exposure to tobacco smoke, Black American men are 50% more likely than European American men to develop lung cancer (Okuyemi, Ebersole-Robinson, Nazir, & Ahluwalia, 2004). Lung cancer is the leading cause of cancer deaths (surpassing breast cancer for women in 1987). It causes more deaths than the next three most prevalently diagnosed cancers (colon, breast and prostate). In 2005 Indiana had the second highest rate of cigarette smoking prevalence in the United States (CDC, 2006). Lung cancer mortality rate for Black Americans in Allen County, Indiana exceeds the state and national averages (see Appendix C). This statistic is still true when data is disaggregated by gender (CDC, 2006).

Black Americans have a larger disparity in cancer incidence and mortality for most cancers, than any other racial/ethnic group. 2005 U. S. cancer mortality rates were 33% higher in Black American men and 16% higher in Black American women than in European American men and women (American Cancer Society, 2009). This reflects a two percent decrease for Black American men and women from 2003 data (American Cancer Society, 2007). Mortality data for 2003 and 2005 provided by the Indiana Department of Health indicated cancer as the leading cause of death for Black Americans in Allen County, compared to the second leading cause of death in the state of Indiana and the United States (Indiana State Department of Health Epidemiology Resource Center Data Analysis Team, 2003, 2005). Black Americans experience a higher cancer burden in Allen County than all other counties in Indiana.

In June 2006 National Institutes of Health (NIH) state-of-the-science panel reported on the monumental gap between smokers who express a desire to quit (70%) and those who successfully quit (< 5%) in any given year. In assessing the scientific evidence on tobacco use, prevention, and control, the panel found that "smoking cessation interventions/treatments such as nicotine replacement therapy, telephone quitlines, and counseling were individually effective, and even more effective in combination" (National Institutes of Health, 2006, p. 1). According to the panel, these strategies could "double or triple current quit rates." A research study conducted by Fu, Burgess, van Ryn, Hatsukami, Solomon, and Joseph (2006) concluded that Black American participants had higher levels of distrust and negative experiences with healthcare professionals; fewer experiences with counseling; and lower levels of utilization, knowledge and understanding of the benefits of pharmacotherapy (Fu et al., 2006). They concluded that successful tobacco cessation strategies for Black Americans and other ethnic minorities must address the cultural barriers to obtaining accurate information about "treatment from trusted sources (Fu et al., 2007, p. 235)." A 1990 – 2000 research study comparing smoking quit ratios (SQR) among European Americans and Black Americans found significant differences in the success rate and perceptions of efficacy of tobacco cessation strategies (King, Polednak, Bendel, Vilsaint, & Nahata, 2004).

Many of the educational strategies for eliminating health disparities are aimed at changing the behaviors of the patient encountering healthcare disparities such as, increased health literacy and compliance with healthcare advice. Emerging research suggests that educational strategies are also needed for the healthcare professionals providing services. There is more emphasis on providing healthcare after the illness

occurs, rather than preventing or reducing the burden of the illness. Everyone could benefit from such a strategy, but the National Healthcare Disparities Report (*National Healthcare Disparities Report*, 2003, p. 7) cites "significant disparities in the use of evidence-based preventive services for certain populations." One example involved smoking - the single most preventable cause of mortality. Smoking cessation counseling during hospitalization is offered only 40% of the time overall and 29% of the time for Black Americans (National Healthcare Disparities Report, 2003, page 7).

Cultural differences are juxtaposed over the disparities in the provision of healthcare services. Since the populations overwhelmingly represented in the underserved are the same as those overwhelmingly underrepresented in the healthcare professionals, there is a need to ensure that healthcare professionals are culturally proficient and aware within multiple cultures. How much is known at the healthcare professional level about differences in the age and manner in which cancer presents by race? Most medical research has been done on European Americans, thus guidelines for screenings, treatment, and prevention strategies are based on that research. However, research is emerging on racial differences, but not all healthcare professionals are aware of recent findings.

The extent to which healthcare students can increase the awareness of disparities regarding Black Americans and tobacco cessation in a culturally appropriate context is the focus of this research. This study will evaluate the relationship between that increased awareness and the level of cultural development.

The Problem Statement

As previously stated, the purpose of this research study was to determine the impact that the healthcare education program had on post-secondary healthcare students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. In light of the data supporting the missed opportunities for promoting Black American tobacco cessation, the following questions and hypotheses were developed to frame the research:

Research Question #1: How will the level of healthcare students' cultural development change as a result of a healthcare education program?

This question corresponds to the following hypotheses being tested in this study:

H#1:   The level of healthcare students' cultural development will increase after the healthcare education program.

H#2:   The awareness of disparities regarding Black Americans and tobacco cessation will increase for healthcare students.

Research Question #2: What is the relationship between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation?

H#3:   A higher level of cultural competence among healthcare students will be positively correlated with increased awareness of disparities regarding Black Americans and tobacco cessation.

The findings from this study will be used to develop a healthcare education program with an aim of increasing tobacco cessation strategies offered to Black Americans.

Researcher Statement

My motivation to address this research topic is rooted in personal experiences that date back to my childhood. Both of my parents smoked, and I was allergic to tobacco smoke before there was widespread publication of the harmful effects of second hand smoke. When trapped in a room or car where one or both of them were smoking, I would begin coughing, then choking and gasping for air. I would become lightheaded and fearful of passing out. It was a terrifying experience. No one understood why I had such an adverse reaction to tobacco smoke, in stark contrast to seemingly everyone else. As my physical discomfort became progressively more severe, even the most doubtful would soon realize that it was not an act. I learned to reduce the level of breathing in order to inhale smaller quantities of air for extended periods of time.

During junior high school, I participated in a class activity measuring lung capacity. When I blew into the device, the scale registered well below a normal reading. My teacher asked if I smoked. I replied no. No one realized back then that being subjected to second hand smoke caused many of the same adverse affects experienced by smokers. The involuntary exposure to tobacco made me an unwilling and unknowing smoker.

At a prior place of employment, I came face to face with an unusual dilemma. In my early twenties, I was informed, along with the majority of the staff, of the relocation of my office space. The room, to where I would be moving, included a co-worker who smoked a pipe. My appeal to my manager to be relocated elsewhere, away from the pipe smoker, fell on unsympathetic ears. She shared that she rather enjoyed the smell of a pipe. I was told there was no other space available, thus no alternatives, but to move into

this room, according to the original plan. I then wrote an impassioned and dramatic appeal to my manager's superior, indicating my adverse physical reaction to tobacco smoke. I also stated that I would prefer to have my desk in the hall rather than in a room filled with tobacco smoke. In an effort to humiliate me into accepting the original space, they agreed to place my desk in the hall. To their disbelief, I gladly accepted the compromise. For two weeks, I happily went about my work tasks at my desk, with a computer and a telephone that were set up in the hallway. Any work arrangement that did not include inhaling tobacco smoke was more than adequate, regardless of the physical location. Many of my coworkers were horrified and loudly voiced their disbelief and disdain that an employee would be treated so inhumanely. I was subsequently moved into a smoke-free office room.

At this same time, I placed "No Smoking" signs in my home, car, and yes, on my desk at work. The overarching social acceptability of smoking at that time meant non-smokers provided ashtrays in their homes and work spaces for colleagues and family members who smoked. A smoker would light up first and search for an ashtray second. On many occasions I had to state (or remind) individuals that smoking was not allowed in my "personal space." Some would get angry. But over time, there was acceptance

Both of my parents succumbed to tobacco-related cancers in their fifties. If not for tobacco use, their odds of living a few more decades were high. The majority of their parents and siblings lived into their eighties and nineties, or are still living. I am still troubled by their untimely and premature deaths. Since then, other family members have fallen victim to the deadly grip of tobacco addiction. Two of them died in their forties.

I recall a discussion with my mother, encouraging her to quit. Her response is echoed in the response of many others. "I can quit whenever I want to (addiction denial). Besides, my doctor did not tell me I needed to quit (external motivators to quit)." I did not know or understand the prophetic nature of her response, at that time. Through the years I would hear these same words uttered by so many smokers. Certainly, the lack of understanding of the nature of addiction and effective strategies for tobacco cessation can hinder the success of a patient's efforts. But the healthcare professional's knowledge of racial differences in tobacco use and cessation is equally important.

Given what is known regarding health disparities by race, not attributable to income, education, and insurance, how does disparate treatment affect the recipients? Are the healthcare professionals even aware of the inequities in the way they react to others? Is the disparate treatment executed on a subconscious (or unintentional) level? Once confronted with the truth about disparate treatment, is it believed? Is there a willingness to learn more about disparate treatment and how to ensure that it is not dispensed unknowingly or in any manner? How can the healthcare professional be drawn into a healthcare education program to eliminate such behavior?

These are the underlying questions that propelled me to engage in public health awareness activities and, subsequently, to conduct a research study. A family reunion was planned that included ancestral and health awareness workshops for almost 90 family members. They participated in learning more about our family tree and diseases prevalent in our family. These diseases included cancer, diabetes, blindness, and heart disease. In soliciting health services agencies for culturally tailored brochures, I uncovered a startling fact. In a city with a population of approximately 17% Black Americans most of

these agencies did not have culturally tailored brochures on hand. Many, because of their national affiliations, were able to order them from their national headquarters and decided to stock them, locally, from that point forward.

This initial encounter of requesting materials led to an ongoing affiliation with many of these agencies. I was invited to join the Fort Wayne African American Cancer Alliance Advisory Board, later becoming President. I served on the board with healthcare professionals who were committed to addressing health disparities by race. In collaboration with Smoke Free Allen County (now operated as Tobacco Free Allen County), I organized health awareness activities in the Black American community that included World No Tobacco Day programs and a Smoke Free Bowlathon. I conducted research on all Fort Wayne area bowling alleys, surveyed owners on opportunities for smoke free bowling, smoke free leagues, and readiness to implement smoke free policies. I conducted Perceptions of Cultures presentations regarding challenges of tobacco use and cessation for priority populations (disparately impacted by tobacco use) for the medical community. I wrote two series of articles for two Black American newspapers (Series #1 = Smoking is Slavery and Series #2 = Smoking While Black). I served on planning committees for medical education and cultural competency conferences for healthcare professionals involving health disparities and secured presenters. A few of the presenters I solicited and secured included Javette C. Orgain, MD, MPH, Associate Professor, Clinical Family Medicine, University of Illinois, Chicago, 100th President, National Medical Association (membership includes more than 25,000 Black American physicians), Chairperson, Illinois Board of Health and David Satcher, MD, PhD, former Interim President, Morehouse School of Medicine, former President, Meharry Medical

College, Principal Investigator, NBLIC (National Black Leadership Initiative on Cancer) II, 16th U.S. Surgeon General.

With continuing medical education (CME) and continuing nursing education (CNE) certification agents assisting to determine the most effective way to develop and recruit participants, I designed a study to examine a healthcare education program that would result in the impact of improving culturally tailored communication with patients short term and the opportunity to eliminate healthcare disparities, long term. These previous findings provided substantive data used in the development of the healthcare education program for this research study. The previous findings included barriers, challenges, and opportunities for success in developing a healthcare education program to positively impact culturally competent care for Black American patients at risk for lung cancer. Analysis included actual explanations and implied meanings, regarding process for planning and implementing effective healthcare education and means for addressing barriers to training. Themes that were identified in the literature review and emerged from the 2007 research study were (Cain, 2007):

1. Lack of understanding of the continuum of cultural development

2. Cultural diversity/competence/proficiency training is not mandatory

3. Barriers to training have been identified and addressed

4. Cultural proficiency training is needed but has not been developed

5. Infrastructure exists for well-developed and organized training

These research study findings suggested developing cultural proficiency training needs to include all levels of the organization: management, healthcare professionals, and CME and CNE certification agents. By working with varying levels of the organizations,

the needs of each level can be identified and incorporated into the training. The goal of cultural proficiency training should not be framed as the elimination of racist practices, but rather the achievement of the goal of quality care for varying cultural needs. It is crucial that the training be developed and framed within the context of the healthcare professional's practice.

Assumptions

Assumptions regarding this topic and framing the research study include:

1. Generally, healthcare students will have minimal to no knowledge related to Black American disparities in tobacco utilization and cessation.

2. Results from data analysis and findings of the healthcare student study population targeted for this research study can be generalized to a larger healthcare student population.

3. Healthcare students will demonstrate varying levels of cultural development via pre and post-program assessment. Healthcare students' experience and knowledge regarding Black American patients will vary. Increases in levels of cultural development post-program will not be universal or at the same level for all healthcare students.

Definitions

Black or African American (A/A). A person having origins in any of the black racial groups of Africa. For the U. S. Census this designation is used for those who self report their race as Black, African Americans, Afro American, Negro, Haitian, or Nigerian (Grieco & Cassidy, 2001, p. 2).

Cancer. Abnormal and persistent cell growth that can be fatal if left untreated.

Cancer survivor. Any living person who ever received a diagnosis of cancer.

Certification Agent. Certified provider, who is responsible for providing quality continuing medical education (CME) activities where the content of the activity is reflective of the title, meets the established learning objectives, uses quality and credible references, does not promote a specific agent within a therapeutic class, and provides relevant, credible information that is pertinent to the physician in order to provide patients with the best possible care.

CPE. Continuing professional education. Education that continues beyond academic training or professional certification prior to entering a field of practice (i.e. accounting, law, healthcare).

CME. Continuing medical education. As defined by Accreditation Council for Continuing Medical Education (2008) on their website, it consists of "educational activities that serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships a physician uses to provide services for patients, the public, or the profession. CME represents that body of knowledge and skills generally recognized and accepted by the profession as within the basic medical sciences, the discipline of clinical medicine, and the provision of health care to the public." CME's are quantified by contact hours.

CNE. Continuing nursing education that builds on prior education and experience with the purpose of enhancing the nursing professional practice in the areas of administration, application of nursing skills, research, and theory development. CNE's are quantified by contact hours.

Cultural Awareness. One of five constructs of Campinha-Bacote's Model of Cultural Competence (IAPCC-R). The "recognition of one's biases, prejudices and assumptions about individuals who are different" (Josepha Campinha-Bacote, 2003, p. 18).

Cultural Desire. One of five constructs of Campinha-Bacote's Model of Cultural Competence (IAPCC-R). The "motivation of health care providers to 'want to' engage in the process of cultural competence" (Josepha Campinha-Bacote, 2003, p. 15).

Cultural Competence. A set of congruent behaviors, attitudes, and policies that come together in a system or agency or among professionals that enables effective interactions in a cross-cultural framework (Cross, Bazron, Dennis, & Isaacs, 1989)

Cultural Encounter. The "process which encourages health care providers to engage directly in cross-cultural interactions with clients from culturally diverse backgrounds" (Josepha Campinha-Bacote, 2003)."

Cultural Knowledge. One of five constructs of Campinha-Bacote's Model of Cultural Competence (IAPCC-R). The "process of seeking and obtaining a sound educational foundation concerning the various world views of different cultures" (Josepha Campinha-Bacote, 2003, p. 27).

Cultural Proficiency. Manifestation of institutional policies and practices and/or individual behaviors that result in effective interactions with culturally different individuals and/or clients. A score of 91 or higher on the IAPCC-R by Campinha-Bacote (2003) identifies participant as culturally proficient.

Cultural Skill. One of five constructs of Campinha-Bacote's Model of Cultural Competence (IAPCC-R). The "ability to collect relevant cultural data regarding the

clients' health histories and presenting problems as well as accurately performing a culturally specific physical assessment" (Josepha Campinha-Bacote, 2003, p. 35).

Disparity. The condition or fact of being unequal, as in age, rank, or degree (*National Healthcare Disparities Report*, 2003).

European American or White (W). A person of United States Citizenry having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who self-report their race as "White" or Irish, German, Italian, Lebanese, Near Easterner, Arab, or Polish (Grieco & Cassidy, 2001, p. 2)

Healthcare professionals (HCPs). Persons who are medically trained and certified, providing healthcare services to patients, including doctors, nurses, technicians.

IAPCC-R. Inventory to Assess the Process of Cultural Competence Among Healthcare Professionals - Revised was developed by Campinha-Bacote (2003), PhD of Transcultural C.A.R.E. Associates. A 25 item instrument measuring the constructs of cultural awareness, cultural desire, cultural encounter, cultural knowledge, and cultural skill.

Medically Underserved Area. As defined by the U.S. Department of Health and Human Services, the designation that involves the application of the Index of Medical Underservice (IMU) to data on a service area to obtain a score for the area. The IMU scale is from 0 to 100, where 0 represents completely underserved and 100 represents best served or least underserved. Under the established criteria, each service area found to have an IMU of 62.0 or less qualifies for designation as an MUA.

The IMU involves four variables - ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below

the poverty level, and percentage of the population age 65 or over. The value of each of

these variables for the service area is converted to a weighted value, according to

established criteria. The four values are summed to obtain the area's IMU score.

TCA. Tobacco Cessation Assessment - This nine question instrument, developed

by the researcher measures participants' knowledge regarding Black Americans' tobacco

use/cessation.

Chapter 2: Review of the Literature

Introduction

> *"Give me your tired, your poor, your huddled masses yearning to*
>
> *breathe free, the wretched refuse of your teeming shore. Send*
>
> *these, the homeless, tempest-tost to me, I lift my lamp beside the*
>
> *golden door."*

Words on the base of Statute of Liberty by Emma Lazarus

The words on the base of the Statute of Liberty suggest there is a better life awaiting those who dare to travel through the "golden door" of the United States of America. That "golden door" for those who bear the brunt of health disparities by race can figuratively be the manifestation of healthcare professionals' culturally proficient interventions when seeking healthcare. Literature that ties this proficiency with improved health outcomes, historical context, and best practices was collected and analyzed in order to frame the methodology and research design for this study.

In 1882 the "golden door" was closed and locked, barring Chinese immigration, with the enactment of the first general immigration law (Glazer & Moynihan, 1963). More exclusions and barriers to immigration followed. The American Immigration Act of 1924 limited immigration by country to two percent of residents of the United States in 1890 (Trevor, 1924). The Act excluded immigration of East Asians and Asian Indians. In the first edition of *Beyond the melting pot; the Negroes, Puerto Ricans, Jews, Italians,*

and Irish of New York City, Nathan Glazer and Daniel Patrick Moynihan (1963)

presented the results of their research study on the role of ethnicity in New York City. In

the chapter, titled Beyond the Melting Pot, Moynihan references the 1908 play by the

same name. He uses the symbolism of the Melting Pot to infer that as immigrants lose

their native identity and assimilate into the American culture, the nation and they are far

better off as a result of the transformation. They strip away the immigrant identity and are

enveloped in the American culture. Black Americans come out of the proverbial Melting

Pot as they entered. Physical characteristics prevent them from looking like the majority

culture. Yet majority culture expects Black Americans to follow in the footsteps of those

who came to this country and transformed from immigrants to Americans. Glazer was

severely criticized for writing

> "*… it is not possible for Negroes to view themselves as other ethnic groups*
>
> *viewed themselves because—and this is the key to much in the Negro world—the*
>
> *Negro is only an American, and nothing else. He has no values and culture to*
>
> *guard and protect* (Glazer & Moynihan, 1963, p. 53)."

What message was Glazer attempting to relay with that statement? Glazer used what this

researcher categorizes as a deficit model of analysis, by defining the subject in terms of

deficiencies, rather than differences. This same manner of thinking and describing

differences as deficiencies encountered in researching Black Americans vs. the majority

culture is prevalent across numerous disciplines (employment, health, education, etc.).

Holding up the majority culture as the standard, any differences from that model are

identified as problematic, at best, and to be avoided at all costs, at worst. Thus, majority

culture researchers seek to identify the deficiencies in the subject to explain these differences.

Comparisons of Black Americans are often made to European Americans. European Americans' ancestors comprise immigrants that came to this country voluntarily. Black Americans' ancestors generally comprise non-immigrants. An important distinction made by political scientist, Jennifer Hochschild (1995), is that non-immigrants came into this country unwillingly and by force. They did not seek to relocate to this country. They did not pack their most treasured belongings, select the destination, prepare travel plans, gather up their family, and gleefully board the ship in anticipation of setting down roots in America. Moody (2004) asserts this provides a completely different framework which includes a continual state of dissonance, from not being considered socially equal and/or acceptable. Non-immigrant groups are subjected to a group identity/stigma of being inferior, as well as institutional discrimination coupled with active and passive bias. Moody includes Native Americans, Mexican Americans, Puerto Rican Americans, and Native Hawaiians in the category of non-immigrants.

In the second edition of this book, Glazer explains, in a footnote in the Introduction, that the controversial passage "has given me considerable pain" (Glazer & Moynihan, 1970, p. xix). He provides an explanation of the impact of the public outcry in terms of how he was personally impacted by the negative reaction to his words. In an effort to explain what he meant, he clarifies by stating that "Negroes" have no foreign culture. Glazer uses an ethnocentric view in his efforts to enlighten the reader on the Black American experience. Using the lens of the European immigrant, he attempts to explain why the experiences are different. Glazer uses flawed logic to justify his opinion.

Because experiences are different does not mean culture is absent. Regrettably, the explanation served only to demonstrate how an incomplete or hasty analysis of differences by race can result in flawed conclusions. Glazer did not engage in a comparative analysis of African vs. Black American culture. He did not consult with Black American researchers. He assumed that Black Americans born on U.S. soil had no cultural ties to their African ancestry.

Now imagine Glazer as a healthcare professional in the examining room with a Black American patient making a similar comment. The patient is visibly offended. Glazer becomes visibly defensive. The reaction to the comment overshadows the subsequent diagnosis and medicinal advice. From Glazer's perspective, his intent becomes paramount and the overarching issue. From the patient's perspective the perception of being disrespected is paramount. Former U. S. Surgeon General Satcher (2003) calls this phenomenon overlooked and underserved. This may substantiate or elevate the level of distrust in the healthcare system. This is only one of many possible scenarios that may present challenges to an equitable healthcare experience. Understanding how to overcome these and other challenges to cultural differences should be tantamount to other efforts to attain health equity.

A review of the literature provided a historical perspective of and context for tobacco related disparities by race, the significance of, and methodologies for the goal attainment of healthcare student cultural proficiency, and promising practices for the future. There is a plethora of literature regarding healthcare professionals and cultural proficiency. The majority of the literature focuses on the need to increase their cultural proficiency. The literature thins out when narrowing the topic to best practices with Black

American tobacco cessation. Efforts, in relationship to this research, were focused on garnering from the literature practices that produced quantifiable improvements in cultural proficiency and lessons learned when barriers were encountered. The healthcare education program curriculum on Black Americans and Tobacco Cessation was designed based on these findings from the literature.

Tobacco Disparities: Race Matters

H. Jack Geiger, M.D. (Arthur C. Logan Professor of Community Medicine, Emeritus, City University of New York Medical School) quotes a political analyst, by restating, "Slavery is America's original sin and racism is its chronic disease" (Byrd & Clayton, 2002, p. xv). In elaborating on this issue, Geiger contends that racism is more than a disease; it is a moral outrage built into the very fabric of this country. Similar to social, economic, and political infrastructures, racism is indelibly etched into the healthcare delivery system (Randall, 2006; Satcher, 2003).

In the classic 1944 study, *An American Dilemma: The Negro Problem and Modern Democracy*, commissioned by Carnegie Corporation, Myrdal (1944) and his team of research colleagues collected a massive amount of data from Black American and European American social scientists, informants, civil rights and social reform advocates, and other stakeholders, as well as historical data. His findings included identifying the stark contrast between the American Creed (i.e. "all men are created equal") and the institutionally racist culture, policies, and systems that negatively impacted Black Americans. Ellison (1944) eloquently describes the phenomenon of Blacks' awareness of being utterly invisible to the majority culture and only existing in

the "nightmarish fantasy of the white American mind as a phantom that the white mind seeks unceasingly, by means both crude and subtle, to lay to rest" (p. 53). In a review of Myrdal's book, Ellison (1944) describes the dissonance between the political left and right regarding the problem. Both groups use a different approach and develop different solutions that are ultimately (if not, equally) ineffective. He contends that neither group fully understands the nature of the problem before rushing to strategies to solve it. This phenomenon is called benevolent racism. The intent is to help. But not involving disenfranchised groups in understanding the problem and crafting the solutions is often met with disbelief, anger, and the feeling of being "invisible" to the majority culture.

Myrdal (1944) reported on two governmental policies that provided substantiation of this American dilemma. These policies had a disproportionately negative impact on Black Americans: 1) establishment of the minimum wage and 2) agricultural limits placed on production of cotton.

The first governmental policy, establishing a minimum wage, referenced by Myrdal (1944) resulted in the displacement of Black Americans by European Americans from what were formerly low wage jobs. It was easy for employers to use Black Americans in undesirable jobs for undesirable wages. But when forced to increase the pay scale, more European Americans sought these jobs and employers overwhelmingly showed preference to them vs. Black Americans (Myrdal, 1944).

The second governmental policy, limiting cotton (and other crops) production, that was institutionalized by the Agricultural Adjustment Act of 1933 primarily benefited middle to large size farmers (Alexander & Libecap, 2000). They were predominantly representative of the membership base of American Farm Bureau Federation, the

politically influential entity that aided in the crafting of this Act and effectively lobbied for their interests. Limiting production of certain crops was intended to limit supply, which would increase demand and prices. Black American farmers were disproportionately represented in the groups of small size farmers and sharecroppers. Many lost their means of income when they could no longer work in the cotton fields. Those who stood to gain from this policy were decidedly instrumental in crafting and subsequently implementing it. There was no comparable lobbying entity for the small size farmers and sharecroppers.

These two governmental policies are indicative of numerous other governmental policies. The impetus of creating these policies no doubt was to redistribute wealth in a manner that would attain equity for those negatively impacted by the circumstances of that time period. But the solutions were crafted utilizing the lens of the majority culture. Black Americans' subsequent pain and suffering, as a result of these policies, fell far below the radar of the influential and powerful majority culture. The explanation for why Black Americans still lagged behind was that they were lazy, shiftless, uneducable, and inferior. In fact, research findings from van Ryn and Burke (2000) indicated that physicians perceived Black American patients as lacking intelligence and self-control, irrational, unlikely to have significant career demands, and at risk for inadequate social support in significantly higher proportions than European American patients. This analysis was true even when controlling for social economic status, gender, age, etc. Why couldn't Black Americans work hard and pull themselves up by their bootstraps like their European American counterparts? Black Americans had the same challenges and the same opportunities. Therefore, they were to blame for their dire circumstances.

With a social environmentalism theoretical framework, one of three frameworks used in this study (Lyon, 2002), Myrdal (1944) also refuted the rationalization still spouted by many European Americans of biological inequality. It was easy to explain away the economic and educational disparities if the impacted race of people were innately inferior. Myrdal addresses this commonly held belief in the study. He holds up as evidence the fact that "race," a socially constructed word (American Cancer Society, 2009; Ferrante-Wallace, 1998; Graves, 2004; Witzig, 1996), had only been in existence for less than 200 years (Myrdal, 1944, p. 89). Precursor to origin of the definition of race was French physician and traveler, Francois Bernier, who in 1684 suggested a different classification for humans (Byrd & Clayton, 2000). Prevailing thought at the time, advanced by geographers were classifications by regions/countries. Bernier deviated from this by identifying categories based on color and other physical features. The four primary categories were European, Africans, Asians, and Lapps. Myrdal (1944) also explained there were far more differences within a given race than across two or more races. Even though numerous scientific reports have stated this, prejudicial perceptions and actions continue among American intellectuals, that includes biologists and healthcare professionals (Byrd & Clayton, 2000; Graves, 2004; Witzig, 1996).

Although groundbreaking in its portrayal of the findings and in the high degree of notoriety afforded Myrdal, the study did not lead to social change or further comprehensive study on racial disparities and racism in America (S. R. G., 1995). Frederick Keppel, President of Carnegie Corporation, who spearheaded the initiative, died before the study was published. He sought out a researcher whose objectivity would be beyond reproach and funded the study to approximately $300,000. The other trustees

distanced themselves from the study (S. R. G., 1995). Undoubtedly, their expectation was that research on the "Negro Problem" would point out their deficiencies, not those of the benevolent majority culture who were sincerely interested in solving the problem. That is as long as the problem did not point back to them. Myrdal's colleagues on the research team had major disagreements regarding content and recommendations to include in the study. Mixed reviews regarding the study included criticisms, such as an inadequate portrayal of Black American culture as passive and unable to effect social change (S. R. G., 1995). This lack of agreement among colleagues united on the mission of studying race relations is indicative of the complexity of the problem of racial disparities. Even today, far more emphasis is placed on researching racial disparities from the viewpoint of what is lacking among racial/ethnic minorities than seeking to be informed on the nature of a problem that is so complex and has eluded resolution for centuries.

When envisioning the medically underserved individual, the following subjects are generally addressed: health insurance, health literacy, and income. The images that come to mind are those who are poor, uninsured, and uneducated. The disproportionate level of individuals of color in the population of the medically underserved is typically explained by the disproportionate representation in the ranks of the poor, uninsured, and uneducated. Yet, even when controlling for education, income, and health insurance, the health disparities by race are still there (Geiger, 2001; Randall, 2006; Satcher, 1999; Smedley, Stith, & Nelson, 2003; Smiles & Roach, 2002; Thomas, Fine, & Ibrahim, 2004; United States Commission on Civil Rights, 1999). This fact deserves more focus and analysis in the medical and research community.

Funding sought by social service and health organizations addressing health disparities almost without exception mandates programs and services target the poor. The populations of poverty encompass numerous cultures. An intervention aimed at populations of poverty inevitably will be more successful with subcultures that are represented in the program management team of these organizations. Majority culture managers are more likely to be successful with those who are poor within their culture than with those who are poor from populations of color.

One study by Mustilio et al (2004) found that high levels of self-reported experiences with racial discrimination was associated with negative health outcomes: preterm and low birth weight deliveries. These researchers further point to evidence that psychological stress brought on by racial discrimination can increase patient's risk for gestational hypertension and thereby impact birth outcomes. This supports the literature indicating that racial discrimination is a component of racial disparities. Another study reviewed the literature regarding impact of racism as a stressor negatively impacting health of Black Americans (R. Clark, Anderson, Clark, & Williams, 1999). One significant finding was there was no consensus in the scientific community regarding the definition of racism. Varying definitions could be categorized as attitudinal or behavioral racism. In addition, exploration of intergroup racism seemed far more prevalent than intragroup racism. Although gains in eliminating disparities from education to health have been made, the research identified in this study pointed to a significant level of racism persisting and threatening to some extent the well-being of Black Americans.

From this research a conceptual model was developed to examine the biopsychosocial effects of perceived racism. Seven self-report measures were identified

for assessing perceived racism by other researchers. They address the irony of the acceptance of self-report measures for stress in other areas (job strains, life events, and daily hassles) and the eagerness to discount as subjective the self-report measures for stress related to perceived racism. Emerging literature was identified to evaluate the relationship between coping mechanisms that may be utilized across Black American population and health outcomes.

Despite the extant research substantiating the existence of racial disparities in healthcare not attributable to health insurance, income, and education, there are still extensively more resources expended on "color blind" technologies of care (prescription medication, devices, etc.). Far too many healthcare professionals still believe that treating each patient in a similar manner will result in similar outcomes. A study comparing mortality data from 1991 to 2000 found that medical advances prevented 176,633 deaths. But eliminating inequity of mortality rates for European Americans and Black Americans would have prevented 886,202 deaths (Woolf, Johnson, Fryer Jr., Rust, & Satcher, 2004). Indubitably, the time has come for a paradigm shift. There is a grave need to culturally tailor communications to increase the effectiveness of these interventions, as well as, increase the cultural proficiency of healthcare providers.

Findings from the National Healthcare Disparities Report indicate, based on demographic trends, the number of individuals in the United States who are affected by health disparities will increase over the next fifty years (*National Healthcare Disparities Report*, 2003). This report was developed by the Agency for Healthcare Research and Quality as a directive of public law 106-129, the Healthcare Research and Quality Act of 1999. The report, further, states that the increased levels of community screenings for

cervical cancer may be directly attributable to the lower rates of later stage cervical presentation. Cancer detection in the earlier stages significantly improves the odds of survival. It is believed that this strategy can be adopted to reduce health and mortality burden from other types of cancer. Screenings in the earliest stages of cancer and/or medical interventions that promote early detection and even prevention are at the core of this strategy. An interaction between patient and healthcare professionals that results in healthier patient outcomes (prevention or cure) is inarguably what everyone wants. Yet, data on health disparities continues to point to distinct populations who are disproportionately impacted. Four years later, of the core measures assessed over time, more than 60% of the disparities in care for Black Americans did not decrease (*National Healthcare Disparities Report*, 2007).

Cancer disparities are a multifarious and complex problem. In fact, healthcare disparities are linked to racial discrimination that supersedes access issues involving lower socioeconomic populations (United States Commission on Civil Rights, 1999). Because of this, it is recommended that problem solving for racial disparities includes community involvement.

A study on "Race and Trust in the Health Care System" by Boulware et al (2003, p. 358) concluded that "patterns of trust in components of our health care system differ by race. Differences in trust may reflect divergent cultural experiences of blacks and whites as well as differences in expectations for care. Improved understanding of these factors is needed if efforts to enhance patient access to and satisfaction with care are to be effective" (p. 358). Another study found that even when controlling for education, Black American parents held a higher level of distrust regarding their children participating in

clinical research (Rajakumar, Thomas, Musa, Almario, & Garza, 2009). An Institute of Medicine study found that healthcare disparities by race exist even when controlling for health insurance, income, age and medical history (Smedley et al., 2003).

The historical significance of these disparities by race can assist in understanding the magnitude of the problem. The majority of Black Americans in the United States were involuntarily enslaved prior to the Emancipation Proclamation. Segregation and institutional racism emerged as strategies to sustain the distribution of resources overwhelmingly along racial lines. The elimination of Jim Crow laws and legalized segregation did not result in equity. Since 2008, the Equality Index has been annually calculated by the National Urban League ((2008) to illustrate the relative status of Blacks vs. Whites in American society in the areas of civic engagement, education, economics, health, and social justice. In 2008, the Equality Index was 73% (up .41 percentage point from the revised 2007 Equality Index of 72%). The health-weighted index was 75.7%. This means that Blacks' health was assessed to be 75.7% of Whites.' Measurements were compiled for death rates and life expectancy, physical condition, substance abuse, mental health, access to care, elderly health care, pregnancy issues, reproduction issues, delivery issues, and children's health.

The healthcare response to Myrdal's Book, *An American Dilemma: the Negro Problem and Modern Democracy* was *An American Health Dilemma: the Medical History of African Americans and the Problem of Race* by Byrd and Clayton (2000). Other resources on the historical account and significance of healthcare disparities endured by Black Americans include *Dying While Black* by Vernellia Randall (2006), *Medical Apartheid* by Harriet A. Washington (2006), and *Eliminating Healthcare*

Disparities in America: Beyond the IOM Report edited by Richard Allen Williams, M.D (2007).

During the slave trade era White doctor and Black patient interactions were to ensure the health of newly captured slaves prior to transporting them from Africa. These interactions were primarily motivated by economic gain (Byrd & Clayton, 2000). Mortality during the Middle Passage was estimated to range from $15 - 80\%$ depending on the length of the voyage, sanitation, nutrition, and preventative disease measures employed on board the ship. African slaves entering the Americas were far less healthy than the immigrants who voluntarily traveled here. Byrd and Clayton (2000) describe the vulnerability of the Africans during the six-month to three-year breaking in period, which netted a $30 - 50\%$ mortality rate. They were separated from family members and others speaking their language. Cultural traditions were forbidden. They were more likely to succumb to epidemic diseases: plague, influenza, typhoid fever, and yellow fever.

Byrd and Clayton (2000) coined the term "Slave Health Deficit" or "Black Health Deficit" to describe the historical phenomenon of Africans entering the United States with compromised health status, deprived of equitable access to health care by European American healthcare professionals, led to their perception that disease and poor health are synonymous with being Black. This resulted in Africans receiving substandard care, if treated at all.

Washington's (2006) study portrayed how negative perceptions regarding African slaves and Black Americans resulted in atrocious substandard medical treatment, surgeries and painful, sadistic, and risky experiments (untested vaccinations, intentional burns, exposure to lethal levels of heat) without informed consent and anesthesia.

Prisoners, homeless and indigents, and bodies (illegally excavated from cemeteries) were used for medical school student training. In 1967, tens of thousands of bones & skulls were discovered bearing marks of 19th century anatomy tools or numbered with India ink. Georgia State University Anthropology Research Team compiled a report of the study of the human bones used from 1835 – 1912. Seventy-five percent were Black American, where Black Americans only comprised 42% of the population. Grave robbing and anatomical dissection were illegal in Georgia until 1887. It is believed these remains were stolen. Renty, a slave, was photographed in 1850 as a part of a study to illustrate that Blacks and Whites were from different species.

African medical treatments were administered by midwives, root doctors, spiritual healers, conjurers, or "kitchen physicks (physician)". Byrd and Clayton (2000) describe African medical practices as predominantly empiric, rather than scientific, yet having some successful therapeutics and surgeries, including recorded accounts of skillfully executed Caesarean sections and surgical amputations. Two gaining notoriety included an elderly southern slave with a folk remedy so effective in the treatment of syphilis that he was granted his freedom in 1740 and Simon, who was described in an article in Philadelphia, Pennsylvania for his escape from slavery. His medical talents were described in the article as being able to bleed and draw blood.

It was difficult for Black Americans to enter the Eurocentric medical profession in the United States. Black Americans were denied admission to American medical schools and associations. Even those who were not slaves and had received an education (normally prohibited to slaves) that would qualify them for college. Some were able to be apprentice-trained. Lucas Santomee was the first documented Black physician. A

property owner, Santomee was Dutch-trained and practiced in New Amsterdam during

the 1660's. Black American physician, born in New York, James McCune Smith, M.D.

earned B.S. M.S., and M.D. degrees from the University of Glasgow, in Scotland. He

returned to New York in 1837, establishing what became a highly successful medical

practice. He was an abolitionist, public speaker, writer, political organizer, and

community leader, a tradition that continued with other Black physicians. Like Smith,

many seeking to enter the medical professional, in that era, traveled abroad to obtain their

medical degrees.

In the 1840's and 1850's the American Anti-Slavery Society facilitated the entre

of Black Americans into the medical colleges. The arrangement included the signing of

an agreement to practice medicine only outside of the United States, usually in Liberia.

European American medical researchers joined anthropologists, sociologists,

biologists in research that produced findings, post Emancipation Proclamation of Black

American physical and mental inferiority, as evidenced by poor health status (i.e.

syphilis, tuberculosis), mental retardation, and educational achievement gap (Byrd &

Clayton, 2000). These studies included predictions of the extinction of the Black

American population by the 21st Century (Brandt, 1978). Brandt references a southern

medical journal that recommends castration instead of lynching as retribution for sexual

crimes, including a trial with ghost-like Ku Klux Klan and ghost physician. Physicians

attributed lust, immorality, reverting to barbaric traditions as factors that contributed to

the incidence of venereal disease. This assumption led to estimating more than half of all

Black Americans over the age of 25 were syphilitic. Understanding these beliefs provides

insight into the rationale for the Tuskegee Study, where 400 Black American men,

without providing informed consent, were given placebo medication while researchers studied the progression of syphilis. The duration of the study was 1932 until 1972, ending only when the national media published the story. The U.S. Public Health Service estimated that 35% of Black American men had syphilis and would be generally adverse to treatment. Both assumptions were false. Widely held beliefs by health care professionals and medical researchers on the innate inferiority of Black Americans made such a research study seem reasonable. Such a study would not have been conducted on European Americans.

Randall (2006) discusses the complexity of addressing the issues of institutional racism in the healthcare industry. Intent to provide disparate care is not a predictor of the existence of institutional racism. It does not have to result from "human agency or intention" (Randall, 2006, p. 22). Institutional racism, as defined by Randall, involves combinations of prejudice (present or absent) and discrimination (present or absent), which are Non-Racist, Reluctant Racist, Reformed Racist, and Overt Racist. Non-Racist is the absence of both prejudice and discrimination. Reluctant Racist is the absence of prejudice and the presence of discrimination. Reformed Racist is the presence of prejudice and the absence of discrimination. Overt Racist is the presence of both prejudice and discrimination. Randall asserts the most pervasive and most difficult to correct is Reluctant Racism, which is an institution avowing no biases/prejudices, yet behaviors of those within the institution result in disparate treatment for one group or culture. Randall states that the Slave Health Deficit, identified by Byrd and Clayton, has endured beyond Emancipation Proclamation, Reconstruction, ending of Jim Crow laws,

Desegregation, and the Civil Rights era, and evolved into the current Black Health Inequity.

A study conducted by Saha et al (1999) confirmed the importance of racial and cultural factors in the healthcare provider/patient relationship. In a research study, funded by the National Cancer Institute, Kreuter and Haughton (2006) found the following in using a culturally appropriate construct for cancer awareness education:

> This kind of computer-based, individually tailored communication has shown promise in helping people change a range of cancer-related behaviors. In this study, we seek to increase mammography adherence and fruit and vegetable consumption among 1,500 low-income Black American women by tailoring cancer prevention materials on behavioral constructs as well as four important attributes of Black American culture: religiosity, collectivism, ethnic identity, and perception of time. There is substantial unmet need for effective cancer control programs in this underserved population, and preliminary evidence suggests tailoring may be especially effective among African Americans and those with low incomes (Kreuter & Haughton, 2006).

Tailoring communications and materials require healthcare professionals to increase their awareness of the Black American culture in order to effectively implement such an intervention.

Perceptions about healthcare professionals' ability to assist in tobacco cessation contribute to tobacco disparities. A 2005 research study of former and current smokers from four ethnic communities revealed participants' lack of or limited use of counseling, pharmacotherapy, and seeking healthcare professionals assistance as viable tobacco

cessation strategies, as well as, expressed feelings of distrust of and negative experiences with healthcare professionals (Fu et al., 2006). Healthcare professionals were viewed as medication dispensers," blaming," "impersonal," and "confrontational (p. 237)." Group counseling was preferred rather than individual counseling. Healthcare professionals may be aware of the quitlines that are available to all smokers, but less aware of culturally tailored group counseling. Indiana Tobacco Cessation and Prevention Agency funds local organizations to provide culturally tailored resources and Black American certified tobacco cessation facilitators. A resource that healthcare professionals can give to their patients is *Pathway to Freedom: Winning the Fight against Tobacco* (Robinson, 2006). This is a publication of U.S. Department of Health and Human Services Center for Disease Control and Prevention (CDC). This publication was compiled with the assistance of Black American social organizations, and educational institutions. The publication consists of three components: Education, How to Quit, and Community Organizations.

The Education section provides information on how tobacco affects the Black community, including historical, socioeconomic, and cultural influences (Robinson, 2006). There are 4,700 chemicals in cigarette smoke, including 60 that are known carcinogens (cancer causing). Some of the harmful chemicals in cigarettes are: acetone (fingernail polish remover), ammonia (toilet cleaner), arsenic (rat poison), butane (cigarette lighter fluid), cadmium (used in paint), carbon monoxide (car exhaust fume); formaldehyde (embalming fluid), hexamine (barbecue lighter), hydrogen cyanide (gas chamber poison), methanol (rocket fuel), naphthalene (mothballs), nicotine (insecticide/additive drug), nitrobenzene (gasoline additive), and stearic acid (candle

wax). This section explains the extensive research of and the targeted advertising to the Black American community, resulting in increased smoking rates and lung cancer morbidity and mortality.

The How to Quit section includes proven strategies for tobacco cessation. It includes culturally known quotes, such as Bible scriptures, African proverbs, and quotes from well-known Black American celebrities (Maya Angelou, Dr. Martin Luther King, Jr., Iyanla Vanzant, A. Philip Randolph, and Marva Collins). There are pictures of Black American s and the story of a family where some of the members smoke and how it affects the rest of the family (Robinson, 2006).

The Community Organizations section provides information of educating, organizing, advocating, and taking action to increase the success of initiatives aimed at tobacco cessation in the Black American community. The section relays the message that collective action can be highly successful. It provides the example of what was considered the first major victory in 1990. Uptown cigarette was planned to be test marketed in the Philadelphia area. Uptown was a high tar, menthol cigarette. As a result of the protest of the Black American community, not one cigarette was sold.

Additionally, in the Fu et al (2007) research study, respondents expressed awareness of over the counter medications but low levels of knowledge regarding "functional benefits of pharmacotherapy" (Fu et al., 2007, p. 238). Concerns about side effects were consistent with "overestimation of risks of side effects compared to risks of smoking" (p. 237). Marketing of pharmacotherapy via media may provide daily exposure to the existence of these medications. Side effects are presented at the end of commercials or at the bottom of a print ad. This position may result in maximum

exposure to the message of side effects and alternately, contribute to "skepticism" about the effectiveness. Respondents reported beliefs regarding side effects that included "bleeding liver, blood clots, stroke, heart attacks, hallucinations, depression as well as headaches, stomach cramping, and drowsiness" (p. 238). Respondents shared accounts of others experiencing side effects and people getting sick when continuing to smoke while on medication. Few respondents had personal experiences with pharmacotherapy Respondents reported belief that medication, particularly nicotine replacement therapy, was just "replacing one habit with another" (p. 238). If nicotine is bad, why would an aid to kick the habit include nicotine? Pills seemed to be the least desirable of all medications. Black American female respondents expressed the highest level of willingness to try pharmacotherapy after an explanation of the benefits was provided.

Word of mouth and personal testimonies were reported by respondents as strongly influential in the decision to accept or reject pharmacotherapy. Cost was also reported as a barrier. There was limited knowledge of insurance and other programs that cover the cost. By understanding this lack of knowledge, healthcare professionals can be more deliberate in the communications with Black American patients. They can ask about their experiences, knowledge, and feelings regarding pharmacotherapy. This will allow the opportunity for clarification and illumination of inaccurate and incomplete information (Fu et al., 2007).

Ironically, research indicates that Black Americans are more motivated to quit smoking and less successful than European Americans (Ahluwalia, Harris, Catley, Okuyemi, & Mayo, 2002). This information is not widely known among healthcare professionals.

Menthol and Black Americans

Menthol cigarettes were first manufactured in the United States with a patent in 1925 (Gardiner, 2004). Initial marketing included medicinal themes. Marketing strategies included stating they were soothing and less harsh if you had a sore throat due to a cold. The minty taste and the numbing effect were thought to have added appeal for prospective consumers. This strategy initially was not effective. These cigarettes, representing three percent of market share, were purchased infrequently by nonmenthol cigarette users. Use of menthol cigarettes was similar in the Black American and European American communities. R. J. Reynolds introduced Salem cigarettes in 1956, reducing mentholation compared with Kool and changing the market pitch to focus less on health and more on style. This was a pivotal moment in the history of menthol cigarettes. Initial marketing of menthol cigarettes to women resonated with Black Americans, boosting sales and market share. By 1980 Black Americans' preference was first, Kool (menthol) and second and third respectively, were Winston and Pall Mall (nonmenthol). Fourteen percent of Black Americans smoked Kools in 1968. Thirty-eight percent of Black Americans smoked Kools by 1976.

The tobacco industry realized Black Americans were an untapped market. To increase sales they invested in researching the culture, values, and interests of the Black American community. Advertising of R. J. Reynold's Salem brand menthol cigarette included a special effort to attract Black American smokers since the early 1960's (Balbach, Gasior, & Barbeau, 2003).

In the 1950's Kool's advertising campaign included a health message, that began in the 1930's, of the benefits of smoking this brand with a sore throat (Gardiner, 2004).

The message of "extra coolness" and ''Throat raw? Got a cold? Switch from Hots to Kools'' reinforced in the consumer's mind the healthy benefits of the product. Surveys in the 1960's conducted by tobacco company substantiated that Black Americans thought menthol cigarettes were best to smoke with a cold, better for one's health, and less harsh on the throat. It was believed that menthol cigarettes were less strong than nonmenthol cigarettes. Additional research by the tobacco industry identified Black Americans attributed Kools with the Civil Rights movement with themes of bravery, toughness, and daring. To capitalize on these beliefs the tobacco industry began using Black American models with darker skin and with Afro hair styles.

In the late 1960's and through the 1970's the tobacco industry capitalized on Black American culture by taking song titles, such as James Brown's "Papa's Got a Brand New Bag" and create an advertising campaign slogan of "Newport is a whole new bag of menthol smoking." Marijuana was growing in popularity among the Baby Boomer youth. Kools were perceived to have a narcotic effect and were used after marijuana to maintain the high, or for mixing with marijuana, or instead of marijuana. Cool Jazz movement of the 1950's and 1960's included and was led by John Coltrane and Miles Davis. As a marketing opportunity, Brown & Williamson initiated the Kool Jazz Festivals. Others included Parliament's World Beat concert series, Benson & Hedges blues and jazz concerts, and Philip Morris' Superband Series. The tobacco industry provided funding to historically Black colleges and universities and community and civil rights organizations

In 1988 a senior marketing official from the company provided a succinct explanation for targeting Black Americans. While menthol cigarettes made up just 29%

of the market share nearly 70% of all menthol cigarette smokers were Black American. Tailoring an advertising campaign to that substantial of a market segment made good business sense. Constructs or themes that were used in marketing to Black Americans included: 1) escape/fantasy; 2) expensive objects; and 3) nightlife. Publications targeted for advertising, using these messages included Ebony, Jet, and Essence magazines, as well as Black-owned newspapers.

The tobacco company, in an effort to regain market share in the Black American community, lost to Lorrilard's brand, Salem, launched Uptown, marketing the brand as the cigarette for Black Americans. The Uptown cigarette's tar (19 mg) and nicotine (1.3 mg) levels were increased; second only to unfiltered Camels (Balbach et al., 2003). The Uptown Coalition was the first grass roots organization to be able to effectively mobilize the community in opposition to test marketing the cigarette in the Philadelphia Black American. As a result R.J. Reynolds pulled the campaign. They quickly learned from their mistake. A 1990 Philip Morris memorandum, titled, "Anatomy of a Failure – Uptown Cigarettes" they underestimated the challenge of launching a campaign in a politically charged community. It went on to state marketing to minorities is not new, but saying so was (Balbach et al., 2003).

In an effort for public health officials and researchers to better understand the menthol connection, the first Conference on Menthol was held in 2002 (Richter, Beistle, Pederson, & O'Hegarty, 2008). Research studies have not shown higher levels of nicotine. But what causes lung cancer? Is it the volume or length of nicotine exposure?

Studies have produced conflicting findings on the correlation between the disproportionately higher use of menthol cigarettes and the disproportionately higher lung cancer morbidity and mortality rates among Black Americans.

2006 study of literature by Werley, Coggins, and Lee (2007) found that menthol cigarettes had no apparent effect on nicotine absorption, dependency or cessation. It is important to note that Werley is an employee and Coggins is a consultant of Phillip Morris USA, Inc. and Coggins and Lee are consultants to Phillip Morris International. All received compensation from Phillip Morris for their contributions to the writing of this report. The tobacco industry insists that menthol is used only as a flavoring. But the higher incidence of lung cancer and the lower level of successful quit rates for Black Americans who overwhelmingly smoke menthol cigarettes should be enough of an impetus to continue researching to determine the correlation (Gardiner, 2004).

Findings from a 1996 research study by Clark, Gautam, and Gerson (1996) indicated menthol use results in higher levels of cotinine and carbon monoxide. This indicates that comparisons of smoking levels may be misleading. Because menthol provides a cooling sensation in the throat the researchers speculated that it resulted in deeper and longer inhalations, citing one research study with findings supporting this theory. Therefore, a menthol cigarette user and a non-menthol cigarette user smoking the same number of cigarettes per day would have different levels of nicotine in their systems, even though both brands have similar levels of nicotine. They recommend that studies involving biochemical markers of exposure adjust for menthol use.

In a recent study, even though Black American menthol cigarette users smoked fewer cigarettes per day than non-menthol cigarette users, they had significantly lower

short term (four weeks) and long term (six months) successful quit rates (Gandhi, Foulds, Steinberg, Lu, & Williams, 2009). They also were more likely to smoke their first cigarette within 5 minutes of waking up and more often got up at night to smoke a cigarette. Biochemical verification was administered using a measure of carbon monoxide (EC-50 Smokerlyzer). Quit rates for markers of lower socioeconomic status (e.g. unemployment) were significant lower for European American and Black American smokers.

Healthcare Professionals and Cultural Proficiency

At a recent physicians' educational conference, a pharmaceutical representative apologized for the color of one of the company's promotional giveaways. In opening the box, this researcher was pleasantly surprised in discovering bandages in a rich chocolate brown color. This seemingly benign topic of conversation (color of a bandage) illuminated two diametrically opposed reactions. The pharmaceutical representative offered numerous boxes of the bandages to this researcher. He obviously felt that this would not be one of the more sought after promotional items that he brought to entice attendees to stop at his display booth. Had it been a highly prized item, he would have carefully and diplomatically only allowed one per attendee. This brought to mind the infamous and often repeated revelation of Diller (1999) that flesh colored bandages matched her skin and not that of her Black American students. These brown bandages were shown by this researcher to Black American colleagues. The reaction was excitement, delight, and requests for multiple bandages to be shared with students, family members, co-workers, and for personal use. Beauty, indeed, is in the eye of the beholder.

Cultural competence is defined as a set of congruent behaviors, attitudes, and policies that come together in a system or agency or among professionals that enables effective interactions in a cross-cultural framework (Cross et al., 1989). It involves the skills, attitudes, and values that are necessary in the attainment of cultural knowledge, sensitivity, and collaboration with the community served (Tyson, 2007). Orlandi (Orlandi, 1992) defines a culturally competent healthcare systems as one that "acknowledges and incorporates - at all levels - the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural

knowledge, and adaptation of services to meet culturally unique needs."

But, how does one teach cultural competence? Lindsey, Roberts, and Campbell Jones (2005, p. 74) define cultural proficiency from an educator's perspective as "knowing how to learn and teach about different groups in ways that acknowledge and honor all people and the groups they represent." Does the educator who is integrating cultural competence into health degree program curriculum and clinical training need to be culturally proficient? How is cultural proficiency assessed? According to the 2000 U.S. Census, racial and ethnic minorities comprise almost 25% of the population. In contrast they only comprise nine percent of nurses, six percent of doctors, and five percent of dentists (Grumbach et al., 2003). This underrepresentation in health degree programs is rooted in the educational and social inequities prevalent in this country and constitutes a public health crisis. Research indicates that greater diversity in health professions addresses health disparities by race in the following ways: 1) underrepresented minority healthcare professionals disproportionately serve minority and

other medically underserved patients and 2) minority patients receive better interpersonal care from healthcare professionals of their own race or ethnicity (Saha, 2006). Saha concludes that health profession diversity can lead to improved trust, increased access, and culturally tailored communications in the healthcare system, thereby resulting in improved health outcomes.

Efforts need to target increasing health profession diversity, as well as, increasing cultural proficiency of all existing healthcare professionals, educators, and students. Cross (2003) contends that rather than perceiving culture as a problem to be solved, it should be viewed as a resource. This resource can inform human behavior and clinical practice. One success story is Dr. Edward E. Partridge of the University of Alabama at Birmingham, who grew up in a segregated southern community. He credits a series of experiences, education, clinical training, fellowship, and his Christian faith in transforming from accepting segregation to working on a research project consisting of, for the most part, Black American staff, volunteers, and patients (Swan, 2005). The Deep South Network (DSN) for Cancer Control was a five-year project whose aim was to reduce cancer health disparities in the Mississippi Delta and the Black Belt of rural Alabama. The community based participatory research framework used included adapting programs to match the cultural norms of these communities. This meant incorporating spirituality, local leadership, interaction, and other cultural values. The project was not a majority culture developed and implemented initiative emanating from outsiders. There was community involvement at every stage of the project, including culturally tailored marketing, development, and implementation. Dr. Partridge was

receptive to unlearning prior cultural norms and allowing the community to be equal

partners in developing solutions for improving health outcomes.

The transformative learning that Partridge describes is a drastic shift from typical

continuing professional education for healthcare professionals. Pre-profession education

involves basic knowledge acquisition, skill development, and certification. Once a

professional enters the practice continuing education involves improving skills, typically

relating to innovation in the field and utilization of technological advances. Cutural

competence training involves unlearning behaviors and calling into question cultural

values that comprise an individual's persona and stature in the field. The word, racism, is

so emotionally charged that the objectives of the educational program are often lost in the

defensive posturing. European Americans typically view racism as individual acts, rather

than institutional policies, systems, and barriers for non-majority culture individuals

(Unzueta & Lowery, 2008). The perception of racism as an individual act or choice is far

less threatening. Unzueta and Lowery (2008) suggest that viewing racism as institutional

threatens self-image. Accepting the concept of institutional racism raises awareness

regarding white privilege, a concept that challenges the cultural value of individualism as

the key reason for personal success. Tending to participants' self-image (ego)

maintenance increased willingness to conceive of racism as institutional.

Taylor, Marienau, C., & Fiddler describe (2000) five dimensions of adult

development and learning in the Developmental Intentions Chart: 1) Toward knowing as

a dialogical process; 2) Toward a dialogical relationship with oneself; 3) Toward being a

continuous learner; 4) Toward self-agency and self-authorship; 5) Toward connection

with others. Knowing as a dialogical process can be hampered by the healthcare

professional's limited knowledge or limited willingness to see beyond the parameters of his/her own norms. Success in this dimension requires exploring visualization outside of what is known. It also requires the co-learners, who are sharing their experiences, to be able to describe them in ways that the healthcare professional can latch onto, such as, words or ideas that can assist in the learning of new knowledge.

Action learning is a viable vehicle in assisting the healthcare student to moving from abstract, theoretical concepts to informing knowledge. Providing opportunities for the healthcare student to become immersed in other cultures for clinical and nonclinical activities extends the learning beyond the classroom. It permits the extrication from one's self and expand the horizons of possibilities. For it is through interaction on a social, economic, and political level that we are exposed to different ideas, different approaches, different realities, and different ways of defining ourselves. It is through this interaction that change, learning, and growth occurs. This fits the parameters of adult development and learning which are varied, deliberate, complex, and fluid.

The third dimension of the Developmental Intentions Chart (toward being a continuous learner) involves critical reflection on one's own and others' experiences as a guide toward future behavior; learning in unfamiliar realms and taking risks; recognizing individual strengths and weaknesses; accepting internal dissonance as an integral component of the learning process; and soliciting and integrating feedback from others (Taylor et al., 2000). Healthcare professionals are viewed as diagnosticians and healers. They are the experts. To suggest a model involving internal dissonance results in more than a mindset change. It pierces the very core of what is traditionally viewed as the role of the healthcare professional. Tyson (Tyson, 2007) contends that cultural competence

cannot be achieved in the health professions without addressing, understanding, and acknowledging institutional racism and white privilege.

Continuum of Cultural Development

Cultural diversity workshops generally are delivered with the premise that the level of cultural knowledge and skill at the end of the program will be similar for all participants. This is the expectation with clinical training. At the end of training, all can follow the same protocol, technique, or skill application. The reality is that the level of cultural knowledge and skills prior to the program will vary. The process of becoming culturally proficient is individual, based on experiences and cultural values, attitudes, and beliefs. Moving from one level of cultural development to another involves that personal journey, fueled by motivation to learn and understand other culture groups' values and integrate that knowledge into clinical practice. As a result of this complexity, it is reasonable to assume that subsequent to the education program, participants will still be at varying levels. This phenomenon is the continuum of cultural development.

One model of cultural development for healthcare professionals suggests a progression through a continuum, from low to high that includes cultural awareness, cultural sensitivity, cultural competence, and cultural proficiency (Wells, 2000). Cultural proficiency would extend cultural competence into clincial practice, administration, education, and research. It would serve as a philosophical and behavioral approach to cultural diversity, providing a framework for individual and institutional behavior toward "cultural others." Wells (2000) draws on the work of Airhihenbuwa (1992), stating these new models must "include the cultural implications of health behavior, rather than

perpetuate models that are based on the assumptions, theories, and frameworks of the dominant society" (p. 190).

Such a continuum of individual intercultural sensitivity, developed and presented by Louie (1996), would include the "ethnocentric stage (denial of the existence of other cultures)" and the "ethnorelative stage (integration of cultural knowledge in policy and practice)" (p. 230). Cultural development would occur by navigating from one stage to the other through a progression that includes six phases of the continuum, ranging from denial to integration. Other models presented by Wells include Orlandi's (1992), *Cultural Sophistication Framework*, of three stages: cultural incompetence, cultural sensitivity, and cultural competence. Each stage has four dimensions: cognitive, affective, skills, and overall effect.

The *Cultural Competent Model of Care* developed by Campinha-Bacote, Yahle, and Langenkamp (1996) is process oriented and includes cultural awareness, cultural knowledge, and cultural encounter. Campinha-Bacote's (2003) current model of cultural development is the *Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals – Revised* (IAPCC-R). The model includes the stages of culturally incompetent, culturally aware, culturally competent, and culturally proficient. The continuum of cultural development is the process of cultural competence. Campinha-Bacote (2007, p. 20) states that it is a "process, not an event; a journey, not a destination; dynamic, not static."

The complexity of the journey of cultural competence involves the dynamic nature of culture. There are variations (subcultures) within a culture group. There is no one protocol that can be developed to provide healthcare professionals with the definitive

actions for healthcare interventions for any given cultural group. There are values and beliefs that may be generally held by many in a specific culture group. But there may be variations by region, socio-economic class, and education. This means that as you increase knowledge and awareness regarding other cultures you will realize there is more that is unknown to you. As you learn more about other culture groups, the more comfortable you become with the ambiguity of culture. You learn that cultural values, beliefs, and attitudes that differ from your cultural experiences are not wrong; they are just different. Understanding the differences will aid in culturally sensitive communications that will lead to increased understanding regarding other cultures. Campinha-Bacote (2003) asserts that this journey is not a linear process.

In addition to the stages of this model of cultural development, the journey consists of five constructs: cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounter. Campinha-Bacote (2003) asserts that cultural desire is pivotal and key in the journey towards cultural proficiency. The successful journey leads to culturally responsive healthcare services.

Another model includes a tool kit to assist educational leaders in upward mobility on the continuum of cultural development. The stages are cultural destructiveness, cultural incapacity, cultural blindness, cultural precompetence, cultural competence, and cultural proficiency (Lindsey et al., 2005; Lindsey, Robins, & Terrell, 2003). Tools provided by Lindsey et al (2003) include The Continuum (language for describing productive and unproductive policies, practices, and behaviors); The Essential Elements (behavioral standards for measuring continuum mobility); The Guiding Principles

(underlying values); and The Barriers (caveats that assist in responding effectively to resistance to change.

These models suggest that it is necessary to provide a framework that leads to behavioral changes that are measurable and valued within the healthcare industry. The complexity of effecting cultural behavioral change often is overshadowed by the lack of perceived value for the healthcare education programs offered. Barriers to participation in training can be two-fold, in regards to lack of perceived value: 1) the training is not relevant to my professional practice and 2) the time and/or length of the training does not fit my schedule.

Five strategies for improving attendance at Medical Grand Rounds at a tertiary care academic medical center, from 1998 to 2001 are presented (Mueller, 2003). Medical Grand Rounds (MGR) is a central teaching activity for diagnostic and therapeutic approaches to patient treatment and care. It had been noted that there was a decline in the quality of and attendance at MGR at academic medical centers. Reasons given for the decline include (1) poor organization, (2) improper decorum (e.g. rounds starting late, interruptions by pagers, noise), (3) lack of participation by departmental leaders and faculty, (4) lack of patient-centered focus, and (5) declining relevance to subspecialty practice. MGR strategies for improving attendance included (1) using electronic card readers to improve understanding of attendance patterns, (2) conducting yearly needs assessment surveys, (3) developing sessions of topical interest, (4) increasing formal participation by residents and faculty researchers, and (5) enhancing publicity. The result of these strategies was a 39% increase in attendance from 1998 to 2001.

McCabe (2006) developed a health literacy simulation for undergraduate students (nursing, pre-nursing, health sciences, social work, and other degree programs) enrolled in one-credit hour Introduction to Health Care Informatics course.

Students were provided information regarding the use of technology and health. Readings and class discussion addressed the issues of assessing patient health literacy and understanding cultural beliefs in order to aid in the patient in understanding and adhering to medical instructions. The students were given an information prescription in different languages, including English. The assignment required that they understand the instructions written on the paper they received. They were on their own to seek a translation if they received instructions in a language they did not know. Students were given an opportunity to collectively reflect on their experiences. Students discussed the methods used to obtain translation of the information prescription. They quickly learned that many of the informal sources used were not medically reliable. The longer it took to obtain translations the more likely students were to report feelings of frustration and even anger. Students experienced a phenomenon, identified by Jean Piaget as "cognitive disequilibrium." This is consistent with Jack Mezirow's (1990) model of Transformative Learning. The model entails meaning making from our past perceptions of appropriate behavior to integrating new learning and new experiences, thereby developing new behaviors, more relevant than the past behaviors. By becoming the patient, students reported increased empathy for patients with compromised literacy, instead of contempt or indifference from patient noncompliance. McCabe found that moving from a theoretical discussion of cultural differences to an experiential learning activity, students'

frustration gave way to understanding the coupling of their cultural competence with the patient's health literacy.

Best Practices in Tobacco Cessation

Black Americans vs. European Americans and others smoke less cigarettes per day and take fewer puffs per cigarette, yet have higher levels of cotinine (major metabolite of nicotine) and carbon monoxide in their blood, resulting in disproportionately greater health consequences (Harris et al., 2004). These disparities have perplexed researchers. It has been difficult to identify one definitive reason for the disparities. In fact, Harris et al found that predictors of successful tobacco cessation identified in prior research studies did not result in success for Black Americans. One shortcoming of prior studies is that research was conducted using European Americans (Harris et al., 2004). Successful tobacco cessation strategies for Black Americans were assessed by analyzing research data from a double-blind placebo-controlled, randomized trial that used bupropion SR for smoking cessation among 600 Black American smokers. Noted differences in tobacco use by Black Americans vs. European Americans included higher prevalence of menthol cigarette smokers, higher levels of tobacco dependence (as evidenced by frequency of smoking within 10 minutes of waking up and higher cotinine levels per cigarettes smoked in comparison to European American smokers). Harris et al concluded that predictors of higher rates of successful tobacco cessation were being on bupropion SR , not smoking menthol cigarettes, not smoking within 30 minutes of waking, older age, lower number of cigarettes smoked per day, and lower cotinine levels.

This clearly indicates the need to pursue additional research on disparities and identify strategies for cessation that are effective in light of the data.

Evidenced based tobacco cessation strategies, in general, include smoking cessation advice by healthcare provider, quitlines, counseling, FDA-approved pharmacotherapy (Centers for Disease Control and Prevention, 2007; National Institutes of Health, 2006). Pharmacotherapy includes nicotine replacement therapy (nicotine patch, gum, nasal spray, inhaler, and lozenge) and non-nicotine medications such as bupropion hydrochloride (aka Wellbutrin and Zyban) and varenicline (aka Chantix). Patients combining two or more of the smoking cessation strategies, listed above, are more successful in their efforts to stop smoking (Fiore et al., 2008; Mallin, 2002; National Institutes of Health, 2006). The National Network of Quitlines by the Department of Health and Human Services provides a portal to state quitline services through one toll free number (1-800-QUIT NOW). Colorado was able to almost double the Black American use of the state's quitline services via televised promotions using a Black American sports celebrity during 2005-2006 (SHiFT Incorporated, 2007). This substantiates the importance of culturally tailoring the interventions for Black Americans that have proved to be successful with majority culture. Previously, a European American local sports celebrity was used. One small change in delivering the message resulted in huge dividends in terms of positive outcomes.

Understanding disparities by race regarding tobacco utilization and cessation, combined with culturally tailored communications and materials, aids the healthcare professional in efforts to assist Black American patients in tobacco cessation. One study of inner-city Black Americans found a significant difference in successful short term quit

rates using the nicotine transdermal patch vs. placebo (Ahluwalia, McNagny, & Clark, 1998). This study was conducted as an adjunct to brief counseling and education, including provision of the culturally tailored publication, *Pathways to Freedom: Winning the Fight Against Tobacco* (Robinson, 2006). The researchers compared their results to other studies and found that the European American success rate was significantly higher than the Black American rate. One of the challenges for success involved the inability to locate some of the participants after several months into the study. The researchers possibly did not understand some of the dynamics of cultures of poverty, including people who tend to relocate more often than affluent individuals. How do you track individuals who may not have a telephone or who have temporary living arrangements? Also, how do you increase motivation of research subjects to keep in touch with the researchers even when living arrangements change?

In Chapter One: Introduction the following issues were presented: differences in Black Americans' clinical experiences and perceptions included higher levels of distrust and negative experiences with the healthcare delivery system, fewer experiences with counseling, healthcare provider tobacco cessation advice, and lower levels of utilization, knowledge, and understanding of pharmacotherapy than European Americans (Fu et al., 2007).

A 2007 research study looked at the opportunity to provide tobacco cessation advice to patients electing to have surgery at the Mayo Clinic, Rochester, Minnesota (Warner et al., 2008). Although patients expressed an interest in quitting and perceived the healthcare professional's role as important, there was limited to no knowledge regarding quitlines. Healthcare professionals were equally unknowledgeable of quitlines

and expressed time as a barrier to this tobacco cessation intervention and to learning how to intervene.

A factor most often identified as a barrier to healthcare professionals providing cessation advice to their patients is time. To overcome this barrier a strategy to assess patient motivation and confidence in success can be employed using the Scaling Sheet.

Healthcare providers are also reluctant to bring up the issue of a patient's smoking status due to the possibility of getting a negative and hostile reaction. Clinical training rarely prepares them for how to diffuse this type of situation. Malin (2002) presents a motivational counseling model (based on the transtheoretical model for readiness to change) that provides different interventions depending upon the smoking cessation stage of the patient. The stages are precontemplation, contemplation, preparation, action, maintenance, and relapse.

Generally, publications on best practices provide guidelines that are race neutral. They broadly discuss the disparities in lung cancer morbidity and mortality which overwhelmingly impacts Black American smokers at a disproportionately higher rate than European American smokers. Chapter Seven of U. S. Health and Human Services' 2008 *Treating Tobacco Use and Dependence* provides a long list of specific populations that includes racial and ethnic minority groups (Fiore et al., 2008). The publication explains that these groups may have difference experiences, exposure, levels of knowledge regarding cessation strategies, etc. The publication indicates special effort and resources should be provided. But, there are no descriptions, examples, or resource referrals provided. References are made to success with tobacco cessation guidelines provided from research that includes diverse populations as participants. This provides a

mixed message to clinicians. Yes there are disparities in tobacco use and cessation, but specific strategies for providing tobacco cessation interventions in a culturally sensitive context are not included. These guidelines are helpful in pointing out that every smoker should be asked and encouraged to quit. Even three minutes of cessation counseling by a healthcare provider impacts successful quit attempts. Having a better understanding of the barriers and challenges faced by Black American patients in accessing and navigating the healthcare system, as well as, with tobacco use and cessation, will aid the healthcare provider in assisting the patient with tobacco cessation.

Continuing Professional Education

Commitment to continuing professional education crosses all professions. It was estimated that U.S. organizations spent $134.39 billion on employee learning, training, and development in 2007 (ASTD, 2008).The need and willingness to commit resources to continuing professional education is where the similarities end. The mandate for, structure, content, and delivery of such education varies by profession, by certification or licensing criteria, and by geographic location. For example, nurses in one state may have mandates for continuing education, whereas nurses in another state are not required to attend training programs. Mott and Daley (2000) identified one of the trends (and the bottom line), emerging in the 1990s, as the increased focus on continuing professional education to regulate professional practice.

Education programs related to cultural competency focus on attitudes, motivation, and interpersonal skills that are not familiar territory for continuing education (Young, 1998). Even charting the seas of familiar territory has produced significant challenges.

These challenges include developing systems of learning fostering improvement of professional practice, along with linking pre-profession preparation with continuing professional education (Mott & Daley, 2000). Each profession handles continuing education differently. Continuing medical education (CME) and continuing nursing education (CNE) are governed, developed, and certified by different entities. Reasons for participation in continuing education can include 1) requirements for certification or recertification; 2) personal/professional enrichment; 3) development of new skills; 4) improvement on current practice; 5) social change; 6) promotion or job change; 7) company rewards, salary increases, or recognition.

CME formats are generally lecture and rarely customized to the needs of the individual learners (Young, 1998). The nursing profession is perceived as leading the way to reform in continuing education for the health professions. Recommendations are to create an integrated health care system linking patient health status to CME intervention. Education would be driven by health outcomes and provide a means of more effective evaluation (Young, 1998). Continuing education is more proactively sought. Certification requires a rigorous review of pre-stated objectives and subsequent evaluation by participants to determine if objectives were met.

Conclusion

Black Americans are more likely to smoke menthol cigarettes, smoke fewer cigarettes per day, take fewer puffs per cigarette, express a higher level of motivation to quit, have fewer successful quit attempts, receive lower levels of tobacco cessation counseling by healthcare providers, and experience a disproportionately higher lung

cancer morbidity and mortality than European Americans. Healthcare providers or students who are disproportionately European American in comparison to the U.S. population do not generally know much of this data. Indiana is racially segregated even in communities where there are numerous racial or ethnic minorities. Having this knowledge equips healthcare professionals to provide more effective cessation advice and tailor communications to meet the needs of their Black American patients.

Recent research has shown that Black Americans do not receive the same diagnosis for similar symptoms and the same level of treatment for chronic conditions as European Americans. This is true even when controlling for income, insurance, and education. Historically Black Americans' ancestors, who entered this country involuntarily and by force from Africa and enslaved arrived here with a compromised health condition, referred to as the Slave Health Deficit. Their initial experiences with the European American health care system were often substandard and detrimental to health and life. This included medical experimentation and mutilation without informed consent. Institutional racism that has been pervasive in the political, economic, educational, and social fabric of this country has also equally, if not more so, prevalent in the healthcare system. These experiences have fostered fear and distrust of the healthcare system, that are evident, even today.

As a result of these realities, scrutiny is necessary to eliminate the inequities encountered in Black Americans accessing the health delivery system. This speaks volumes to the fact that "Race Matters." A key component of eliminating the health disparities must include addressing the cultural proficiency of healthcare professionals. They must be made aware that there is disparate treatment beyond the poor, the

uninsured, and the uneducated and that there are strategies they can employ to eliminate those disparities. Understanding cultural differences in their patients and tailoring communications to those differences will guide healthcare professionals to adapt their clinical interventions generally to align with Black American values and needs. There are many subcultures within the Black American community and learning about these differences will assist the healthcare professionals in becoming more culturally sensitive with the goal of diffusing the distrust and perceptions of racial bias by their Black American patients.

Healthcare professionals are disproportionately European American in comparison to the United States population. It is estimated that within fifty years the growth of racial and ethnic minorities will result in European Americans becoming the new minority. Currently, healthcare disparities are disproportionately experienced by Black Americans and other populations of color. Because of this, it is imperative that healthcare professionals increase their cultural awareness, sensitivity, knowledge, and skill to achieve equity in healthcare delivery for all races/ethnicities.

Healthcare degree programs must not only include curriculum components to increase students' cultural awareness, knowledge, and skills, but also assess the results of the programs. Assessments will allow educators to determine the effectiveness of their programs and to adjust healthcare education, as needed. Assessing cultural proficiency differs from traditional didactic training. Educators must understand the continuum of cultural development. At the end of the clinical training, every student is expected to have mastered the identified skill (diagnosis of specified disease, accurate reading the blood pressure level, taking a blood sample, etc.). Cultural proficiency is not static, but

dynamic. Students will enter the program at varying levels of cultural development. Training to increase cultural awareness, knowledge, and skill will result in varying outcomes for the students depending on where they started on the cultural development continuum. Training should also involve multiple media, linking and integrating to the clinical experience. In addition to integrating components of cultural development into every course, students should be required to engage in non-clinical cultural immersion activities. Attending cultural events in the local and regional communities can assist the student in increased understanding of cultural values and differences. To effectively determine student progress in cultural development, their level of cultural development must be assessed pre and post program. Participating in community based participatory research projects can also aid in developing skills of community engagement and problem solving.

Analysis of the literature was used to design the research study and the healthcare education program. Chapter Three describes the research study and the methods developed to answer the research questions.

Chapter 3 Methods

Introduction

Chapter Two provided a foundation for the rationale and approach of this research study. This included the outlining of the disparities Black Americans experience with tobacco use and cessation, the racial and ethnic disparities in the healthcare system, the missed opportunities for healthcare professionals' interventions stemming from low levels of cultural development. Studies were identified that linked improved healthcare professionals and patient relations with increased levels of cultural development. Methods of analyzing program effectiveness that incorporated the theoretical model of the continuum of cultural development were presented and addressed.

This chapter provides an in-depth view of the research design created to answer the research questions. The target population, research strategy, measurement of variables, and the instrument design used in determining the effectiveness of the healthcare education program is presented and explained.

Study Population

Initially, the target population to be studied was healthcare professionals (healthcare professionals). Preliminary discussions with certification agents (to provide CME & CNE contact hours) at Indiana hospitals resulted in high interest in participation and utilization of the proposed healthcare education as a sanctioned continuing education

activity for healthcare professionals. As planning continued, it became apparent that due to the variability of healthcare professionals work schedules and work load, there would be a need to significantly increase the anticipated time horizon, cost, and resources needed to ensure participation by the requisite number of healthcare professionals for statistical significance in findings. With 90 minutes for the healthcare education program and up to 30 minutes for the pre and post assessments, healthcare professionals who did not complete all assessments would be considered non-compliant and omitted from the data collection. Additional reasons for protocol non-compliance for participants providing informed consent could include personal preference by deciding to opt out of the study, arriving late, and leaving early.

The initially planned research was designed to determine if a healthcare education program planned to change patient-healthcare provider relationship dynamics would positively impact (via an increase in) the number of tobacco cessation strategies presented to Black American patients, who were smokers and had not been diagnosed with lung cancer. After consultation with Dissertation Committee members and academic/HC colleagues it was decided to change the target population to healthcare students. The initially planned research study could be conducted at a later date, using findings from this research with healthcare students to inform and possibly improve, as needed, the program for healthcare professionals.

A convenience sample of healthcare students in post secondary institutions in Indiana was selected for this study. The educational institutions were targeted due to the researcher's access to colleagues and referrals for study participation. Permission to conduct the research study was granted by key stakeholders (college deans, department

chairs and professors) in the healthcare degree programs of dental hygiene, health sciences, human services, medical assisting, nursing, and physician assistants. Meetings were scheduled to explain the healthcare education program and research study, level of student effort involved, obtain permission for student participation, and schedule students' introductory meeting to explain the study and distribute/review the informed consent form and flyer (describing the program and research components) and subsequent provision of the healthcare education program.

In order to extrapolate findings from the sample population to the healthcare student population (Motulsky, 1995), it was necessary to determine what sample size would be viable. Power analysis was conducted to determine minimum sample size of target population that would yield statistically significant results. Power is the probability that a statistical test detects an effect (Heaney & Dougherty, 1988) from the healthcare education program. Rosnow and Rosenthal (2005, p. 438) define power analysis as "Estimation of the effective power of a statistical test, or of the sample size needed to detect an obtained effect given a specified level of power" (p. 438). For this study the statistical test refers to comparing pre and post-program results. A power calculation was conducted to determine minimum sample size to ensure statistical significance and 95% level of confidence in results.

The change in level of cultural development is determined via IAPCC-R scores pre and post program. For 95% level of confidence: If the mean difference is 10 units (Example: pre-program score = 65 and post-program score =. 75) and the standard deviation is 3 units, 90 participants would be sufficient to conclude correctly that a difference does exist with a power level in excess of 90%.

The change in awareness of disparities regarding Black Americans and tobacco cessation is determined via Tobacco Cessation Assessment (TCA) scores pre and post-program. TCA scores range from zero (0) to nine (9). For 95% level of confidence: If the mean difference is 1 unit (Example: pre-program score = 3 and post-program score = 4) and the standard deviation is 1 unit, 90 participants would be sufficient to conclude correctly that a difference does exist with a power level in excess of 90%.

Therefore, having 90 participants was sufficient to answer the basic questions posed by this study. 106 eligible healthcare students participated in the research study.

Eligibility criteria for study participation included: healthcare students 18 years of age or older and who were pursuing post-secondary degrees in one of the following fields 1) nursing, 2) dental hygiene, 3) physician assistant, 4) nurse practitioner, 5) respiratory therapy, 6) medical, 7) human services, or 7) other healthcare field. As a part of determining eligibility, all participants were asked questions regarding age range and prior participation in a comparable healthcare education program within the last six months. Ineligibility criteria included students under the age of 18 or having a family member living in the same household participating in this research study or past enrollment in a comparable healthcare education program within the last six months.

Theoretical Framework

The theoretical framework for this study involves the continuum of cultural development. There is no universal level of cultural proficiency. The level is dependent upon the individual's knowledge and understanding of, as well as, experiences with other cultures. The process by which one gains cultural proficiency is far more complex than

becoming skilled in a health-related protocol, i.e. obtaining a reading on a patient's blood pressure. Campinha-Bacote (2003) described cultural competence as a journey, not an event, as dynamic, not static, as a process of becoming, not a state of being. It was speculated that all healthcare students would not be assessed pre-program at the same level of cultural development. If there is a correlation between cultural development and knowledge of disparities regarding Black Americans and tobacco cessation, a program will not have the same impact on all participants. Pre-program participants will be at varying levels of cultural development. It is hypothesized that participants' level of cultural development will increase post-program. But participants will have varying levels of cultural development post-program.

Instruments

Data collection consisted of the use of six self-administered assessment instruments (see Appendix A) that were assembled into a Participant Assessment Packet. The forms did not include entries for name in order to maintain confidentiality and privacy of the subject and data bundling (stapled) the instruments into a Participant Assessment Packet, prior to distribution, eliminated the need to pair pre and post program assessments, by using identifiers. The instruments were: 1) Participant Profile; 2) Pre-Program: Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R); 3) Pre-Program: Tobacco Cessation Assessment (TCA); 4) Post-Program: IAPCC-R; 5) Post-Program: Tobacco Cessation Assessment (TCA); and 6) Reaction to Training Survey.

Participant Profile: This instrument provided descriptive statistics that included demographic data for participants and criteria to determine eligibility for inclusion in the research study. Demographic data in the Participant Profile was college program of study, professional title, medical specialization, gender, age, race, ethnicity, primary location of practice, and number of Black American patients treated within the last two years, and participation in a similar healthcare education program within the last six months. Eligibility for inclusion was determined by responses to questions regarding family members living in the same household who were also participating in this study and participation in a similar healthcare education program within the last six months. Prior participation in a similar program or access to a participant may result in similar pre and post scores, skewing the impact of the program. Projected completion time was approximately 1 – 2 minutes.

Pre-Program: IAPCC-R: This instrument was administered prior to the healthcare education program and provided baseline data on the participants' level of cultural development. The instrument was created and is copyrighted by Dr. Josepha Campinha-Bacote (Transcultural C.A.R.E. Associates) in 1997 and initially measured four constructs: cultural awareness, cultural knowledge, cultural skill, and cultural encounters. The instrument was revised in 2002 to include a fifth construct: cultural desire. There were five questions per construct for a total of 25 questions. Scores per construct range in value from 5 – 20. Campinha-Bacote (2003) describes the five constructs as interrelated and necessary to increase the level of cultural development. The instrument used a 4 point Likert scale with the following response categories: strongly agree, agree, disagree, strongly agree; very aware, aware, somewhat aware, not aware; very comfortable,

comfortable, somewhat comfortable, not comfortable; and very involved, involved, somewhat involved, and not involved. Scores indicated if the respondent is operating at a level of culturally proficient (91 – 100), culturally competent (75 – 90), culturally aware (51 – 74), or culturally incompetent (25 – 50). Higher scores reflected a higher level of cultural development. Reliability and validity has been substantiated nationally and internationally for this instrument, as evidenced by more than 25 studies that are referenced at Campinha-Bacote's website: http://www.transculturalcare.net. Some of these studies substantiating reliability include Cultural Competence and Ethnocentrism study of 71 physical therapists, occupational therapists, and nurses, Cronbach Alpha = .80 (Capell, Dean, & Veenstra, 2008) and Evaluating Cultural Competency Course for Public Health Nurses study of 76 registered nurses, Cronbach Alpha = .78 at baseline, .75 at pre-test, .90 at immediate post-test, and .93 at three month follow-up (Cooper Brathwaite, 2005). A study substantiating validity includes Assessing Cultural Competency of nursing students and faculty study of 88 first year, 121 fourth year baccalaureate nursing students and 51 faculty members had findings that suggested that cultural competence can be increased by including structured cultural content in nursing curricula (Sargent, Sedlak, & Martsolf, 2005). Projected completion time for completing the IAPCC-R was approximately 5 -10 minutes.

Pre- Program: Tobacco Cessation Assessment (TCA): This nine question instrument, developed by the researcher, was administered prior to the healthcare education program and provided baseline data on participants' knowledge regarding Black American' tobacco use/cessation. Projected completion time was approximately 5 - 10 minutes. Reliability and validity had not been substantiated for this instrument. This

research study served as a pilot test for this instrument. The nine questions selected

related to the paradoxical nature of the disparities experienced by Black Americans in

tobacco utilization and cessation. The answers that intuitively come to mind are in stark

contrast to the reality and have the potential of impeding healthcare professionals'

success in counseling Black American patients on tobacco cessation. For example, not

knowing that the average quit attempts for Black Americans is ten (seven for European

Americans) may lead a healthcare professionals to think the patient is not ready to quit

and therefore to abandon subsequent tobacco cessation counseling.

Post- Program: IAPCC-R: This instrument, also used pre-program, was

administered post-program and measured the short-term or immediate impact of the

healthcare education program on increasing awareness and changing knowledge, attitudes

and beliefs regarding the provision of healthcare for culturally/ethnically diverse groups.

Projected completion time was approximately 5 -10 minutes.

Post- Program: TCA: This instrument, also used pre-program, was administered

post-program to determine changes in participants' knowledge regarding Black

Americans' tobacco use/cessation.

Reaction to Training Survey: This 21-question instrument was administered at the

end of the healthcare education program. Data results were analyzed to see if changes

would be warranted in the conduct of any subsequent delivery of the healthcare education

program, to assess general response to the educational content and resources, and to

obtain feedback on how the students planned to integrate what was learned into their

professional practice. Data results were compared to changes in level of cultural

development (IAPCC-R) and Black American tobacco use/cessation knowledge (TCA).

All participants were given the same survey instrument. Projected completion time was approximately 2 -5 minutes.

Research Questions

The purpose of this research study was to determine the impact that the healthcare education program had on post-secondary healthcare students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. In light of the data substantiating that health disparities stem from a combination of racial and ethnic inequities in the access of the healthcare system, healthcare professionals' low levels of cultural development, and the missed opportunities for promoting Black American tobacco cessation, the following questions and hypotheses were developed to frame the research:

Research Question #1: How will the level of healthcare (HC) students' cultural development change as a result of a healthcare education program? This question corresponds to the following hypotheses being tested in this study:

H#1:   Level of cultural development will increase after the healthcare education program.

Methods utilized to test this hypothesis included evaluation of findings from comparison of pre and post-program IAPCC-R mean scores for the sample , by degree of study, and by gender.

H#2:   The awareness of disparities regarding Black Americans and tobacco cessation will increase.

Methods utilized to test this hypothesis included evaluation of findings from comparison of pre and post-program Tobacco Cessation Assessment (TCA) mean scores for the sample population, by degree of study, and by gender.

Research Question #2: What is the relationship between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation?

H#3: Higher level of cultural competence will be positively correlated with increased awareness of disparities regarding Black Americans and tobacco cessation.

Methods utilized to test this hypothesis included evaluation of findings from comparison of results of knowledge gains in TCA vs. IAPCC-R mean scores using the Pearson's correlation coefficient to determine if the scores are correlated.

Variables for this research study included:

Independent variable: healthcare education program to increase awareness of disparities regarding Black American and tobacco cessation

Dependent variable: level of cultural development, as measured by IAPCC-R mean scores post-program on two levels: 1) by cultural competency construct and 2) by level of cultural development.

Moderating variables: gender, race, program of study, contact with Black American patients.

A moderating variable may exhibit a contingent effect on the substantiated association between the independent and dependent variable. In order to determine the extent to which a moderating variable may impact this association, data was disaggregated by the moderating variable to determine the extent to which there is an

impact. The moderating variables for this study were gender, race, program of study, and contact with Black American patients.

Study Design

  The purpose of this research study was to determine the impact that the healthcare education program had on post-secondary healthcare students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. The research investigation was conducted in two phases: 1) Planning and Development and 2) Implementation and Data Analysis.

Phase I: The research study protocol was submitted to and approved by the Institutional Review Board (IRB) of Ball State University.

  The Black Americans and Tobacco Cessation program was planned and developed based on the literature review, addressing historical trends in disparities regarding Black American tobacco use, tobacco industry's role in contributing to those disparities, the disproportionately higher use of menthol cigarettes, culturally tailored resources, etc. The informational and interactive healthcare education program included:

- *National and regional demographic and health disparity information related to Black Americans, tobacco use, lung cancer morbidity and mortality rates*
- *Average age of onset of tobacco use for Black American*
- *Quit rates vs. quit attempts for Black Americans compared to European Americans*
- *Tobacco industry research and promotional strategies to increase Black American sales*

- *Tobacco use characteristics/challenges for priority populations (Black American; Asian American/Pacific Islander; Gay/Lesbian/Bisexual/Transgender (GLBT); Hispanic/Latino; Low Socioeconomic; and Native American/Alaska Native*

- *Sub-cultures within the Black American culture*

- *Healthcare provider/patient relationships/expectation of Black American patients*

- *Motivational counseling and tobacco cessation strategies for Black American patients*

- *Publications/handouts - 1) CDC Pathways to Freedom: Winning the Fight Against Tobacco (Resource Guide for Black Americans); 2) Healthcare Education Program Presentation Handout; 3) Chart of Comparison of Current Pharmacotherapy for Nicotine Dependence Treatment; 4) Patient Guide for Scaling Motivation to Quit and Confidence in Success in Quit Attempt; 5) Indiana State Medical Association's 5 A's to Cessation Counseling and 5 R's to Motivating a Patient to Quit; and Smokefree Indiana's Tobacco Quitline (English and Spanish)*

- *Local resources for tobacco cessation strategies*

Approval for healthcare student participation in the research study was obtained from key stakeholders at the educational institutions. Locations, dates, and times were scheduled and confirmed for (1) the research study overview presentation to explain the research study purpose, provide information on Human Subjects' Rights regarding voluntary participation criteria and options for students declining to participate, opportunity to ask questions, explanation of time frame for the healthcare education program and distribute supplemental documents (copy of Informed Consent Form and
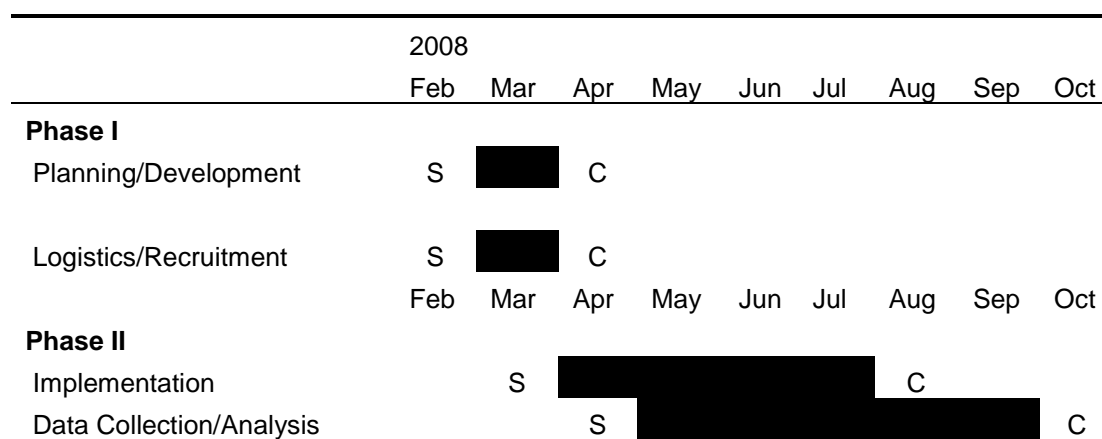
Promotional Flyer of the Healthcare Education program, and (2) the healthcare education

program /research study which involved interactive lecture, distribution of supplemental

program materials and Participant Assessment Packets. Location and schedule (i.e. date,

time, and time frame) for student participation in research study was determined.

Minimum length of time granted per healthcare education program was two hours.

Subcontracts for the research study included Dr. Josepha Campinha-Bacote, Founder,

Transcultural C.A.R.E. Associates, for use of the IAPCC-R assessment instrument and

Dr. Terrell Zollinger, Associate Director Bowen Research Institute, Indiana University

School of Medicine, for creation of Scantron form template, data collection, and creation

of data tables.

Phase II: Healthcare Education Program with pre and post-program assessment

and data analysis activities was conducted. Ongoing communication with Dissertation

Committee Chair, Dr. Michelle Glowacki-Dudka was maintained to ensure compliance

with approved proposal and IRB protocol.

Figure 3.1
Research Study Timeline

	2008								
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Phase I									
Planning/Development	S	▓	C						
Logistics/Recruitment	S	▓	C						
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Phase II									
Implementation		S	▓▓▓▓▓				C		
Data Collection/Analysis			S	▓▓▓▓▓▓					C

Study Implementation and Data Analysis

Prior to starting the program, healthcare students were provided a brief overview of the purpose and content of the healthcare education program. Questions and comments were solicited regarding research study, participation, etc. Students were asked to complete and sign the Informed Consent Form if they were willing to participate in the research study. Participant Assessment Packets were distributed to all participants at the beginning of the healthcare education program and collected after participants completed the post-program assessments. Participants were instructed to complete the Participant Profile, Pre-Program: IAPCC-R and Pre-Program: Tobacco Cessation Assessment. The pre-program instruments were administered immediately prior to the healthcare education program. The program was conducted by the researcher. It consisted of a 90-minute skills-building and interactive lecture regarding disparities in Black Americans' tobacco use and cessation. At the end of the program, participants were instructed to complete the Post-Program: IAPCC-R and Post-Program: Tobacco Cessation Assessment. Participant Assessment Packets were collected from all participants at the end of the session. Expression of thanks was extended to the students for their participation.

Data from assessment instruments was scanned and entered into Statistical Package for the Social Sciences (SPSS) application database. The following data tables were created: 1) Participant Profile (Characteristics of Students Participating in the Study); 2) Tobacco Cessation Assessment (TCA) Comparison of Pre and Post-Program Results; 3) Comparison of Mean Cultural Development Scores (IAPCC-R) Pre and Post-Program Results; 4) Comparison of Mean Cultural Development Categories (IAPCC-R) Pre and Post-Program Results; 5) Reaction to Training Survey; 6) Comparison of Mean

Pre-Program IAPCC-R Results by Degree Program of Study; 7) Comparison of Mean Cultural Development Categories (IAPCC-R) Pre and Post-Program Results by Contact with Black American Patients; and 8) Cultural Development (IAPCC-R) Pre and Post-Program Results by Degree Program of Study.

Data tables were reviewed and analyzed to determine the impact of the healthcare education program on increasing the level of cultural development and awareness regarding disparities in Black Americans and tobacco cessation. Participant Profiles were reviewed to ensure participants met the requirements for inclusion in research study. Data from Pre-Program: IAPCC-R was compared to Post-Program: IAPCC-R to determine if there was an increase in the level of cultural development. The data and the difference between pre and post-program scores were examined by question and construct to identify where significant changes occurred. Data from Pre-Program: Tobacco Cessation Assessment (TCA) was compared to Post-Program: TCA to determine if there was an increase in the awareness of disparities regarding Black Americans and tobacco cessation. Each question on the TCA was examined individually to determine where the highest and lowest levels of increases in knowledge gains occurred. A comparison of the means of Pre-Program TCA scores by gender, program of study, and number of Black American patients was conducted. Scores were comparable (normally distributed), therefore paired t-tests on the means of the Post-Program TCA scores were utilized. If scores had not been normally distributed, Wilcoxon signed rank non-parametric tests would have been utilized. These analyses assisted in determining the direction and magnitude of the difference between the mean changes in scores. Training Reaction Surveys were compiled and analyzed to determine if changes would be warranted in any

subsequent conduct of the healthcare education program. Reactions to the program were compared with changes in level of cultural development (IAPCC-R) and awareness of disparities regarding Black Americans and tobacco cessation (TCA) to determine if any themes emerged that facilitated or inhibited increases in the post-program scores for either area.

Study Limitations

This was a pilot study that was limited in scope and duration. A convenience sample was used, rather than a comprehensive study with a control group. Motulsky (1995) indicates that nonrandom samples are often used in research studies (clinical studies) and are representative of the larger population allowing extrapolation from the sample to the population. This study was intended to inform the current research on developing an attitude and behavior program that will assist healthcare professionals in increasing the utilization of evidence based strategies for tobacco cessation for Black American patients. This study could lead to a more comprehensive study to substantiate findings on a larger scale.

There were six assessment instruments, which may be perceived as an undue burden by participants and result in incomplete data. Planning for this occurrence included bundling all instruments into one packet, use of different colored paper per instrument and encouragement for completion.

Summary

Because of the emphasis the healthcare community has placed on cultural proficiency this research study was designed to determine the effectiveness of a

healthcare education program to make inroads on a health disparity that has been difficult to eliminate. This chapter provided detailed view of the research design, methods of analysis, instruments, and the multi-layered approach to assessment: process, outcome, and impact.

In Chapter Four, the results from the data collection process and the findings from the research and the data analysis are presented. The analysis will include the answers to the research questions and the assessment of the process, outcome, and impact.

Chapter 4 Results

Introduction

Chapter Three addressed the driving forces for performing this research and the variables to be measured and evaluated to substantiate or disprove the hypotheses presented at the beginning of this study. In this chapter, the results of the criteria determining and impacting the success of the healthcare education program are provided.

Participants

The research study included 106 healthcare college students that were administered the Participant Profile to collect demographic and other data to determine participation eligibility. Programs of study for participants included Physician Assistant (PA), Nursing (NUR), Health Sciences (HS), and Medical Assisting (MA) as illustrated in Table 4.1.

There were 22 (20.8%) first year graduate Physician Assistant (PA) students. There were 23 (21.7%) second year graduate Physician Assistant (PA) students. In the last year of the program PA students participate in an intensive clinical rotation with a physician preceptor. Locations include healthcare professionals' offices, hospitals, clinics, and extended care facilities.

A total of 23 (21.7%) participants were undergraduate nursing students. These

students were in their senior year. Their clinical rotations included working with clients

in hospitals, clinics, health fairs, and medically underserved areas.

The study included 35 (33%) Medical Assistant (MA) students. Almost half of the

MA students were at the beginning of the program. Students were high school graduates

who had the option of obtaining: 1) a diploma in medical assisting; 2) an associate degree

in medical assisting; or 3) a bachelor degree in business with a Medical Office

Administration major.

Table 4.1
Students' Program of Study

Program of Study	Number	%
Nursing	23	21.7%
Physician Assistant Year 1	22	20.8%
Physician Assistant Year 2	23	21.7%
Medical Assisting	35	33.0%
Health Sciences	3	2.8%
TOTAL	106	

There were three (2.8%) participants that were undergraduate Health Sciences

students. This program prepares students for careers as community health educators.

Because of the small sample size (i.e. statistically insignificant), this group was omitted

from subsequent data analysis by degree of study and only included in the analysis of the

total study population.

Other professional titles identified by the participants included Childbirth

Educator (1); Health Educator (1); and RN (4). Participants were given an opportunity to

write in a medical specialization. Medical specializations were: General (2); Nursing (1); Orthopedics (1); PA (2); Pediatric Ventilation (1); RN & Dance Minister Instructor (1). 100 participants left this field blank.

Of the participants (103 of 106) selecting gender, as illustrated in Figure 4.1, 20 (19%) participants marked Male and 83 (81%) participants marked Female.

There were 105 of 106 participants that selected an age range, as illustrated in Figure 4.2. There were 39 (37.1%) participants that indicated their age range was 18-21. 59 (56.2%) participants indicated their age range was 22-35. There were seven (6.7%) participants that indicated their age range was 36-50.

There were 105 of 106 participants that selected a racial category, as illustrated in Figure 4.3. There were 99 (94.3%) participants that selected White. There was one (1%) participant that selected Asian/Pacific Islander. There were five (4.8%) participants that selected other. For those who selected Other, 4 out 5 wrote in the following descriptions: 1 (25%) for Dominican; 1 (25%) for Hispanic; 2 (50%) for Mexican American/Hispanic.

Of the 93 out of 106 participants that selected ethnicity, five (5.4%) selected Hispanic and 88 (94.6%) selected Non-Hispanic. The lack of racial diversity in the student population for this study is reflective of the ongoing challenge regarding cultural and ethnic diversity among health care professionals (healthcare professionals).

The clinical training sites reported by the participants included hospitals, school, nursing homes, clinics, healthcare professionals' offices (private practice), and variable locations. The school setting provides simulation labs that enable students to practice in a pseudo-clinical setting that can be manipulated by faculty. The majority of the clinical settings reported are managed and staffed by predominantly majority culture (European

American) individuals. Although outside the scope of this study, it would be interesting

to ascertain the impact of being supervised by majority culture staff in a culturally diverse

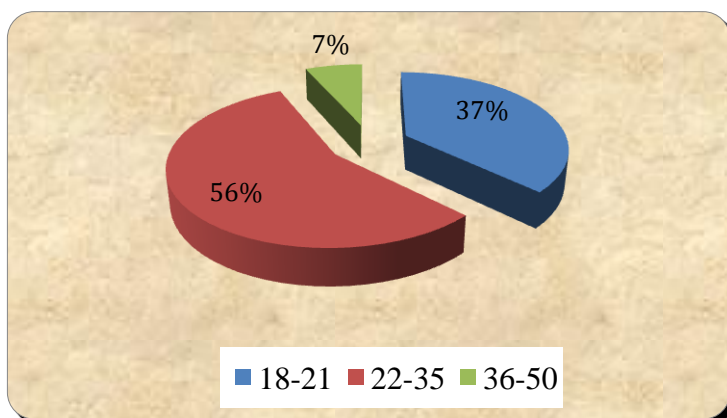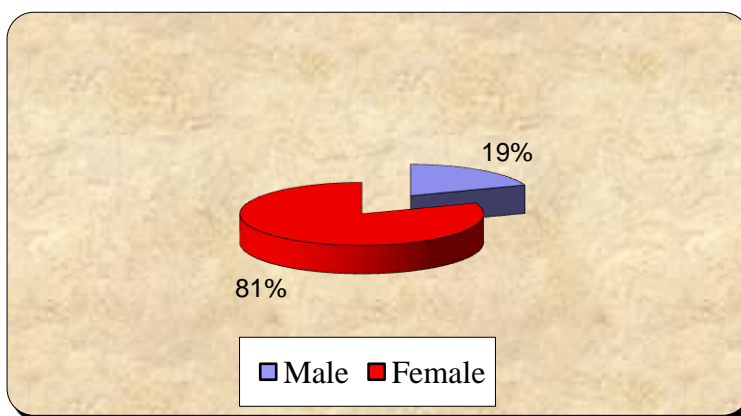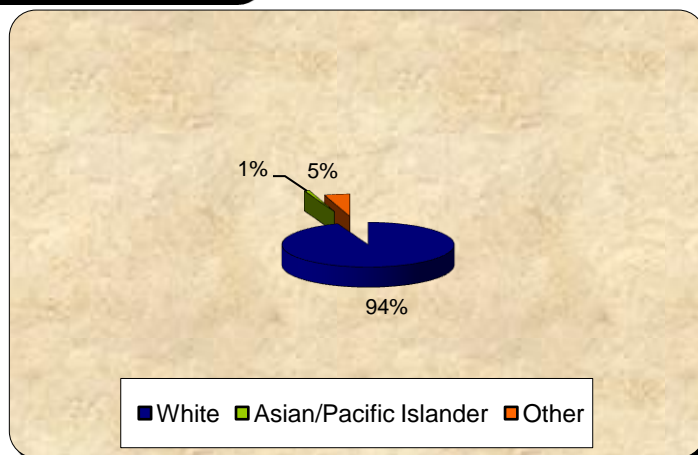clinical setting.

Figure 4.1
Gender of Study Population

Figure 4.2
Age of Study Population

Figure 4.3
Race of Study Population

There were 100 of 106 participants that reported on the Participant Profile the number of Black American patients seen, examined, and/or treated in the last two years (see Table 4.1a). There were 48 of 100 (48%) participants that had seen five or more Black American patients in the last two years. The range varied by degree of study from 3% of MA students to 100% of second Year PA students.

There were 36 of 100 participants (36%) that reported seeing ten or more Black American patients in the last two years. Since Black Americans comprise the largest minority in most urban settings in Indiana, strategies to increase healthcare students' cultural proficiency would have resulted in higher numbers of Black American patients seen, particularly by Nursing and second Year PA students. These students were in the last year of their program and would soon be entering their professional practices.

Table 4.1a
Number of African American patients seen, examined, and/or treated in the last two years

Program of Study	5-10 African American patients	%	> 10 African American patients	%
Nursing	10	45.5%	7	31.8%
Physician Assistant Year 1	0	0.0%	7	35%
Physician Assistant Year 2	2	8.7%	21	91.3%
Medical Assisting	0	0.0%	1	3.0%
TOTAL	12	11.3%	36	34.0%

Eligibility criteria for participation in this research study included participants who were: 1) college students in health degree programs and 18 years of age or older; 2) had no family members living in the same household also participating in this study; and 3) had not participated in a program related to Black Americans and tobacco cessation

within the last six months. Responses on the Participant Profile indicated that all respondents were eligible to participate, meeting all of the eligibility criteria and none reporting yes to ineligibility criteria questions.

Increasing Healthcare Students' Cultural Development

Research Question #1: How will the level of healthcare (HC) students' cultural development change as a result of a healthcare education program? This question corresponds to two of the three hypotheses being tested in this study:

H#1:   Level of cultural competency will increase after the healthcare education program.

H#2:   The awareness of disparities regarding Black Americans and tobacco cessation will increase.

To answer Research Question #1, two assessments were administered pre and post-program. The first assessment instrument, Tobacco Cessation Assessment - TCA (see Appendix A), consisted of nine questions and determined respondents' knowledge regarding Black Americans and tobacco cessation. Pre-program students demonstrated very little knowledge regarding the questions presented, with a mean score of 2.6 correct responses out of 9 questions.

By program of study students' pre-program TCA mean scores were First Year PA: 2.5; Second Year PA: 3.3; NUR: 3.3; and MA: 1.5. These TCA mean scores are consistent with the length of clinical training. The more clinical training experienced by the students the greater the opportunity to work with racially, ethnically, and culturally diverse patients, including Black American patients. Undergraduate nursing students

were seniors in their fourth year of their program. Second Year PA students were in the last year of their graduate degree program. These two groups of students had the highest TCA mean scores. First Year PA students were in the first year of their graduate degree program, where the majority of their instruction occurs in the classroom. Medical Assisting students were in the first or second year of their associate degree program. These two groups of students had the lowest TCA mean scores, consistent with the lowest level of clinical training.

By gender pre-program TCA mean scores were Female: 2.4 and Male: 3.0 (See Table B.2e in Appendix B). These mean scores are also consistent with the length of clinical training. 50% of the male students and 42% of the female students were Second Year PA or NUR students. 80% of the male students and 59% of the female students were First Year PA, Second Year PA, or NUR students.

TCA mean scores had a possible range of 0 to 9. In comparing pre and post-program TCA mean scores, post-program mean scores were more than 100% higher, indicating an increase in knowledge based on the nine question instrument, from a TCA mean score of 2.6 pre-program to a mean TCA score of 5.9 post-program. Using paired t-test to compare pre and post-program results, it was determined that there was a statistically significant increase in knowledge, $t(105) = -18.914$, p value < 0.001. First Year Graduate PA students (n = 22) had the highest increase in mean score from pre (2.5) to post-program (6.1) (see Table B.2a in Appendix B).

In comparing pre and post-program TCA scores by gender, again, the increase in knowledge was statistically significant, using paired t-test, male students: $t(19) = -8.725$, $p < 0.001$ and female students: $t(82) = -8.725$, $p < 0.001$. Female students (n = 83) had

the highest increase in mean score from pre (2.4) to post-program (5.9) (see Table B.2e in Appendix B). Male students (n = 20) had a higher pre-program TCA mean score (3.0) than female students. The post-program TCA mean score (5.9) was the same for male and female students.

Question #3 had the lowest mean scores and difference in pre and post-program. This result leads the researcher to question the students' understanding and the clarity of the question. The topic was covered in the healthcare education program by discussion of the lower usage of cigarettes by Black Americans compared to European Americans contrasted with the higher incidence of lung cancer and mortality. Special emphasis was placed on this issue. Participants were provided (verbally and via handout) with the smoking prevalence of adult and youth smokers by race and by stating that Black Americans, in comparison to European Americans smoke fewer cigarettes per day and take fewer puffs per cigarette. Yet incidence of and mortality from tobacco related lung cancer is higher in Black Americans than European Americans. Based on the number of participants who responded incorrectly to Question #3, it is recommended that this question be re-worded to ensure a shared understanding.

Overall, by program of study, and by gender, awareness of disparities regarding Black Americans and tobacco cessation increased, supporting Hypothesis #2. The response to the healthcare education program was overwhelmingly positive. Participants generally found the presentation and the handouts relevant, practical, and necessary for improving their professional practice, as will be evidenced later in the results of the Reaction to Training Survey. The students indicated the information provided was

formerly unknown to them, which is substantiated by the low pre-program TCA mean

scores.

Table 4.2

Comparison of Correct Responses to Tobacco Cessation Knowledge Questions Pre- and Post-Program (n=106)

	Pre-Program		Post-Program		
	#	%	#	%	
1. Smoking is responsible for 90 percent of lung cancer incidences.	51	48.1%	87	82.1%	
2. Communication with African American/Black patients regarding tobacco cessation strategies is dispensed less than Whites.	44	41.5%	74	69.8%	
3. Exposure to tobacco smoke for African Americans/Blacks is less than Whites.	2	1.9%	22	20.8%	
4. Incidence of use of smokeless tobacco for African Americans/Blacks is less than Whites.	44	41.5%	64	60.4%	
5. African Americans/Blacks' expressed desire to quit smoking is more than Whites.	2	1.9%	56	52.8%	
6. African Americans/Blacks' quit attempts before achieving successful tobacco cessation are more than Whites	15	14.2%	72	67.9%	
7. African Americans/Blacks' lung cancer incidence is more than Whites.	28	26.4%	77	72.6%	
8. African Americans/Blacks' lung cancer mortality is more than Whites.	51	48.1%	78	73.6%	
9. The percentage of African American/Black smokers who use menthol cigarettes is more than Whites.	32	30.2%	91	85.8%	
Overall Score (Mean correct)	2.5		5.9		<0.001*
*Paired t-test p-value t(105) = -18.914, p value < 0.001					

Participants' cultural development was assessed pre and post-program using

IAPCC-R instrument on two levels: 1) by cultural competency construct and 2) by level

of cultural development. The five constructs are cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire. Mean scores for each construct range from 5 – 20. Although the constructs operate independently, they each play an integral role in healthcare professionals becoming cultural proficient. Campinha-Bacote (2003) suggests that all five constructs must be experienced and addressed as healthcare professionals move along the continuum of cultural development. Using paired t-test, study participants demonstrated a statistically significant increase in mean scores overall and for four of the five constructs: cultural awareness, cultural knowledge, cultural skill, and cultural encounters (see Table 4.3).

Cultural Awareness: $t(105) = -4.315$, $p < 0.001$

Cultural Knowledge: $t(105) = -5.683$, $p < 0.001$

Cultural Skill: $t(105) = -9.313$, $p < 0.001$

Cultural Encounters: $t(105) = -2.469$, $p = 0.015$

Cultural Desire: $t(105) = -0.744$, $p = 0.459$

Overall: $t(105) = -7.123$, $p < 0.001$

The results for Cultural Desire mean scores did not exhibit statistically significant increase post-program. This is to be expected. A more long-term healthcare education program, allowing students an opportunity to be immersed in a culturally diverse clinical setting would have a greater potential of significant gains in this construct. It is interesting to note the mean score for the construct of cultural desire (Pre: 15.0 and Post: 15.1) was higher than any of the other constructs' mean scores both pre and post-program, which ranged from Pre: 11.5 – 13.1 and Post: 12.7 – 13.9.

Results of the pre and post-program IAPCC-R mean scores were analyzed by stages (Culturally Proficient, Culturally Competent, Culturally Aware, and Culturally Incompetent). There were no gains made from the highest (Culturally Proficient) and lowest (Culturally Incompetent) levels on the continuum of cultural development (see Table 4.4). Not one student had a score at the level of Culturally Proficient pre or post-program. Further analysis was done by grouping the two lowest (Culturally Aware and Culturally Incompetent) levels together and grouping the two highest (Culturally Proficient and Culturally Competent) levels together. Using McNemar chi-square test, there was a statistically significant increase in cultural development post-program from the lowest grouping (Culturally Aware and Culturally Incompetent) of the categories to the highest grouping (Culturally Proficient and Culturally Competent) of the categories, chi-square = 20.333, $p < 0.001$. This test substantiated the level of cultural competence increased after the healthcare education program, thus supporting hypothesis #1.

Table 4.3
Comparison of Mean Cultural Competency Construct Scores (IAPCC-R) Pre and Post-Program (n=106)
Mean scores for each competency group

	Pre-Program	Post-Program	p-values*	t-test
Cultural Awareness	13.1	13.9	<0.001	-4.315
Cultural Knowledge	11.5	12.7	<0.001	-5.683
Cultural Skill	12.3	13.9	<0.001	-9.313
Cultural Encounters	13.1	13.6	0.015	-2.469
Cultural Desire	15.0	15.1	0.459	-0.744
Overall	64.9	69.2	<0.001	-7.123

*Paired t-test p-values

Table 4.4
Comparison of Mean Cultural Competency Categories (IAPCC-R) Pre- and Post-Program
(n=106)
Number of participants in each competency group pre- and post

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0%	0	0.0%	<0.001*
Culturally Competent	8	7.5%	28	26.4%	
Culturally Aware	97	91.5%	76	71.7%	
Culturally Incompetent	1	0.9%	2	1.9%	

*McNemar chi-square test p-value

Chi-square = 20.333, p < 0.001

An analysis of the Participants' Reaction to Training Survey (see Table 4.5) included reaction responses in the categories of Content, Instructor, Environment, Participant's Summary Content, Overall Session Evaluation, and Summary Questions and Comments. Mean score of Overall Session Evaluation was 6.1 on a 7.0 scale (n = 101). Mean score by Degree of Study included First Year PA (n = 22) = 5.4; Second Year PA (n = 23) = 6.4; NUR (n = 23) = 6.7; and MA (n = 32) = 6.0 (See Appendix B: Tables B.5a, B.5b, B.5c, and B.5d). The highest ranking came from Second Year PA and NUR students, who also had the greater amount of clinical training. The overwhelmingly positive reaction to the training couples with the increased knowledge regarding disparities related to Black Americans and tobacco cessation and the increased level of cultural development. These findings answer Research Question #1. Students' level of cultural development increased as a result of the healthcare education program.

Table 4.5
Participants' Reaction to Training (n=102)

	Mean Score*
The Content	
The stated objectives were met.	5.9
The topics were organized logically.	6.0
The coverage of each topic was complete.	6.0
The supporting materials were relevant.	6.2
The workshop/exercises supported the skills taught.	5.9
Overall rating of the content.	6.0
The Instructor	
Provided sufficient opportunity for participation.	6.4
Responded to questions and input.	6.5
Used effective examples and illustrations.	6.3
Presentation was clear and understandable.	6.2
Used time and facilities well.	6.0
Effectively integrated and summarized materials.	6.2
The overall quality of instruction.	6.2
The Environment	
The physical environment was conducive to learning.	6.1
My overall rating of the facility is	6.1
Participants Summary Content	
The knowledge and skills I gained are relevant	6.1
The session has increased my confidence in applying the skills/knowledge covered.	6.0

	Mean Score*
Overall Session Evaluation	6.1

*Score is on a scale from 1 to 7, with 7 being "strongly agree" and 1 being "strongly disagree"

Correlation Analysis

Research Question #2 and Hypothesis #3 addressed the analysis to determine if a correlation exists between cultural competence and Black American tobacco cessation disparities knowledge.

Research Question #2:What is the relationship between cultural competence and increased awareness of disparities regarding Black American and tobacco cessation?

H#3: Higher level of cultural competence will be positively correlated with increased awareness of disparities regarding Black American and tobacco cessation.

To analyze the correlation between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation a comparison of the IAPCC-R and TCA scores was conducted using the Pearson's correlation coefficient. Pre-TCA score vs. Pre-IAPCC score: $r = .284$, $p = .003$. The relationship was weak, but statistically significant. Post-TCA score vs. Post-IAPCC score: $r = .272$, $p = .005$. The relationship was also weak, but statistically significant. Findings supported Hypothesis #3; higher levels of cultural competence were positively correlated with increased awareness of disparities regarding Black Americans and tobacco cessation.

Table 4.6a
Comparison of Mean Pre-IAPCC Overall Scores Among Groups

	Mean Score	ANOVA p-value
First Year Physician Assistant Students	60.3	<0.001
Second Year Physician Assistant Students	67.3	
Undergraduate Nursing Students	70.0	
Medical Assisting Students	62.6	

significance comparison (Tukey Post-Hoc tests)

	1st Yr PA	2nd Yr PA	Nurs	MA
First Year Physician Assistant Students		0.002	<0.001	0.551
Second Year Physician Assistant Students	0.002		0.471	0.041
Undergraduate Nursing Students	<0.001	0.471		<0.001
Medical Assisting Students	0.551	0.041	<0.001	

Table 4.6b
Comparison of Mean Post-IAPCC Overall Scores Among Groups

	Mean Score	ANOVA p-value
First Year Physician Assistant Students	64.2	<0.001
Second Year Physician Assistant Students	70.9	
Undergraduate Nursing Students	74.7	
Medical Assisting Students	67.7	

significance comparison (Tukey Post-Hoc tests)

	1st Yr PA	2nd Yr PA	Nurs	MA
First Year Physician Assistant Students		0.009	<0.001	0.253
Second Year Physician Assistant Students	0.009		0.245	0.323
Undergraduate Nursing Students	<0.001	0.254		0.001
Medical Assisting Students	0.253	0.323	0.001	

Cronbach's Alpha was calculated to substantiate reliability for IAPCC-R (Table 7a) and TCA (Table 7b). IAPCC-R overall score pre-program, .724, indicates acceptable reliability. IAPCC-R overall score post-program, .824, indicates good reliability. Cronbach's Alpha was calculated for TCA with all nine questions and omitting question #3 (most students answered incorrectly). With question #3 omitted, TCA overall score pre-program, .802, indicates good reliability.TCA overall score post-program, .684, indicates acceptable reliability.

Table 4.7a
IAPCC-R Cronbach's Alpha Scores

	Pre-Program	Post-Program
Cultural Awareness	.282	.288
Cultural Knowledge	.344	.567
Cultural Skill	.262	.479
Cultural Encounters	.108	.326
Cultural Desire	.735	.817
Overall	.724	.824

Table 4.7b
TCA Cronbach's Alpha Scores

	Pre-Program	Post-Program
9 TCA items	.579	.549
8 TCA items (omit #3)	.802	.684

Interventions to Increase Black American Tobacco Cessation Awareness

More than 130 healthcare students had initially been identified and approval obtained for inclusion in this study. The timing of IRB approval from Ball State University resulted in missing the timeframe for one section of BSN students. IRB review and approval process for another targeted post secondary educational institution took longer than planned. Because of this the pre-approved scheduled time for the healthcare education program had passed. The decision was made to secure approval to include other healthcare students (HS and MA students) in order to ensure a minimum of 90 healthcare students. Efforts to recruit and enroll HS students were not as successful as anticipated. Presentation of the research study was made and students were given the opportunity to identify one or more of ten options for participation. The two options that received the most votes were scheduled and the students were provided with two reminders of the dates and times. Only three students attended the scheduled healthcare education program. Time frame estimated for healthcare education program was 90 minutes and pre and post-program assessments was 30 minutes for a total of two hours time commitment. NUR and MA students were allocated a total of three hours time commitment. This time allowed more interaction and opportunity to answer more questions.

Summary

Findings from this research study evaluated the effect the healthcare education program had on increasing students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. The increased awareness

was positively correlated with the increased level of cultural development. Students'

reaction to the healthcare education program was overwhelmingly favorable. Comments

indicated that students believed they could use what they learned to increase their

professional practice, as it related to facilitating Black American tobacco cessation.

In Chapter Five comparisons will be drawn between strategies for increasing

healthcare professionals' cultural proficiency that were identified in the literature review

and the findings and data analysis from this research study. What was learned, barriers,

challenges, and opportunities to increase healthcare students' cultural proficiency will be

explored.

Chapter 5: Discussion

Introduction

In Chapter Four the research findings were presented. It was determined the healthcare education program resulted in increased knowledge regarding Black Americans and tobacco cessation and increased level of cultural development. As the population becomes more diverse, far outpacing the diversity in the healthcare workforce and students, it is imperative that cultural proficiency be considered a key competency in health degree programs. Heightened cultural proficiency will enable the healthcare professional to achieve the long sought after goal of healthcare equity.

The purpose of this research study was to determine the impact that the healthcare education program had on post-secondary healthcare students' level of cultural development and awareness of disparities regarding Black Americans and tobacco cessation. This chapter will present conclusions drawn from the findings and recommendations for future programs to increase cultural proficiency of healthcare professionals. Study limitations will be discussed. Implications for the application of the recommendations presented will be provided.

Healthcare Education Program

The development of the healthcare education program was informed by the literature on Black Americans and tobacco use and cessation and continuing professional

education. Historically, Black Americans had not been viewed as a substantial customer base for the tobacco industry. That changed in the late 1950s when the tobacco industry capitalized on the opportunity to tailor their marketing message to increase sales in the Black American communities (Balbach et al., 2003). Comprehensive research and substantial financial resources were expended to learn the culture and values of Black Americans. The tobacco industry provided funding for Black American educational, social, and civil rights causes. This resulted in increased usage of menthol cigarettes, and, as a consequence, increased lung cancer morbidity and mortality. Research has resulted in contradictory findings regarding menthol vs. non-menthol cigarettes. But, there is a grave disparity. Even though Black Americans smoke fewer cigarettes, take less puffs per cigarette than European Americans, they still have higher levels of cotinine and carbon monoxide in their blood (Harris et al., 2004). Researchers will need to change their paradigm from looking at the contents of the cigarette to possibly how the carcinogens in the cigarette metabolize in varying human subjects. The net needs to be cast wider to determine how various factors may work together to result in cancer in one person and not in another.

Healthcare professionals do not perceive education for cultural competency as high value (Cain, 2007). Continuing education for the health professions has not developed a standardized model to ensure optimal levels of skill development and relevancy to the profession (Mott & Daley, 2000). While health degree programs attempt to integrate cultural competency into each course, a systematic means of process, outcome, and impact evaluation for these efforts is missing. Integrated with the

healthcare curricula must be assessments that can determine changes in the level of

cultural development.

Analysis of Research Findings

Table 5.1
Hypotheses Test Results

	Accepted/Rejected
Research Question #1: How will the level of healthcare students' cultural development change as a result of a healthcare education program?	
H#1: The level of healthcare students' cultural development will increase after the healthcare education program.	Accepted
H#2: The awareness of disparities regarding Black Americans and tobacco cessation will increase for healthcare students.	Accepted
Research Question #2: What is the relationship between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation?	
H#3: A higher level of cultural competence among healthcare students will be positively correlated with increased awareness of disparities regarding Black Americans and tobacco cessation.	Accepted

The literature abounds with imperatives to increase cultural development

(Airhihenbuwa, 1992; Josepha Campinha-Bacote, 2003; Lindsey et al., 2005; Lindsey et

al., 2003; Louie, 1996; Sargent et al., 2005; Swan, 2005; Tyson, 2007; Wells, 2000).

Participants' cultural development was assessed pre and post-program using IAPCC-R

instrument on two levels: 1) by cultural competency construct and 2) by level (stage) of

cultural development. The five constructs are cultural awareness, cultural knowledge,

cultural skill, cultural encounter, and cultural desire. Mean scores for each construct

range from 5 – 20. Although the constructs operate independently, they each play an

integral role in healthcare professionals becoming cultural proficient. Campinha-Bacote

(2003) suggests that all five constructs must be experienced and addressed as healthcare

professionals move along the continuum of cultural development. Using paired t-test,

overall, study participants demonstrated a statistically significant increase in mean scores

for four of the five constructs: cultural awareness, cultural knowledge, cultural skill, and

cultural encounters (see Table 4.3). The constructs provide insight as to what areas

indicate an increased level of cultural development. The results support that the

healthcare education program provided substantive content for participants to increase

awareness, knowledge, and skill related to disparities in Black American tobacco

cessation. The results for cultural desire mean scores did not exhibit statistically

significant increase post-program. This is to be expected. A more long-term healthcare

education program, allowing students an opportunity to be immersed in a culturally

diverse clinical setting would have a greater potential for significant gains in this

construct. It is interesting to note the mean score for the construct of cultural desire (Pre:

15.0 and Post: 15.1) was higher than any of the other constructs' mean scores both pre

and post-program, which ranged from Pre: 11.5 – 13.1 and Post: 12.7 – 13.9. The high

mean score for cultural desire suggests a motivation to increase the level of cultural

development. As health degree programs continue to integrate cultural competence in the

curricula, the students will perceive that this is a valuable skill to develop, which may positively impact cultural desire.

Results of the pre and post-program IAPCC-R mean scores were analyzed by stage (Culturally Proficient, Culturally Competent, Culturally Aware, and Culturally Incompetent). There were no gains made from the highest (Culturally Proficient) and lowest (Culturally Incompetent) levels on the continuum of cultural development (see Table 4.4). Not one student had a score at the level of Culturally Proficient pre or post-program. Further analysis was done by grouping the two lowest (Culturally Aware and Culturally Incompetent) levels together and grouping the two highest (Culturally Proficient and Culturally Competent) levels together. Using McNemar test, there was a statistically significant increase in cultural development post-program from the lowest grouping (Culturally Aware and Culturally Incompetent) of the categories to the highest grouping of the categories (Culturally Proficient and Culturally Competent). This test substantiated that the level of cultural development increased after the healthcare education program, thus hypothesis #1 is accepted.

An analysis of the Participants' Reaction to Training Survey (see Table 4.5) included reaction responses in the categories of Content, Instructor, Environment, Participant's Summary Content, Overall Session Evaluation, and Summary Questions and Comments. Mean score of Overall Session Evaluation was 6.1 on a 7.0 scale (n = 101). Mean score by Degree of Study included First Year PA (n = 22) = 5.4; Second Year PA (n = 23) = 6.4; NUR (n = 23) = 6.7; and MA (n = 32) = 6.0 (See Appendix B: Tables B.5a, B.5b, B.5c, and B.5d). The highest ranking came from Second Year PA and Nursing students, who also had the greater amount of clinical training. The

overwhelmingly positive reaction to the training couples with the increased knowledge regarding disparities related to Black Americans and tobacco cessation and the increased level of cultural development. These findings answered Research Question #1. Students' level of cultural development increased as a result of the healthcare education program.

The assessment of healthcare students at the low end of cultural development is consistent with the literature that indicates the healthcare system is systemically racist and inequitable to the Black American patient (Byrd & Clayton, 2000, Randall, 2006. Williams, 2007). Only 36% of participants had clinical exposure with ten or more Black American patients. Physician Assistant and Nursing students were required to have clinical training and the potential for exposure to Black American patients. Of this group 51% had clinical exposure with ten or more Black American patients.

The lack of access to the largest racial minority in the community severely limits opportunity for increased cultural development. Often health degree programs are restricted to the venues used for clinical training by the requirement of a physician or advanced practice nurse to supervise the students. Faculty may not have established partnerships with Black American owned clinical settings, where there may be a greater probability of exposure to Black American patients. Locations that would also have a disproportionate number of Black Americans may include free clinics. These are often understaffed and may lack the availability to supervise healthcare students. In order to eliminate patterns of distrust (Boulware et al., 2003; Rajakumar et al., 2009; Williams, 2007), healthcare students should be made aware of the historical inequities Black American patients have experienced with the healthcare system (Byrd & Clayton, 2000; Randall, 2006; Washington, 2006). They also need to be aware that the lens of the

majority culture and healthcare profession provides little insight into these disparities, focusing more on disparities by income, education, and insurance. A healthcare education program that strives to increase the level of cultural development involves the transformative learning model. Holding on to the lens of the majority culture inhibits the journey through the five dimensions of adult development and learning in the Development Intentions Chart (Taylor et al., 2000).

An analysis of the Participants' Reaction to Training Survey (see Table 4.5) included reaction responses in the categories of Content, Instructor, Environment, Participant's Summary Content, Overall Session Evaluation, and Summary Questions and Comments. Mean score of Overall Session Evaluation was 6.1 on a 7.0 scale (n = 101). Mean score by Degree of Study included First Year PA (n = 22) = 5.4; Second Year PA (n = 23) = 6.4; NUR (n = 23) = 6.7; and MA (n = 32) = 6.0 (See Appendix B: Tables B.5a, B.5b, B.5c, and B.5d). The highest ranking came from Second Year PA and NUR students, who also had more clinical training. The overwhelmingly positive reaction to the training couples with the increased knowledge regarding disparities related to Black Americans and tobacco cessation and the increased level of cultural development. These findings answer Research Question #1. Students' level of cultural development increased as a result of the healthcare education program.

To analyze the correlation between cultural competence and increased awareness of disparities regarding Black Americans and tobacco cessation a comparison of the IAPCC-R and TCA scores was conducted using Pearson Correlation Coefficient. Pre-TCA score vs. Pre-IAPCC score: r = .284, df = 105, p = .003. The relationship was weak, but statistically significant. Post-TCA score vs. Post-IAPCC score: r = .272, df = 105, p =

.005. The relationship was also weak, but statistically significant. Findings supported Hypothesis #3, thereby answering Research Question #2; higher levels of cultural competence were positively correlated with increased awareness of disparities regarding Black Americans and tobacco cessation.

Benefits of the Proposed Research and Importance of the Knowledge to be Gained

The benefits of the study are the development of a healthcare education program that will increase healthcare professionals' proficiency with counseling Black American patients on tobacco cessation, increasing quit rates, and long term, reducing lung cancer burden in the Black American population. With increased awareness of cultural differences in tobacco utilization and cessation strategies (Ahluwalia et al., 2002; Fu et al., 2007; Gandhi et al., 2009; Harris et al., 2004), healthcare professionals will not misread important cues on Black American patients' motivation to quit. An increased awareness, knowledge, and sensitivity to the Black American culture and issues resulting in healthcare disparities will assist in culturally tailoring communications and overcoming some of the historical barriers to healthcare equity. Partnerships with researchers, faculty, and healthcare professionals will enable the inclusion of new data on health disparities by race that relate to improving clinical practice. This could result in the development of a highly effective system of learning (Mott & Daley, 2000), as discussed in the literature. This would enable linking pre-profession (students) preparation with continuing professional education (healthcare professionals).

Analysis of the findings, in terms of the process (healthcare education), outcome (increased knowledge and level of cultural development), and impact (correlation

between increased knowledge and increased level of cultural development) evaluations, were conducted to determine benefits of the healthcare education program and recommendations for future programs. The healthcare education program increased awareness of disparities regarding Black Americans and tobacco cessation. Responses to Reaction to Training Summary Question #2 (What were the key strengths of the session) included "I like the PowerPoint," "…great presenting skills…," "demographic statistics," "localized the information to this community," "personal stories," "conversational in approach," "presenter was very knowledgeable of the information being delivered," "lots of examples (charts, etc.) describing different cultural backgrounds," "presented many statistics that I was unaware of," "having discussions about race, ethnicity, and the barriers," "assessment tools discussion." Numerous strategies were used in delivering the healthcare education program. The researcher began with allowing students to introduce themselves and share their interest in healthcare and their heritage. The motivation for the research was explained. The personal stories and the "conversational approach" cultivated a relationship between the presenter and the students. The presentation of demographics and disparities statistical data imparted credibility to the presentation. Subsequent discussion of historical inequities in healthcare access by Black Americans was perceived by the students as relevant, as indicated by reaction survey responses. The introductions provided the opportunity to tend to self-image (ego) maintenance (Unzueta & Lowery, 2008) for the students and possibly contributed to the positive reception of the data on inequities.

Responses to Reaction to Training Summary Question #1 (How Do You Plan to Use the Material Presented?) resulted in 61 responses. Responses included "more

knowledgeable of facts to help teach African Americans about smoking," "in being aware of cultural differences, I can better counsel my patients," "broaden my knowledge on cultural issues," "I intend to look for the better in hopes of increasing my own knowledge of dependency as well as possible use the cessation book for African American smokers," "implement scaling and 5 A's," "it's good to know the greater risks (of) African Americans and will help me know there are risks to address." The number and content of the responses indicate the students were engaged and valued the healthcare education program. Having a component that provided aids and handouts that could be incorporated into the clinical practice was highly valued. The healthcare education program went beyond an academic exercise and provided tools that the students perceived could be readily applied.

Effects of Limitations

The study did not include a statistically significant number of racial/ethnic minority healthcare students resulting in an inability to disaggregate and analyze data by race. In one program of study, healthcare students of color and majority culture expressed willingness to participate, but did not attend any of the scheduled times for the program. Eight other post-secondary educational institutions were contacted with varying levels of success in identifying the decision maker. Outcome of the solicitations ranged from no response to an inability to arrange prospective time frames within the time limits of the study. The literature indicates the need for increased diversity in the healthcare workforce to be representative of the increasing diversity in the general population.

This was a pilot study and limited in scope and duration. The intent was to inform the current research on the development of a healthcare education program. The success of the program has resulted in inquires for using for future healthcare students at the institutions where the research was conducted.

The perceived time burden for completing six assessment instruments limited the time frame that could have been used to extend the program. There were minimal issues with incomplete forms. This would probably be impossible to administer with healthcare professionals. Because students are more adapted to completing assessments, this may have contributed to the high level of compliance. Another form of assessment should be developed for administering to healthcare professionals.

Recommendations for Further Research

Based on this study's findings recommendations for future research include:

1. Conduct a comparable research study that will include a representative sample of racially and ethnically diverse healthcare students in order to validate the results of this study and to determine relationship between race and levels of cultural development and knowledge of Black Americans and tobacco cessation.

2. Conduct a research study in collaboration with continuing medical education and continuing nursing education, developing a means of assessing level of cultural development and knowledge of Black Americans and tobacco cessation that takes into consideration barriers of participation, such as time commitment.

3. Conduct a research study to determine how healthcare degree programs assess student levels of cultural development and cultural competence integrated into the curricula.

4. Conduct a research study on how European American healthcare students, faculty, and healthcare professionals come to terms with the concepts of institutional racism and white privilege. This can aid in the development of continuing professional education to increase levels of cultural development.

5. Conduct a research study on Black Americans' perceptions of trust in the healthcare system and the relationship to seeking health professionals' advice regarding tobacco cessation strategies.

Summary

The importance of increasing and assessing the cultural development of healthcare professionals and students cannot be overemphasized. Campinha-Bacote (2007, p. 22) uses a quote by an unknown author in her presentations and publications, "…people do not care how much you know, until they first know how much you care." Cultural awareness, knowledge, sensitivity, and proficiency are essential to the goal of achieving healthcare equity. This pilot study has resulted in the development of a healthcare education program that may be highly effective in the ultimate goal of reducing the disparities in Black American tobacco cessation and lung cancer morbidity and mortality. It also provided a means to aid educators in assessing the success of their efforts to integrate cultural competence into curricula and clinical training.

Understanding the dynamics of delivering healthcare educational programs that involve cultural competence is essential to obtaining the desired outcome of increased levels of cultural development, as opposed to the false perception of universally achieving cultural proficiency. Being rooted in a culture of support and community and continually seeking meaning making within and without will lead to strategies that will expand knowledge and understanding, and eventually eliminate health disparities.

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Appendix A: Instruments

Participant Profile

Program of Study:

❑ Nursing   ❑ Dental Hygiene   ❑ Physician Assistant ❑ Nurse Practitioner

❑ Respiratory Therapy   ❑ Medical ❑ Human Services ❑ Other: _____

Professional Title:

❑ Family Practice Physician ❑ Internist ❑ OB-GYN   ❑ Physician Assistant

❑ Nurse Practitioner   ❑ Other: _____

Medical Specialization: _____

Gender: ❑ Female ❑ Male

Age: ❑ 18 – 21   ❑ 22 – 35   ❑ 36 – 50   ❑ 51 – 65   ❑ 66+

Race: ❑ African American/Black ❑ White ❑ Asian/Pacific Islander

❑ American Indian/Alaskan Native ❑ Other: _____

Ethnicity: ❑ Hispanic ❑ Non-Hispanic

Primary Location of Practice: ❑ Hospital ❑ Private Practice ❑ Free Clinic

❑ Other _____

How many African American patients have you seen, examined, and/or treated within the last two years? ❑ None   ❑ 1 – 4   ❑ 5 – 10   ❑ > 10

Is there a family member, living in your household that is also participating in this training?

❑ Yes ❑ No   If yes, list name: _____

Have you participated in cultural proficiency training for African Americans and tobacco cessation in the last six months?

❑ Yes ❑ No   If yes, list Training Title/Topic: _____

Inventory for Assessing the Process of Cultural Competence Among Healthcare

Professionals-Revised (IAPCC-R)

The extent to which a healthcare professional is culturally competent is indicated by the following stage (category) ranges:

Culturally Proficient	91 - 100
Culturally Competent	75 - 90
Culturally Aware	51 - 74
Culturally Incompetent	25 - 50

Tobacco Cessation Assessment (TCA)

(Copyrighted 2008, Cain)

1. **Smoking is responsible for what percentage of lung cancer incidences?**

   ❑ 100% ❑ 90% ❑ 80% ❑ 70% ❑ 60%

2. **Communication with African American/Black patients regarding tobacco cessation strategies**
   is dispensed at the following rate

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

3. **Incidence of smoking for African Americans/Blacks is**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

4. **Incidence of use of smokeless tobacco for African Americans/Blacks is**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites ❑ Don't know

5. **African Americans/Blacks' expressed desire to quit smoking is**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

6. **African Americans/Blacks' quit attempts before achieving successful tobacco cessation are:**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

7. **African Americans/Blacks' lung cancer incidence is**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

8. **African Americans/Black' lung cancer mortality is**
   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

9. **The percentage of African American/Black smokers who use menthol cigarettes is**

   ❑ More than Whites ❑ About the same as Whites ❑ Less than Whites
   ❑ Don't know

Reaction to Training Survey

Assessing Cultural Proficiency of Healthcare Students

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Directions: To assist us in the measurement of course effectiveness and the continuous improvement of the conduct of training programs,

we would like to have your reaction to this course. Please be candid.

Response codes: 7 = strongly agree...4 = Neutral (average)...1 = strongly disagree

	Strongly Agree	**Strongly Disagree**

Section one - the content   7 6 5 4 3 2 1

1.	The stated objectives were met.	❑ ❑ ❑ ❑ ❑ ❑ ❑
2.	The topics were organized logically.	❑ ❑ ❑ ❑ ❑ ❑ ❑
3.	The coverage of each topic was complete.	❑ ❑ ❑ ❑ ❑ ❑ ❑
4.	The supporting materials were relevant.	❑ ❑ ❑ ❑ ❑ ❑ ❑
5.	The workshop/exercises supported the skills taught.	❑ ❑ ❑ ❑ ❑ ❑ ❑
6.	Overall rating of the content.	❑ ❑ ❑ ❑ ❑ ❑ ❑

_____

Section two - the instructor

1.	Provided sufficient opportunity for participation.	❑ ❑ ❑ ❑ ❑ ❑ ❑
2.	Responded to questions and input.	❑ ❑ ❑ ❑ ❑ ❑ ❑
3.	Used effective examples and illustrations.	❑ ❑ ❑ ❑ ❑ ❑ ❑
4.	Presentation was clear and understandable.	❑ ❑ ❑ ❑ ❑ ❑ ❑
5.	Used time and facilities well.	❑ ❑ ❑ ❑ ❑ ❑ ❑
6.	Effectively integrated and summarized materials.	❑ ❑ ❑ ❑ ❑ ❑ ❑
7.	The overall quality of instruction.	❑ ❑ ❑ ❑ ❑ ❑ ❑

_____

Section three - environment

| 1. | The physical environment was conducive to learning. | ❑ ❑ ❑ ❑ ❑ ❑ ❑ |
| 2. | My overall rating of the facility is | ❑ ❑ ❑ ❑ ❑ ❑ ❑ |

_____

Section four - participants summary content

| 1. | The knowledge and skills I gained are relevant | ❑ ❑ ❑ ❑ ❑ ❑ ❑ |
| 2. | The session has increased my confidence in applying the skills/knowledge covered. | ❑ ❑ ❑ ❑ ❑ ❑ ❑ |

_____

OVERALL SESSION EVALUATION   ❑ ❑ ❑ ❑ ❑ ❑ ❑

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Summary questions and comments

1.   How do you plan to use the material presented?

2.   What were the key strengths of the session?

3.   How could the session be improved?

4.   Additional comments

Appendix B: Ancillary Data Tables

Table B.1
Characteristics of Study Participants (n = 106)

Program of Study	#	%
Nursing	23	21.7%
Y1 Physician Assistant	22	20.8%
Y2 Physician Assistant	23	21.7%
Medical Assisting	35	33.0%
Health Sciences	2	2.8%
Other Professional Title	#	%
Childbirth Educator	1	1.9%
Graduate Student	1	1.9%
Health Educator	1	1.9%
Medical Assistant	13	24.5%
Nursing Student	1	1.9%
PA Student	5	9.4%
RN	4	7.5%
Student	12	22.6%
Medical Specialization	#	%
General	2	25.0%
Nursing	1	12.5%
Orthopedics	1	12.5%
PA	2	25.0%
Pediatric Ventilation	1	12.5%
RN & Dance Minister Instructor	1	12.5%
Gender	#	%
Male	20	19.4%
Female	83	80.6%

Table B.1 cont.

Age	#	%
18-21	39	37.1%
22-35	59	56.2%
36-50	7	6.7%
51-65	0	0.0%
66+	0	0.0%
Race	#	%
African American/Black	0	0.0%
White	100	94.3%
Asian/Pacific Islander	1	1.0%
American Indian/Alaskan Native	0	0.0%
Other	5	4.8%
Other Race	#	%
Dominican	1	25.0%
Hispanic	2	50.0%
Mexican American/Hispanic	1	25.0%
Ethnicity	#	%
Hispanic	5	5.4%
Non-Hispanic	88	94.6%
Primary Location of Practice	#	%
Hospital	21	35.0%
Private Practice	6	10.0%
Free Clinic	0	0.0%
Other	33	55.0%

Table B.-1 cont.

Other Location of Practice	#	%
All over/varies	4	4.3%
Doctor's office/hospital	2	2.2%
Greater Fort Wayne Area	1	1.1%
Nursing home	4	4.3%
School/student	21	22.6%
Sleep Lab	1	1.1%

Number of African American patients seen, examined, and/or treated in last two years	#	%
None	42	42.0%
1-4	10	10.0%
5-10	12	12.0%
>10	36	36.0%

Family Members participating in training	#	%
Yes	0	0.0%
No	105	100.0%

Participated in cultural proficiency training for African Americans and tobacco cessation in last six months	#	%
Yes	0	0.0%
No	105	100.0%

Table B.2a
Comparison of Correct Responses of First Year Graduate Physician Assistant Students to
Tobacco Cessation Knowledge Questions Pre- and Post-Program (n=22)

	Pre-Program		Post-Program		
	#	%	#	%	
1. Smoking is responsible for 90 percent of lung cancer incidences.	13	59.1%	21	95.5%	
2. Communication with African American/Black patients regarding tobacco cessation strategies is dispensed less than Whites.	10	45.5%	15	68.2%	
3. Exposure to tobacco smoke for African Americans/Blacks is less than Whites.	0	0.0%	2	9.1%	
4. Incidence of use of smokeless tobacco for African Americans/Blacks is less than Whites.	11	50.0%	9	40.9%	
5. African Americans/Blacks' expressed desire to quit smoking is more than Whites.	0	0.0%	12	54.5%	
6. African Americans/Blacks' quit attempts before achieving successful tobacco cessation are more than Whites	3	13.6%	17	77.3%	
7. African Americans/Blacks' lung cancer incidence is more than Whites.	5	22.7%	18	81.8%	
8. African Americans/Blacks' lung cancer mortality is more than Whites.	10	45.5%	19	86.4%	
9. The percentage of African American/Black smokers who use menthol cigarettes is more than Whites.	4	18.2%	22	100.0%	
Overall Score (Mean correct)	2.5		6.1		<0.001*

*Paired t-test p-value

Table B.2b
Comparison of Correct Responses of Second Year Graduate Physician Assistant Students to
Tobacco Cessation Knowledge Questions Pre- and Post-Program (n=23)

	Pre-Program		Post-Program	
	#	%	#	%
1. Smoking is responsible for 90 percent of lung cancer incidences.	10	43.5%	22	95.7%
2. Communication with African American/Black patients regarding tobacco cessation strategies is dispensed less than Whites.	10	43.5%	23	100.0%
3. Exposure to tobacco smoke for African Americans/Blacks is less than Whites.	0	0.0%	2	8.7%
4. Incidence of use of smokeless tobacco for African Americans/Blacks is less than Whites.	13	56.5%	15	65.2%
5. African Americans/Blacks' expressed desire to quit smoking is more than Whites.	0	0.0%	10	43.5%
6. African Americans/Blacks' quit attempts before achieving successful tobacco cessation are more than Whites	6	26.1%	18	78.3%
7. African Americans/Blacks' lung cancer incidence is more than Whites.	11	47.8%	18	78.3%
8. African Americans/Blacks' lung cancer mortality is more than Whites.	17	73.9%	20	87.0%
9. The percentage of African American/Black smokers who use menthol cigarettes is more than Whites.	9	39.1%	23	100.0%
Overall Score (Mean correct)	3.3		6.6	<0.001*

*Paired t-test p-value

Table B.2c
Comparison of Correct Responses of Undergraduate Nursing Students to Tobacco Cessation
Knowledge Questions Pre- and Post-Program (n=23)

	Pre-Program		Post-Program	
	#	%	#	%
1. Smoking is responsible for 90 percent of lung cancer incidences.	16	69.6%	20	87.0%
2. Communication with African American/Black patients regarding tobacco cessation strategies is dispensed less than Whites.	15	65.2%	20	87.0%
3. Exposure to tobacco smoke for African Americans/Blacks is less than Whites.	0	0.0%	5	21.7%
4. Incidence of use of smokeless tobacco for African Americans/Blacks is less than Whites.	11	47.8%	21	91.3%
5. African Americans/Blacks' expressed desire to quit smoking is more than Whites.	1	4.3%	16	69.6%
6. African Americans/Blacks' quit attempts before achieving successful tobacco cessation are more than Whites	4	17.4%	17	73.9%
7. African Americans/Blacks' lung cancer incidence is more than Whites.	6	26.1%	21	91.3%
8. African Americans/Blacks' lung cancer mortality is more than Whites.	14	60.9%	21	91.3%
9. The percentage of African American/Black smokers who use menthol cigarettes is more than Whites.	10	43.5%	23	100.0%
Overall Score (Mean correct)	3.3		7.1	<0.001*

*Paired t-test p-value

Table B.2d
Comparison of Correct Responses of Medical Assisting Students to Tobacco Cessation
Knowledge Questions Pre- and Post-Program (n=23)

	Pre-Program		Post-Program	
	#	%	#	%
1. Smoking is responsible for 90 percent of lung cancer incidences.	12	34.3%	22	62.9%
2. Communication with African American/Black patients regarding tobacco cessation strategies is dispensed less than Whites.	7	20.0%	14	40.0%
3. Exposure to tobacco smoke for African Americans/Blacks is less than Whites.	1	2.9%	13	37.1%
4. Incidence of use of smokeless tobacco for African Americans/Blacks is less than Whites.	8	22.9%	17	48.6%
5. African Americans/Blacks' expressed desire to quit smoking is more than Whites.	1	2.9%	17	48.6%
6. African Americans/Blacks' quit attempts before achieving successful tobacco cessation are more than Whites	2	5.7%	17	48.6%
7. African Americans/Blacks' lung cancer incidence is more than Whites.	6	17.1%	17	48.6%
8. African Americans/Blacks' lung cancer mortality is more than Whites.	9	25.7%	15	42.9%
9. The percentage of African American/Black smokers who use menthol cigarettes is more than Whites.	8	22.9%	20	57.1%
Overall Score (Mean correct)	1.5		4.3	<0.001*

*Paired t-test p-value

Table B.2e
Comparison of Correct Responses to Tobacco Cessation Knowledge Questions Pre- and Post-
Training Program by Gender

| | Male (n=20) | | | | | Female (n=85) | | | |
| | Pre-Pgm | | Post-Pgm | | | Pre-Pgm | | Post-Pgm | |
	#	%	#	%		#	%	#	%
Question #1.	9	45.0%	16	80.0%		40	47.1%	68	80.0%
Question #2.	10	50.0%	16	80.0%		44	51.8%	56	65.9%
Question #3.	2	10.0%	4	20.0%		2	2.4%	18	21.2%
Question #4.	13	65.0%	13	65.0%		30	35.3%	48	56.5%
Question #5.	0	0.0%	9	45.0%		2	2.4%	47	55.3%
Question #6.	1	5.0%	13	65.0%		14	16.5%	57	67.1%
Question #7.	6	30.0%	13	65.0%		21	24.7%	61	71.8%
Question #8.	13	65.0%	13	65.0%		36	42.4%	62	72.9%
Question #9.	8	40.0%	20	100.0%		24	28.2%	69	81.2%
Overall Score									
(Mean)	3.0		5.9		<0.001*	2.4		5.9		<0.001*

*Paired t-test p-value

Table B.3a
Comparison of Mean Cultural Competency Scores (IAPCC-R) of First Year Graduate Physician
Assistant Students Pre- and Post-Program (n=22)
Mean scores for each competency group

	Pre-Program	Post-Program	p-values*
Cultural Awareness	13.5	14.2	0.087
Cultural Knowledge	11.8	12.3	0.069
Cultural Skill	11.8	13.5	0.001
Cultural Encounters	12.9	13.7	0.001
Cultural Desire	10.1	10.5	0.148
Overall	60.2	64.2	0.002

*Paired t-test p-values

Table B.3b
Comparison of Mean Cultural Competency Scores (IAPCC-R) of Second Year Graduate
Physician Assistant Students Pre- and Post-Program (n=23)
Mean scores for each competency group

	Pre-Program	Post-Program	p-values*
Cultural Awareness	13.8	14.5	0.084
Cultural Knowledge	12.3	12.9	0.193
Cultural Skill	12.4	14.1	<0.001
Cultural Encounters	13.3	13.0	0.383
Cultural Desire	16.0	16.5	0.369
Overall	67.3	71.0	0.04

*Paired t-test p-values

Table B.3c
Comparison of Mean Cultural Competency Scores (IAPCC-R) of Undergraduate Nursing
Students Pre- and Post-Program (n=23)
Mean scores for each competency group

	Pre-Program	Post-Program	p-values*
Cultural Awareness	14.3	14.9	0.198
Cultural Knowledge	11.7	13.0	0.005
Cultural Skill	13.3	15.1	<0.001
Cultural Encounters	13.5	14.3	0.05
Cultural Desire	17.2	17.4	0.478
Overall	70.0	74.7	<0.001

*Paired t-test p-values

Table B.3d
Comparison of Mean Cultural Competency Scores (IAPCC-R) of Medical Assisting Students Pre-
and Post-Program (n=35)
Mean scores for each competency group

	Pre-Program	Post-Program	p-values*
Cultural Awareness	11.6	12.6	0.003
Cultural Knowledge	10.9	12.4	<0.001
Cultural Skill	11.7	13.2	<0.001
Cultural Encounters	12.9	13.4	0.233
Cultural Desire	15.6	15.5	0.868
Overall	62.6	67.1	<0.001

*Paired t-test p-values

Table B.3d.1
Comparison of Mean Cultural Competency Scores (IAPCC-R) by Gender: Male (n=20)

	Pre-Program	Post-Program	p-values*
Cultural Awareness	13.3	13.9	0.142
Cultural Knowledge	13.0	13.4	0.297

	Pre-Program	Post-Program	p-values*
Cultural Skill	11.9	13.7	<0.001
Cultural Encounters	13.6	13.8	0.652
Cultural Desire	13.9	14.2	0.720
Overall	65.0	68.9	0.062

*Paired t-test p-values

Table B.3d.2
Comparison of Mean Cultural Competency Scores (IAPCC-R) by Gender: Female (n=85)

	Pre-Program	Post-Program	p-values*
Cultural Awareness	13.1	13.9	<0.001
Cultural Knowledge	11.2	12.5	<0.001
Cultural Skill	12.4	14.1	<0.001
Cultural Encounters	13.0	13.6	0.021
Cultural Desire	15.3	14.4	0.550
Overall	65.0	69.5	<0.001

*Paired t-test p-values

Table B.4a
Comparison of Mean Cultural Competency Categories (IAPCC-R) of First Year Graduate
Physician Assistant Students Pre- and Post-Program (n=22)
Number of participants in each competency group pre- and post

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	n/a*
Culturally Competent	0	0.0	1	4.5	
Culturally Aware	22	100.0	21	95.5	
Culturally Incompetent	0	0.0	0	0.0	
*McNemar test p-value					

Table B.4b
Comparison of Mean Cultural Competency Categories (IAPCC-R) of Second Year Graduate
Physician Assistant Students Pre- and Post-Program (n=23)
Number of participants in each competency group pre- and post

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	0.016*
Culturally Competent	1	4.3	8	34.8	
Culturally Aware	21	91.3	15	65.2	
Culturally Incompetent	1	4.3	0	0.0	
*McNemar test p-value					

Table B.4c
Comparison of Mean Cultural Competency Categories (IAPCC-R) of Undergraduate Nursing
Students Pre- and Post-Program (n=23)
Number of participants in each competency group pre- and post

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	0.016*
Culturally Competent	5	21.7	12	52.2	
Culturally Aware	18	78.3	11	47.8	
Culturally Incompetent	0	0.0	0	0.0	

*McNemar test p-value

Table B.4d
Comparison of Mean Cultural Competency Categories (IAPCC-R) of Medical Assisting Students
Pre- and Post-Program (n=35)
Number of participants in each competency group pre- and post

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	.250*
Culturally Competent	2	5.7	5	14.3	
Culturally Aware	33	94.3	28	80.0	
Culturally Incompetent	0	0.0	2	5.7	

*McNemar test p-value

Table B.4e.1
Comparison of Mean Cultural Competency Categories (IAPCC-R) by Gender: Male Pre- and
Post-Program (n=20)

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	n/a*
Culturally Competent	2	10.0	4	20.0	

Culturally Aware	17	85.0	16	80.0
Culturally Incompetent	1	5.0	0	0.0

*McNemar test p-value

Table B.4e.2
Comparison of Mean Cultural Competency Categories (IAPCC-R) by Gender: Female (n=85)
Pre- and Post-Program

	Pre-Program		Post-Program		
	#	%	#	%	
Culturally Proficient	0	0.0	0	0.0	n/a*
Culturally Competent	6	7.2	24	28.9	
Culturally Aware	77	92.8	57	68.7	
Culturally Incompetent	0	0.0	2	2.4	

*McNemar test p-value

Table B.5.1

Reaction to Training Summary Questions and Comments

Q1.   How do you plan to use the material presented?

To educate minorities on stopping smoking when I see them in my office.

I plan to use when I'm out in the field working dealing with patients that are interested in quitting

smoking.

More knowledgeable of facts to help teach African Americans about smoking.

In approaching patients within practice about quitting.

To help patients with tobacco cessation

Informing cessation teaching methods.

I plan to ask my patients about tobacco every visit, if poss.

To educate patient population.

In being aware of cultural differences, I can better counsel my patients.

Plan to keep handout provided for patients.

To educate my patients regarding tobacco use and cessation.

I would like to investigate more on how to help people quit tobacco use.

In working with patients wanting to stop using cigarettes

The timeline after smoking cessation is very helpful.

Hopefully it will help with future clinicals/practice.

It's good to know the greater risks African Americans and will help me know there are risks to

address.

Help to better understand cultural differences that exist when it comes to smoking and cessation.

Implement scaling and 5As

Help approach situation to encourage patients.

Bring up cessation with every smoker I encounter.

Integrate into my clinical practice, make copies and share resources with my patients.

Well, the education process (smoking cessation) is the same for any culture or ethnic group;

therefore, this was a great reminder.

Q1.   How do you plan to use the material presented?

Very well organized material to help me with educating patients.

Talk to cultural patients about smoking cessation.

To aid patients. In successful cessation of smoking.

Better African American patients. understanding re: tobacco use. Better insight to quitting

struggle.

Help with my patients.

Broaden my knowledge on cultural issues.

I got more ideas in this program to approach patients on smoking cessation.

Plan to approach all my clients/patients about tobacco cessation.

Being a more proactive clinician in helping all patients stop smoking and use handouts so I can

effectively use my limited time.

I intend to look for the better in hopes of increasing my own knowledge of dependency as well as

possible use the cessation book for African American smokers.

I will make a greater effort to promote tobacco cessation to patients.

Without knowledge of importance of asking and how to ask individuals about smoking.

Use it in the workplace and at home because I have family members who smoke.

Present to clients--make a priority

In implementing better patient care.

In the area of healthcare I choose to go into.

Assist people in smoking cessation while practicing nursing.

To be more confident in approaching clients about smoking.

With family members, clients

Remember to educate everyone and ask if they smoke.

Urge patients. to quit smoking more; also be more patient.

I plan to use it in clinical practice with culturally diverse clients.

Will be nice for taking patient histories.

Q1.   How do you plan to use the material presented?

In tobacco cessation and dealing with other races.

To educate my friends and family to quit.

Can help those who want to stop smoking by presenting them with information that I learned.

In my future job.

Now I know how to help different ethnicities.

Help family

To learn

Use it to help in the care of cultural patients.

Help family and patients stop smoking.

When dealing with smoker patients.

To quit smoking myself.

Talk to my patients

In the health care field

When I talk to patients.

For my job - patients (apply it to patients)

In the future when working with patients

Unsure but will definitely come into play on my externship and working with patients.

Not sure

When it happens or comes to me at the time.

Q 2.   What were the key strengths of the session?

I like the PowerPoint. Great information.

Good information, great presenting skills, very informal and comfortable.

Information

Good resources and knowledge

Q 2.   What were the key strengths of the session?

Demographic statistics

Used emotion and applied material to everyday life.

Explanation cultural differences

Enthusiasm, knowledge base

Great presenter, confident in answering questions, knowledgeable

Instructor very friendly and excited about topic

Historical perspective, handouts

Examples of menthol cigarettes and why it's used more often.

Good sources of data

Engaging presenter! Great interaction!

Great examples and references.

Discussion

Laid out stepwise process. Thorough explaining but not too much detail. Stats also.

Good handouts and slideshow. Interesting speaker.

All the visual aids and handouts, presentation was effective and to the point, excellent way to

encourage group in the lecture.

Great review of stats.

Really liked the handouts.

Having discussions about race, ethnicity, and the barriers.

Presenter very well informed.

Comfort ability/content of knowledge, personal connection.

Assessment tools discussion

Conversational in approach.

More information on how to bring topic up and actually encourage people to stop.

Handouts--very good book to use when I practice medicine. How various groups are targeted and

best ways to approach those groups to stop smoking.

Q 2.   What were the key strengths of the session?

Instructor had very good communication skills.

Localized the information presented to this community.

Personal stories

Lots of examples (charts, etc.) describing different cultural backgrounds.

Lots of data; verbal information

The organization and examples given.

The instructor and presentation.

Presenter was very knowledgeable of the information being delivered.

Very informative, organized

Great examples

Presented many statistics that I was unaware of.

Very informative

Statistics

Very knowledgeable

The information presented.

Very informative

Everything

It was all good.

Motivation

African Americans and Tobacco

Her motivation and lung cancer incidences.

Motivation

Tobacco use

How big smoking is.

Information on cigarettes

Learned more about ethnic groups and statistics of health issues stereotyping. Quit smoking

Q 2.   What were the key strengths of the session?

incomes, etc.

Letting you know of smoking and different cultures and believes

She had a lot of information about each individual subject.

Q3.   How could the session be improved?

Have PowerPoint available to students prior to session so we can follow along better.

Breaks, concise format

More information on how to help patients quit.

Cover more cessation techniques

Not take as long.

More input on methods

More organized and concise

More information regarding methods of smoking cessation.

More information about how to specifically target our African American patients

Correlation of medical background/education to African American patients. "How to explain..."

Less facts about smoking. More on quitting.

Lots more on cessation-how to steps.

Would be nice to talk more about treatment/management options. We know problem exists, now

what do we do to help? Effects of Chantix would be interesting.

Look at percentage of population that smokes and find a percentage of those who get lung cancer

and other types of cancer. That way you can look at percentages of those that smoke and their

risk of adverse effects across the different cultural populations.

Role play and patient interaction

How should smoking cessation education be different for African American compared to others.

Maybe more discussions and views from audience.

Q3.   How could the session be improved?

More examples

Front/back copies--less paper waste.

PPT slides were busy--trim down the effects.

It was very good.

Enjoyed presentations and gained a lot of good information.

Less statistics

More interaction and discussion.

Great job!

Less use of graphs. i.e., statistics for several countries.

Ask more questions, maybe

Decrease time lecturing--too long! At times boring--maybe a movie or worksheets to be for

interactive.

Less talk on the about of diff. Minorities in counties.

I think it was good.

Nothing--it was great!

More pictures and information regarding tobacco companies now

It was well done and couldn't be done better.

Nothing

Shorter

It was great.

More interaction with students

Shortened

Put an activity in it.

More hands on (activities)

Activities

Shorter

Q3.   How could the session be improved?

Not so long...

Not take as long

It was presented wonderfully.

None

Thought it was pretty full of information.

Q4.   Additional Comments

Thanks. I felt that I learned a lot of information. Thank you!

Thanks

Good speaker.

Really felt we were going to cover more techniques to encourage African Americans to quit

smoking rather than their cultural diversity and their being targeted by big tobacco.

Very interesting

I think it is good to be aware of how African Americans compare to other races in tobacco abuse

and cessation. I will not remember the number of statistics shown. Some of that would be good

but maybe use energy to talk more about cessation techniques/how to approach patient

cessation than giving numbers.

Interesting.

Didn't feel the lecture gave clear definitions (culture vs. ethnicity). The whole lecture dealt mostly

with establishing the risks African Americans have w/o how to deal with those risks.

Wonderful job presenting. Touched upon different backgrounds other than African American.

Thank you! Very interesting and helpful

You really put a lot of time into this and it shows.

Very well organized and thought out.

Great job.

Very well presented and very eye opening.

Q4.   Additional Comments

Great job!

Great speaker, interactive, friendly, knowledgeable

Very good and the instructor knew what she was talking about. Very well presented.

Good job.

None

Great job! I enjoyed it!

Thank you.

You did a great job! Thank you very much!

Appendix C: African American Death Rate Report for Indiana and Allen County

| Death Rate Report for Indiana by County, death years through 2003 Lung & Bronchus Healthy People 2010 Objective Number: 03-02 Reduce the lung cancer death rate. Black (includes Hispanic), Both Sexes, All Ages Sorted by Rate							
County △	Met Healthy People Objective of 44.9? [1]	Annual Death Rate over rate period deaths per 100,000 (95% Confidence Interval) ▼	Average Deaths per Year over rate period ▽	Rate Period	Recent Trend [2]	Recent Annual Percent Change[2] in Death Rates (95% Confidence Interval) ▽	Recent Trend Period[2]
Indiana (State)	No	80.0 (76.0, 84.3)	297	1999 - 2003	falling	-0.5 (-1.1, 0.0)	1984 - 2003
United States	No	63.0 (62.5, 63.4)	16,136	1999 - 2003	falling	-1.6 (-1.7, -1.4)	1994 - 2003
Allen County	No	88.6 (71.3, 109.7)	20	1999 - 2003	stable	1.4 (-0.4, 3.3)	1979 - 2003

Source: National Cancer Institute State Cancer Profiles
URL = http://statecancerprofiles.cancer.gov/cgi-bin/deathrates/deathrates.pl?18&047&02&0&001&1&1&1

	Death Rate Report for Indiana by County, death years through 2003 Lung & Bronchus Healthy People 2010 Objective Number: 03-02 Reduce the lung cancer death rate. Black (includes Hispanic), Male, All Ages Sorted by Rate						
County △	Met Healthy People Objective of 44.9?[1]	Annual Death Rate over rate period deaths per 100,000 (95% Confidence Interval) ▼	Average Deaths per Year over rate period ▽	Rate Period	Recent Trend[2]	Recent Annual Percent Change[2] in Death Rates (95% Confidence Interval) ▽	Recent Trend Period[2]
Indiana (State)	No	115.0 (107.2, 123.2)	175	1999 - 2003	falling	-1.8 (-2.5, -1.2)	1984 - 2003
United States	No	98.4 (97.6, 99.3)	10,089	1999 - 2003	falling	-2.7 (-2.9, -2.5)	1994 - 2003
Allen County	No	134.2 (99.2, 182.2)	12	1999 - 2003	stable	0.6 (-1.6, 2.8)	1979 - 2003

Source: National Cancer Institute State Cancer Profiles
URL = http://statecancerprofiles.cancer.gov/cgi-bin/deathrates/deathrates.pl?18&047&02&1&001&1&1&1

	Death Rate Report for Indiana by County, death years through 2003 Lung & Bronchus Healthy People 2010 Objective Number: 03-02 Reduce the lung cancer death rate. Black (includes Hispanic), Female, All Ages Sorted by Rate						
County △	Met Healthy People Objective of 44.9?[1]	Annual Death Rate over rate period deaths per 100,000 (95% Confidence Interval) ▼	Average Deaths per Year over rate period ▽	Rate Period	Recent Trend[2]	Recent Annual Percent Change[2] in Death Rates (95% Confidence Interval) ▽	Recent Trend Period[2]
Indiana (State)	No	56.5 (52.1, 61.1)	122	1999 - 2003	rising	2.7 (1.9, 3.5)	1979 - 2003
United States	Yes	39.8 (39.4, 40.3)	6,048	1999 - 2003	rising	0.5 (0.2, 0.8)	1991 - 2003
Allen County	No	59.2 (41.9, 82.2)	8	1999 - 2003	**	**	**

Source: National Cancer Institute State Cancer Profiles
URL = http://statecancerprofiles.cancer.gov/cgi-bin/deathrates/deathrates.pl?18&047&02&2&001&1&1&1