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Examining Cultural Competence Among Osteopathic Medical Students

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EXAMINING CULTURAL COMPETENCE AMONG OSTEOPATHIC MEDICAL

STUDENTS

By Sooni Lee

Submitted in Partial Fulfillment of the Requirements of the Degree of

Doctor of Psychology

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PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE
DEPARTMENT OF PSYCHOLOGY

Dissertation Approval

This is to certify that the thesis presented to us by ___Sooni Lee___

on the _5ᵗʰ_ day of ___June___ , 20_09_ , in partial fulfillment of the

requirements for the degree of Doctor of Psychology, has been examined and is

acceptable in both scholarship and literary quality.

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Abstract

With the growing number of racial and ethnic minorities in the United States, there also has been a rise in health disparities. Ethnic minorities have been experiencing an overabundance of medical issues, particularly chronic diseases like cardiovascular disease, diabetes, and cancer. Although these chronic diseases are preventable, ethnic minorities are at greater risk for death from them. Possible contributing factors to the increase in health disparities include limited medical attention and follow-up appointments with physicians and the physician-patient relationship. The purpose of this study was twofold: to examine cultural competence among osteopathic medical students and to examine their attitudes toward cultural competence training while in medical school. The results do not suggest a significant difference between Group A, first and second year medical students, and Group B, third and fourth year medical students on the level of cultural awareness and sensitivity and cultural competence behaviors. Additionally, all 4 years of medical students endorsed the importance of learning cultural competence training while in medical school.

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Chapter 1

Introduction

Statement of the Problem

There is overwhelming evidence regarding the growing rise in health disparities among Americans, particularly among the racial and ethnic minorities. Health disparities are defined as the "differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States" (National Institute of Health, 2007). There has been a growing concern that the racial and ethnic minorities may not be seeking and receiving appropriate medical attention.

Moreover, it is important to address health disparities due to poorer health, increased suffering, and higher mortality rates among the racial and ethnic minorities, especially those of lower socioeconomic status (Institute of Medicine, 2003). In 2003, the Agency for Healthcare Research and Quality concluded that there have been higher mortality rates from cancer, diabetes, and cardiovascular disease among many racial and ethnic minorities. Today, many Americans are diagnosed with chronic diseases that could be prevented. These preventable chronic diseases are among the most common and costly health problems in the United States.

Although professionals in the field are actively discussing and identifying ways to address these concerns, there appears to be minimal change within the health care system to alleviate this disparity. According to the Institute of Medicine (2003), health disparities occur at different levels, including health care systems and their administration, clinicians and their practices, and patients themselves. Moreover, it appears that health care

professionals, particularly those who are beginning in their career, lack appropriate understanding of cultural competence.

Cultural competence is a key element to consider when discussing ways to improve the medical education and health care systems. In the United States, using cultural competence as the basis for improvement, physicians must be trained to deliver sensitive, empathic, and humanistic care that is respectful to their patients (Fox, 2005). In most cases, physicians should provide more patient-centered communication while responding to patients' psychosocial issues and needs (Fox, 2005).

Even though cultural competence is identified to be the one factor that can address health disparities among racial and ethnic minorities, teaching and learning cultural competence has been a challenge among health care professionals. In particular, the concept of cultural competence is particularly difficult for medical students. Cultural competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or profession and enable that system, agency, or profession to work effectively in cross-cultural situations (Cross, Bazron, Dennis & Isaacs, 1989). As Campinha-Bacote reports (1998), cultural competence is a developmental process. Therefore, it should be an ongoing journey of self-reflection into a medical student's personal and professional development.

Purpose of the Study

In 2007, an osteopathic medical school in the Northeast region of the United States held a health disparities symposium. Among the attendees were several osteopathic medical students. During this symposium, these medical students discussed their concern regarding their limited understanding and knowledge of cultural diversity. They felt that

they were not culturally competent to work with patients of diverse backgrounds. Therefore, this research paper was developed to measure the cultural competence among such students and identify if these students perceive this training to be of importance in their medical training.

There have been several research studies conducted by the American Medical Association (AMA) to discuss, promote, and identify ways to teach cultural competence. However, not all medical schools enforce or embrace adding cultural competency and/or diversity training to a curriculum. Moreover, due to the lack of training and understanding of racial and ethnic minorities, medical students and recent graduates feel less competent to work with diverse populations of patients. Furthermore, with the growing number of racial and ethnic minorities and health disparities, more research is needed to clarify the needs and competency levels of medical students, as well as to bring about a change in the current medical schools.

Similar to the AMA, the American Osteopathic Association (AOA) has begun discussing and trying to implement diversity training. Currently, there are several osteopathic medical schools building and incorporating cultural competence into the curriculum (http://www.osteopathic.org). Although it is strongly recommended that schools incorporate this training, all osteopathic medical schools are not actively participating in making this change. Moreover, cultural competence is a process and a lifelong lesson. Therefore, cultural competence training is important to obtain and learn throughout the medical education and medical career.

To better understand and handle health disparities, it is crucial to learn how to interact with and understand patients from diverse cultures. If physicians are better

trained during their medical school years, they might feel professionally and clinically more competent when assessing, diagnosing, and treating their patients. Moreover, another important factor that was explored was whether cultural competence can assist medical students to better identify their own perceptions related to cultural diversity, including their own awareness, knowledge, and skills. Therefore, if medical students are better trained during their medical school years, they might also feel professionally and clinically confident in their abilities when assessing, diagnosing, and treating their patients. Hence, the purpose of this study was to assess cultural competence among osteopathic medical students, during and after medical school.

Rationale for the Study

Health disparities have been at the forefront of current medical concerns. The increase in mortality and patient dropout rates in minorities of the United States is disconcerting. Several factors may contribute to this increase, including lack of rapport between patient and physician, lack of cultural awareness, disconnection between medical and psychosocial factors, and racial and cultural biases toward the patient.

The rapid increase in the minority population and health disparities necessitates a closer look at training of professionals to work with diverse populations. The term *health disparities* are only used in the United States. However, countries outside of the United States commonly utilize terms such as *health inequity* or *health inequality* to address disparities in certain populations. Inequity is better signified as an ethical judgment, or better yet, a lack of equality and similarities, particularly viewing in a way that is unfair; inequality is a condition of being unequal or lack of equality of opportunity, treatment, or

status. For this study, the concept of health disparities will be further investigated and discussed.

Many medical professionals, including physicians, appear to lack the awareness and knowledge of cultural competence required to effectively treat their patients, as evidenced by the increase in health disparities and limited cultural or diversity training. Cultural competence is defined as the ability to recognize and respect diversity of background, opportunity, language, culture, and way of life (Cho, Martin, O'Fallon, Spears, & Wegener, 1999). Moreover, culture is described as a shared system of values, beliefs, and learned patterns of behaviors (Carrillo, Green, & Betancourt, 1999). It is shaped by factors including proximity, education, gender, age, and sexual preference (Carrillo et al., 1999).

Although researchers agree that there is a great concern within the medical field regarding the lack of cultural competence, progression toward change is slow. According to Flores et al. (2000), 87% of U.S. medical schools addressed cultural competence in three or fewer lectures during the preclinical years, and 8% of schools offered separate courses on the topic. In 2003, only 35% of U.S. medical schools addressed the cultural issues of the largest minority groups (Kundhal, 2003).

There are some criticisms of the U.S. medical school settings. Some of these criticisms include: medical schools follow more of a curative model; medical schools lack understanding and training in alternative medicine and its benefits and possible side effects; medical schools' lack of understanding of presented problems related more to mental health issues than just health-related issues; medical schools' lack of knowledge on diverse culture, religion, and family dynamics and systems, such as family member's

role; physician's inability to effectively communicate with their patients; and overall

medical schools' lack of training in cultural competence.

Chapter 2

Review of Related Research

This chapter reviews the current theories and related research exploring health disparities and cultural competence. The three sections to be reviewed are on topics of health disparities, cultural competence, and medical education. Moreover, this chapter will review the importance of learning cultural competence in medicine. In addition, ethnic identity will be discussed and how it has a part in the development of cultural competence.

Health Disparities

Health disparities are a growing concern in the United States. In 2000, the Department of Health and Human Services (DHHS) committed to improving health and eliminating health disparities among the racial and ethnic minorities, including those of lower socioeconomic status, which was one of two goals of Healthy People 2010. Although the mission and goal was innovative, trying to clearly define the objectives and solve health disparities has become a challenge among health professionals. Since the launching of Healthy People 2010, health professionals have come together to better measure, discuss, implement, define, and address the concept of health disparities.

History

In March 2002, the DHHS completed the health disparities report which concluded that racial and ethnic minorities are in better health than previous years (Institute of Medicine, 2002). However, after further investigation by the Institute of

Medicine, it appeared that DHHS' findings were not accurate (Institute of Medicine, 2002). For instance, the investigation found that the National Healthcare Disparities Report deleted the use of the term disparities, eliminated the conclusion that health care disparities is a national problem, replaced the social cost of disparities with success, and omitted key examples of health care disparities (Institute of Medicine, 2002). Since the finding, the Institute of Medicine has worked diligently to better identify health disparities in the United States.

Since 2000, there have been several definitions for health disparities. The National Institute of Health (1999) defines health disparities as differences in the incidence, prevalence, mortality, and burden of disease and other adverse health conditions that exist among specific population groups in the United States. The National Center for Minority Health and Health Disparities defines health disparities of a population exists only if there is a significant disparities in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rate in the population as compared to the health status of the general population (National Health and Health Disparities Research and Education Act, 2000).

Health disparity can be viewed from different perspectives, namely the sociological or biopsychosocial perspective. From a sociological perspective, health disparities is viewed as significant differences in events, including the environment; access to, utilization of, and quality of care; health status; or particular health outcome that deserves scrutiny (Carter-Pokras & Baquet, 2002). Based on the sociological approach, social factors such as poverty can be a reason why some experience health disparities. On the other hand, the biopsychosocial perspective incorporates biological

variations. From this perspective, genes/biology, environment, and behavior all come together in a devastating way to create health disparities (Giger & Davidhizar, 2007). Overall, the difference in health status of Whites and minority groups is significant.

Although there is this significant rise in disparities, there has been a decline in minority groups seeking and adhering to health care. In the next section, explanation of the different theories of health disparities will be explained and processed.

Importance of health disparities

Over the years, there has been a dramatic improvement in overall health status in the United States. However, members of many different racial and ethnic populations experience the worst health outcomes. For instance, there is a growing number of racial and ethnic minorities who experience higher rates of morbidity and mortality than nonminorities. African Americans experience the highest rates of mortality from heart disease, cancer, cerebrovascular disease, and HIV/AIDS than any other racial or ethnic group (Institute of Medicine, 2003). Hispanic Americans are almost twice as likely as non-Hispanic Whites to die from diabetes; American Indians disproportionately die from liver disease, cirrhosis, and unintentional injuries (Institute of Medicine, 2003). Moreover, Asian Americans experience higher rates of stomach, liver, and cervical cancer (Institute of Medicine, 2003).

Overall, reports show that the mortality rates of minority groups, particularly those of African American descent, are higher than Whites. There are many theories as to the significance in health disparities between the groups. Issues related to lower socioeconomic status and environmental and biological differences are a few reasons for the difference in health among ethnic groups. For instance, there is a significant life

expectancy difference between African Americans and Whites. The current life

expectancy for African Americans is 71.0 years, compared with 76.9 years for non-

Hispanic Whites (Giger & Davidhizar, 2007). In 2000, the life expectancy for African

American men was 68.3 years, compared with their non-Hispanic White counterparts at

74.8 years (McGeveran, 2006). Overall, it appears that African American males have

significantly more premature deaths, before the age of 65 years (Giger & Davidhizar,

2007).

Most deaths among racial and ethnic minorities are preventable. In 2005, the

death rate was 55% higher for heart disease, 26% for cancer, 180% for stroke, and 100%

for lung disease than the rest of the general United States population (National Center for

Health Statistics, 2006). Moreover, the greatest disparities in the rates of death and life

loss in African American males are homicide, which is at an all-time high of 630% higher

than that of White males (National Center for Health Statistics, 2005).

The rise in mortality and disparities varies among the different ethnic and racial

groups. African Americans have a higher percentage of individuals who are diagnosed

with cardiovascular disease, breast, prostate, and lung cancer, diabetes, infant mortality,

and HIV/AIDS. Diabetes, uncontrolled hypertension, and HIV/AIDS are also high among

Hispanic Americans. Asian/Pacific Islander Americans have been identified to have

higher cases of tuberculosis, stroke, and cervical cancer (National Center for Health

Statistics, 2005). Moreover, like African Americans, American Indians/Alaskan Natives

have high rates of diabetes and infant mortality.

Not only are there significant differences in mortality and health conditions in

adults, there are also drastic differences among infants and children of racial and ethnic

groups. For instance, the infant mortality rates of nonminority babies in the United States have declined slightly from 7.2 per 1,000 live births in 1990 to 6.9 per 1,000 live births in 2000 (National Center for Health Statistics, 2005). Additionally, compared to Whites, there is a significant increase in minority infant obesity.

Profiles of Ethnic Groups

African Americans

African Americans are individuals from origins in any of the Black racial groups of Africa (Atrash & Hunter, 2006). Of the civilian noninstitutionalized population, 40.2 million people or 13.4 percent are African Americans, which make them the second largest minority group in the United States (Office of Minority Health (OMH), 2006). Seventy-four percent of African Americans earned high school diplomas and 16% of African American men and 13% of African American women earned at least a bachelor's degree. Whereas 81% of Whites earned at least a high school diplomas and 26% of White men and 23% of White women earned at least a bachelor's degree (OMH, 2004).

There are other disproportionate statistics, which include economics and health insurance coverage. According to the 2006 Census Bureau report, the average African American family median income was $31,969, in comparison to $52,423 for non-Hispanic White families (U.S. Census Bureau, 2006). According to the U.S. Census Bureau (2006), 20% of African Americans were living at the poverty level and 8% were unemployed, compared to 8% of non-Hispanic Whites at the poverty level and 4% unemployed. Fifty-four percent of African Americans had private insurance (employer-sponsored health insurance or direct purchase), compared to 77% for non-Hispanic Whites (U.S. Census Bureau, 2006). In addition, 21% of African Americans did not have

any insurance, compared to only 11% of non-Hispanic Whites (U.S. Census Bureau, 2006).

The death rate for African Americans was higher than for non-Hispanic Whites for heart disease, stroke, cancer, asthma, influenza and pneumonia, diabetes, HIV/AIDS, and homicide (Agency for Healthcare Research and Quality, 2003). African Americans have the highest mortality rate of any racial and ethnic group for most major cancers. In 2004, African American men were 1.4 times more likely to have new cases of lung cancer and 2.4 times more likely to die from prostate cancer as compared to non-Hispanic White men. Moreover, African American men are almost two times more likely to have stomach cancer than their non-Hispanic White counterparts. African American men also have a lower 5-year cancer survival rate for lung and pancreatic cancer than non-Hispanic White men (OMH, 2008). According to the OMH, African American women also experience a high percentage of cancer related deaths. African American women are more than 10% less likely to be diagnosed with breast cancer, but 34% more likely to die from breast cancer than non-Hispanic Whites (OMH, 2008). Additionally, African American women are twice as likely to be diagnosed with stomach cancer and 2.4 more times likely to die from stomach cancer than non-Hispanic White women.

Hispanic Americans

Hispanic Americans are defined as individuals of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin (Atrash & Hunter, 2006). Other origins identifying as Hispanic or Latino are Argentineans, Salvadorians, and Caribbeans (Tseng & Streltzer, 2008). The U.S. Census Bureau uses the term *Hispanic* when addressing these groups of individuals. There are over 44 million Hispanics, which

make up 15% of the U.S. total population (U.S. Census Bureau, 2006). Most of the

Hispanics living in the United States speak primarily Spanish. It is estimated that 3.9

million Mexicans, slightly over 760,000 Puerto Ricans, around 164,000 Cubans, and 1.8

million other Hispanic/Latino groups speak English, as compared to 14.5 million

Mexicans, 2.3 million Puerto Ricans, 1 million Cubans, and 6.7 million other

Hispanic/Latino groups who speak Spanish (OMH, 2002). Moreover, 55% of Hispanics

have a diploma and 10% graduated with a bachelor's degree, as opposed to non-Hispanic

Whites, 85% of whom have their high school diploma and 25% of whom have a

bachelor's degree (U.S. Census Bureau, 2006).

     One of the biggest discrepancies between Hispanics and non-Hispanic Whites is

the percentage of individuals living under the poverty level. According to the U.S.

Census Bureau, 21% of Hispanics were living below the poverty level, compared to 8%

of non-Hispanic Whites (U.S. Census Bureau, 2006). Moreover, the median income for

Hispanic Americans was $37,781 in 2006 (U.S. Census Bureau, 2006). According to the

OMH, Hispanics had the highest uninsured rates of all racial and ethnic groups in 2004

(OMH, 2008).

     Like some of the other racial and ethnic groups, lack of health insurance,

language or communication barriers, and lack of access to preventive care are the main

reasons for poor health. Heart disease, cancer, unintentional injuries (accidents), stroke,

and diabetes are the leading causes of illness and death among Hispanics. Other health

conditions for which they are at high risk are obesity, asthma, chronic obstructive

pulmonary disease (COPD), HIV/AIDS, suicide, and liver disease (OMH, 2008).

Asian American/Pacific Islander

Asians are identified as having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam (Atrash & Hunter, 2006). In addition, Pacific Islanders from Micronesia (Guam), Hawaii, and Samoa are also Asian Americans (Tseng & Streltzer, 2008). According to the U.S. Census Bureau, there are an estimated 14.9 million Asian Americans living in the United States (2006). Asians are about 5% of the nation's population and identified as the fastest growing ethnic group, based on the 63 % increase from 1990.

Asians have been in the United States since the early 1800s. Over the years, Asians migrated to the United States for different reasons, including better opportunity, to escape persecution, and exile. Although the reasons differ, many Asians still speak their native language. For instance, 62% of Vietnamese, 50% of Chinese, 24% of Filipinos, and 23% of Asian Indians are not fluent in English (OMH, 2006). However, many Asian American children learn to speak two languages. According to the U.S. Census Bureau (2006), 83% of Asians are high school graduates, 42% earned at least a bachelor's degree, and 45% are employed in management, professional, and related occupations.

The median income for Asian Americans is $4,300 higher than the median for the total U.S. population. However, it appears that 10% of Asians, compared to 8.2% of non-Hispanic Whites, live under the poverty level, and 2.2% of Asians, compared to 1.3% of Whites live on public assistance (U.S. Census Bureau, 2006). Compared to the other ethnic minority groups, Asian Americans have a higher percentage of individuals who have health insurance.

Although it appears Asian Americans have a higher median income with health care benefits, they are not excluded from experiencing health disparities. Asian Americans have many factors that threaten their health including infrequent doctor visits, fear of deportation, language and cultural barriers, and even lack of health insurance. Asian Americans are at a higher risk for certain health conditions, namely cancer, heart disease, stroke, unintentional accidents/injuries, and diabetes (OMH, 2008). Other risks include chronic pulmonary disease, hepatitis B, HIV/AIDS, smoking, tuberculosis, and liver disease (OMH, 2008).

American Indian/Alaskan Native

American Indians/Alaskan Natives were estimated at 4.5 million in 2006. This group comprises 1.5% of the total U.S. population; 1.8 million American Indians and Alaskan Natives live on reservations or other trust lands. Moreover, about 57% of American Indians and Alaskan Natives live in metropolitan areas, the lowest percentage of any racial group.

American Indians and Alaska Natives age 25 and over have at least a high school diploma, 14% have at least a bachelor's degree, and 50,500 have at least an advanced graduate degree (U.S. Census Bureau, 2006). The median family income for American Indians and Alaskan Natives is $33,627. Twenty-six percent of American Indians and Alaskan Natives work in management and professional occupations, while 25% live at the poverty level (U.S. Census Bureau, 2006).

Unlike the other racial and ethnic groups, American Indians and Alaskan Natives have the least accessibility to hospitals and health services, which increases the likelihood of poor health and limits health care options beyond that of any other group. The

obstacles to receiving health care include cultural barriers, geographic isolation, inadequate sewage disposal, and low income. Moreover, many American Indians and Alaskan Natives have limited or no health coverage. In 2003, 45% of American Indians and Alaskan Natives had private health insurance coverage, and 21.3% relied on Medicaid coverage. In 2005, 30% had no health insurance (U.S. Census of Bureau, 2006). Similar to African and Hispanic Americans, American Indians and Alaskan Natives also have some of the leading diseases that cause death, namely heart disease, cancer, unintentional injuries (accidents), stroke, and diabetes. This group also has a high prevalence and risk of mental health issues, teenage pregnancy, and liver disease.

Medical Issues

Cardiovascular Disease

Cardiovascular disease includes hypertension and coronary heart disease. It is the most common cause of death in the United States. Hypertension, also referred to as high blood pressure, is usually defined as a systolic blood pressure of 140 mm Hg or greater or a diastolic blood pressure of 90 mm Hg or greater (Rosen, Brondolo, & Kostis, 1993). Individuals who have been diagnosed with hypertension are usually on medication to regulate their blood pressure. Lifestyle factors such as obesity, lack of exercise, and salt and alcohol consumption appear to play a significant role in cardiovascular disease (Blair, Goodyear, Gibbons, & Cooper, 1994).

Hypertension affects approximately 29% of people 18 years and older in the United States, or more than 58 million individuals (Hajjar & Kotchen, 2003). In particular, hypertension is known to be high among African and Hispanic Americans. For instance, 33.5% of African Americans are diagnosed with hypertension, even though they

only constitute approximately 12 % of the U.S. population (Hajjar & Kotchen, 2003).

Similar to African Americans, Mexican Americans are said to have high blood pressure,

which is slightly higher than among their non-Hispanic White counterparts (29% versus

27%). Although Mexican Americans are less likely to have high cholesterol levels than

their White counterparts (18% versus 21%), Mexican Americans are less likely to take

cholesterol-lowering agents (Steward & Silverstein, 2002).

Hypertension has strong relationships to other medical conditions, including heart

failure, coronary heart disease, stroke, and kidney disease. There are different types of

heart disease, namely coronary heart disease (CHD), myocardial infarction (MI), and

sudden cardiac death (SCD) (Jones-Burton & Saunders, 2006). CHD, or coronary artery

disease (CAD), is primarily a function of atherosclerosis, which is a process of

progressive thickening and hardening of the walls of medium-sized and large arteries as a

result of fat deposits on the inner lining (Jones-Burton & Saunders, 2006). CHD is a

combination of fatty materials, calcium, and scar tissue that builds up in the arteries that

supply the heart with blood. MI, or heart attack, involves the death of the heart muscle,

and SCD occurs in someone who has had an MI in the past, but was not at imminent risk

of death (Jones-Burton & Saunders, 2006).

Heart disease is the leading cause of death for all racial and ethnic groups in the

United States. According to the Agency for Healthcare Research and Quality (AHRQ),

the rate of death from cardiovascular disease for African Americans was 30% higher than

for Whites in 1999 (2003). Although African Americans are less likely to be diagnosed

with coronary heart disease, they are more likely to die from heart disease than other

ethnic groups, especially Whites. Moreover, African Americans are less likely to get

checked and to monitor their blood pressure. African Americans are 40% more likely to be diagnosed with high blood pressure than non-Hispanic Whites (OMH, 2008). Although there are medical procedures for heart problems, African Americans are less likely to undergo diagnostic procedures such as catheterization or angiography, revascularization procedures, and thrombolytic therapy for heart disease.

Diabetes

There are two types of diabetes, Type I and Type II. Type I diabetes is also called insulin-dependent diabetes mellitus, and its onset is during childhood or adolescence. Type I diabetes occurs when the pancreas does not make insulin. Insulin is a hormone that helps glucose gets into cells to give them energy. Too much glucose can lead to serious medical problems with the eyes, kidneys, nerves, and gums and teeth. Type II diabetes is non-insulin dependent diabetes mellitus and mainly associated with obesity. Whereas Type I diabetics require at least one injection of insulin per day, Type II diabetics require weight loss, diet, and oral hypoglycemic medication to control blood glucose.

Diabetes was reported as the underlying cause of more than 40,000 deaths and as a contributory factor in approximately 160,000 other deaths (DHHS, 2005). It is ranked as the seventh leading cause of death in the United States among Whites, African Americans, Chinese Americans, and Filipino Americans (Giger & Davidhizar, 2007). However, diabetes is the third leading cause of death among Hispanic women between the ages of 45 and 74 (Vasquez, 1997). Diabetes is prevalent in the United States, with an estimated 7.8% (11.4 million) of all non-Hispanic Whites with diabetes, whereas 13.0% (2.8 million) of African Americans have diabetes and 10.2% (2 million) of Hispanic

Americans have diabetes. Alaskan Natives have the lowest percentage (5.3%) diagnosed with diabetes (American Diabetic Association, 2002).

Although it appears that non-Hispanic Whites have the highest percentage of individuals with diabetes, deaths from diabetes are the highest for African Americans (50.1 per 100,000) and American Indians or Alaskan Natives (50.3 per 100,000) (ADA, 2002). It appears that African Americans, Hispanic Americans, and American Indians experience 50% to 100% greater mortality due to diabetes than their White counterparts. African American women experience a higher diabetes mortality rate than their White female counterparts, 318.3 per 100,000 versus 111.1 per 100,000 (Giger & Davidhizar, 2007). Other high diabetes mortality rates for women are American Indian/Alaskan Native women at 306.4 per 100,000 and 167.9 per 100,000 for Hispanic women.

African Americans are almost twice as likely to be diagnosed with diabetes and more likely to suffer complications such as end-stage renal diseases and lower extremity amputations than non-Hispanic Whites (OMH, 2008). In addition, African Americans 20 years old and older are twice as more likely to have diabetes than Whites of the same age bracket. The death rate due to diabetes is 27% higher for African Americans than for Whites (OMH, 2008).

Hispanic Americans have diabetes 1.9 times more often and a death rate of 40% more than Whites (OMH, 2004). For example, Mexican American adults were 2 times more likely than non-Hispanic White adults to have been diagnosed with diabetes (OMH, 2004). Also, Hispanic Americans were 1.5 times more likely to start treatment for end-stage renal disease related to diabetes and 1.6 times more likely to die from diabetes complications than non-Hispanic Whites (OMH, 2004).

Diabetes is also one of the biggest concerns for American Indians and Alaskan Natives. The incidence of diabetes is more than twice that of the total population, 2.3 times more compared to non-Hispanic Whites (OMH, 2005). Moreover, American Indian and Alaskan Natives are 1.9 times more likely to die from diabetes than non-Hispanic Whites (OMH, 2005).

Cancer

Cancer exists among all different racial and ethnic groups, including non-Hispanic Whites; however, disparities are still prevalent among the ethnic minority groups. For instance, African American men have the highest overall cancer rates (Brawley & Moore, 2006). The major cancer deaths among American men are lung, prostate, colon, and rectum, while breast cancer takes place of prostate cancer for women (Brawley & Moore, 2006).

Although Hispanic Americans have lower cancer rates overall, they still experience disparities in certain types of cancer, namely liver, stomach, and cervical cancers. Hispanic Americans are twice as likely to have and die from liver cancer. Hispanic women are 2.4 times more likely to have stomach cancer and 1.5 times more likely to die from cervical cancer than non-Hispanic White women (OMH, 2004).

Like Hispanic Americans, American Indians/Alaskan Natives have lower cancer rates, but disparities exist in certain types of cancer, including liver, stomach, and kidney/renal/pelvis cancer. From 2001 to 2005, American Indians/Alaskan Natives men were twice as likely to have liver cancer and 1.8 times more likely to have stomach cancer, while 40% of American Indians/Alaskan Natives women had kidney/renal/pelvis cancer, compared to 21% of non-Hispanic Whites (OMH, 2006).

HIV/AIDS

Since the early 1980s, when HIV/AIDS statistics were first gathered, over 21 million people have died (Goosby, 2006). HIV/AIDS is not just an epidemic in the United States, but a global concern. In 2003, there were approximately 5 million new cases worldwide (Centers for Disease Control and Prevention (CDC), 2003). Within that same year, there were an estimated 1 million individuals who were diagnosed with HIV in the United States (Centers for Disease Control and Prevention (CDC), 2003).

African Americans accounted for 47% of HIV/AIDS cases in 2006, even though they only make up 13% of the U.S. population (OMH, 2008). African American males had over 7 times the AIDS rates than non-Hispanic White male. African American females had over 21 times the AIDS rates than non-Hispanic White females. In addition to these alarming figures, African American males are 9 times more likely to die and women are over 21 times more likely to die from HIV/AIDS than non-Hispanic Whites (OMH, 2008). Although African Americans have the highest number of casualties to HIV/AIDS, non-Hispanic Whites have a high percentage of individuals with the disease as well, at 34% (CDC, 2003).

Like African Americans, Hispanic Americans are more likely to have AIDS than non-Hispanic Whites. For instance, Hispanic females are 5 times more likely and males are 2.6 times more likely to have AIDS, compared to their non-Hispanic White counterparts (OMH, 2006).

Stroke

Stroke is the third leading cause of death in the United States, killing over 160,000 each year (CDC, 2008). Stroke is defined as a block of blood supply to part of

the brain or when a blood vessel in the brain bursts, causing damage to that part of the brain. If individuals survive the stroke, it may lead to significant disabilities.

Stroke deaths are higher for African Americans than any other racial and ethnic groups including non-Hispanic Whites. For instance, African Americans are twice as likely to have a stroke, and the men are 60% more likely to die from a stroke than non-Hispanic Whites (OMH, 2008). According to the CDC, African American stroke survivors are more likely to become disabled and have difficulty with daily living activities than non-Hispanic Whites (2008).

Vaccinations

Many serious infectious diseases for children have been eliminated or are under control in the United States. As a result of vaccines administered throughout the 20th century, there are record low incidences of vaccine-preventable diseases (Williams, Hutchins, Orenstein, & Rodewald, 2006). For instance, Healthy People 2010 reports that children aged 19 to 35 months exceed or are within one percentage point of 90% coverage for all vaccines, including measles, mumps, and rubella (MMR); diphtheria, tetanus, and activated pertussis (DTaP): inactive polio vaccine (IPV); hepatitis B; and Haemophilus influenzae type b (Hib) vaccines (Williams et al., 2006).

Although there are movements for all Americans to be vaccinated, there appears to be some discrepancy among the different ethnic minority groups. For instance, African Americans are affected by the limited vaccinations they receive and high mortality rates. African American children are less likely to be fully immunized with hepatitis, influenza, MMR, and polio than non-Hispanic White children (OMH, 2008). In addition, the infant mortality rate is 2.4 times greater for African Americans, who are also 4 times more

likely to die from low birth weight complications than Whites (OMH, 2008). Moreover, Hispanic children are less likely to have received all immunizations.

Vaccinations not only affect children, but they also have an impact for people 65 years of age and older. According to Healthy People 2010, vaccination coverage against influenza and pneumococcal disease for individuals 65 years of age and older is substantially below the identified objectives. In 2005, African Americans aged 65 and older were 40% less likely to receive the influenza (flu) shot in the past 12 months and 30% less likely to have ever received the pneumonia shot, compared to non-Hispanic Whites (OMH, 2008). Like African Americans, Hispanic Americans also are less likely to be fully immunized. In 2005, Hispanic adults aged 65 and older were 10% less likely to have received influenza shots in the past 12 months and 50% less likely to have received pneumonia shots than non-Hispanic Whites (OMH, 2008). One of the biggest differences between American Indians/Alaskan Natives and the other racial minority groups is that American Indians/Alaskan Natives children have received the recommended doses of vaccinations for measles, mumps, rubella, Hib, polio, and chickenpox at the same rates as non-Hispanic White children (Williams, et al., 2006). In addition, American Indians/Alaskan Natives 65 years and older are slightly more likely to have received influenza shots in the past 12 months compared to non-Hispanic Whites (OMH, 2008). Although immunization and vaccination rates are similar, it is 1.5 times more likely that American Indians/Alaskan Natives have a higher infant mortality than non-Hispanic Whites (OMH, 2008). In addition, American Indians/Alaskan Natives babies are twice as likely to die from sudden infant death syndrome (SIDS).

Definitions

Culture

The term *culture* has been used for centuries. Culture has a significant purpose in human behavior, which has been recognized as far back as Hippocrates (Dona, 1991). It also has been studied and discussed since the beginning of psychology as a discipline (Wundt, 1921). In the United States, the study of culture is prominent and continues to be examined today. The term *culture* refers to socially transmitted beliefs, institutions, and behavior patterns (Wood, 1989). Culture is a shared system of beliefs, values, and learned patterns of behavior that are shaped by factors such as proximity, education, gender, age, and sexual preference (Carillo et al., 1999).

Race

In most cases, the terms *race* and *ethnicity* have been used interchangeably. Therefore, it is important to try to differentiate between these terms, particularly when trying to use them for measurement purposes. For the most part, the term *race* has been used when discussing physical characteristics, such as skin color, facial features, and hair type (Jones, 1991).

Ethnicity

Ethnicity, on the other hand, is used in reference to groups that are characterized in terms of a common nationality, culture, or language. It refers to the quality of affiliation of a group, which is normally characterized in terms of culture (Betancourt & Lopez, 1993). It is a dimension of sociocultural systems that defines essential group

differences and structures the relations among persons classified in terms of those

differences (Dressler, Oths, & Gravlee, 2005).

Cultural Competence

Race, ethnicity, and culture are all components in the understanding of cultural

competence. According to Cross et al. (1989), cultural competence is a set of congruent

behaviors, attitudes, and policies that come together in a system, agency, or profession

and enable that system, agency, or profession to work effectively in cross-cultural

situations. Cultural competence focuses on understanding knowledge, attitudes, and

behaviors based on diverse, relevant, cultural experiences (Schim, Doorenbos, & Borse,

2005).

Derald Wing Sue developed the multidimensional model for developing cultural

competence in 2001. Based on his attempt to include social justice attributes, he

identified a new definition for cultural competence.

> Cultural competence is the ability to engage in actions or create
> conditions that maximize the optimal development of client and client
> systems. Multicultural counseling competence is defined as the
> counselor's acquisition of awareness, knowledge, and skills needed to
> function effectively in a pluralistic democratic society (ability to
> communicate, interact, negotiate, and intervene on behalf of clients from
> diverse backgrounds), and on an organizational/societal level,
> advocating effectively to develop new theories, practices, policies and
> organizational structures that are more responsive to all groups (Sue,
> 2001, p. 802).

Based on Sue's model, he identified three primary dimensions including the

component, foci, and racial and culture-specific attributes. The components of cultural

competence include awareness, knowledge, and skills. The foci of Sue's cultural

competence model include individual, professional, organizational, and societal levels of

interventions. Lastly, the racial and culture-specific attributes of cultural competence pertains to five target groups: African American, Asian American, Latin American, Native American, and Europeans. Sue stated that cultural competence involves the inclusion of all three dimensions. For the purpose of the current study, cultural competence will focus on competence with ethnically diverse patients.

Ethnic Identity

When discussing cultural competence, the topic of ethnic identity is inevitable. Similar to cultural competence, ethnic identity is a process. Ethnic identity is important in relation to cultural competence in that a secure ethnic identity can influence the development of becoming culturally competent. For the purpose of this study, Jean Phinney's model of ethnic identity will be used and discussed.

Ethnic identity is defined as a dynamic, multidimensional construct that refers to one's identity or sense of self as a member of an ethnic group (Phinney, 2003). According to Phinney, ethnic groups are subgroups within a larger context that claim a common ancestry and share one or more elements, including culture, phenotype, religion, language, kinship, or place of origin (2003, p. 63). Ethnic identity development was developed following models and theories from many areas, including social and developmental psychology. For instance, Erik Erikson's ego identity model has been used to study ethnic identity. According to Erikson, ethnic identity develops over time, starting from childhood and changing in adolescence and young adulthood (Phinney, 1989).

According to James Marcia (1980), there are four identity statuses: ethnic identity diffusion (lack of a clear identity; lacks exploration of identity issues and commitment in

relevant identity domains), foreclosure (commitment without exploration), moratorium (period of exploration), and ethnic identity achievement (firm commitment to one's ethnicity based on exploration that leads to clear understanding of identity). Healthy development for an individual is to obtain achieved identity, which is an individual's ability to explore key identity issues and make commitments. Although Marcia focused on personal identity, Phinney's (1989) developmental model of ethnic identity was an extension of Marcia's developmental model of ego identity formation (Phinney, 1989).

Marcia stated that two key processes underlie ego identity development, namely exploration of identity issues and alternatives and commitment or decision regarding one's direction and purpose in key areas including occupation and religion (Phinney, Jacoby & Silva, 2007). Along the lines of Marcia's model, Phinney developed the Multigroup Ethnic Identity Measure questionnaire, which assesses three common components of ethnic identity including positive ethnic attitudes and a sense of belonging, ethnic identity achievement, and ethnic behaviors and practices (Phinney, 1992). She purported that ethnic identity achievement is associated with self-esteem and adjustment (Phinney, 1992).

There are specific aspects to ethnic identity, including the ethnic self-identification or self-label that people use to identify themselves ethnically, the subjective sense that people have of belonging to an ethnic group and their feelings about their group membership, and their level of ethnic identity (Phinney, 2003). Self-identification is straightforward as to its purpose and meaning. It is the group name or label that one chooses for oneself. To ascertain this, an open-ended question or checklist is mostly utilized to identify that certain ethnic group name or label. For instance, an Asian

individual can self-identify as an Asian American, Asian, or even include the country of origin, such as Korean American. Commitment refers to a strong attachment and personal investment in a group (Phinney, 2007).

Another important component to ethnic identity is exploration. It is defined as seeking information and experiences relevant to one's ethnicity (Phinney & Ong, 2007). Experiencing both exploration and commitment allows an individual to be more secure and, in turn, provides the ability to change with new experiences. Both these components are key components to ethnic identity. The ability to identify to a certain group and feel a sense of belonging is why self-identification is important.

Phinney also described four ethnic identity statuses based on the presence or absence of exploration and commitment including diffuse, foreclosed, moratorium, and achieved. The two extremes of ethnic identity are diffuse and achieved. Ethnic identity diffuse is when the individual has the least mature status, lacking both exploration and commitment (Phinney et al., 2007). On the other hand, ethnic identity achieved indicates that the individual made an effort to understand the meaning and implications of his or her ethnic group and has a clear sense of belonging to the group based on that understanding (Phinney et al., 2007).

The other two ethnic identity statuses are foreclosed and moratorium. If a person expresses pride and a sense of belonging, but their views are largely derived from others or there is little or no evidence of having explored the meaning of the group membership themselves, these individuals are known to be experiencing ethnic identity formation (Phinney et al., 2007). Moratorium is exploration without commitment. Individuals experiencing ethnic identity moratorium have either engaged or are currently engaging in

an effort to learn about and understand their ethnicity, but remain unsure about it or express ambivalence about belonging to a group (Phinney et al., 2007).

According to developmental theory, a well-developed ethnic identity provides a certain security that allows people to be more open and to accept people of other ethnic groups (Phinney et al., 2007). Based on Phinney's study, it appears that there is a link between a secure ethnic identity and being culturally competent. In a study of 713 college freshmen using the Multigroup Ethnic Identity Measure, Asian American and Latino students with an achieved ethnic identity reported significantly more positive attitudes toward other groups (Phinney et al., 2007). Moreover, based on the same study, but using qualitative methods, 124 adolescents from five ethnic groups appeared to have greater awareness and understanding of intergroup relations with an achieved ethnic identity (Phinney et al., 2007).

Cultural Competence and Health Care

In health care, cultural competence is defined as the ability of systems to provide care to patients with diverse values, beliefs, and behaviors, including tailoring to meet patients' social, cultural, and linguistic needs (Betancourt, Green & Carillo, 2002). Cultural competence is the demonstrated awareness and integration of three population-specific issues: health-related beliefs and cultural values, disease incidence and prevalence, and treatment efficacy (Lavizzo-Mourey & Mackenzie, 1996). Culturally competent health care should include a culturally diverse staff that reflects the community it serves, providers or translators who speak the client's language, providers who have been trained to be aware of the culture and language of the people they serve, literature and paperwork in the client's language and consistent with their cultural norms,

and health care settings that are culturally specific (Anderson, Scrimshaw, Fullilove, Fielding, & Normand, 2003).

The concept of cultural competence has many uses, including the identification of social justice, understanding health disparities, and better communication among and understanding of different cultural groups. According to Schim et al. (2005), the cultural competence model in a medical setting is comprised of four components: cultural awareness, cultural diversity, cultural sensitivity, and cultural competence behaviors. Cultural diversity is prominent in the United States. It is determined by race and ethnicity as well as by socioeconomic class, gender, and sexual orientation.

There are three main factors that contribute to the importance and study of cultural competence. The first is the increase of immigrants and refugees in the United States. This phenomenon is the contemporary movement toward multiculturalism which demands respect for cultural diversity and equal accessibility to health and social services. The second is the national health care reform of the 1990s, which resulted in the uncertainty of the United States health care system, highlighting such concepts as total quality management (TQM) and managed care (Ma, 1999). The third phenomenon relates to the 1990 United States Department of Health and Human Services' Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Although this objective was developed to improve the health of all ethnic minorities, it did not necessarily include certain groups, namely Asian Americans. Therefore, the development of the national objectives for 2010 focused on demographic changes of more racially diverse populations, new demands and challenges of public health, and the overall health care system (Ma, 1999).

According to the National Healthcare Disparities Report (NHDR) in 2007, three key themes emerged: disparities in health care quality and access are not getting smaller, progress is being made, but gaps in quality and access have not reduced, and persistent lack of insurance is a problem and barrier to reducing disparities (NHDR, 2007). Moreover, these themes are consistent gaps between the majority and minority group populations. For instance, African American women are more likely to die from breast cancer than are White women (Collins, Hall, & Neuhaus, 1999). Infant mortality rates are 2.5 percent greater for African Americans and 1.5 percent greater for Native Americans than for White Americans (U.S. DHHS, 1998a). Influenza death rates are higher for African Americans and American Indians/Native Alaskans than White Americans (Grantmakers in Health, 1998). In addition, there is a higher mortality rate from colorectal cancer for African Americans, followed by Native Alaskans, and then by Hawaiians than for White Americans (Baquet & Commiskey, 1999).

The assumption is that these differing health outcomes are the result of racial and ethnic differences. One of the factors in this racial and ethnic disparity includes low socioeconomic status. Other components of racial and ethnic disparities include patient-physician communication, type of health care services, and utilization of health care services. Moreover, the representation of ethnic minority groups within the health care professions is significantly lower than that of the nonminority group.

Communication is one of the most important factors in building a healthy patient-physician relationship and reducing health disparities. Evidence suggests that patient-physician communication can affect patient satisfaction, adherence, and subsequently health outcomes (Stewart, Brown, Boon, Galajda, Meredith, & Sangster, 1999).

According to the Institute of Medicine report, a patient-centered approach has a direct link to health care quality and patient adherence to medical advice, including the practice of preventive measures and taking medication (Institute of Medicine, 2001 and 2002).

Due to mistrust of authority and lack of resources, ethnic minority groups still underutilize health care services. Even if the minority groups have similar health insurance to that of their White counterparts, it appears that the minority groups still have health disparities with their majority counterpart (Ayanian et al., 1993; Conigliaro et al., 2000).

Cultural Competence Models in Health Care

The focus of this study will be cultural competence models in health care. There are numerous cultural competence models, and over the years, these models have been cited on many occasions by researchers, scholars, psychologists, and practitioners. Sue and his colleagues developed several models including the tripartite model of multicultural counseling competencies and the multidimensional model for developing cultural competence. Most of the cultural competence models of health care were developed and/or expanded from the innovative work of Sue and his colleagues. For this study, the works of Campinha-Bacote, Cross, Purnell, and Schim will also be reviewed and discussed.

Josepha Campinha-Bacote developed a cultural competence model in health care in 1994. Dr. Campinha-Bacote defined cultural competence as a process of culturally responsive assessments and culturally relevant interventions. In this model, Campinha-Bacote initially identified four components of cultural competence: cultural awareness, cultural knowledge, cultural skills, and cultural encounter (1994).

In 1999, Dr. Campinha-Bacote developed the process of cultural competence model, which states that there are five interdependent constructs. Like the original model, she included four components, but in addition, she added cultural desire to this new model. According to Campinha-Bacote (1999), cultural awareness is the ability of health care providers to appreciate and understand their clients' values, beliefs, lifeways, practices, and problem solving strategies. Self-awareness is vital to cultural awareness, which assists health care professionals in analyzing their own beliefs to avoid bias and prejudice when working with clients (Campinha-Bacote, 1999).

Cultural knowledge is the ability of health care providers to have an educated knowledge base which includes physical, biological, and physiological variations about various cultures to better understand their clients (Campinha-Bacote, 1999). Cultural skills focus on conducting an accurate and culturally competent history and physical examination. The last two constructs, cultural encounters and cultural desire, focus on working competently with diverse patients while utilizing appropriate verbal and nonverbal expressions (Campinha-Bacote, 1999).

The process of cultural competence in the delivery of health care services was developed by Dr. Campinha-Bacote in 2002, in which she stated that cultural competence is an ongoing process in which health care providers continuously strive to achieve the ability to effectively work within the cultural context of the patient, including individual, family, and community (Campinha-Bacote, 2002). According to this model, the process of cultural competence in the delivery of health care services assumes that there are more variations within ethnic groups than across ethnic groups (intraethnic variations). There is a direct relationship between the level of competence of health care providers and their

ability to provide culturally responsive health care services, and cultural competence is an essential component in rendering effective and culturally responsive services to culturally and ethnically diverse clients (2002). Moreover, she reaffirmed the importance of the five constructs of cultural competence: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desires (Campinha-Bacote, 2002).

Cross' model of cultural competence was developed in 1988, which states that there are six stages to cultural competence. Cross originally developed this model for organizations; however, it has been adopted for individuals. The six stages of the model of cultural competence are cultural destructiveness, cultural incapacity, cultural blindness, cultural precompetence, cultural competence, and cultural proficiency.

Cross states that individuals in Stage 1, cultural destructiveness, assume the superiority of one culture over other cultures. Stage 2, cultural incapacity, indicates that there is support for segregation and there is lower expectation for people of minority cultures. Cultural blindness, or Stage 3, is when individuals benefit only from being assimilated, particularly if services and activities are ethnocentric. If individuals and/or organizations promote and offer diversity or cultural sensitivity training, they are in the cultural precompetence phase. Stage 5 attempts to address diversity issues through hiring and promoting diversity. The cultural competence stage attempts to achieve cultural competence by hiring unbiased employees, obtaining feedback from ethnic groups, and assessing possible provisions for diverse clients (Cross, 1988). Lastly, organizations and/or individuals in Stage 6, also known as advanced cultural competency or cultural proficiency, actually conduct research, hire culturally competent staff, and advocate for diversity issues (Cross, 1988).

Purnell's model for cultural competence states that those with cultural competence should develop an awareness of one's existence, sensations, thoughts, and environment without letting it have an undue influence on those from other backgrounds; demonstrate knowledge and understand the client's culture; accept and respect cultural differences; and adapt care to be congruent with the client's culture (Purnell & Paulanka, 1998).

There are several assumptions which comprise the Purnell model. Based on this model, all cultures share core similarities, and the differences among cultures do not indicate that one culture is better than another. Purnell feels that cultures change slowly over time. The model also states that culture has a powerful influence on one's interpretation of and responses to health care. According to Purnell, health care that reflects the unique understanding of values, beliefs, attitudes, lifeways, and worldview of diverse populations and the individual's acculturation patterns will be effective (Purnell & Paulanka, 2005). Moreover, the Purnell model states that cultural awareness improves self-awareness and also that all health care professionals need similar information about cultural diversity.

The organizing framework of the Purnell model consists of layers within a circular diagram. These layers are comprised of an outlying ring representing global society, a second ring representing community, a third ring representing family, and an inner ring representing the person. In this circle, there are twelve cultural domains: overview/heritage, communications, family roles and organization, workforce issues, biocultural ecology, high-risk health behaviors, nutrition, pregnancy and the childbearing

family, death rituals, spirituality, health care practices, and health care practitioners (Purnell, 2005).

All of these domains, including the layers, assist in identifying cultural consciousness. Each domain can be used when addressing patients in different settings and used by health care professionals to better understand their own cultural beliefs, attitudes, values, practices, and behaviors. All these domains and concepts are interconnected and not able to just stand alone.

Schim and Miller (1999) developed the cultural competence model, which consists of four components: cultural diversity, cultural awareness, cultural sensitivity, and cultural competence behaviors. Cultural competence in health care focuses on care of patients with diverse values, beliefs, and behaviors. It tailors to the patients' social, cultural, and linguistic needs. According to Schim and Miller's cultural competence model (1999), cultural competence incorporates one's cultural diversity experience (fact), awareness (knowledge), and sensitivity (attitude) into everyday practice behaviors.

Cultural Competence and Medical School

The reasons for learning about culture in health care are plentiful. For instance, the demographic patterns in the United States are changing. As previously mentioned, the ethnic minority group population will probably triple that of earlier years. Moreover, when culture is dismissed as an influencing factor in health, there are negative health outcomes. In addition, learning about the different cultures is important to health because most patients utilize different styles of medicine, including alternative and complementary medicine (Perez & Luquis, 2008). Lastly, if health care providers follow

the doctrine "the best care practice", then education about culture in health outcomes and adherence to legislative and accreditation requirements is warranted.

A qualitative study conducted in 2007 found that most physicians appeared frustrated when discussing ways to improve quality of care for minority patients (Vanderbilt, Wynia, Gadon, & Alexander, 2007). These physicians identified three main barriers to effectively improving health care: language barriers, resource limitations, and cultural barriers (Vanderbilt et al., 2007). In 2001, Cho and Solis reported that over half (56%) of providers reported not having had any form of cultural competency training. In 2003, Park and colleagues wanted to assess medical residents' perceptions of cross-cultural care, barriers to care, and training experiences and recommendations. Their study concluded that most of the residents did not receive formal cross-cultural training during their residency years (Park, Betancourt, Miller, Nathan, MacDonald, Ananeh-Firempong, et al., 2006). Most of the residents reported that they received training in a more informal way.

Medical Schools

In the United States, there are two types of medical schools, allopathic and osteopathic. These two types of schools are governed by different accreditation bodies.

Allopathic medical schools, which award the Doctor of Medicine (M.D.) degree, are governed and accredited by the Liaison Committee on Medical Education (LCME). The LCME accredits complete and independent medical education programs where students are geographically located in the United States for their education and the programs are operated by universities or medical schools that are chartered in the United States (LCME, 2008, p. ii).

As reported by Cross (2000), the LCME introduced the standards for cultural competence stating that the faculty and students must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. Medical students should learn to recognize and appropriately address gender and cultural biases in health care delivery, while considering first the health of the patient. Although learning and recognizing cultural competence while in medical school was discussed, Barzansky, Jonas, and Etzel (2000) identified only 1 out of 125 LCME accredited schools that provided a separate required course concerning cultural diversity in 1999 to 2000. Flores et al. (2000) identified 87% of medical schools in the United States that had three or fewer cultural competence training courses during the preclinical years.

Research surveys were also developed to measure if cultural competence training in medical school was perceived as important. For instance, Wake Forest University implemented a postcourse survey asking medical students about their experience in the cultural competence elective (Crandall, George, Marion, & Davis, 2003). Although the study had a small sample size and potential selection bias, the medical students identified an increase in and greater awareness of cultural sensitivity, alternative therapies, and cultural cues during a patient interview (Crandall et al., 2003).

Regardless, the LCME has been working on cross-cultural education and promoting cultural competence. The accreditation standards of the LCME specify two cultural competence guidelines. First, medical students should learn to recognize and appropriately address gender and cultural biases in health care delivery (LCME, 2008). Second, the faculty and students must demonstrate an understanding of the manner in

which people of diverse cultures and belief systems perceive heath and illness and respond to various symptoms, diseases, and treatments (LCME, 2008). Moreover, the June 2008 edition of the LCME manual reports that medical schools should be able to document objectives relating to the development of skills in cultural competence, indicating where in the curriculum students are exposed to such material and demonstrate the extent to which the objectives are being achieved (LCME, 2008).

Osteopathic medical schools are slightly different from allopathic medical schools. The osteopathic schools are accredited by the American Osteopathic Association (AOA), in contrast to the allopathic schools and the American Medical Association (AMA). The most important and significant difference between the two types of schools is that osteopathic medical schools have a holistic perspective on the practice of medicine, based on a belief in treating the whole patient (mind-body-spirit) and the primacy of the musculoskeletal system in human health and the utility of osteopathic manipulative treatment. The key to osteopathic medical education and practice is this emphasis on primary care, health maintenance, prevention of disease, and attention to the musculoskeletal system (PCOM, 2008).

The osteopathic philosophy includes several basic tenets that the professionals need to follow: (a) the human body is a unit in which structure and function are reciprocally interdependent; (b) the body, through a complex system, tends to be self-regulating and self-healing; (c) adequate function of body systems depends on the unimpeded flow of blood and nerve impulses; (d) the musculoskeletal system is a major body system and its importance exceeds that of mere framework and support; and (e) there are musculoskeletal components to disease that are not only manifestations of the

disease, but also important contributing and maintaining factors (PCOM, 2008, p. 64).
Through these basic premises, the whole mind-body concept was developed.

In June 2003, the AOA Board of Trustees accepted and approved the core competencies required for all internship and residency programs. Over the years after 2003, core competencies were identified and implemented. The AOA indicated that the responsibilities of fulfilling these core competencies belong to the Director of Medical Education. The AOA identified seven core competencies: (a) osteopathic philosophy and osteopathic manipulative medicine, (b) medical knowledge, (c) patient care, (d) interpersonal and communication skills, (e) professionalism, (f) practice-based learning and improvement, (g) systems-based practice (AOA, 2004).

The first two competencies are osteopathic philosophy and osteopathic manipulative medicine and medical knowledge. Under the first competency, the goal is to train skilled and competent osteopathic practitioners. The residents are required to demonstrate competency in understanding and applying osteopathic manipulative treatment (OMT) appropriate to their specialty, integrate these osteopathic concepts and philosophies into the medical care, clinical and patient care (AOA, 2004). For competency 2, medical knowledge, residents are expected to demonstrate and apply knowledge of accepted standards of clinical medicine in their respective specialty area, remain current on new developments in medicine, and participate in life-long learning, including research (AOA, 2004).

Competencies 3 through 5 were integrated by July 2005. Competency 3, patient care, states that the residents must demonstrate the ability to effectively treat patients, provide medical care that incorporates the osteopathic philosophy, patient empathy,

awareness of behavioral issues, the incorporation of preventive medicine, and health

promotion (AOA, 2004). Interpersonal and communication skills is the fourth

competency, which states that effective development of doctor-patient relationship should

be demonstrated, as well as exhibiting effective listening, written, and oral

communication skills with patients, families, and other professionals. Professionalism

was also included at this stage. Competency 5 states that the residents need to

demonstrate respect for their patients and families while advocating for the patients'

welfare and autonomy. Also, residents need to follow all ethical principles in the practice

of medicine (AOA, 2004).

      The last stage, implemented in July 2006, included the last two competencies,

practice-based learning and improvement and systems-based practice. For practice-based

learning, the residents need to adhere to three required elements: treat patients with the

most up-to-date information on diagnostic and therapeutic effectiveness, self-evaluate

clinical practice patterns and practice-based improvement activities using a systematic

methodology, and understand research methods, medical informatics, and the application

of technology to medicine (AOA, 2004). The last implemented competency indicates an

expectation that residents understand health care delivery systems, provide effective and

qualitative patient care within the system, and practice cost-effective medicine (AOA,

2004).

      Although these competencies are in place, there still is little discussion and

learning of diversity issues. In core competencies 4 and 5, doctor-patient communication

and relationship and professionalism are discussed; however, the concept of cultural

competence and/or diversity training was not included. Based on the current research,

cultural competence research and implementation of this type of training continues to be limited within osteopathic education.

Research Questions

1. Is there a significant difference in cultural competence among the preclinical, first and second year medical students (Group A) and the clinical, third and fourth year medical students (Group B)?

2. Is there a relationship between ethnic identity and cultural competence among the participating students?

3. How do the participants view cultural competence training in the medical school setting?

Specific Hypotheses

1. Group B (third- and fourth-year medical students) will be more culturally competent than Group A (first- and second-year medical students), as measured by the Cultural Competence Assessment, CCA (B>A). Additionally, Group B will exhibit more cultural awareness and sensitivity and behaviors than Group A, as measured by the subscales of the CCA.

2. There will be a significant positive correlation between ethnic identity, as measured by the Multigroup Measure of Ethnic Identity- Revised (MEIM–R), and the cultural competence as measured by the CCA. Participants low in ethnic identity will exhibit a low cultural competence and those with high ethnic identity will have high cultural competence.

3. The medical students with high scores on the Cultural Attitude Survey of medical students will view cultural competence and/or diversity training as a necessary part of the curriculum in medical school. This will be measured by viewing the scores of the Cultural Attitude Survey of medical students and the first question in Appendix D, "How important is it to learn about patients of different racial and ethnic background from your own while in the following medical school years.".

Chapter 3

Method

This study assessed cultural competence among osteopathic medical students. It also investigated any significant differences in cultural competence between the first- and second-year osteopathic medical students versus third- and fourth-year osteopathic medical students. Moreover, this study examined the differences among the sociocultural subgroups of these samples (age, gender, and race) and examined whether there were any relationships between ethnic identity and cultural competence.

Research Design

This study was a survey-based quantitative research project that utilized a *t* test analysis. It examined two groups: preclinical and clinical medical students. Group A was in the didactic stage of medical school, which comprises first- and second-year medical students. Group B was in the clinical training stage of medical school and comprised third- and fourth-year medical students. The primary independent variable was the level of medical training among the participants. The dependent variables were cultural competence, as assessed by the Cultural Competence Assessment Inventory (CCA), ethnic identity, as measured by the Multigroup Ethnic Identity Measurement-Revised (MEIM–R), and the Cultural Attitude Scale (CAS) scores of the two groups.

Participants

The participants in this study were osteopathic medical students from one of the schools in the Northeast region of the United States. The two groups will be identified as:

Group A and Group B. Group A included first- and second-year medical students, and Group B included third- and fourth-year medical students.

For this study, 156 participants were needed (Cohen, 1992). For the *t* test with two groups and an alpha level of 0.05, 52 participants per group were needed to detect a medium effect size at a power of 0.80.

Procedure

Groups A and B received an e-mail asking for their participation in an anonymous survey (Appendix E). The questionnaires' titles were omitted to minimize expectation bias, which was approved by the authors of these questionnaires. The e-mail asked for the group's participation, which included clicking on a link that directed them to an online survey (Survey Monkey). The participants needed 15-20 minutes to complete the survey. The survey was open for 1 month, with a weekly reminder to complete the survey. The weekly reminder asked the participants to complete the survey by the end of the week. Prior to the presentation of the survey, permission was obtained from the dean of the college.

After the completion of the survey, the participants were directed to another page if they were interested in entering a raffle for one of two $25 American Express gift cards. This page was not directly linked to the questionnaires. If interested, the participants entered their name and a phone number where they could be reached. The drawing for this raffle occurred after all data was collected (approximately 1 month after the initial e-mail had been sent out). Personal identifying data, including names and phone numbers, were kept separate from the questionnaire to ensure confidentiality by directing the participants to another page after completing the survey.

Measures

The scales to measure cultural competence, ethnic identity, and cultural attitudes were the Cultural Competence Assessment Inventory (CCA) by Schim et al. (Appendix A), the Multigroup Ethnic Identity Measure–Revised questionnaire by Phinney (MEIM–R) (Appendix B), and the Cultural Attitude Scale by Robins et al. (Appendix C), respectively. After permission was obtained from Dr. Schim, several items were modified, including rewording questions 2 and 4, as well as including two additional demographic information questions, namely gender and sexual orientation, at the end of the questionnaire.

In addition to the measurement instruments, participants were asked the following question: How important is it to learn about patients of different racial and ethnic background from your own while in the following medical school years? This question can be answered by rating them from 1-5 (1, not very important, to 5, very important). Also, participants were asked their current year in medical school, religion, age, and what city/state they grew up (Appendix D).

Cultural Competence Assessment (CCA)

The Cultural Competence Assessment (CCA) is a self-report questionnaire with 25 items which measures cultural diversity experience, cultural awareness and sensitivity, and cultural competence behaviors (Schim, Doorenbos, Miller, & Benkert, 2003). The CCA used for this study also includes 13 items of the Marlowe-Crowne Social Desirability Scale short form (Reynolds, 1982) and demographic information, which totaled 49 questions (Schim et al., 2005). The demographic information identifies the participant's race/ethnicity, gender, age, most recent completed degree (BA, MA),

number of multicultural courses and workshops completed, and percentage of overall interaction with minority groups.

The foundation of the CCA instrument was the cultural competence model, which comprises four elements: cultural diversity, cultural awareness, cultural sensitivity, and cultural competence behavior (Schim & Miller, 1999). The current CCA questionnaire of 25 items has been revised since 2003 (Doorenbos, Schim, Benkert, & Borse, 2005). Based on this model, the CCA identifies one single index and two subscales: cultural diversity, cultural awareness and sensitivity (CAS), and cultural competence behavior (CCB). Cultural awareness relates to knowledge in the areas of cultural expression of similarities and differences. On the other hand, cultural sensitivity describes attitudes, values, beliefs, and personal insight. Based on Doorenbos et al., cultural competence behaviors are the observable outcomes of diversity experience, increased awareness, and refinement of sensitivity (2005, p. 326).

The single index, cultural diversity, is measured by asking the participants if they have encountered people of various groups within the past 12 months (Appendix A). The higher the number on this question, the greater the level of diversity experience. CAS is measured with a 5-point Likert scale, which ranges from strongly agree to no opinion, while the CCB has a response range of always to not sure. Higher scores on these two subscales identify higher levels of knowledge, more positive attitudes, and greater frequency of competence behaviors (Doorenbos et al., 2005). As indicated in Appendix A, examples of CAS are "people with a common cultural background think and act alike," "many aspects of culture influence health and health care," "I ask people to tell me about their own explanations of health and illness," and "I recognize potential barriers

to service that might be encountered by different people." The internal consistency of the

CCA is reported at 0.92, with Cronbach's alpha reported for CCB at 0.93 and CAS at

0.75 (Schim et al., 2003; Doorenbos et al., 2005). The content and face validity have been

established for all items (Schim et al., 2003; Doorenbos et al., 2005).

Marlowe-Crowne Social Desirability Scale (MCSDS)

The Marlowe-Crowne Social Desirability Scale (MCSDS) was developed to

measure a person's tendency to distort self-presentation toward a socially desired bias

(Crowne & Marlowe, 1960). Originally, the MCSDS was an alternative to the Edwards

Social Desirability Scale that Crowne and Marlowe developed. The Edwards Social

Desirability Scale was oriented to measure the admission or denial of symptoms or

maladjustment that had been selected from items on the Minnesota Multiphasic

Personality Inventory (MMPI) or the Manifest Anxiety Scale (Andrews & Meyer, 2003).

Although this scale has not been studied or used for clinical purposes, it has been utilized

by many to measure social desirability.

The Marlowe-Crowne Social Desirability Scale (MCSDS) short version, Form C,

was developed by Reynolds (1982). This scale was added to complete the questionnaire

of CCA by Schim and Miller. Unlike the original version with 33 items, the MCSDS–C

is a 13-item true/false questionnaire proposed by Reynolds (1982). Form C has good

psychometric properties, with internal consistency estimates ranging from 0.62 to 0.76

and a 6-week test-retest correlation of 0.74 (Ballard, 1992; Loo & Thorpe, 2000;

Reynolds, 1982; Zook & Sipps, 1985). Scores on this form have been highly correlated

with the original MCSDS with values of 0.91 to 0.965 (Fischer & Fick, 1993; Loo &

Thorpe, 2000; Reynolds, 1982).

Multigroup Ethnic Identity Measure–Revised (MEIM–R)

The Multigroup Ethnic Identity Measure–Revised (MEIM–R) was revised from Phinney's Multigroup Ethnic Identity Measure (Phinney et al., 2007). Initially, the MEIM was designed to meet the need for a general purpose questionnaire that could assess ethnic identity across diverse ethnic groups (Phinney, 1992). This version of the MEIM identified components of ethnic identity from a sociological perspective. These components are self-categorization or labeling, commitment and attachment, exploration, ethnic behaviors, evaluation and in-group attitudes, values and beliefs, importance and salience, and ethnic identity and national (or American) identity (Phinney, 1992).

Of the total 20-item MEIM questionnaire, 14 of the items measured core components of ethnic identity, including sense of attachment or belonging, development concept of achieved identity, and involvement in ethnic practices (Phinney & Ong, 2007; Phinney, 1992). The remaining six items assessed the orientation to other groups that would provide a contrast to the other items. All together, the 20-item questionnaire was rated on a 4-point scale from strongly agree to strongly disagree. Scores were derived by reversing negatively worded items, summing across items, and obtaining the mean; scores ranged from 4 (indicating high ethnic identity) to 1 (low).

There were discrepancies in the MEIM identified by other theorists. Hence, Phinney revised the original scale to MEIM–R. The MEIM–R is a 6-item questionnaire that looks at two constructs, exploration and commitment (Phinney & Ong, 2007). The usual response options are on a 5-point scale, from strongly disagree (1) to strongly agree (5), with 3 as a neutral position. The score is calculated as the mean of items in each subscale (Exploration and Commitment) or of the scale as a whole. Items 1, 4, and 5

assess exploration, whereas items 2, 3, and 6 assess commitment (Phinney et al., 2007). Moreover, the reliability of the two subscales is reported to be good, based on the Cronbach's alphas of 0.76 for exploration and 0.78 for commitment (Phinney et al., 2007). The combined 6-item scale yields an alpha of 0.81.

Cultural Attitudes Survey

The Cultural Attitudes Survey for Medical Students is useful for assessing students' openness to developing cultural awareness and competence (Robins, Alexander, Wolf, Fantone, & Davis, 1998). This survey was developed and measured using first-year medical students from the University of Michigan program. The Cultural Attitudes Survey is both reliable and valid for assessing students' cultural attitudes in seven domains: examination of patients, intercultural interaction, discussion of race and ethnicity, interaction with individuals of diverse sexual orientations, interaction with institutional representatives, learning about alternative medicine, and identification of skin conditions (Robins et al., 1998, p. 126). The coefficient alpha for the Cultural Attitudes Scale was 0.92, with Cronbach alpha coefficients for the seven subscales ranging from 0.74 to 0.87.

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Data Analysis

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Analysis for the first hypothesis, that Group B is more culturally competent than Group A, used an independent *t* test. The independent variable was the level of training or practice group: Group A (first- and second-year medical students) and Group B (third- and fourth-year medical students). The dependent variable was the level of cultural competence, as assessed by the Cultural Competence Assessment instrument (CCA).

The second hypothesis predicted that the ethnic groups that feel strongly about their ethnic identity would also exhibit higher cultural competence. This was assessed by comparing participants' scores on the CCA and the MEIM–R. These scores were examined using the Pearson product-moment correlation. For the third hypothesis, a Pearson product-moment correlation was conducted to evaluate relationships between the groups on cultural attitude and self-reported needs for cultural competence training.

Chapter 4

Results

The participants for this study were medical students from one of the osteopathic

medical schools in the Northeast region of the United States. These participants were

placed in one of two groups depending on their current year in medical school: students

in the first and second years were in Group A, while those in the third and fourth years

were in Group B. There were a total of 175 participants who reviewed the survey, but

only 148 participants' submitted responses. Participants who provided their age ($n = 146$)

ranged from 20 to 53 years of age, with a mean age of 26.7 ($SD = 4.12$). Also of the 148

participants, 51.4% reported obtaining a higher level of education after college. Table 1

illustrates the demographics of participants who completed the survey in terms of

frequencies and percentages. Table 2 provides the number of participants who did not

state their demographic information. It should be noted that the participants who

indicated the name of the college or "fifth year" ($n = 6$, 4.2%) for their current medical

school year were also included in Table 2. Additionally, Table 3 provides the response

given by the participants' regarding any previous cultural competence training prior to

medical school.

Table 1

Frequency and Percentage of Demographic Variables

Demographic variables	Frequency	%
Gender	148	--
Female	104	70.3
Male	44	29.7
Race	149	--
Hispanic	3	2.0
White	114	76.5
Black	6	4.0
Asian	16	10.7
Arab Americans/Middle Easterner	1	0.7
Native Hawaiian/Pacific Islander	0	0.0
Other	9	6.0
Sexual Orientation	148	--
Heterosexual	140	94.6
Gay	4	2.7
Lesbian	2	1.4
Bisexual	2	1.4
Religion	144	--
Catholic	59	47.0
Christian	39	27.1
Jewish	8	5.6
Greek Orthodox	3	2.1

Mormon	2	1.4
Hindu	2	1.4
Buddhist	1	0.7
Sikh	1	0.7
Agnostic	11	7.6
Atheist	4	2.8
Other	4	2.8
No Response	10	6.9
Current Medical School Year	145	--
First Year	23	15.9
Second Year	16	11.0
Third Year	43	29.7
Fourth Year	57	39.3

Table 2

Frequency distribution of missing participants

	Number Missing
Gender	27
Race	26
Sexual Orientation	27
Religion	31
Current Medical School Year	36

Table 3

Sources of cultural competence training

Sources of Training	%
Separate College Course for Credit	32
Content Covered in a College Course	59
Professional Conference or Seminar	57
Employer Sponsored Program	41
Online (Computer-assisted) Education	20
Continuing Education Offering	4

Descriptive Statistics

Test of Hypotheses

Cultural Competence Assessment

The Cultural Competence Awareness measure (CCA) includes subscales for cultural awareness and sensitivity (CAS), cultural competence behaviors (CCB), and cultural diversity experience. For this study, only two of the subscales, CAS and CCB, were used, due to the limited knowledge of the reliability and validity of the cultural diversity experience subscale.

An independent subjects *t* test was used to examine the difference between the CAS subscale of the two groups, which included 39 participants for Group A and 99 participants for Group B, totaling 138 participants. Group A had a mean CAS subscale

score of 5.9 (*SD* = 0.55), while Group B had a mean CAS subscale score of 5.8 (*SD* =

0.59). The observed difference between the means of the two groups was 0.1 (*SE* = 0.11),

with a 95% confidence interval of -0.13 (low) and 0.30 (high), *t*(136) = 0.81, with *p* value

of 0.4197. The results suggest no difference between the two groups on the CAS

subscale. The coefficient of determination between the two variables was 0.0048.

An independent subject's *t* test was also used to examine the difference between

the two groups on the CCB. Group A, which comprised 39 participants, had a mean CCB

subscale score of 4.0 (*SD* = 1.37), while Group B, with 100 participants, had a mean CCB

subscale score of 4.1 (*SD* = 1.25). The observed difference between the groups means

was -0.03 (*SE* = 0.24), with a 95% confidence interval of -0.51 (low) and 0.44 (high),

t(137) = -0.14, *p* = 0.8883. The results suggest no difference between the two groups on

the CCB subscale. The coefficient of determination between the two variables was

0.0001.

Finally, an independent *t* test was used to examine if there were any differences

between the two groups based on their overall score on the CCA. With a total of 138

participants, Group A (*n* = 39) had an overall mean score of 5.0 (*SD* = 0.80), while Group

B (*n* = 99) had a mean score of 4.9 (*SD* = 0.78), with an observed difference of 0.02 (*SE*

= 0.15; 95% CI: -0.27 - 0.32), *t*(136) = 0.15, *p* = 0.8784. The results suggest no

differences between the groups. The coefficient of determination between the two

variables was 0.0002, suggesting that group membership explains 0.02% of the

variability in the overall cultural competence score.

Multigroup Ethnic Identity Measurement

Table 4 is the correlation matrix describing the relationship between scores on the Cultural Competence Assessment and the Multigroup Ethnic Identity Measurement. The lower section of the correlation matrix contains the observed Pearson product moment correlation coefficients and associated p values. The upper section contains the observed r^2 values and number of cases contributing to the correlation estimates. Based on the scores, there is a correlation between cultural competence and ethnic identity. In particular, the cultural competence behavior and exploration explain 6.0% of the variability between the cultural competence behavior and exploration subscales. The results suggest that the correlation is significant between cultural competence behavior and exploration (MEIM–R subscale).

Table 4

Correlation Between CCA and MEIM–R

	CCA	CAS Subscale	CCB Subscale	MEIM–R	Exploration	Commitment
CCA		41.5%	86.9%	2.9%	5.3%	1%
	--	(n = 155)	(n = 155)	(n = 147)	(n = 147)	(n = 147)
CAS Subscale	0.64		10.5%	0.0%	0.7%	0.5%
	(p = 0.0000)	--	(n = 155)	(n = 147)	(n = 147)	(n = 147)
CCB Subscale	0.93	0.32		4.1%	6.0%	1.4%
	(p = 0.0000)	(p = 0.0000)	--	(n = 148)	(n = 148)	(n = 148)
MEIM–R	0.17	0.01	0.20		82.6%	81.0%
	(p = 0.0391)	(p = 0.9292)	(p = 0.0132)*	--	(n = 148)	(n = 148)
Exploration	0.23	0.08	0.25	0.91		40.5%
	(p = 0.0049)	(p = 0.3315)	(p = 0.0027)**	(p = 0.0000)	--	(n = 148)
Commitment	0.07	-0.07	0.12	0.90	0.64	
	(p = 0.3753)	(p = 0.3953)	(p = 0.1464)	(p = 0.0000)	(p = 0.0000)	--

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Need for Training in Medical School

Regardless of their current year in medical school, participants were asked to rate the importance of obtaining cultural competence training during the different years of medical school. Table 5 is the correlation matrix describing the relationship between the groups and their self-report of the need for cultural training while in medical school. Based on the results, there were no significant relationships between the groups on the need for cultural training in any given year. However, the results suggest that students' believed that cultural competence training becomes increasingly important as they progress through their training (Table 6).

Table 5

Correlation Between Groups on Cultural Competence Training

	Need Training in First Year	Need Training in Second Year	Need Training in Third Year	Need Training in Fourth Year
Year in Medical School	0.15 ($p = 0.083$)	-0.12 ($p = 0.157$)	-0.03 ($p = 0.723$)	0.04 ($p = 0.616$)

Table 6

Students' Reported Importance of Receiving Training

Year in Medical School	Not Important	Little Important	Somewhat Important	Important	Very important
First Year	10.3%	8.3%	29.7%	20.7%	29.0%
Second Year	5.6%	5.6%	26.6%	25.9%	34.3%
Third Year	0.0%	2.1%	9.7%	24.3%	61.8%
Fourth Year	0.0%	2.1%	5.6%	20.3%	66.4%

Additional Findings

Marlowe-Crowne Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale examines the person's tendency to report in a more socially desirable way. In a range from 0 to 13, a higher score indicates that the participants have a tendency to respond in a more desirable manner. Of 149 participants, the mean score on this scale is 7.79, which indicates that the participants' self-report is on average an accurate report of their true feelings.

Cultural Attitude Survey

Table 7 shows the mean scores from this study and from the study in 1998 with first year medical school students. The mean scores from this study were not significantly different than the mean scores calculated by Robins et al. in 1998. The assumption based on the data is that there is not a significant difference from 1998 to present or the year in medical school. However, note that this survey will not be used other than for post hoc analysis due to an error (missing one item).

Table 7

Mean Ratings of Factors for Cultural Attitude Survey

| | Lee, 2009 | | Robins et al., 1998 | |
| | *n* = 146 | | *n* = 153 | |
	M	*SD*	*M*	*SD*
Examination of patients	3.60	0.97	3.22	0.94
Intercultural interactions	3.82	1.00	3.84	0.85
Discussion on race and ethnicity	3.88	0.99	4.16	0.79
Interaction with individuals of diverse sexual orientation	4.12	1.07	3.94	0.93
Interaction with institutional representatives	3.56	0.99	3.98	0.78
*Learning alternative medicine	3.50	1.15	3.97	0.82
Identification of skin conditions in people of different colors	3.96	1.06	4.21	0.71

*missing one of the two items for this factor

Regardless of the one item missing, an independent subjects *t* test was used to examine if there were any differences between the two groups on cultural attitude. Group A, which comprised 39 participants, had a mean score of 3.9 (*SD* = 0.75), while Group B, with 100 participants, had a mean score of 3.8 (*SD* = 0.87). The observed difference between the group means was 0.1 (*SE* = 0.16), with a 95% confidence interval of -0.21 (low) and 0.41 (high), *t*(139) = 0.64, *p* = 0.524. The results suggest no difference between the two groups. The coefficient of determination between the two variables was 0.3%. In addition, a Pearson product-moment correlation was used to compare the cultural

attitudes and the participants' current year in medical school. Based on the results, there was no correlation between the scores from the Cultural Attitude Survey and participant's year in medical school ($r(139) = -0.074$, $p = 0.387$).

Chapter *5*

Discussion

Summary and Integration of Major Findings

This self-report, observational study examined cultural competence of osteopathic medical students, as well as their thoughts on the importance of learning about racial and ethnic backgrounds that were different from their own. A review of the literature suggests that learning about cultural competence is important for several reasons, including the ever-changing demographic patterns in the United States, the negative health outcomes when culture is dismissed as an influencing factor in health, the increasing number of individuals who utilize alternative medicine, and legislation that mandates providers be knowledgeable about culture in health and health care delivery (Tervalon, 2003). Additionally, health disparities may be eliminated when medical professionals and trainees have the opportunity to understand their own cultural identity, their perspectives and views on the culture of medicine, and the influence their attitudes and behaviors have in health care settings (Tervalon, 2003). This chapter will provide a summary and interpretation of the results and limitations of the study. Finally, the chapter ends with possible clinical implications of this study and future research directions.

Cultural Competence Awareness

The results do not support the hypothesis that Group B would be more culturally competent than Group A. The levels of cultural awareness and of sensitivity and cultural competence behaviors were the same between the groups. These results are similar to previous studies that reported no difference between second-year and third-year medical

students and their knowledge of cultural competence (Bussey-Jones, Genao, St. George, & Corbie-Smith, 2005; Crandall et al., 2003).

Possible explanations may include limited differences in demographic variables. For example, most of the participants were White, female, and Catholic. The sample size of the groups was not equal, in that a greater number of participants were in Group B ($n = 100$) than Group A ($n = 39$). Furthermore, data was not obtained to describe the participants' place of origin prior to medical school. Even if the assumption was that all relevant variables were captured for the two groups and cultural competence, it still appears that the incremental differences of clinical training have no effect.

The speculation as to why the hypothesis may not have been supported is as follows: First, the students are not receiving additional cultural competency training while in medical school. The cultural awareness and sensitivity these students had prior to medical school may not have changed throughout their medical school years. Essentially, the only training these students received regarding cultural competence was prior to entering medical school. Second, these medical students may have had training in the beginning semester of the first year, which is the only cultural competence training they have throughout medical school. This survey was given near the end of the school year. So, one could conclude that the fourth-year students have not had additional training since their first year of school. Cultural competence is an ongoing process; therefore, receiving only one lecture or course may not be sufficient in addressing cultural competence and eliminating health disparities.

Ethnic Identity and Cultural Competence

As predicted, the scores on the Cultural Competence Awareness Instrument (CCA) and the Multigroup Ethnic Identity Measurement–Revised (MEIM–R) were strongly correlated. According to previous studies, strong ethnic identity provides confidence in one's own group membership, which leads to a greater openness to other groups (Phinney, Ferguson, & Tate, 1997; Phinney & Ong, 2007). The assumption based on these studies is that individuals who have achieved identity (strong ethnic identity) will also be more inclined to have cultural awareness and sensitivity of other ethnic groups. Based on the data from the present study, there is particularly a stronger relationship between the cultural competence behavior subscale of the CCA and the exploration subscale of the MEIM–R. The strong correlation between the two subscales demonstrates that individuals with achieved ethnic identity are also more likely and willing to engage in behaviors that are culturally diverse and sensitive.

Diversity Training

Although it is important to be culturally competent, it is also important to know if these same individuals feel comfortable dealing with a range of sociocultural issues, such as discussing race and ethnicity, and intercultural experiences, like examining patients with a different ethnic background. Discomfort with learning about cultural differences may impede the development of intercultural knowledge and skills (Robins et al., 1998). To measure these cultural attitudes, the University of Michigan asked first-year medical students to reflect on their own sociocultural identities and academic status in relation to others by completing the Cultural Attitude Scale. The results showed that the Cultural Attitude Scale measured what it was designed to measure, which were the seven factors

such as examination of patients, discussion of race and ethnicity, and learning about alternative medicine.

The results of this study were not significantly different from the study conducted in 1998 by Robins et al. According to Robins' study, medical students in their third- and fourth-years of training had no problem discussing race and ethnicity and learning about alternative medicine; however, these same students expressed great discomfort with performing examinations when a patient's ethnicity was different from their own (Robins et al., 1998). Based on the results of the present study, there were no significant differences between the groups on the openness to develop cultural awareness and competence. For instance, first-year medical students scored similarly to the fourth-year medical students. It should be noted that the results for this survey may be compromised due to an omission of one item from the 22-item questionnaire.

To further investigate the need for diversity and/or cultural competence training, participants were asked to rate the following question using a Likert scale: How important is it to learn about patients of different racial and ethnic background from your own while in the following medical school years? The results indicate that both groups reported a need for diversity training while in medical school. The participants reported that learning about diversity and/or cultural competence issues is increasingly important as they progress through their training. For example, the overall concensus was that the training becomes more important in the second-year of medical school than in the first-year, and that it is even more important in the third-year than the second-year of medical school. Overall, these osteopathic medical students are open to learning and exploring cultural competence, but have not been giving the training to do so.

Clinical Implications of the Findings

These findings are important for health care professionals, particularly for medical students, physicians, and administrators. As described in the previously mentioned research and in this study, many minority patients tend to find communication with physicians to be challenging. This gap in communication creates barriers for patients to effectively obtain education about their problems and appropriate treatment. On the other hand, medical residents in a previous study reported receiving little to no cultural training in understanding how to address patients from different cultures and how to identify patient mistrust, relevant religious beliefs and cultural customs, or decision-making structure (Weissman, Betancourt, Campbell, Park, Kim, et al., 2005). Although about 87% of medical schools address cultural competence in three or fewer lectures, students and residents alike indicate a great need for cultural competence training (Flores, Gee, & Kastner, 2000).

The openness to commit to cultural awareness and competence is just the first step to decreasing health disparities (Tervalon, 2003). Physicians with this training will be better prepared to effectively treat patients from different racial and ethnic backgrounds. More importantly, these medical students, as future physicians, will be able to better explore, learn, and identify ways to communicate to their patients.

Some residency programs have identified the importance of cultural competence among physicians, particularly due to the shift in the physician-patient relationship. Residency programs have incorporated cultural competence training as one of the core requirements during these years. Similar to residency programs, medical schools should incorporate cultural competence and/or diversity programs into their curriculum to

enhance their overall training. The ability to enhance cultural competence training will improve a physician's competence and morale in working with patients of different racial and ethnic backgrounds. Although individual approaches can be effective, a multidimensional approach is required to effectively increase cultural competence and eliminate health disparities. In trying to attain this goal, the state of New Jersey outlined the importance of cultural competency training which starts from the state legislation (system), then filters down to organizations such as AOA and medical schools, and to the students and physicians (individual)

Limitations of the Study

There were several limitations of this study, including sample size, self-report measures, and the type of cultural competence. For instance, the sample size was smaller in Group A ($n = 39$) than Group B ($n = 100$). Most of the participants were female, White, and Catholic. Therefore, it could be difficult to generalize these findings to other groups. Another challenge to generalization is the location where the participants were recruited. Participants in this study were osteopathic medical students from one of the schools in the Northeast region of the United States.

Due to the nature of self-report, the implications of accurate measurement are yet another limitation. Therefore, the Marlowe-Crowne's Social Desirability Scale was used in an attempt to maximize the sincerity of the response. Other limitation of this study is the focus on ethnic cultural competence only, rather than including aspects of other areas of diversity, such as sexual orientation, religion, gender, disability, etc. Lastly, the inclusion and exclusion of this study are the enrolled and not enrolled students in medical school, respectively.

Future Directions

This study can be replicated with osteopathic medical schools, as well as allopathic schools, in other regions of the United States. Depending on the different geographic locations, different cultural needs would be presented, such as for urban and rural areas. Future research could focus on developing an instrument designed specifically for health professionals to better measure cultural competence, namely cultural awareness, knowledge, and skills. Such research will be beneficial to developing a more effective way to teach cultural competence in medical schools.

Due to the importance of cultural competence training, there are a few states that are mandating continuing medical education (CME) in cultural competence. For instance, in the state of New Jersey, legislation mandates that all physicians need to complete 16 hours of CME in cultural competence to renew their medical license. As reported in May 2008, there were two other states outside of New Jersey that incorporated cultural competence or multicultural training (Schierhorn, 2008). In the same year, there were a total of three states that were considering a bill that would require cultural competence training. However, these mandates are not implemented in other states.

Although slow, there is a shift in how medical schools are addressing the need for cultural competence training. For instance, some medical schools are incorporating cultural competence or multicultural training within didactic education. Other schools are adding this course as an elective.   In addition, many osteopathic medical schools, including the school these participants' currently attend, have incorporated standardized patient training into the curriculum as a teaching model for cultural awareness and sensitivity. Rather than including it as an elective or discussing diversity in health care

through a few lectures, medical schools (osteopathic or allopathic) could mandate cultural competence training while in medical school.

Medical students should be proactive and seek out ways to be more culturally competent, such as reading books, attending seminars, speaking to individuals of ethnicities different from their own, engaging in community volunteer work, and even requesting additional training from administrators and other professionals. As stated earlier, becoming culturally competent is not one dimensional in that it is not individually based; rather, it requires efforts at the systematic and organizational level before there are significant change and growth in becoming culturally competent.

In addition, the importance of diversity training and its purpose in medicine should be voiced throughout the medical community, including professors and trainers, not just students. Development of cultural competence is imperative for students as well as trainers. Therefore, medical school professors, staff, and trainers should participate in continuing education and attending conference seminars to further their own knowledge, awareness, and development of cultural competence. Another way of developing and learning about diversity is a hands-on practice approach, such as standardized patient training. Both trainers and students can utilize these settings to monitor, teach or learn, and apply appropriate skills in working with patients of diverse backgrounds. Cultural competence training can only be effective and promising when groups and individuals advocate for its importance in medicine. Advocacy leads to making the rational move to attend diversity training and development.

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Appendix A

Cultural Competence Assessment (CCA) by Schim et al., 2005

Instructions: Questions on this form are intended to gather information about how you personally think, feel, and act. Some questions may not fit your situation exactly depending on the type of study program you are enrolled in or the type of work you do at this time. Please try to answer every question. If you are unsure or have no opinion on an item, use the "No Opinion" or "Not Sure" options. There is no "right" or "wrong" answers.

1. In the past 12 months, which of the following racial/ethnic groups have you encountered among your clients and their families or within the health care environment or workplace?

Mark 'X' for all that apply.

☐ Hispanic / Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)

☐ White / White / European American

☐ Black / African American / Negro

☐ American Indian / Alaska Native

☐ Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)

☐ Native Hawaiian / Pacific Islander

☐ Arab American / Middle eastern

☐ Other *(specify)*

2. In your opinion, what percentage of the total population in your current environmental setting is made up of people from these racial/ethnic groups?

Write in percents to add to 100%.

( ) Hispanic / Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or other Spanish)
( ) White / White / European American
( ) Black / African American / Negro
( ) American Indian / Alaska Native
( ) Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)
( ) Native Hawaiian / Pacific Islander
( ) Arab American / Middle eastern
( ) All other groups combined

TOTAL = 100%

3. In the past 12 months, which of the following special population groups have you encountered among your clients and their families or within the health care environment or workplace?

Mark 'X' for all that apply.

☐ Mentally or emotionally Ill

☐ Physically Challenged / Disabled

☐ Homeless / Housing Insecure

☐ Substance Abusers / Alcoholics

☐ Gay, Lesbian, Bisexual, or Transgendered

☐ Different religious/spiritual backgrounds

☐ Other *(specify)*

4. In your opinion, what percentage of the total population in your current environmental setting is made up of people from these racial/ethnic groups?

Write in percents; may not total 100%

( )   Mentally or emotionally Ill
( )   Physically Challenged / Disabled
( )   Homeless / Housing Insecure
( )   Substance Abusers / Alcoholics
( )   Gay, Lesbian, Bisexual, or Transgendered
( )   Different religious/spiritual backgrounds

5. Overall, how competent do you feel working with people who are from cultures different than your own?

☐ Very Competent

☐ Somewhat Competent

☐ Neither competent nor incompetent

☐ Somewhat Incompetent

☐ Very Incompetent

For each of the following statements, put an "X" in the box that best describes how you feel about the statement.

6. Race is the most important factor in determining a person's culture.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

7. People with a common cultural background think and act alike.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

8. Many aspects of culture influence health and health care.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

9. Aspects of cultural diversity need to be assessed for each individual, group, and organization.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

10. If I know about a person's culture, I don't need to assess their personal preferences for health services.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

11. Spirituality and religious beliefs are important aspects of many cultural groups.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

12. Individual people may identify with more than one cultural group.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

13. Language barriers are the only difficulties for recent immigrants to the United States.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

14. I believe that everyone should be treated with respect no matter what their cultural heritage.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

15. I understand that people from different cultures may define the concept of "health care" in different ways.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

16. I think that knowing about different cultural groups helps direct my work with individuals, families, groups, and organizations.

☐ Strongly Agree

☐ Agree

☐ Somewhat Agree

☐ Neutral

☐ Somewhat Disagree

☐ Disagree

☐ Strongly Disagree

☐ No Opinion

For each of the following statements, put an "X' in the box that best describes how often you do the following:

17. I include cultural assessment when I do individual or organizational evaluations.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

18. I seek information on cultural needs when I identify new people in my work or school.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

19. I have resource books and other materials available to help me learn about people from different cultures.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

20. I use a variety of sources to learn about the cultural heritage of other people.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

21. I ask people to tell me about their own explanations of health & illness.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

22. I ask people to tell me about their expectations for health services.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

23. I avoid using generalizations to stereotype groups of people.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

24. I recognize potential barriers to service that might be encountered by different people.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

25. I remove obstacles for people of different cultures when I identify barriers to services.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

26. I remove obstacles for people of different cultures when people identify barriers to me.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

27. I welcome feedback from clients about how I relate to people from different cultures.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

28. I find ways to adapt my services to individual and group cultural preferences.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

29. I document cultural assessments if I provide direct client services.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

30. I document the adaptations I make with clients if I provide direct client services.

☐ Always

☐ Very Often

☐ Somewhat Often

☐ Often

☐ Sometimes

☐ Few times

☐ Never

☐ Not sure

Your answers to these last few questions will help us understand responses from different kinds of people who complete the survey. ALL answers are strictly confidential. Read each item below and decide whether the statement is true or false as it pertains to you personally.

Mark you answer with an "X" in the True or False box.

31. It is sometimes hard for me to go on with my work if I am not encouraged.
☐ True   ☐ False

32. I sometimes feel resentful when I don't get my way.
☐ True   ☐ False

33. On a few occasions, I have given up doing something because I thought too little of my ability.
☐ True   ☐ False

34. There have been times when I felt like rebelling against people in authority even though I knew they were right.
☐ True   ☐ False

35. No matter who I'm talking to, I'm always a good listener.
☐ True   ☐ False

36. There have been occasions when I took advantage of someone
☐ True   ☐ False

37. I'm always willing to admit it when I make a mistake.
☐ True   ☐ False

38. I sometimes try to get even rather than forgive and forget
☐ True   ☐ False

39. I am always courteous, even to people who are disagreeable.
☐ True   ☐ False

40. I have never been irked when people expressed ideas very different from my own.
☐ True   ☐ False

41. There have been times when I was quite jealous of the good fortune of others.
☐ True   ☐ False

42. I am sometimes irritated by people who ask favors of me

☐ True   ☐ False

43. I have never deliberately said something to hurt someone's feelings.
☐ True   ☐ False

44. In what year were you born? _____

45. Using the categories below, what do you consider yourself?
(***Choose one or more***)

☐ Hispanic / Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)

☐ White / White / European American

☐ Black / African American / Negro

☐ American Indian / Alaska Native

☐ Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)

☐ Native Hawaiian / Pacific Islander

☐ Arab American / Middle eastern

☐ Other group(s) *(specify)*

46. What is your gender?

☐ Male

☐ Female

47. What is your sexual orientation?

☐ Heterosexual

☐ Gay

☐ Lesbian

☐ Bisexual

☐ Transgender

48. What is your highest level of education completed?

☐ Bachelors degree

☐ Graduate or professional degree

49. Have you ever participated in cultural diversity training?

☐ Yes

☐ No

50. If you have had prior diversity training, which option below best describes it? (Check all that apply)

☐ Separate college course for credit

☐ Content covered in a college course

☐ Professional Conference or Seminar

☐ Employer Sponsored Program

☐ On-line (computer assisted) Education

☐ Continuing Education Offering

☐ Other diversity training types (Specify)

Appendix B

Multigroup Ethnic Identity Measure-Revised (MEIM–R) by Stephanie Phinney, 2007

Instruction: In this country, people come from a lot of different cultures and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Mexican American, Hispanic, Black, Asian American, American Indian, Anglo-American, and White. Every person is born into an ethnic group, or sometimes two groups, but people differ on how much their behavior is affected by it. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Please fill in:

In terms of ethnic group, I consider myself to be: _____ .

Use the numbers given below to indicate how much you agree or disagree with each statement.

Strongly disagree agree	**Disagree**	**Neutral**	**Agree**	**Strongly**
1	2	3	4	5

_____   I have spent time trying to find out more about my ethnic group, such as
its

history, traditions, and customs.

_____   I have a strong sense of belonging to my own ethnic group.

_____   I understand pretty well what my ethnic group membership means to me.

_____   I have often done things that will help me understand my ethnic
background

better.

_____   I have often talked to other people in order to learn more about my ethnic
group.

_____   I feel a strong attachment towards my own ethnic group.

Appendix C

Cultural Attitudes Survey for Medical Students by Robins, et al (1998).

Instruction: please indicate "***how comfortable are you (or would you be)"*** using a 5-point scale:

very uncomfortable somewhat uncomfortable neutral comfortable very comfortable
      1   **2**   **3**   **4**   **5**

_____   Requesting academic help from the office of academic enrichment.

_____   Requesting academic help from a professor.

_____   Approaching the administration for career counseling.

_____   Discussing race and ethnicity in your classes.

_____   Discussing race and ethnicity with your friends.

_____   Working with a gay/lesbian lab partner.

_____   Talking about your ethnic background with class.

_____   Talking about your ethnic background with friends.

_____   Attending a function sponsored by an association for African-American medical students.

_____   Attending a function sponsored by an association for women medical students.

_____   Attending a function sponsored by an association for Christian medical students.

_____   Identifying a rash on a White patient.

_____   Identifying a rash on an African-American patient.

_____   Taking a seat in the middle of a group of students from a different racial/ethnic group.

_____   Learning about chiropractic in medical school.

_____   Discussing a child's health problems with same-sex parents.

_____   Discussing a safer sex with patients whose sexual orientations are
different   than yours.

_____   Examining a patient with HIV.

_____   Examining a patient with active tuberculosis.

_____   Performing a genital examination on a patient whose gender is different
than   yours.

_____   Performing a genital examination on a patient whose gender is the same
as   yours.

Appendix D

Please rate the following from 1-5 (1 is "not important," 3 is "somewhat," and 5 is "very important"):

How important is it to learn about patients of different racial and ethnic background from your own while in the following medical school years:

First year: _____

Second year: _____

Third year: _____

Fourth year: _____

Also, please complete the following:

What year in medical school are you in currently? _____

What is your religion? _____

What is your age? _____

Appendix E

The email asking for the participation of completing the survey will state the

following:

Hello. My name is Sooni Lee, and I am a doctoral candidate in Philadelphia, PA. I am conducting a study to examine your awareness and knowledge when working with individuals of ethnically different background. Participation in this study is voluntary and should take only about 15-20 minutes to complete. Please complete this survey by the end of this week. This study was approved by the IRB committee at the Philadelphia College of Osteopathic Medicine. Participants will have the opportunity to participate in a raffle for one of two $25 gift cards. Because the study is anonymous, if you are interested in the raffle, please write down your name and number at the end (last section) of the study. Thank you in advance for your time and consideration.

Please click on the following link to take the survey.

Sooni Lee, MS
Doctoral Candidate

The weekly reminders for one month will state the following:

Hello everyone,
This is just a friendly reminder to please complete the study below by the end of this week. If you have already completed the survey, thank you for your assistance. And, please disregard this email.

I want to thank you all again for all your support.

Sooni Lee, MS
Doctoral Candidate