

THE EFFECTS OF AN INTERVENTION TO PROMOTE CUSTOMIZED CULTURALLY
SENSITIVE HEALTH CARE BY MEDICAL STUDENT PROVIDERS

By

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To my family and friends who have accompanied me along this journey, and to all of the educators who have shaped my intellectual and professional development

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This study examined the effects of an intervention to promote customized culturally sensitive health care by medical student health care providers on these student providers' self-evaluations of their cultural sensitivity following simulated clinical encounters with mock patients. In this study, 202 second year student providers engaged in simulated clinical encounters with 34 mock patients as part of their regular clinical training. These mock patients used the Tucker-Culturally Sensitive Health Care Provider Inventory – Clinical Tool Form A to indicate their top ten preferences for provider behaviors that have been shown in previous research to be indicators of health care provider cultural sensitivity. Student providers who were arbitrarily assigned to the Intervention Group had the opportunity to view their mock patients' preferences prior to engaging in the simulated clinical encounters with these patients. Student health care providers in both groups subsequently self-evaluated their levels of cultural sensitivity in the health care they provided during the simulated clinical encounters using the Tucker-Culturally Sensitive Health Care Provider Inventory -- Provider Form. Statistical analyses revealed that student health care providers in the Intervention Group demonstrated higher self-ratings of culturally sensitive health care at post-test than

student health care providers in the Control Group on some subscales of a culturally sensitivity health care provider inventory. Implications for the provision of culturally sensitive health care and the improvement of cultural sensitivity training for student health care providers are discussed.

CHAPTER 1 INTRODUCTION

“Without health, there is no happiness.” – Thomas Jefferson

Statement of the Problem

The United States has long been a nation filled with people from diverse racial/ethnic backgrounds, and the proportion of individuals from minority non-White racial/ethnic backgrounds has steadily been increasing. For example, according to the United States Census Bureau website (2012), between the years 2000 and 2010 the number of people who identified as African American increased by 12%, the number of people who identified as Asian increased by 43%, and the number of people who identified as Hispanic or Latino increased by 43%. During that same period, the number of people who identified as White increased by only 6%. Furthermore, it is predicted that people who identify as “White only” will become a numerical minority by the year 2056 (May, 1992). Media sources have recently carried stories stating that , based on statistics from the United States Census Bureau, births of babies from racial/ethnic minority backgrounds now exceed births of babies from non-Hispanic White backgrounds (Morello & Mellnik, 2012). Indeed, many urban areas of the United States already demonstrate rich cultural diversity such that people from non-Hispanic White backgrounds have become a numerical minority. For example, in this author’s hometown county of Miami-Dade, Florida, non-Hispanic Whites account for only 15% of the population while individuals who identify as coming from Hispanic or Latino backgrounds represent about 65% of the population of that urban metro area (United States Census Bureau, 2012).

Many individuals from racial/ethnic minority backgrounds demonstrate disparities in economic attainment, incomes, and standards of living compared to their majority counterparts (e.g. Stanfield, 2011). This disparity especially holds true for individuals from African American and Hispanic or Latino backgrounds (Stanfield, 2011). These differences between members of racial/ethnic groups are due to many factors, such as the nation's historical tradition of slavery, which left many individuals and families impoverished (Williams & Sternthal, 2010). The lower economic attainment by individuals from racial/ethnic minority backgrounds has direct ties to the overall health and wellbeing of these individuals, especially those from African American and Hispanic/Latino backgrounds (LaViest, 2005). These individuals from racial/ethnic minority backgrounds face financial difficulties in accessing health insurance and other associated health care resources even though the United States spends the most per-capita on health-related costs compared to other member nations of the Organization for Economic Co-operation and Development ([OECD] OECD, 2011). Furthermore, the United States is the only member nation of the Organization for Economic Co-operation and Development that does not provide universal health care services to its citizens (Spithoven, 2009), which further complicates access to health care for people from racial/ethnic minority backgrounds.

It has been well documented that individuals from racial/ethnic minority backgrounds demonstrate poorer health outcomes across a variety of measures, and that these differences persist across the lifespan (Brown, O'Rand, & Adkins, 2012; Clancy, 2008). Examples of these disparities have been documented in the extant literature for some time, as evidenced by a study showing that individuals from African

American backgrounds are more likely to risk death from chronic disease such as heart disease, cancer, and diabetes compared to their majority Non-Hispanic White counterparts (e.g. Bernard, 1993). More recent statistics indicate that individuals from African American backgrounds have higher rates of cancer deaths, are more likely to be diagnosed with type 2 diabetes, evidence higher rates of tooth decay, and have disproportionately higher rates of HIV/AIDS when compared to their majority counterparts (National Center for Health Statistics, 2006, 2007; Pleis & Lethbridge-Çejku, M., 2006).

Individuals from Hispanic or Latino backgrounds are also greatly affected by health disparities, and have been shown to demonstrate greater incidence of diabetes, cancer, heart, disease, and death compared to their non-Hispanic White counterparts (Mokuau & Fong, 1994). Additionally, individuals from Hispanic or Latino backgrounds, compared to their non-Hispanic White peers, demonstrate higher rates of cancer death, are more likely to be diagnosed with type 2 diabetes, and evidence higher rates of tooth decay (National Center for Health Statistics, 2006, 2007; Pleis & Lethbridge-Çejku, M., 2006). Given the current national debates regarding the provision of health care in this country and the disproportionate rates by which people from African American and Hispanic or Latino backgrounds are affected by chronic illness, research to address these disparities is indeed timely and sorely needed (Agency for Healthcare Research and Quality [AHRQ], 2009; Tucker, Marsiske, Rice., Nielson, & Herman 2011).

It may be tempting to attribute much of the cause of such disparities in the incidence of disease and in health outcomes to economic conditions such as lack of insurance and/or to genetic makeup; yet, social determinants of health that are related

to cultural and racial backgrounds consistently have been shown to be factors in health disparities (Williams & Sternthal, 2010). In a review of the public health literature concerning health disparities between persons of African American ancestry and non-Hispanic White backgrounds, Dressler, Oths, & Gravlee (2005) concluded that racial-genetic models for understanding health disparities are not adequate to explain the higher rates of chronic illnesses between these racial groups. Other scholars have concluded that even after controlling for access to care, which is often cited as a prime cause of the health disparities that plague the United States, individuals from African American backgrounds still demonstrate poorer health outcomes as compared to their majority counterparts (Schulman et al. 1999; U.S. Department of Health and Human Services [DHHS], 2000).

Given the election of the first African American president in United States' history, many individuals in today's society contend that we are living in a "post-racial America" (Parks & Rachlinski, 2010); yet, elements of race and culture still have a profound impact on our society at large. A recent story covered by national media outlets described an Associated Press poll which found that over 50% of non-Hispanic Whites harbor anti-African-American and/or anti-Hispanic prejudices, and that rates of prejudice have actually increased since 2008 (The Associated Press, 2012). These negative attitudes towards people from racial and cultural minority backgrounds have no doubt negatively impacted quality of care, access to care, satisfaction with health care, and rates of disease among these individuals (Williams & Sternthal, 2010).

It is noteworthy that minority individuals often hold beliefs and engage in cultural practices that negatively impact their health care experiences and ultimately their health

(Tucker, Daly, & Herman, 2010). For example, people from African American backgrounds may not be as trusting of their health care providers and the health care process as compared to their non-Hispanic White counterparts (Davis, Brown, Allen, Davis, & Waldron, 1995). More recent research has shown that individuals from African American, Hispanic, and Asian backgrounds, among others, are more likely than their non-Hispanic White counterparts to report having difficulty communicating with their health care providers (AHRQ, 2003). Similarly, people from Hispanic or Latino backgrounds often hold beliefs that their illnesses are due to non-medical factors such as the engagement in wrongdoing or sin (Da Silva, 1984). Furthermore, many individuals from racial and cultural minority backgrounds will often place their trust in non-traditional medical practices, such as herbal and/or spiritual cures for illnesses (e.g. Burk, Wiser, & Keegan, 1995; Grossman, 1994). This problem is further compounded by physician-related variables, as exemplified by findings from Johnson, Roter, Powe, & Cooper (2004) that health care providers were more likely to conversationally engage their non-Hispanic White patients as compared to patients from African American backgrounds.

Numerous calls have been made for the provision of health care that is culturally sensitive (AHRQ, 2009; Tucker et al., 2011). As early as 1997, Pierce (1997) described a lack of culturally appropriate treatment strategies as a primary contributing factor to health disparities. Indeed, the U. S. Department of Health and Human Services has made reducing health disparities one of the primary missions of its Healthy People 2000, Healthy People 2010, and Healthy People 2020 campaigns, all of which are aimed at promoting health and wellness among all people in the U. S. (U.S. Department

of Health and Human Services, 2000; U.S. Department of Health and Human Services, 2008). The most recent version of these campaigns (i.e., Healthy People 2020) calls for complete health equity and the elimination of health disparities (U.S. Department of Health and Human Services, 2008).

The terms “cultural competence” and “cultural sensitivity” are often used interchangeably in the health care research literature involving the reduction of health disparities, even though these terms have different meanings (Whaley, 2008). Culturally competent health care specifically refers to care that is appropriate given the differences that exist between members of different cultural groups (U. S. Department of Health and Human Services, 2002). It also refers to specific behaviors and skills on the part of health care providers and staff members that promote a demonstration of cross cultural understanding (Roysircar, 2003). Caldwell and colleagues have described the construct of cultural competence as the demonstration of specific knowledge and attentiveness to the unique practices of patients from minority backgrounds (Caldwell et al., 2008). Fundamentally, however, many definitions of cultural competence tend to be made from the viewpoint of health care providers and health care administrators, and often place less of an emphasis on patient’s perspectives regarding culturally appropriate health care behaviors and services that are desired (Herman et al., 2007).

In recent years, the concept of cultural sensitivity has gained increasing traction within the health research community, and the provision of culturally sensitive health care has been touted as one method of improving the health and wellness of people from racial and cultural minority backgrounds and thus reducing health disparities (Betancourt, Green, Carrillo, & Park, 2005; Herman et al., 2007; Tucker et al., 2011). In

contrast to cultural competence, cultural sensitivity has been defined as being patient-centered such that patients receiving culturally sensitive health care feel that their unique cultural needs and concerns are respected and addressed throughout their interactions within health care systems, and thus the provision of culturally sensitive health care enables these patients to feel more respected, comfortable with, and trusting of their health care providers (Tucker et al., 2003; Tucker et al., 2011).

Culturally sensitive health care has also been defined as being patient-centered in that it is responsive to patients' specific desires and expectations regarding their interactions with health care providers and systems (Majumdar, Browne, Roberts, and Carpio 2004). When culturally diverse patients feel more comfortable with and trusting of their health care providers, they demonstrate improved patient satisfaction and health outcomes (Joffe, Manocchia, Weeks, & Cleary, 2003).

Tucker and her colleagues have advanced a specific view of culturally sensitive health care as one means of altering the existing health care industry in a way that is sensitive to the unique cultural practices and needs of racially and culturally diverse patients (Tucker et.al, 2007; Tucker et al., 2010, Tucker et al., 2011). These researchers assert that culturally sensitive health care must be defined by culturally diverse patients themselves because it is these patients that are the true experts on the care that is most appropriate for them and on the characteristics of the health care process that will allow them to feel comfortable and respected. (Tucker et.al, 2007; Tucker et al., 2010; Tucker et al., 2011). Furthermore, it is necessary to account for diverse patients' unique, self-described, and culturally relevant desires, preferences, and needs in the health care delivery process. Although there have been numerous

calls to increase the provision of culturally sensitive health care to individuals from racial and cultural minority backgrounds (e.g. AHRQ, 2009), the continuing existence of health disparities clearly underscores the need for further research on the factors that determine such care.

One of the ways that this nation can reduce health disparities is to educate the next generation of health care providers (e.g. medical students) in the necessary skills and knowledge for them to deliver culturally sensitive health care services to the nation's growing population of individuals from racial/ethnic minority backgrounds (Washington et al., 2008). Despite the national calls for such training (AHRQ, 2009; Washington et al., 2008), past research has shown that many medical school programs do not offer courses in cultural sensitivity or cultural competence (Lum & Korenman, 1994; Dogra, Reitmanova, & Carter-Pokras, 2010). Reasons cited for lack of such courses include financial limitations, limited availability of training resources to provide such education to medical students, and lack of consensus among medical school administrators regarding the best practices for providing cultural sensitivity training to medical students (Rapp, 2006).

It has been stated that there is a lag between (a) calls for both the provision of culturally competent and culturally sensitive health care for patients from racial/ethnic minority backgrounds and for cultural sensitivity and cultural competence training of future health care providers, and (b) the actual training of medical students to be culturally sensitive/competent (Dogra et al., 2010). Although this lag exists, there are some medical schools that have acted to show the importance of such training. For example, the state of New Jersey is now requiring cultural sensitivity training as a

requirement before physicians can become licensed in the state (Salas-Lopez, Holmes, Mouzon, & Soto-Greene, 2007). Unfortunately, medical schools vary widely in the amount of cultural sensitivity training they require of their students and the depth of this training (Dogra et al., 2010). Research has also shown that many medical students enjoy cultural diversity training and feel they would like more cultural diversity training for themselves and their clinical faculty (Hung et al., 2007).

Furthermore, medical students from racial/ethnic minority backgrounds who begin to practice medicine have reported feeling unprepared to effectively provide patient-centered culturally sensitive health care to patients from racially /ethnically diverse backgrounds (Grumbach et al., 2003). Furthermore, Betancourt and Reid (2007) have asserted that the racial and cultural background of health care providers impacts the patient-provider relationship such that health care providers from non-Hispanic White backgrounds may inadvertently act in ways that communicate a lack of cultural sensitivity to their patients from racially and culturally diverse backgrounds.

The need to provide cultural sensitivity training to future health care providers and the need to conduct research in the area of health disparities are hindered by the lack of the necessary instruments to measure cultural sensitivity in the health care delivery process (Agency of Health Care Research and Quality, 2009; Tucker, Herman, Pedersen, Higley, Montrichard, & Ivery, 2003). For example, until recently, few questionnaires existed to measure cultural competence or cultural sensitivity (Mirsu-Paun, Tucker, Herman, & Hernandez, 2010), and many researchers' attempts to study these constructs have involved the use of questionnaires that had not been validated and/or had not been shown to have adequate reliability (Thom, Tirado, Woon, &

McBride, 2006). Furthermore, many of the studies that have focused on cultural competence and/or cultural sensitivity have defined these constructs from an expert- or researcher-defined perspective rather than from the perspectives of patients from racially/ethnically diverse backgrounds. Few studies of cultural sensitivity/competence have involved medical students or used assessments that are appropriate for use with these students (Mirsu-Paun et al., 2010).

Though recent research has yielded questionnaires that do measure cultural sensitivity within health care contexts, patients from some racial/ethnic minority groups still demonstrate individual differences and within-group heterogeneity regarding the behaviors and practices that will enable them to feel respected within the health care process and more comfortable with and trusting of their health care providers (Betancourt & Reid, 2007). In recent years there have been calls for the development of patient-centered assessment instruments and treatments that are not only culturally sensitive, but also customized to the specific needs and wants of individual patients (Betancourt & Reid, 2007; Lauver, et al., 2002). The use of standardized assessments to measure the provision of culturally sensitive health care and that will allow patients to easily and comfortably communicate their individualized needs and preferences to their health care providers is sorely needed. There is some recent preliminary evidence in the research literature to support the overall notion that customized culturally sensitive health care leads to improvements in some health outcome measures among culturally diverse patients (e.g. Caspar, O'Rourke, & Gutman, 2009; Suhonen et al., 2009).

Purpose of the Current Study

The purpose of the present study is to examine the effects of an intervention to promote customized culturally sensitive health care by medical student health care

providers on these student providers' self-evaluations of their cultural sensitivity following simulated clinical encounters with mock patients. This intervention involved having each mock patient use a modified version of the Tucker Culturally Sensitive Health Care Inventory-Clinical Tool Form A to identify the provider behaviors and attitudes most important to her/him, and subsequently having her/his medical student provider review this health care information prior to the simulated patient-provider clinical encounter. This intervention occurred as part of the participating medical student providers' training in a required course on the essentials of patient care in which medical students typically engage in simulated clinical encounters with mock patients as part of the required medical curriculum.

Hypothesis and Research Question

The following hypothesis will be tested in the current study:

Student health care providers in the Intervention Group will have higher self-evaluations of their provision of culturally sensitive health care (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a culturally sensitivity health care provider inventory) to their mock patients than student health care providers in the Control Group.

The following exploratory research question will also be examined in the current study:

At post-intervention, do the student health care providers differ in their self-evaluations of their provision of culturally sensitive health care to mock patients (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a culturally sensitivity health care

provider inventory) in association with racial/ethnic background, group (e.g. Intervention Group or Control Group), and/or race by group?

CHAPTER 2 REVIEW OF THE LITERATURE

According to the United States Census Bureau, the births of children from racial/ethnic minority backgrounds, as a whole, have exceeded those from non-Hispanic White backgrounds for the first time in the nation's history (e.g. Morello & Mellnik, 2012). Furthermore, people from all over the world have come to the United States for a variety of complex sociopolitical and anthropological reasons (Williams & Sternthal, 2010). Data from the most recent census indicate that the nation's population of individuals from minority racial/ethnic backgrounds is increasing over time (US Census Bureau, 2012), and as a whole, these individuals are projected to become a statistical majority of the nation's population by 2050 (May, 1992).

It is of national concern that individuals from minority racial/ethnic backgrounds are disproportionately affected by health disparities. The term "health disparities" has been defined by Braveman and colleagues as:

Systematic, plausibly avoidable health differences according to race/ethnicity, skin color, religion, or nationality; socioeconomic resources or position (reflected by , e.g., income, wealth, education, or occupation); gender, sexual orientation, gender identity; age, geography, disability, illness, political or other affiliation; or other characteristics associated with discrimination or marginalization. (Bravemen et al., 2011, p. S150)

Numerous studies have indicated that, in the United States, people from minority racial and cultural backgrounds are more likely than their non-Hispanic White counterparts to experience cancer, HIV/AIDS prevalence and mortality, cardiovascular disease, obesity, diabetes, infant mortality, hypertension, and renal disease. Individuals

from minority backgrounds are also more likely to experience increased negative outcomes from these diseases (Brown, O’Rand, & Adkins, 2012; Clancy, 2008; Pierce, 1997). Furthermore, people from racial/ethnic minority backgrounds as compared to their non-Hispanic White counterparts are more likely to consistently demonstrate negative health care experiences in relation to these diseases as evidenced by health outcome research (Bernard, 1993; Mokuau & Fong, 1994; National Center for Health Statistics, 2006; National Center for Health Statistics 2007; Pleis & Lethbridge-Çejku, M., 2006).

The social environment has been universally considered to be an important contributor to health disparities (Tucker, Daly, & Herman 2010); consequently, there are increasing efforts to address the social determinants of health, including patient-provider interactions that involve doctors from one racial/ethnic group and patients from a different racial/ethnic group (AHRQ, 2011). Furthermore, there is growing consensus that it is important to educate future health care professionals about the concepts of cultural sensitivity and the provision of culturally sensitive health care, both of which specifically relate to the prevention and reduction of health disparities (AHRQ, 2009; Tucker et al., 2003).

Patient-Centered Care and Culturally Sensitive Health Care

The terms “cultural competence” and “cultural sensitivity” are often used interchangeably throughout the health care research literature. Both of these terms relate to providing health care that is appropriate for all patients, and are frequently used as adjectives to describe health care that is appropriate for patients from minority racial/ethnic backgrounds (Tucker et al., 2007; Whaley, 2008). However, these terms are quite different in their meaning and orientation (Whaley, 2008). Furthermore,

although the constructs of cultural sensitivity and cultural competence are interrelated, Whaley (2008) used multivariate multidimensional scaling and cluster analyses to show that these terms are semantically independent constructs.

The term culturally competent health care has been defined by the United States Department of Health and Human Services, Health Resources and Services Administration (2001) as health care that involves an understanding of and appreciation for the differences that exist between groups of people from differing racial/ethnic backgrounds. Researchers have described cultural competence as health care providers' demonstrations of behaviors, knowledge, and skills that exemplify a cross-cultural understanding of health care practices, policies, and systems. Improved cross cultural understanding in-turn improves health care efficacy and health outcomes (Roysircar, 2003). The Department of Health and Human Services defines cultural competence as the ability "to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors and needs presented by consumers and their communities" (United States Department of Health and Human Services, Office of Minority Health, 2001, p.138). These definitions of the construct of cultural competence attend to the need for health care providers to demonstrate specific knowledge of and attentiveness to cultural practices of patients from racial and cultural minority backgrounds in their clinical interactions (Caldwell et al., 2008).

Bach and Fraser (2000) have proposed a theoretical model that links the concept of cultural competence with specific health outcomes that will help reduce health disparities. Specifically, these researchers advocate the following to increase the level of cultural competence among health care providers and health care organizations' staff

members: (a) medical interventions to help health care providers provide culturally competent care by invoking the use of interpreter services, (b) attention to the racial/ethnic makeup of health care organizations' staff members and health care providers, and (c) cultural competence promotion and training programs. These researchers envision that such interventions will increase health care providers' culturally relevant knowledge and skills when working with patients from racial/ethnic minority backgrounds, improve understanding of the health beliefs endorsed by these patients, and ultimately improve the health outcomes of these patients. Bach and Fraser (2000) further theorize that such improvements in health care delivery will improve trust and communication between health care providers and people from racial and cultural minority backgrounds.

However, researchers have identified an important limitation of cultural competence, which is that this construct is often defined by health care experts, such as doctors and researchers, rather than by racially/ethnically diverse patients who are expected to benefit from culturally competent health care providers and staff members (Tucker et.al, 2003). For example, in research by Kim-Godwin and colleagues (Kim-Godwin, Alexander, Felton, Mackey, & Kasakoff, 2006) examining health care practices that might constitute culturally competent health care for Mexican farm workers, the nurses for these workers rather than the workers themselves were asked to identify culturally competent health care practices. Furthermore, in a study by Betancourt and colleagues (Betancourt et al., 2003) that attempted to identify specific indicators of awareness, knowledge, and skills of health care providers that constitute culturally competent health care included the perspectives of managed care administrators,

health care organization employees, and people employed in government and medical school settings but did not include the perspective of the racially/ethnically diverse patients themselves.

Tucker and her colleagues (2003) promoted the concept of “cultural sensitivity”—a concept that includes a focus on cultural competence but emphasizes the views of racially/ethnically diverse patients regarding what constitutes culturally appropriate care. Thus, they have described cultural sensitivity as “cultural competence plus” in that it subsumes and improves upon the construct of cultural competence. Majumdar Browne, Roberts, and Carpio (2004) have stated that culturally sensitive health care is care that is attentive of patients’ needs and expectations. In this way, cultural sensitivity has been described by Herman and colleagues (Herman et al., 2007) as “cultural competence plus” in that the construct of cultural sensitivity subsumes the construct of cultural competence.

Tucker and colleagues (2007) further describe the concept of patient-centered culturally sensitive health care as having four specific characteristics: (1) it emphasizes the perspectives of racially and culturally diverse patients as to what constitutes the provision of health care that is culturally competent; (2) it is patient centered in that it conceptualizes the patient-provider relationship as a partnership that includes the perspectives of these patients; (3) it is empowerment oriented in that racially/ethnically diverse patients are encouraged to share their views with their health care providers throughout the health care process; and (4) it includes specific and modifiable health care behaviors and attitudes, and health care physical environment and health care policies that enable racially and culturally diverse patients to feel comfortable with,

trusting of, and respected throughout the health care process. Patients who feel more comfortable with and trusting of their health care providers are more likely to demonstrate improved patient satisfaction and health outcomes (Harris et al, 1995; Joffe et al., 2003).

It is noteworthy that the concept of cultural sensitivity includes the notion that health care providers can modify specific behaviors and attitudes in their interactions with patients from racially and culturally diverse backgrounds in order to improve the health care that these patients receive. The culturally sensitive provider-patient relationship provides a context in which health care providers can solicit culture-specific preferences and information from their patients that can improve the delivery of culturally sensitive health care to these patients. Furthermore, Earnest, Ross, Wittevrongel, Moore, and Lin (2004) found that racially/ethnically diverse patients desire more active participation in the health care process and in their interactions with their health care providers. These points underscore the importance of intervening to promote cultural sensitivity within the patient-provider relationship.

The Patient Centered Culturally Sensitive Health Care (PC-CSHC) Model

Tucker and her colleagues have proposed the PC-CSHC Model to explain the linkages between the concept of culturally sensitive health care, as defined by patients from racial/ethnic minority backgrounds, and the health outcomes and health statuses of these patients (Tucker et al., 2007). Specifically, this model postulates that:

(a) patient and provider training can promote patient-centered culturally sensitive health care, as indicated by physical environment characteristics of the health care clinic, provider behaviors, and office staff behaviors; (b) this care influences patients'

perceived levels of provider cultural sensitivity and interpersonal control, both of which impact patients' level of engagement in a health-promoting lifestyle and in level of health care satisfaction; (c) level of health care satisfaction influences patients' level of treatment adherence; and (d) both level of treatment adherence and level of engagement in a health-promoting lifestyle directly influence patients' health outcomes and statuses. (Tucker et al., 2007, p 680)

Preliminary testing of the PC-CSHC Model provided partial support for some of the proposed links among its variables. Specifically, Tucker and her colleagues (Tucker et al., 2011) conducted research using a national sample of both African American patients (n = 110) and Non-Hispanic White patients (n = 119) and conducted two separate path analyses by racial background to test the linkages hypothesized by the PC-CSHC Model. The study concluded that perceived provider cultural sensitivity had direct positive effects on patients' levels of trust in their providers and satisfaction with their health care. This effect held true for the African American patients and the non-Hispanic White patients; however, this effect was stronger with regard to health care satisfaction for the African American patients and stronger with regard to trust for the non-Hispanic White patients. Furthermore, perceived levels of provider cultural sensitivity had a direct positive effect on dietary adherence for African-American patients only.

Other linkages hypothesized by the PC-CSHC Model were also partially supported. For example, patients' level of trust in their health care providers was positively linked to their health care satisfaction; however, this relationship was found to be stronger among the non-Hispanic White patients as compared to their African

American counterparts. Additionally, for both the African American patients and non-Hispanic White patients, level of interpersonal control was positively linked to engagement in a health promoting lifestyle; however, this linkage was found to be stronger for the African American patients. Interpersonal control was also positively linked to dietary adherence among the African American patients only (Tucker et al., 2011). Furthermore, it was found that the perceived cultural sensitivity of health care providers had an indirect effect on patients' health care satisfaction with trust in providers being the intervening variable. However, this indirect relationship was stronger for the non-Hispanic White patients than for the African American patients.

Assessment Instruments for Measuring Cultural Sensitivity

The growing diversity of the national population along with well-documented health disparities between people from racial/ethnic minority backgrounds and their majority counterparts has led to calls from national health care organizations (e.g. AHRQ, 2009) for the development of assessment instruments to measure culturally competent and culturally sensitive health care. Without adequate assessments to measure culturally competent and culturally sensitive health care, development of effective interventions to promote such health care is impeded.

When assessing culturally competent and culturally sensitive health care, attention must be paid to the specific modifiable behaviors and attitudes of health care providers, especially concerning the interactions between these providers and their patients from racial/ethnic minority backgrounds. This is because the behaviors and attitudes of health care providers have been associated with improved health outcomes for these patients (e.g. Beck, Daughtridge, & Sloane, 2002; DiMatteo, 1998). Faculty at The National Center for Cultural Competence (Goode, Dunne, & Bronheim, 2006)

underscored this need for assessments to measure providers' self-perceived cultural sensitivity and cultural competence. Such assessment instruments may be used to help health care providers evaluate their own level of perceived cultural sensitivity in the health care they provide to patients from diverse racial/ethnic backgrounds, and these provider self-evaluations can also help identify specific areas where increased training is needed to promote cultural sensitivity (Mirsu-Paun et al., 2010).

Other assessment instruments have been developed to measure the constructs of cultural competence among health care providers. These include the Cultural Competence Assessment (Schim, Doorenbos, Miller, & Benkert, 2003), the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R) (Campinha-Bacote, 2002), the Cultural Awareness Scale (Rew, Becker, Cookston, Khosropour, & Martinez, 2003), the Tool for Assessing Cultural Competence Training (TACCT) (Association of American Medical Colleges, 2005), and the Clinical Cultural Competency Questionnaire (CCCQ) (United States Department of Health and Human Services, 2005). Most of these assessment instruments lack adequate reliability data, have not been tested across diverse health care settings, or are focused on measuring the construct of cultural competence among providers who treat patients of one or few specific racial/ethnic minority groups (Caldwell et al, 2008).

Tucker and her colleagues (Tucker et al., 2003; Tucker et al., 2011) have developed assessment instruments to measure provider cultural sensitivity. One of these assessment instruments is used to assess providers' self assessments of their own levels of cultural sensitivity in the health care they provide to racially and culturally diverse patients, and one is used by patients to rate their perceptions of the cultural

sensitivity of their health care provider(s). These assessment instruments have been labeled the Tucker Culturally Sensitive Health Care Provider Inventory (T-CSHCPI) - Provider Form and the T-CSHCPI - Patient Form, respectively.

Need for Interventions to Promote Cultural Sensitivity Among Student Health Care Providers

It is important to train medical students, in addition to veteran health care providers, to be culturally sensitive because these students will constitute future generations of health care providers (Mirsu-Paun et al., 2010). Cultural sensitivity training in medical school can provide student health care providers with the necessary skills, knowledge, and attitudes to enable their future racially/ethnically diverse patients to feel respected, comfortable, and trusting within the patient-provider relationship. Providing student health care providers with intervention programs aimed at promoting cultural sensitivity has already been called for in the academic research literature (e.g. AHRQ, 2009; Washington et al., 2008). When medical schools adopt cultural sensitivity training, they send a message early on to student health care providers that cultural sensitivity is and will be an important part of their careers and interactions with patients from diverse backgrounds. However, many medical schools are constrained by various obstacles to offer such cultural sensitivity training to their students.

These obstacles include limited finances to hire faculty and staff to provide cultural sensitivity training and a lack of consensus among medical school administrators regarding the best practices for providing this training (Dorga et al., 2010; Rapp, 2006). Another key obstacle that has been cited is that medical training programs are already constrained to provide student health care providers with a large body of biomedical health information within the standard four-year curriculum, and thus there is limited

room in the curriculum to provide cultural sensitivity training (Tervalon, 2003). The implication here is that by providing student health care providers with cultural sensitivity training, these students will miss out on some other important aspect of their medical training. However, this assumption inadvertently minimizes the importance of cultural sensitivity training for future health care providers and the students themselves see this in the training's absence. Thus, there is clearly a discrepancy between calls for the provision of cultural sensitivity training to student health care providers and the actual response of medical schools throughout the country, even as many student health care providers themselves have demanded that such training be an increased part of their medical education (Dogra et al., 2010; Mirsu-Paun, 2010).

A report by the American Association of Medical Colleges (AAMC, 2007) indicated that the racial/ethnic makeup of the nation's future health care providers is increasingly diversifying, reflecting national trends in the nation's racial/ethnic makeup. Despite this, health care providers from non-Hispanic White backgrounds still overwhelmingly populate the classes of students who matriculate through most medical schools. For example, of the 82,067 student health care providers enrolled in the United States in 2012, approximately 59% identified as being from non-Hispanic White backgrounds, 22% from Asian backgrounds, 9% from Hispanic/Latino backgrounds, and 7% from African American backgrounds (see Table 31 of AAMC, 2012 for complete data). These statistics demonstrate that the racial and cultural makeup of the student health care provider population is still not representative of the racial and cultural profile of the nation's population.

Given the lack of cultural sensitivity training in medical education programs, many student health care providers who begin to practice medicine, despite coming from minority racial and cultural backgrounds themselves, often feel unprepared to effectively provide patient-centered culturally sensitive health care to patients from diverse backgrounds (Grumbach et al., 2003). It is interesting to note that much of the dissatisfaction with the lack of cultural sensitivity training in medical education comes from students from underrepresented racial/ethnic minority backgrounds themselves. This suggests that student health care providers from majority backgrounds may not have the same level of awareness regarding the importance of this training or the potential negative impacts of the lack of this training. Betancourt and Reid (2007) have asserted that the racial/ethnic background of health care providers impacts the patient-provider relationship, and they hypothesize that health care providers from non-Hispanic White backgrounds may inadvertently act in ways that communicate a lack of cultural sensitivity to their patients from diverse backgrounds.

Support for training student health care providers to be culturally sensitive also comes from research suggesting that health care providers behave differently by gender when interacting with culturally diverse patients. For example, researchers have found that male and female physicians do not differ in the biomedical knowledge they demonstrate and the quality of information they provide to patients (Hall & Roter, 2002; Roter, Hall, & Aoki, 2002); yet, they act differently in patient-provider interactions. Compared to their male counterparts, female physicians are more likely to spend additional time with patients, provide them with more positive feedback regarding health behaviors, communicate with more empathy, and focus more on improving the

physician-patient relationship (Bylund & Makoul, 2002, Hall & Roter, 2002: Roter et al., 2002). Furthermore, research has shown that student health care providers from racial and cultural minority backgrounds and student health care providers who are women are more likely to demonstrate attitudes that promote racial, cultural, and gender equality than their majority and male counterparts, respectively (Lee & Coulehan, 2006).

In sum, health care providers from racial/ethnic minority backgrounds are often called upon to serve diverse populations, and many of these health care providers feel unprepared to do so (Sequist et al., 2008). Furthermore, medical schools have faced numerous obstacles in attempting to implement needed cultural sensitivity training for their students. This training is important because there are differences in how student health care providers perceive the importance of cultural sensitivity based on their identity statuses. Thus, it is important for researchers, physicians, and student health care providers to understand how issues of race/ethnicity combine with issues of gender in the provision of patient-centered culturally sensitive health care to patients from diverse backgrounds, and to attend to such issues in the cultural sensitivity training of student health care providers.

Calls for Customized Patient-Centered Care

Existing research suggests that providing patient-centered culturally sensitive health care to patients from racial and minority cultural backgrounds is linked to patient treatment adherence and patient satisfaction, both of which are positively linked to patients' health outcomes (Lukoschek, 2003; Rose, Kim, Dennison & Hill, 2000). Enacting training programs for physicians and student health care providers in order to provide them with the skills necessary to provide this care will be a crucial part of the nation's transition towards serving an increasingly diversifying population in future

years. However, one of the dangers of providing culturally sensitive health care is that individuals may be stereotyped based on their racial/ethnic backgrounds and that individual differences will not be accounted for in health care delivery efforts (Betancourt & Reid, 2007).

Recent calls from national health care organizations such as the Agency for Healthcare Research and Quality (2009) have highlighted the need to provide patient-centered culturally sensitive health care at the individual level in addition to the community level. These organizations hold that it is important to attend to individual differences in values and preferences when providing patient-centered culturally sensitive health care in order to provide patients from all racial/ethnic backgrounds the most effective care and to promote comfort, trust, and respect within the provider-patient relationship, which in turn have been linked to improved health outcomes among patients (Lukoschek, 2003; Rose et al., 2000). Specifically, these organizations have advocated having health care providers monitor their patients' levels of engagement in health care decision making and health promoting behaviors, and integrating patients' individualized preferences throughout patient-provider interactions. However, the AHRQ (2009) has also noted that although many training programs such as medical schools promote patient-centered culturally sensitive health care in some way, many do not include a focus on modifiable behaviors on the part of health care providers when providing this care.

The research literature on individualized health care is limited and faces numerous challenges (Caspar et al., 2009; Suhonen et al., 2010). The increased understanding of the role that genetics plays in health care and new advances in health

care technology have led health care providers to focus on providing patients with care that is tailored to meet their unique biological and genetic profiles (e.g. Louca, 2012; Thomas, Phillips, Donnelly, & Tak Piech, 2010). However, providing patients with personalized and individualized health care that goes beyond patients' unique biomedical and genetic needs is needed, and such care must incorporate patient preferences regarding the health care they receive and the behaviors these patients expect from their health care providers. Although the Joint Commission of the Institute of Family Centered Care (2010) has highlighted the need for individualized patient-centered culturally sensitive individualized health care, many researchers have noted there is a lack of progress in providing such care to culturally diverse patients in the U.S. (e.g. Kagan, 2011).

Kagan (2011) has identified key challenges in the provision of patient-centered individualized care. These challenges include a lack of adequate understanding of the factors that contribute to a healthy patient-provider relationship, the reality that some patients may not wish to take an active role in the health care decision making process, and the reality that some patients have health conditions or language barriers that effectively prevent them from communicating their individualized preferences to providers. In addition, the nascent research literature on the topic of patient-centered individualized care is complicated by a lack of consensus regarding the terms that are used to describe this care. In spite of these limitations, there is initial evidence that individualized care indeed improves patients' health outcomes from the perspective of both patients and health care providers (Caspar, et al., 2009; Suhonen et al., 2009).

Given the large number of people that deserve and need patient-centered culturally sensitive health care, it is easy to overlook individual preferences as to what constitutes such care. Numerous social and economic factors, and limited numbers of health care providers relative to the number of patients seeking care, serve as obstacles to the provision of individualized care. However, inventories that allow racially and culturally diverse patients to communicate their individual preferences to their health care providers can serve as useful, cost-effective, and efficient tools for promoting individualized patient-centered culturally sensitive health care by student health care providers and veteran health care providers. The effect of individualized feedback from culturally diverse patients to student health care providers and veteran health care providers on student health care providers' self-evaluation of their perceived levels of cultural sensitivity has not been assessed.

CHAPTER 3 METHODS

Participants

All instruments and procedures related to this research were approved by an Institutional Review Board at a large southeastern university. Primary research participants were second-year student health care providers who were recruited from an existing course (i.e. *Essentials of Patient Care IV*) within the College of Medicine at the University of Florida. In order to fulfill course requirements, students in this course must engage in a variety of simulated interactions with mock patients who are employed by the College of Medicine. These mock patients were racially/ethnically diverse community members who were paid by the College of Medicine to be mock patients in simulated health care visits (hereafter referred to as clinical encounters) for the purpose of training the student health care providers. These mock patients were secondary research participants in this study and thus the data provided by these participants were not used in the analyses that were conducted for this study.

A total of 202 (79%) student health care providers from among the 256 students in the course titled *Essentials of Patient Care IV* volunteered to be primary research participants. These student health care providers ranged in age from 20 to 36 years of age and consisted of 98 (48.5%) males, 84 (41.6%) females, and 20 (9.9%) individuals who chose not to report their gender. Furthermore, of the participating student health care providers, 3 (1.5 %) self-identified as African American, 36 (17.8%) self-identified as Asian American, 13 (6.4%) self-identified as Hispanic/Latino, 120 (59.4%) self-identified as non-Hispanic White, 9 (4.5%) self-identified as being of a race/ethnicity that was not listed on the demographic data questionnaire for this study, and 21 (10.4%)

chose not to report their racial/ethnic background. Regarding their United States citizenship status, 173 (85.6%) identified as being United States citizens, 7 (3.5%) identified as being non-United States citizens, and 22 (10.8%) chose not to report their citizenship status. See Table 3-1 for additional participant demographic information.

The secondary participants in this study were 34 mock patients who volunteered to participate in this research, most of whom participated in more than one simulated clinical encounter with student health care providers. Of these 34 mock patients, 19 (56%) identified as male and 15 (44%) identified as female. Five (15%) participants identified as African American, 2 (6%) identified as Asian American, 4 (12%) identified as Hispanic/Latino, 20 (59%) identified as non-Hispanic White, 2 (6%) identified as coming from a background that was not listed on the demographic data questionnaire for this study, and 1 (3%) chose not to report his/her racial/cultural identity. Regarding their United States citizenship status, 28 (82%) identified as being United States citizens while 6 (18%) identified as being non-United States citizens.

Instruments

Several instruments constituted the assessment battery or the inventory-based intervention in this research:

1. The Demographic Data Questionnaire for Student Health Care Providers (DDQ1). The DDQ1 is an 8-item instrument that was used to obtain information on student health care providers' gender, age, racial/ethnic background, and citizenship status.
2. The Demographic Data Questionnaire for Mock Patients (DDQ2). The DDQ2 is a 6-item instrument that was used to obtain information on mock patients' gender, age, racial/ethnic background, and citizenship status.

3. The Tucker-Culturally Sensitive Health Care Provider Inventory – Clinical Tool Form A (T-CSHCPI-A). The T-CSHCPI-A is a self-report inventory on which patients (i.e., mock patients in the case of this research) identify 10 of 27 listed behaviors and characteristics of their health care providers that are most important to these patients when they receive health care. A sample item from this instrument is, “My health care provider is honest and direct with me.”

4. The Tucker-Culturally Sensitive Health Care Provider Inventory-Provider Form (T-CSHCPI-Provider; Tucker, Nghiem, Marsiske, & Robinson, In Press). The T-CSHCPI-Provider Form is a 33-item self-report inventory on which health care providers (i.e., student health care providers in the case of this research) self-evaluate their provision of patient-centered culturally sensitive health care to culturally diverse patients. In the present research only three of the five subscales of this inventory were used. These three subscales are: (1) the Cultural Knowledge and Responsiveness subscale that measures health care providers’ knowledge of specific items that culturally diverse patients have indicated are representative of being respectful of their culture, (2) the Patient Centeredness subscale that measures health care providers’ levels of responsiveness to patients’ concerns, and (3) the Interpersonal Skills subscale that measures health care providers interpersonal behaviors in clinical interactions with diverse patients. These three subscales were selected in order to reduce the total number of items that participants were required to complete within the time allotted by the medical school where this research was conducted and because these subscales were the most relevant to this research. Furthermore, in a study that used these three subscales to assess the cultural sensitivity of advanced level student health care

providers (Mirsu-Paun et al., 2010), these subscales were found to be reliable. The authors of the T-CSHCPI-Provider Form reported that these three subscales to have split-half reliability coefficients ranging from .68 to .92.

For the sample in the present study, the internal consistencies for the three subscales identified in this section and used in the present study were as follows: .81 for the Cultural Knowledge and Responsiveness subscale, .92 for the Patient Centeredness subscale, and .89 for the Interpersonal Skills subscale. A sample item from the Cultural Knowledge and Responsiveness subscale is, "I understand that people from different cultures have and believe in different medical practices." A sample item from the Patient Centeredness subscale is, "I am consistent with my care giving." A sample item on the Interpersonal Skills subscale is, "I know how to make my patients feel comfortable." The items on this instrument are different from items found on the T-CSHCPI-A.

Procedure

Participant Recruitment

The principle investigator launched this study by explaining it to a professor in the University of Florida College Of Medicine who teaches a course titled *The Essentials of Patient Care IV*. All student health care providers in this course were second year student health care providers, and all second year student health care providers at the College of Medicine were enrolled in this course at the time this research was conducted. In order to fulfill curriculum requirements apart from this research, students in this course must engage in a variety of simulated clinical encounters with mock patients who are employed by the College of Medicine.

The purposes of these simulated clinical encounters are to provide student health care providers with experience in working with culturally diverse primary care clinic patients, and provide a professional medical context in which to practice their professional interpersonal skills. For the simulated clinical encounters that took place when this research was conducted, all student health care providers, regardless of research participation status, were required to interview a mock patient who presented with diabetes and subsequently give the mock patient feedback regarding how to live healthier lives with diabetes. One week prior to the simulated clinical encounters, the professor for this course announced in class that there would be an optional research participation opportunity that would be presented to them at the time they arrive to engage in the clinical encounters for the course. It was further explained by this professor that this research activity involved providing patient-centered care and that further details regarding their research participation would be provided to them just before engaging in the clinical encounters.

The data for this study were obtained during each of two semesters that the above mentioned course was taught in order to increase the number of research participants. These research procedures were the same for each semester of the course, and there were no apparent differences in student health care providers in each semester of the course.

When student health care providers arrived at the training site in groups of 13 to 16 to engage in health care provision with mock patients as required for their course, they were taken to a conference room by an assistant course instructor and the principal investigator for this study, and they were given information by the instructor

regarding the expectations for their performance in the patient interaction as outlined by the course instructor, which is a course requirement apart from this research. The instructor explained that each student health care provider had been arbitrarily assigned to a mock patient with type 2 diabetes in a specified room where the student would see the mock patient for 15 minutes to practice talking to a mock patient about how to live a healthier lifestyle with diabetes. Next, the student health care providers were given information by the principal investigator about the optional opportunity to participate in the research study.

The principal investigator then explained the opportunity to simultaneously and voluntarily participate in a research study on patient-provider interactions which would involve completing some assessment instruments prior to talking with their assigned mock patient with diabetes (i.e., prior to the clinical encounter with the mock patient) and completing some assessment instruments after talking with their assigned mock patient . Student health care providers were also given a copy of the Informed Consent Form for this research for them to read and review. The principal investigator then answered any participation-related questions.

Student health care providers who volunteered to participate (79%) returned their completed Informed Consent Forms. Student health care providers also completed the Demographic Data Questionnaire at this time, and returned it along with their informed consent form in an unmarked manila envelope. This procedure was used to ensure that each participant's personally identifying information submitted on the Demographic Data Questionnaire could not be linked to her/his responses on the assessment battery. The Demographic Data Questionnaires were pre-coded with a unique identifier so they could

later be matched to students' data. Student health care providers who chose not to participate in this study completed the clinical encounter required for their course and were invited to study during data collection sessions.

Mock patients for this study were recruited by virtue of their employment by the medical school at which this research took place. This medical school regularly recruits and employs individuals from the surrounding community to serve as mock patients for the purpose of participating in the clinical encounters with student health care providers. This employment procedure was in no way related to the current research project.

The principal investigator for this research explained the study to all of the mock patients prior to the arrival of the student health care providers. Specifically, these mock patients were told that this was a study on culturally sensitive health care and that their participation in it would involve proceeding with the simulated clinical encounter as normal and completing a set of questionnaires before and after the encounter. Mock patients were also given a copy of the Informed Consent Form for this research for them to read and review. The principal investigator then answered their questions about the study and then invited them to be voluntary secondary research participants. All of the mock patients agreed to be study participants and each read and signed an Informed Consent form.

Participant Assignment and Confidentiality

Mock patients and student health care providers participated in simulated clinical encounter sessions in which a maximum of 16 student provider-patient dyads participated at one time. This is because there were only 16 available medical examination rooms assigned for student clinical encounters at the Harrell Center (i.e., the location of the clinical encounters). These clinical encounters sessions were

repeated eleven times over the course of seven days. This repetition allowed for each student health care provider participating in this research study to be scheduled in advance for one specific arbitrarily assigned simulated clinical encounter. Simulated clinical encounters were scheduled arbitrarily by the course instructor so that all student health care providers each conducted one simulated clinical encounter with a mock patient. This scheduling procedure and the simulated clinical encounters would have occurred regardless of whether or not the research in which they were asked to participate in took place. Each session of 13 to 16 student health care providers was arbitrarily assigned by the principal investigator to the Intervention Group or the Control Group.

Participant confidentiality was protected by researchers pre-coding participants' assessment batteries and Demographic Data Questionnaires (both those of the student health care providers and the mock patients) with a unique identifier based on the date and time that the student engaged in the clinical encounter and the room number where the clinical encounter took place. The Demographic Data Questionnaires were completed and collected at the time when participants completed the informed consent forms, and thus were not collected with the questionnaires that constituted the assessment battery. This allowed participants to avoid placing any personally identifying information on the questionnaires. This code number also allowed the principal investigator to match the pre-test and post-test data of each participant without the use of personally identifying information because pre-test and post-test data were matched by participants' room numbers and the dates and times of their participation.

The principal investigator kept a record of the participation code numbers and their associated data, but researchers did not have access to a list of participants' names, the room numbers associated with each participant's name, or any other identifying information. Conversely, the professor of the course for which the clinical encounters are required did not have access to the list of participant code numbers and did not have access to information as to whether or not any specific student or mock patient employee chose to be a study participant. However, the professor did have a list of student names and the room number where each student conducted the clinical encounter because this information is used by them in their evaluation of student health care providers' performance apart from this research. There was no research participation incentive for any of the research participants in this study.

Data Collection

The student health care provider research participants (primary research participants) and their mock patient research participants (secondary research participants) progressed through the three research phases as follows: the Pre-Intervention Phase (10 minutes), the Clinical Encounter Intervention Phase (20 minutes), and the Post-Intervention Data Collection Phase (10 minutes). These phases took place over the course of a 25-minute period of time. All data collections for student health care providers took place in a conference room at the Harrell Center at the University of Florida. The Principal Investigator was present in this conference room during all data collection sessions to answer questions and personally collect completed questionnaires. These three research phases are described in detail below:

Pre-intervention phase (10 minutes)

Prior to engaging in a simulated clinical encounter with a student health care provider, each mock patient completed the Tucker Culturally Sensitive Health Care Provider Inventory-A and the DDQ 2 a few minutes prior to this clinical encounter and did so in the simulated exam room where the clinical encounter occurred. Specifically, each mock patient indicated the 10 provider cultural sensitivity indicators on the T-CSHCPI-A that she/he most wanted to see displayed by health care providers who provide her/him health care. The T-CSHCPI-A completed by each mock patient was collected for use during the Clinical Encounter Intervention Phase.

Clinical encounter intervention phase (20 minutes)

During this phase each student health care provider in the Intervention Group (a) reviewed for 5 minutes the T-CSHCPI-A that was completed by their assigned mock patient and that indicated the 10 provider cultural sensitivity indicators that the patient most wanted to see displayed by health care providers who provide her/him health care, and (b) conducted for 15 minutes the simulated clinical encounter with the mock patient, which involved talking with this patient about how to live a healthier lifestyle with diabetes and trying to engage in/display the 10 provider cultural sensitivity indicators most important to the patient. Conversely, each student health care provider in the control group (a) reviewed for 5 minutes general medical information regarding type 2 diabetes instead of reviewing her/his mock patients' top 10 most important provider cultural sensitivity indicators identified on the completed T-CSHCPI-A, and (b) conducted for 15 minutes the simulated clinical encounter with a mock patient just as was done by the student health care providers in the Intervention Group.

Post-intervention data collection phase (10 minutes)

In this research phase each student health care provider in the Intervention Group and each in the Control Group completed the T-CSHCPI-Provider Form. Specifically, each of these student providers self-evaluated her/his level of provider cultural sensitivity.

Table 3-1. Demographic data for student health care provider participants

Variable	N	Participant by %
Gender		
Male	98	48.5
Female	84	41.6
Not Reported	20	9.9
Racial/Ethnic Identity		
African American	3	1.5
Asian	36	17.8
Hispanic/Latino	13	6.4
White	120	59.4
Other	9	4.5
Not Reported	21	10.4
Citizenship		
Citizen	173	85.6
Non-Citizen	7	3.5
Not Reported	22	10.8

CHAPTER 4 RESULTS

The hypothesis and research question set forth in this study as well as the analyses to address each are described in this section. Pre-screening analyses were conducted on all variables to ensure that data were normally distributed. These preliminary screening analyses indicated that all data were normally distributed and did not demonstrate skewness and kurtosis values greater than an absolute value of 1. Furthermore, preliminary correlation analyses were conducted on the three subscales of the Tucker-Culturally Sensitive Health Care Provider Inventory—Provider Form (T-CSHCPI-Provider) which served as dependent variables in the analyses to test the hypothesis and research question set forth in this study. It was determined that these three subscales were only moderately correlated with each other and these correlations were significant, which was expected given that they all measure aspects of the related construct of cultural sensitivity. The correlations were not higher than 0.67, and thus issues of multicollinearity were not accounted for in the analyses to address the hypothesis and research question set forth in this study. See table 4-1 for additional information regarding these correlations. Furthermore, tables 4-2, 4-3, and 4-4 provide information regarding the means of the dependent variables that were examined in this study.

The hypothesis for this research stated that student health care providers in the Intervention Group would have higher self-evaluations of their provision of culturally sensitive health care (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a culturally

sensitivity health care provider inventory) to their mock patients than student health care providers in the Control Group.

To test this hypothesis, three separate independent t-tests were conducted to compare the Intervention Group and Control Group with regard to their post-test mean self-evaluation of cultural sensitivity scores for the following subscales of the Tucker-Culturally Sensitive Health Care Provider Inventory-Provider Form (T-CSHCPI-Provider): (1) the Cultural Knowledge and Responsiveness subscale that measures health care providers' knowledge of specific items that culturally diverse patients have indicated are representative of being respectful of their culture (2) the Patient Centeredness subscale that measures health care providers' levels of responsiveness to patients' concerns, and (3) the Interpersonal Skills subscale that measures health care providers interpersonal behaviors in clinical interactions with culturally diverse patients.

Regarding the Cultural Knowledge and Responsiveness Subscale, participants in the Intervention Group reported higher levels of cultural knowledge and responsiveness ($M = 3.28$, $SE = 0.04$) as compared to participants in the Control Group ($M = 3.19$, $SE = 0.05$), but this difference was not significant $t(195) = 1.36$, $p > .05$, $r = 0.10$. The Levene's Test for the equality of variance was not significant for this analysis. A post-hoc power analysis was conducted to determine the power of this t-test. G*Power (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007) was used to calculate an effect size d of 0.20. With a sample size of 124 participants in the Intervention Group and 73 participants in the Control Group, and an alpha = .05,

G*Power determined the power of this analysis to be 0.27. Thus, given the effect size and sample size, this analysis had limited statistical power.

Regarding the Patient Centeredness subscale, participants in the Intervention Group reported higher levels of patient centeredness ($M = 3.22$, $SE = 0.03$) as compared to participants in the Control Group ($M = 3.17$, $SE = 0.04$), but this difference was not significant $t(198) = 0.87$, $p > .05$, $r = 0.06$. The Levene's Test for the equality of variance was not significant for this analysis. A post-hoc power analysis was conducted to determine the power of this t-test. G*Power (Faul et al., 2009; Faul et al., 2007) was used to calculate an effect size d of 0.13. With a sample size of 125 participants in the Intervention Group and 75 participants in the Control group, and an alpha = .05, G*Power determined the power of this analysis to be 0.14. Thus, given the effect size and sample size, this analysis had limited statistical power.

For the Interpersonal Skills subscale, the Levene's Test for the equality of variance was significant for this t-test. Therefore, the results for the analysis on this subscale that are reported below assume that the Intervention Group and the Control Group did not have homogeneity of variance. Participants in the Intervention Group ($M = 3.44$, $SE = 0.04$) did not report different levels of interpersonal skills compared to participants in the Control Group ($M = 3.48$, $SE = 0.04$). This analysis was not significant $t(171.94) = -0.77$, $p > .05$, $r = 0.06$. A post-hoc power analysis was conducted to determine the power of this t-test. G*Power (Faul et al., 2009; Faul et al., 2007) was used to calculate an effect size d of 0.11. With a sample size of 124 participants in the Intervention Group and 75 participants in the Control group, and an

alpha = .05, G*Power determined the power of this analysis to be 0.12. Thus, given the effect size and sample size, this analysis had limited statistical power.

The exploratory research question in this study is as follows: At post-intervention, do the student health care providers differ in their self-evaluations of their provision of culturally sensitive health care to mock patients (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a culturally sensitivity health care provider inventory) in association with racial/ethnic background, group (e.g. Intervention Group or Control Group), and/or race by group?

To test this research question, three univariate two-way independent ANOVAs were conducted in which the dependent variable in each was a different one of the earlier-described three subscales of the T-CSHCPI-Provider (Cultural Knowledge and Responsiveness Subscale, the Patient Centeredness subscale, and Interpersonal Skills Subscale), and the independent variables in each were racial/ethnic background, group (Intervention Group or Control Group), and race by group. Because of the limited number of student health care provider participants from African American and Hispanic backgrounds in this research, participants were pooled into three racial groups for the purpose of these ANOVAs. The three pooled racial groups examined in these analyses are: (1) participants from non-Hispanic White backgrounds, (2) participants from African American or Hispanic backgrounds, and (3) participants from Asian backgrounds. Furthermore, because of the unequal sample sizes between these three pooled racial groups, three univariate ANOVAS were conducted instead of a MANOVA, and this has

been described as being a more conservative method of analyzing these data (Tabachnick & Fidell, 2007).

For the ANOVA with the Cultural Knowledge and Responsiveness subscale as the dependent variable, there was a significant main effect of group $F(1, 196) = 5.24, p < .05, \omega^2 = 0.021$, indicating that at post-test individuals in the Intervention Group ($M = 3.28, SD = 0.42$) had higher self-ratings on this variable as compared to their counterparts assigned to the Control Group ($M = 3.19, SD = 0.44$). A post-hoc power analysis using G*Power (Faul et al., 2009; Faul et al., 2007) calculated the power for this effect as 0.63. Thus, given the sample size and effect size, this analysis had adequate statistical power. There was not a significant main effect for racial/ethnic background $F(2, 196) = 1.85, p > .05, \omega^2 = 0.008$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.37. Given the sample size and effect size, this analysis had limited statistical power. The mean self-ratings by the student health care providers on the Cultural Knowledge and Responsiveness variable at post-test by racial/ethnic background were as follows: (a) student providers from a non-Hispanic White background ($M = 3.19, SD = 0.41$), (b) student providers from an African American or Hispanic background ($M = 3.31, SD = 0.56$), and (c) student providers from an Asian background ($M = 3.34, SD = 0.41$). Given the sample size and effect size, the ANOVA with the Cultural Knowledge and Responsiveness subscale at the dependent variable had limited statistical power. There was not a significant interaction effect between racial/ethnic background by group $F(2, 196) = 2.04, p > .05, \omega^2 = 0.010$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.41. Thus, given the sample size and effect size, this analysis had limited statistical power.

For the ANOVA in which Patient Centeredness was the dependent variable, there was a significant main effect of group $F(1, 199) = 6.22, p > .05, \omega^2 = 0.026$, indicating that participants in the Intervention Group ($M = 3.22, SD = 0.34$) reported higher self-ratings on this variable as compared to participants in the Control Group ($M = 3.17, SD = 0.32$). A post-hoc power analysis using G*Power (Faul et al., 2009; Faul et al., 2007) calculated the power for this effect as 0.71. Thus, given the sample size and effect size, this analysis had adequate statistical power. There was not a significant main effect for racial/ethnic background $F(2, 199) = 0.24, p > .05, \omega^2 = 0$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.08. Thus, given the sample size and effect size, this analysis had very limited statistical power. The mean self-ratings by the student health care providers on the Patient Centeredness variable at post-test by racial/ethnic background were as follows: (a) student providers from a non-Hispanic White background ($M = 3.19, SD = 0.31$), (b) student providers from an African American or Hispanic backgrounds ($M = 3.27, SD = 0.44$), and (c) student providers from an Asian background ($M = 3.21, SD = 0.36$). There was a significant interaction between racial/ethnic background by group $F(2, 199) = 3.64, p < .05, \omega^2 = 0.026$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.68. Thus, given the sample size and effect size, this analysis had adequate statistical power. Post-hoc pairwise comparisons utilizing a Bonferroni correction revealed that individuals who identified as coming from African American or Hispanic backgrounds were affected differently by the intervention as compared to their non-Hispanic White and Asian counterparts. Specifically, participants from African American or Hispanic backgrounds in the Intervention Group ($M = 3.48, SD = 0.42$) reported higher self-

ratings of levels of responsiveness to patients concerns as compared to participants from African American or Hispanic backgrounds in the Control Group ($M = 3.03$, $SD = 0.36$) and this difference was significant, $p < .01$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.68. Thus, given the sample size and effect size, this analysis had adequate statistical power.

For the ANOVA with Interpersonal Skills as the dependent variable, there was no significant main effect for group $F(1, 198) = 0.21$, $p > .05$, $\omega^2 = 0$, indicating that participants in the Intervention Group ($M = 3.44$, $SD = 0.40$) did not report higher self-ratings of their interpersonal behaviors in clinical interactions with culturally diverse patients as compared to participants in the Control Group ($M = 3.48$, $SD = 0.36$). A post-hoc power analysis using G*Power (Faul et al., 2009; Faul et al., 2007) calculated the power for this effect as 0.07. Thus, given the sample size and effect size, this analysis had very limited statistical power. There was no significant main effect for racial/ethnic background $F(2, 198) = 0.10$, $p > .05$, $\omega^2 = 0$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.05. Thus, given the sample size and effect size, this analysis had very limited statistical power. The mean self-ratings by the student health care providers on the Patient Centeredness variable at post-test by racial/ethnic background were as follows: (a) non-Hispanic White backgrounds ($M = 3.45$, $SD = 0.36$), (b) African American or Hispanic backgrounds ($M = 3.42$, $SD = 0.34$), and (c) Asian backgrounds ($M = 3.47$, $SD = 0.41$). There was no significant interaction between cultural background by group $F(2, 198) = 1.15$, $p > .05$, $\omega^2 = 0.002$. A post-hoc power analysis using G*Power calculated the power for this effect as 0.26. Thus, given the sample size and effect size, this analysis had limited statistical power.

Table 4-1. Intercorrelations among dependent variables

	Cultural Knowledge	Patient Centeredness	Interpersonal Skills
Cultural Knowledge	1	0.59 p < .01	0.50 p < .01
Patient Centeredness	0.59 p < .01	1	0.67 p < .01
Interpersonal Skills	0.50 p < .01	0.67 p < .01	1

Table 4-2. Means of Patient Centeredness Subscale of the T-CSHCPI-Provider

Variable	N	Mean	SD
Experimental			
Total	125	3.22	0.34
African American & Hispanic	8	3.48	0.42
Asian American	44	3.24	0.37
Non-Hispanic White	73	3.17	0.30
Control			
Total	75	3.17	0.32
African American & Hispanic	7	3.03	0.36
Asian American	22	3.16	0.33
Non-Hispanic White	46	3.20	0.32

Table 4-3. Means of Interpersonal Skills Subscale of the T-CSHCPI-Provider

Variable	N	Mean	SD
Experimental			
Total	124	3.44	0.40
African American & Hispanic	8	3.53	0.42
Asian American	44	3.46	0.43
Non-Hispanic White	72	3.41	0.39
Control			
Total	75	3.48	0.36
African American & Hispanic	7	3.31	0.20
Asian American	22	3.47	0.37
Non-Hispanic White	46	3.51	0.36

Table 4-4. Means of the Cultural Knowledge and Responsiveness Subscale of T-CSHCPI-Provider

Variable	N	Mean	SD
Experimental			
Total	124	3.28	0.42
African American & Hispanic	8	3.52	0.47
Asian American	44	3.38	0.42
Non-Hispanic White	72	3.19	0.39
Control			
Total	73	3.19	0.44
African American & Hispanic	7	3.07	0.59
Asian American	22	3.24	0.38
Non-Hispanic White	44	3.19	0.45

CHAPTER 5 DISCUSSION

The study examined the effects of an intervention to promote customized culturally sensitive health care by student health care providers on these student providers' self-evaluations of their cultural sensitivity following simulated clinical encounters with mock patients. This intervention involved having each mock patient use a modified version of the Tucker Culturally Sensitive Health Care Inventory-Clinical Tool Form A to identify the provider behaviors and attitudes most important to her/him, and subsequently having her/his student health care provider review this health care information prior to the simulated patient-provider clinical encounter. This intervention occurred as part of the participating student health care providers' training in a required course on the essentials of patient care in which student health care providers typically engage in simulated clinical encounters with mock patients as required by the medical curriculum.

The first section of this chapter will summarize and interpret the findings of this study, and will be followed by a section that describes the limitations of this study. Subsequent sections will describe implications for physician training, implications for psychologists, and implications for future research. A brief conclusion will also be provided.

Summary and Interpretation of Findings

The hypothesis for this study stated that student health care providers in the Intervention Group will have higher self-evaluations of their provision of culturally sensitive health care (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a cultural

sensitivity health care inventory for health care providers) to their mock patients than student health care providers in the Control Group. Specifically, it was hypothesized that allowing student health care providers to see customized feedback regarding their mock patient's preferences for provider behaviors that constitute customized culturally sensitive care would increase these providers' self-ratings of their provision of this care. The t-tests that were performed to test this hypothesis revealed no significant differences at post-test in student health care providers' self-ratings of their provision of customized culturally sensitive health care in association with being in the Intervention Group or the Control Group. Thus, the tested hypothesis was not supported. The limitations of this study, which are described in a subsequent section, may have limited the ability to detect significant differences in self-assessed customized cultural sensitivity between student health care providers in the Intervention Group and student health care providers in the Control Group.

The exploratory research question posited in this study examined whether or not student health care providers differed in their self-evaluations of their provision of customized culturally sensitive health care to mock patients (i.e. self-evaluations of their Cultural Knowledge and Responsiveness, Patient Centeredness, and Interpersonal Skills using a culturally sensitivity health care provider inventory) in association with racial/ethnic background, group (e.g. Intervention Group or Control Group), and/or race by group. This research question was informed by past studies showing that student health care providers who begin to practice medicine, despite coming from minority racial/ethnic backgrounds themselves, often feel unprepared to effectively provide patient-centered culturally sensitive health care to patients from racially/ethnically

diverse backgrounds (Grumbach et al., 2003). Furthermore, student health care providers from racial/ethnic minority backgrounds often end up practicing medicine with patients who also come from minority racial/ethnic backgrounds, partly because many of these patients choose physicians who identify as coming from minority racial/ethnic backgrounds (e.g. Whitla et al., 2003).

The ANOVA to address the stated research question revealed that student health care providers in the Intervention Group as compared to their counterparts in the Control Group had higher self-ratings of their provision of customized culturally sensitive health care at post-test in the area of Cultural Knowledge and Responsiveness. Specifically, these results suggest that student health care providers in the Intervention Group, as compared to those in the Control Group, benefited from seeing their mock patients' preferences for what constitutes customized culturally sensitive health care. These student health care providers in the Intervention Group, as compared to those in the Control Group, subsequently rated themselves as having higher levels of knowledge of specific items that racially/ethnically diverse patients have indicated are representative of being respectful of their culture. There were no significant differences between student health care providers who identified as coming from African American and Hispanic backgrounds (who were grouped together for the purpose of examining this research question) as compared to student health care providers who identified as coming from non-Hispanic White backgrounds and Asian American backgrounds.

The ANOVA to address the research question as it pertained to the Patient Centeredness aspect of customized culturally sensitive health care revealed that student health care providers in the Intervention Group reported higher self-ratings of

their provision of culturally sensitive health care than student health care providers in the Control Group. Additionally, it was found that student health care providers from African American and Hispanic backgrounds (who were grouped together for the purpose of examining this research question) in the Intervention Group reported higher self-ratings of levels of patient centeredness as compared to participants from non-Hispanic White and Asian American backgrounds in the Control Group. The student health care providers from African American and Hispanic backgrounds may have been more sensitive to issues of cultural sensitivity when providing customized culturally sensitive health care.

It is also noteworthy that self-ratings of the provision of culturally sensitive health care on the Interpersonal Skills aspect of this care at post-test were not found to be significantly different between student health care providers in the Intervention Group and those in the Control Group. One speculative explanation of this finding is that all student health care providers who served as participants for this study were enrolled in a course designed to teach the essentials of patient care—a course designed to train student health care providers on how to interact with their patients. Furthermore, these student health care providers were evaluated on their ability to interact with mock patients during their simulated clinical encounters as part of their coursework. Because of this, student health care providers may have demonstrated a heightened sensitivity to behaving in ways that show strong interpersonal skills as a result of their awareness that they were being evaluated for such skills as required by this course and regardless of their group assignment.

Despite the lack of statistically significant findings, there was an overall trend of student health care providers in the Intervention Group reporting higher mean self-ratings of two aspects of their provision of customized culturally sensitive health care at post-test as compared to their counterparts in the Control Group at post-test on two subscales of the T-CSHCIP-Provider. Specifically, these non-significant trends held true for student health care providers' self-ratings of their Cultural Knowledge and Responsiveness ($M = 3.28$, $SE = 0.04$ for the Intervention Group vs. $M = 3.19$, $SE = 0.05$ for the Control Group) and their Patient Centeredness ($M = 3.22$, $SE = 0.03$ for the Intervention Group vs. $M = 3.17$, $SE = 0.04$ for the Control Group).

In sum, the findings from this study provide support for further investigations of whether or not providing student health care providers with feedback regarding their patients' preferences for what constitutes customized culturally sensitive health care increases student health care providers' self ratings of their provision of this care. Although this study had several limitations, it has important implications for physician training and for psychologists who practice in the realms of health psychology and behavioral medicine. These limitations and implications are discussed in the following sections.

Limitations of the Current Study

There are several limitations of the current study. One limitation is the small sample of student health care provider participants. Attempts were made to recruit a large number of these participants, but many of them (21%) decided not to participate in the study. One potential reason for the lack of participation of these student health care providers may be the lack of research participation compensation.

Although the t-tests that were used to test this hypothesis did not show significant differences between student health care providers in the Intervention Group and Control Group on providers' evaluations of their cultural sensitivity at post-test, student health care providers in the Intervention Group generally trended toward higher mean self-ratings of their provision of customized culturally sensitive health care. The fact that these differences were not statistically significant may result from the small sample size and small effect sizes that were achieved from these analyses. One potential explanation for the lack of statistical significance may be that these small effect sizes in turn were related to the constricted range of responses available for participants to rate their self-perceptions of their provision of culturally sensitive health care. The T-CSHCPI-Provider only allowed student health care providers to rate their levels of cultural sensitivity using a four-point Likert scale, and this constricted range of responses may have limited the ability to find differences between groups in this small sample—differences that may have been found had students been able to use a Likert scale with a wider range in their self evaluations. Thus, the small effect sizes for the intervention coupled with the small sample size limited the ability to test the effects of the intervention to promote customized culturally sensitive care.

Another limitation of this study is that it was conducted with student health care providers at only one medical school. Thus, there is a limited ability to generalize the results of this study to a larger population. Other limitations of this study include that it used self-reported levels of customized cultural sensitivity by the student health care providers and did not examine the perspectives of the patients who were served by these student health care providers. The small sample size of mock patients who

participated in this research limited any attempt to collect meaningful data from these individuals. Yet, given that racial/ethnic diverse patients are the individuals who experience the negative health outcomes that result from the health disparities that plague our nation, future research should indeed assess whether or not these patients perceived their health care providers to be more culturally sensitive as a result of participating in interventions similar to the one tested in the current study.

The use of mock patients in this study who were employees of the College of Medicine and paid to act as patients in the simulated clinical encounters with student health care providers was also a study limitation. It is important instead to use actual patients in order to improve the generalizability of the findings of future research that is similar to the current study. Another limitation of this study is the attempted integration of the intervention into an existing training module involving clinical encounters. This integration effort resulted in an inadequate time for data collection (i.e., only 25 minutes). Consequently, assessment of social desirability and of constructs related to cultural sensitivity, such as cultural competence, could not be assessed in the present study.

A further limitation of the current study is its post-test only design. This design enabled statistical analyses that had limited statistical power to detect possible intervention effects. Had student health care providers been able to complete pre-test assessment questionnaires in addition to post-test questionnaires, more powerful repeated measures analyses could have been performed to examine any changes in self-ratings of student health care providers' provision of customized culturally sensitive

health care from pre-intervention to post-intervention and to determine group differences in these changes.

Implications for Physician Training

The results from this study have implications for the training of future health care providers, namely medical students, to provide health care that is culturally sensitive and tailored to meet the customized needs of racially and culturally diverse patients. As previously indicated in this paper, there have been numerous calls for the inclusion of cultural sensitivity skills training in medical school curricula (e.g. Mirsu Paun et al., 2010). The results of this study provide partial support for the inclusion of interventions designed to help racially/ethnically diverse student health care providers improve their provision of customized culturally sensitive health care when working with racially/ethnically diverse patients.

Indeed, it is noteworthy that the results of this study showed that the tested intervention had an impact on student health care providers from racial/ethnic minority backgrounds such that student health care providers from African American and Hispanic backgrounds in the Intervention Group had higher self-ratings on the Patient Centeredness aspect of customized culturally sensitive health care than non-Hispanic White and Asian American student health care providers in the Control Group. Interventions such as the one tested in the current study can be supplemented with cultural sensitivity training that is integrated into existing coursework with the goal of promoting the importance of this training among student health care providers, particularly among those student health care providers who do not identify as coming from racial/ethnic minority backgrounds. Such integrated training may encourage a process of lifelong learning whereby student health care providers who treat patients

from racial/ethnic minority backgrounds are encouraged to learn about these patients' health care provision preferences.

Implications for Psychologists

The results from this study also have implications for psychologists who practice in the realms of health psychology and behavioral medicine. Given these psychologists' training in interpersonal communication skills development, relationship building, and attending to individual differences, these professionals are uniquely poised to promote customized culturally sensitive health care through provider training to deliver such care. Many of these psychologists are also experienced in conducting research that examines cross cultural differences and interventions to address these differences. Thus, psychologists are uniquely suited for developing learning experiences for student health care providers that will promote their provision of customized culturally sensitive health care to racially/ethnically diverse patients.

Psychologists who specialize in health psychology or behavioral medicine are also particularly well trained to create and utilize assessment instruments, such as the questionnaires used in this research, to assess provider cultural sensitivity. Despite the calls in the academic research literature for the development of such assessment instruments (e.g. AHRQ, 2009; Washington et al., 2008), many obstacles have prevented their development (e.g. Tervalon, 2003). Such assessments are needed to provide needed data to inform, customize, and evaluate trainings for student health care providers that will prepare them to provide customized culturally sensitive health care to culturally diverse patients.

Implications for Future Research

The results of this study provide support for similar research to the present study that uses larger sample sizes. In addition, such future studies should include larger and more representative samples of racial/ethnic minority student health care providers and mock patients. Furthermore, this research should ideally include patients' ratings of providers' cultural sensitivity. Such research may help medical school administrators understand the need for provider cultural sensitivity training and how to best go about implementing such training.

Future research can also work toward continuing to develop the appropriate assessment instruments to measure constructs related to promoting customized culturally sensitive health care among student health care providers, and assess the validity and reliability of such instruments. This study was limited to examining customized cultural sensitivity as it pertains to individuals from different racial/ethnic backgrounds. Future research on promoting customized culturally sensitive health care should ideally include the views of other cultural groups such as LGBTQ groups and religious groups.

Conclusions

This study indicated that providing student health care providers with feedback from their racially/ethnically diverse patients regarding the behaviors these patients wish to see during their encounters with providers is an important part of promoting customized culturally sensitive health care among these providers. Furthermore, this study provides support for future research to examine this intervention that uses larger diverse samples of student health care providers and actual patients, includes the patients' views of provider cultural sensitivity, and uses a pre-post test research design.

Additionally, because of their training in multicultural counseling and conducting culturally sensitive research, psychologists are ideally suited for conducting this research in partnership with medical school faculty. The results of this study and future similar research that tests interventions in training student health care providers to provide customized patient-centered culturally sensitive health care hold potential for ultimately helping to eliminate the health disparities that plague our nation.

APPENDIX A
INFORMED CONSENT FORM FOR STUDENT HEALTH CARE PROVIDERS

*Informed Consent to Participate in Research and
Authorization for Collection, Use, and Disclosure of Information for
Student Health Care Providers*

**PLEASE SIGN BOTH COPIES OF THIS FORM AND
RETURN ONLY ONE TO THE RESEARCHERS**

You are being asked to take part in a research study. This form provides you with information about the study and seeks your permission for the collection, use, and disclosure of your information necessary for the study. The Principal Investigator (the person in charge of this research) or a representative of the Principal Investigator will also describe this study to you and answer all of your questions. Your participation is entirely voluntary. Before you decide whether or not to take part, read the information below and ask questions about anything you do not understand. If you choose not to participate in this study you will not be penalized or lose any benefits that you would otherwise be entitled to.

1. Name of Participant ("Study Subject"):

(Please put your first and last name here)

2. Title of Research Study:

Training Medical Students for Patient Interactions

3. Purpose of the research study:

The purpose of this study is to find out how patients view the attitudes and behaviors of their student health care providers, and how student health care providers view their own behaviors in interactions with patients.

4. What you will be asked to do if you take part in the study:

You will be asked to fill out a set of questionnaires about your lifestyle culture, and culture and your perceived behaviors in interactions with your patients. Filling out the questionnaires should take less than ten minutes. You will be asked to complete these questionnaires twice within a one-hour period. Please return the completed questionnaires in the provided envelope to the research assistant who will be available to receive them from you.

5. Possible Risks and Benefits:

We do not expect any risk to you for participating in this study. There are no known risks to completing the questionnaires. We do not anticipate that you will benefit directly by participating in this project. However, you may become more aware of your behaviors with your patients.

6. Compensation:

There is no compensation for your participation in this project.

7. Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your name will not be

placed on the questionnaires. Instead, researchers will place a code number on the questionnaires that you fill out and on the provided envelopes. You are to place your completed questionnaires in the brown envelope and your signed informed consent form in a white envelope. Each of these envelopes will be locked in a separate filing cabinet in room 293 at the Department of Psychology, University of Florida. Your individual responses will only be seen by the researchers who are conducting this study and will not be shared with anyone involved in training you or with anyone else.

8. Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating. You may stop completing the questionnaires at any time.

9. Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Carolyn M. Tucker, Ph.D.
Distinguished Alumni Professor
Joint Professor of Psychology and
Professor of Community Health and Family Medicine
Professor of Pediatrics (Affiliate)
1-352-273- 2153 or (Toll-free) 1-866-290-5770

or

Dr. Rebecca R. Pauly
Associate Vice President, Health Affairs
Office of Equity and Diversity
(352) 273-5310

Whom to contact about your rights as a research participant in the study:

University of Florida Institutional Review Board Office
Box 112250 University of Florida
Gainesville, FL 32611-22250
(352)392-0433

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant:_____ Date:_____

Investigator:_____ Date:_____

**Please place the first copy of this form in the white envelope and keep the second copy for your records.*

APPENDIX B
INFORMED CONSENT FORM FOR MOCK PATIENTS

*Informed Consent to Participate in Research and
Authorization for Collection, Use, and Disclosure of Information for
Mock Patients*

**PLEASE SIGN BOTH COPIES OF THIS FORM AND
RETURN ONLY ONE TO THE RESEARCHERS**

You are being asked to take part in a research study. This form provides you with information about the study and seeks your permission for the collection, use, and disclosure of your information necessary for the study. The Principal Investigator (the person in charge of this research) or a representative of the Principal Investigator will also describe this study to you and answer all of your questions. Your participation is entirely voluntary. Before you decide whether or not to take part, read the information below and ask questions about anything you do not understand. If you choose not to participate in this study you will not be penalized or lose any benefits that you would otherwise be entitled to.

10. Name of Participant ("Study Subject"):

(Please put your first and last name here)

11. Title of Research Study:

Training Medical Students for Patient Interactions

12. Purpose of the research study:

The purpose of this study is to find out how patients view the attitudes and behaviors of their student health care providers, and how student health care providers view their own behaviors in interactions with patients.

13. What you will be asked to do if you take part in the study:

You will be asked to fill out a set of questionnaires about your lifestyle and culture, and your perceived behaviors in interactions with your student health care providers. Filling out the questionnaires should take less than ten minutes. You will be asked to complete these questionnaires twice within a one-hour period. Please return the completed questionnaires in the provided envelope to the research assistant who will be available to receive them from you.

14. Possible Risks and Benefits:

We do not expect any risk to you for participating in this study. There are no known risks to completing the questionnaires. We do not anticipate that you will benefit directly by participating in this project. However, you may become more aware of your behaviors with your student health care providers.

15. Compensation:

There is no compensation for your participation in this project.

16. Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your name will not be placed on the questionnaires. Instead, researchers will place a code number on the questionnaires that you fill out and on the provided envelopes. You are to place your completed questionnaires in the brown envelope and your signed informed consent form in a white envelope. Each of these envelopes will be locked in a separate filing cabinet in room 293 at the Department of Psychology, University of Florida. Your individual responses will only be seen by the researchers who are conducting this study and will not be shared with anyone involved in training you or with anyone else.

17. Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating. You may stop completing the questionnaires at any time.

18. Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Carolyn M. Tucker, Ph.D.
Distinguished Alumni Professor
Joint Professor of Psychology and
Professor of Community Health and Family Medicine
Professor of Pediatrics (Affiliate)
1-352-273- 2153 or (Toll-free) 1-866-290-5770

or

Dr. Rebecca R. Pauly
Associate Vice President, Health Affairs
Office of Equity and Diversity
(352) 273-5310

Whom to contact about your rights as a research participant in the study:

University of Florida Institutional Review Board Office
Box 112250 University of Florida
Gainesville, FL 32611-22250
(352)392-0433

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant:_____ Date:_____

Investigator:_____ Date:_____

**Please place the first copy of this form in the white envelope and keep the second copy for your records.*

APPENDIX C
DEMOGRAPHIC DATA QUESTIONNAIRE FOR STUDENT HEALTH CARE
PROVIDERS

Demographic Data Questionnaire for Student Health Care Providers

Please provide the information requested by writing your answer or filling in the circle by your answer like this: ●

1. Your Age: _____ years old.

2. Your Gender: Male Female

3. Your Race/Ethnicity (please choose):

- African American/Black
- Asian American/Pacific Islander
- Latino/Hispanic American
- Native American
- Non-Hispanic Caucasian/White
- Other (please specify): _____

4. Are you a citizen of the U.S.A.? No Yes

5. Please list any languages other than English that you speak:

6. What year in medical school are you? _____

7. Please rate your level of exposure to racial/ethnic minority patients.

- Very low
- Low
- Average
- High
- Very high

8. Please rate your level of exposure to low-income patients.

- Very low
- Low
- Average
- High
- Very high

APPENDIX D
DEMOGRAPHIC DATA QUESTIONNAIRE FOR MOCK PATIENTS

Demographic Data Questionnaire for Mock Patients

Please provide the information requested by writing your answer or filling in the circle by your answer like this: ●

1. Your Age: _____ years old.

2. Your Gender: Male Female

3. Your Race/Ethnicity (please choose):

- African American/Black
- Asian American/Pacific Islander
- Latino/Hispanic American
- Native American
- Non-Hispanic Caucasian/White
- Other (please specify): _____

4. Are you a citizen of the U.S.A.? No Yes

5. Please list any languages other than English that you speak:

6. Please rate your level of exposure to racial/ethnic minority health care providers.

- Very low
- Low
- Average
- High
- Very high

APPENDIX E
THE TUCKER-CULTURALLY SENSITIVE HEALTH CARE PROVIDER INVENTORY –
CLINICAL TOOL FORM A

T-CSHC-CT (Form A)

DIRECTIONS

Please identify the 10 behaviors and characteristics of doctors, nurses, and other health care providers that are most important to you when they provide health care to you. Do this by shading in the circle beside each of the 10 behaviors and characteristics you choose like this: ●. This information will help the health care provider that you see show the behaviors and characteristics that are most important to you when they interact with you.

Please make sure to shade in the circle beside only the 10 most important to you.

1. Is honest and direct with me.
2. Is dedicated to her or his work.
3. Enjoys what he or she is doing.
4. Is well-educated.
5. Is knowledgeable about medicine.
6. Knows what he or she is doing.
7. Is confident in his or her abilities.
8. Is right about why I am sick.
9. Seems interested in my problem
10. Takes my concerns seriously.
11. Does not question the truth or accuracy of what I am feeling.
12. Does not diagnosis all of my problems as psychological or “in my mind.”
13. Does not talk down to me.
14. Tries to communicate with me.
15. Tries to educate me.
16. Takes all of my concerns seriously even if he or she does not consider them to be serious.
17. Does not embarrass me in private or public.
18. Prescribes medicine only when he or she is sure of my illness.
19. Does not make me wait long.
20. Follows up on my visits.

21. Lets me know about illnesses and diseases common among people of my race/ethnicity.
22. Prepares me for the next steps in treating my illness.
23. Understands my financial situation.
24. Shows appreciation for me and all of his or her patients.
25. Shows care and concern for my child/children.
26. Is respectful of my religious beliefs.
27. Understands my culture.



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APPENDIX F
TUCKER-CULTURALLY SENSITIVE HEALTH CARE PROVIDER INVENTORY -
PROVIDER FORM

Directions: Take a few seconds to think about your current work as a health care provider. Now please read the statements listed below, and rate how much you agree that each statement describes you and your current work as a health care provider. Please use a rating of 4, 3, 2, or 1, where 4 = “Strongly Agree”, 3 = “Agree”, 2 = “Disagree”, and 1 = “Strongly Disagree.” Shade in the circle beneath the rating that you choose like this: ●

	1	2	3	4
1. I am welcoming and friendly with my patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I am relaxed with my patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I am compassionate and tender with patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I am respectful of patients’ religious beliefs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am willing to learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I explain everything I do to my patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I talk to my patients during their visits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I am nice to my patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I make my patients feel like their visits to this health care center were informative or productive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I care more about my patients than about making money.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I make my patients feel at home when they are at this health care center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I put my patients’ minds at ease.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I show my patients that I am familiar with their health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I understand my patients’ financial situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I prepare my patients for the next steps in treating their illnesses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I refer my patients for tests they think they need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am concerned about my patients’ present and future situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I know how to make my patients feel comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. I respond to my patients' requests.
20. I make helpful and reasonable recommendations.
21. I am available for my patients.
22. I put on a fresh pair of gloves in front of my patients.
23. I explain the medications I prescribe to my patients.
24. I refer my patients to a specialist when they request it.
25. I take time with my patients while examining and treating them.
26. I am prepared to examine my patients when I walk into the examining room.
27. I evaluate my patients' problems as soon as they come in to see me.
28. I examine all my patients according to a standard procedure.
29. I prescribe treatments and medicines that work.
30. I am educated in working with patients of different cultures and social statuses.
31. I understand the culture of the racial/ethnic minority patients I have.
32. I understand that people of different cultures have and believe in different medical practices.
33. I work to make this health care center more racially integrated.

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BIOGRAPHICAL SKETCH

Manuel Lopez has over twelve years of experience conducting research on culturally sensitive health care and health-promotion programs that are aimed at improving the health outcomes of culturally diverse primary care patients with the ultimate aim of reducing health disparities. As a research director on the Behavioral Medicine Research team at the University of Florida, his research experience has centered on promoting the engagement in healthy exercise and diet behaviors and reducing the engagement in health risk behaviors for low-income people from diverse backgrounds by addressing unique cultural considerations that affect these behaviors and their associated outcomes. He has supervised the work of undergraduate research assistants and engaged in the development, implementation, and study of low-cost novel health empowerment interventions in community-based settings.

His clinical interests center on promoting health and wellness of culturally diverse clients, and he has also provided crisis-intervention counseling for the past five years by serving as a volunteer counselor for the Alachua County Crisis Center, where he has counseled people on-site as they experience various life crises. He was born and raised in Miami, Florida, a veritable cultural melting pot where he became interested in understanding cultural differences. He graduated Summa Cum Laude from the University of Florida with undergraduate degrees in psychology and anthropology in the spring of 2005 and has also provided service to numerous educational organizations, such as the University of Florida's Office of Student Activities' Reitz Union Board where he served as co-chair of the Special Events Committee and served as chair of the University Of Florida Department Of Psychology's Diversity Awareness and Affirmation Committee. His future career interests are to conduct translational research aimed at

improving the cultural sensitivity of health care systems and providers and promote cultural sensitivity skills training in medical education with the overarching goal of reducing health disparities.