

VALIDATION OF A PROVIDER SELF-REPORT INVENTORY  
FOR MEASURING PATIENT-CENTERED CULTURAL SENSITIVITY  
IN HEALTH CARE

By

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## TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS .....	3
LIST OF TABLES .....	7
LIST OF FIGURES .....	8
ABSTRACT .....	9
CHAPTER	
1 INTRODUCTION .....	11
Statement of the Problem.....	11
Purpose of the Proposed Study .....	17
Research Questions.....	18
2 REVIEW OF THE LITERATURE .....	20
Definition of Patient-Centered Culturally Sensitive Health Care.....	20
Review of the Existing Assessments of Culturally Competent Health Care and Culturally Sensitive Health Care.....	23
Development of the Pilot Tucker-Culturally Sensitive Health Care .....	25
Inventory (CSCHI)-Provider Form.....	25
The Tucker Patient-Centered Culturally Sensitive Health Care Model .....	25
The Grounded Theory of Qualitative Research.....	26
The Quality of Care Theory .....	27
Literature and Research Evidence Supporting the Need for .....	28
Patient-Centered Culturally Sensitive Health Care .....	28
Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Health Disparities Literature.....	28
Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Health Care Disparities Literature .....	29
Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Demographic Characteristics of the U.S. Medical Students and Physicians in the U.S.....	32
The Potential Usefulness of Patient-Centered Culturally Sensitive Health Care .....	35
Assessments in Research to Reduce Disparities.....	35
The Potential Usefulness of Patient-Centered Culturally Sensitive Health Care .....	39
Assessments in Medical Training Efforts to Reduce Disparities .....	39
3 METHOD .....	44
Participants .....	44
Instruments .....	46

Procedure.....	48
Recruitment of Research Collaborators and Research Assistants.....	48
Recruitment of Medical Student Participants.....	50
4 RESULTS.....	53
First Research Question.....	53
Second Research Question.....	61
Third Research Question.....	63
5 DISCUSSION.....	68
Summary and Interpretation of the Results.....	68
Research Questions 1 and 2.....	68
Research Question 3.....	76
Limitations and Future Directions of Research.....	78
Implications of this Study.....	81
Implications for Counseling Psychologists.....	82
Conclusions.....	85
APPENDIX	
A E-MAIL MESSAGE TO MEDICAL SCHOOL FACULTY CO-INVESTIGATORS.....	86
B E-MAIL MESSAGE TO MEDICAL STUDENT PARTICIPANTS.....	87
C ONLINE COVER LETTER/INFORMED CONSENT FORM WITH UF IRB APPROVAL.....	88
D ONLINE PAYMENT INFORMATION WITH UF IRB APPROVAL.....	90
E E-MAIL MESSAGE TO MEDICAL STUDENTS WITH PAYMENT INFORMATION...91	
LIST OF REFERENCES.....	92
BIOGRAPHICAL SKETCH.....	101

LIST OF TABLES

<u>Table</u>	<u>page</u>
3-1 Participant demographic and medical education information .....	45
4-2 Eigenvalues and Variance Explained in the Initial Factor Solutions.....	55
4-3 Comparison of the Rotated Five-Factor and Six-Factor Solutions.....	57
4-4 Factor/Subscale Item Composition and Factor Loadings for the Five-Factor Solution ....	58
4-5 Percent of Variance and Number of Items per Factor/Subscale.....	60
4-6 T-CSHCI-Provider Form Factor/Subscale Correlations.....	60
4-7 Descriptive Information for the T-CSHCI-Provider Form Factors/Subscales .....	61
4-8 T-CSHCI-Provider Form Factor/Subscale Psychometric Properties.....	61
4-9 Pearson Correlations between the T-CSHCI-Provider Form Factors/Subscales and the CCSAQ .....	62
4-10 Spearman Correlation Coefficients for the Associations between the T-CSHCI- Provider Form Factors/Subscales and Participants' Demographic Variables .....	64
4-11 Spearman Correlation Coefficients for the Associations between the T-CSHCI- Provider Form Factors/Subscales and Participants' Medical Training Variables .....	64
4-12 Multivariate Effects of Gender, Race/Ethnicity, and Knowledge of Other Languages on the T-CSHCI-Provider Form Factors/Subscales.....	66

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
4-1 Scree plot for the T-CSHCI-Provider Form items.....	55

Abstract of Dissertation Presented to the Graduate School  
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VALIDATION OF A PROVIDER SELF-REPORT INVENTORY  
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By

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Patient-centered culturally sensitive health care systems are specific quality of care contributors to reducing health disparities in this country. The lack of assessments to evaluate levels of patient-centered culturally sensitive health care that patients experience likely impedes current efforts to promote patient-centered quality health care in this country.

Patient-centered culturally sensitive health care is a new concept, introduced as “cultural competence plus.” Patient-centered culturally sensitive health care views culturally diverse patients as the true experts on the indicators of culturally sensitive/insensitive health care, is patient empowerment-oriented, and emphasizes displaying patient-desired provider and staff behaviors and attitudes, implementing health care policies, and displaying physical health care characteristics identified by patients as culturally sensitive.

This study (a) examined the reliability, construct validity, and factor structure of the pilot Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI)-Provider Form using a sample of medical students who provide care to patients (i.e., 3<sup>rd</sup> and 4<sup>th</sup> year medical students), and (b) explored the associations between medical students’ self-reported scores on the T-CSHCI-Provider Form and selected demographic and education variables. Exploratory factor analyses

with Varimax rotations, followed by reliability and validity analyses, revealed the existence of five valid and reliable T-CSHCI-Provider Form factors: Patient-Centeredness, Interpersonal Skills, Disrespect/Disempowerment, Competence, and Cultural Knowledge/Responsiveness. In addition, scores on selected T-CSHCI-Provider Form factors/subscales were significantly associated with medical students' gender, race/ethnicity, and ability to speak at least one language other than English. Male participants, as compared with female participants, rated themselves significantly lower on Interpersonal Skills and higher on Disrespect/Disempowerment skills. African American participants, as compared with Asian American and non-Hispanic White participants, rated themselves significantly higher on Cultural Sensitivity/Responsiveness skills. Participants who reported speaking at least one other language in addition to English rated themselves significantly higher on Interpersonal Skills and Cultural Knowledge/Responsiveness skills as compared with participants who spoke English only.

The present study provided evidence for using the T-CSHCI-Provider Form to assess the effectiveness of patient-centered culturally sensitive health care training (such as pre-post training comparisons using the T-CUSHCI scores). The T-CSHCI-Provider Form can also be used as a useful tool for self-directed learning of patient-centered culturally sensitive health care behaviors and attitudes by advanced medical students, which can benefit these students in their interactions with culturally diverse patients. In addition, the T-CUSHCI has potential for promoting needed research to determine if there are measurable links between culturally sensitive health care as defined by ethnic minority patients and the costly and unjust disparities between majority and minority Americans.

## CHAPTER 1 INTRODUCTION

### **Statement of the Problem**

According to the Institute of Medicine ([IOM], 2003), racial/ethnic minorities in the U.S. receive a lower quality of care than non-Hispanic Whites, and this difference contributes to the existing health disparities in this country. Alarming examples of such disparities include the findings that racial/ethnic minority groups are more likely to be affected in six key health areas: infant mortality, diabetes, cardiovascular disease, cancer screening and management, HIV/AIDS, and child and adult immunizations (DHHS, 2001). According to the American College of Physicians (2004), culturally sensitive health care systems are specific quality of care contributors to reducing health disparities in this country. In addition, a significant characteristic of culturally sensitive health care that can contribute to reducing health care and health disparities is patient-centered care (i.e., perceiving and evaluating health care from the patient's perspective and then adapting care to meet the needs and expectations of patients) (Beach, Saha, & Cooper, 2006).

The call for patient-centered culturally sensitive health care that would meet the health needs of all racial/ethnic groups was stated in the Report on Mental Health from the Surgeon General (1999). This report asserted that some of the limitations that likely impede efforts to promote patient-centered culturally sensitive health care include: (a) definitions of culturally competent health care and culturally sensitive health care that have been provided by professional "experts" with no input from patients themselves, (b) no consensus regarding the operational definitions of terms such as cultural competence and cultural sensitivity, and (c) a lack of assessments to measure levels of patient-centered culturally sensitive health care that patients experience, and (d) limited attention by researchers to identifying culture-specific health

care preferences among culturally diverse patients. These limitations likely contribute to the existing paucity of (a) research to support the link between patient-centered culturally sensitive health care and patients' health outcomes (Davis et al., 2005); (b) training programs to teach provider behaviors and attitudes characteristic of patient-centered culturally sensitive health care (Fortier & Bishop, 2004); and (c) evidence of systematic patient-centered culturally sensitive health care practices among health care providers in their interactions with culturally diverse patients (Fortier & Bishop, 2004).

The existing literature regarding multicultural practices associated with health care training and services utilizes several concepts among which are cultural competence and cultural sensitivity in health care. Each of these concepts brings a unique perspective regarding approaches to health care training and practice. Cultural competence in health care has been defined as a set of behaviors, attitudes, and policies that ensure that a system, agency, program, or individual can function effectively and appropriately in diverse cultural interactions and settings, and also ensures an understanding, appreciation, and respect for cultural differences and similarities within, among and between groups (United States Department of Health and Human Services [USDHHS], 2002). Culturally responsive health care has been defined as acknowledging and respecting cultural differences among minority groups that impact their health and behaviors and applying this awareness in health care delivery (USDHHS, 2001). Cultural responsiveness is typically used interchangeably with cultural competence, while considered to be subsumed under the broader concept of cultural competence. The construct of *cultural sensitivity* has been defined as “the ability to adjust one’s perceptions, behaviors, and practice styles to effectively meet the needs of different ethnic or racial groups” (USDHHS,

2007). This definition of cultural sensitivity resembles the one of cultural competence applied at an individual/health care provider level.

Patient-centered culturally sensitive health care is a concept introduced by Tucker et al. (Tucker, 200; Tucker, Herman, Pedersen, Higley, Montrichard, and Ivery, 2003; Herman, Tucker, et al., in press) as “cultural competence plus” in that it extends beyond an emphasis on displaying cultural competence in health care to an emphasis on ascertaining what patients want, need, perceive, and feel in the process of receiving culturally competent health care Tucker, Herman, et al. (in press). Patient-centered culturally sensitive health care views culturally diverse patients as the true experts on the indicators of culturally sensitive/insensitive health care, and it is patient empowerment-oriented. Patient-centered culturally sensitive health care also emphasizes displaying patient-desired provider and staff behaviors and attitudes, implementing health care policies, and displaying physical health care characteristics identified by patients as culturally sensitive (Tucker, Mirsu-Paun, et al., 2007).

Currently there are increasing national calls for the development of reliable and valid assessments of patient-centered culturally sensitive health care. One such call has come from the Agency of Health Care Research and Quality [AHRQ] (2004). Specifically, there is a need for assessments that emphasize specific provider behaviors, attitudes, and knowledge that culturally diverse patients—rather than professional experts—view as indicators of respect for their culture and that enable these patients to feel comfortable with and trusting of their physical health care providers (Tucker, Herman, Pedersen, Higley, Montrichard, & Ivery, 2003; Tucker, Herman, et al., in press). Assessments of patient-centered culturally sensitive health care are needed and can be successfully used to evaluate the effectiveness of health care training activities (e.g., medical

school education or continuing medical education), to inform the provision of culturally sensitive health care, and to conduct culturally sensitive health care research.

According to the National Center for Cultural Competence (2006), the need for and the importance of valid and reliable assessments of patient-centered culturally sensitive health care are based on several assumptions: (a) cultural competence [and cultural sensitivity] are developmental processes and thus assessment instruments are necessary to identify areas of future growth and development, (b) health care providers can enhance their cultural awareness, knowledge, and skills over time and with appropriate feed-back and support, and (c) providers might already possess certain culturally sensitive health care skills or attitudes that assessments can help highlight, thus further assisting these providers to draw upon their strengths when they interact with racial/ethnic minority patients.

**Training activities.** Assessments of patient-centered culturally sensitive health care are needed for engaging in the developmental and ongoing process of learning the behaviors and attitudes characteristic to culturally sensitive and culturally competent health care. Ideally, the initial stages of this ongoing process of acquiring of the patient-centered culturally sensitive health care behaviors and attitudes would coincide with the formal medical school training and would continue throughout a physician's medical career. Thus, assessments of patient-centered culturally sensitive health care are considered to be an essential component of cultural competence and cultural sensitivity medical school training programs which address the core patient-centered culturally sensitive health care competencies and skills to be further perfected through continuing medical practice and education.

Cultural competence and cultural sensitivity focused curricula are increasingly being called for by leaders in the field of medical training (AHRQ, 2004; Centers for Disease Control and

Prevention [CDC], 2005). Such calls are being prompted by research findings and/or literature indicating that (a) training in providing culturally competent [and culturally sensitive] health care is an important strategy for eliminating racial and ethnic disparities in health care and health (Rapp, 2006), (b) one of the most important methods of creating a durable, culturally competent health care system is through the training of medical students (Rapp, 2006; Tervalon, 2003), (c) training in cultural competence and cultural sensitivity for advanced medical students (i.e., third and fourth year medical students who provide health care to patients) provides opportunities for the application of this training in interactions with their patients and for related assessment and feedback from these patients that can facilitate the cultural competence/sensitivity of the medical students who provide health care to these patients (Rapp, 2006), and (d) patient-centered culturally sensitive provider behaviors and attitudes can contribute to reducing health disparities between racial/ethnic minority patients and majority patients by improving the health care satisfaction and treatment adherence among racial/ethnic minority patients (Wilson et al., 2004). Consequently, there is a strong impetus for the development, implementation, and evaluation of cultural competency and cultural sensitivity training programs for medical students who provide health care to culturally diverse patients.

Despite this impetus for cultural competence and cultural sensitivity training, several obstacles make it difficult for such training to be implemented in medical schools. For example, medical faculty have not yet reached an agreement regarding (a) what should constitute patient-centered culturally sensitive health care, (b) how this construct can be incorporated into the medical curricula in an effective manner, and (c) how the effectiveness of patient-centered culturally sensitive health care training programs can be assessed (Betancourt, Green, & Carillo, 2005). Consequently, currently there is no universally required curriculum for promoting

culturally competent and culturally sensitive health care (Welch, 1998). In addition, few studies have been published that report the use of assessments to evaluate the impact of cultural competence and cultural sensitivity training (Thom, Tirado, Woon, & McBride, 2006). For example, a content analysis report from the US DHHS (2002) noted that information regarding the most effective types of cultural competence and cultural sensitivity training for health care providers is currently insufficient because of the lack of appropriate health care quality assessments (Fortier & Bishop, 2004). Valid and reliable assessments of patient-centered culturally sensitive health care are particularly needed given that medical students can experience extensive training in providing culturally competent health care and yet not display behaviors and attitudes which promote health care environments that patients experience as culturally sensitive (Paterson, 2001).

**Health care provision.** Assessments of patient-centered culturally sensitive health care are also needed to evaluate and inform the provision of such care to culturally diverse patients. A plethora of research findings support the view that the health care providers in the U.S., most of whom are non-Hispanic White, are not sufficiently prepared to interact in a culturally sensitive manner with their increasingly diverse patients. Thus, it is not surprising that racial/ethnic minority patients—particularly those who are African American or Hispanic/Latino—are not satisfied with their health care (Mayberry, Mili, & Ofili, 2000) and often feel discriminated against in the health care they receive (Chen, Fryer, Phillips, Wilson, & Pathman, 2005). Several authors have asserted that culturally competent and culturally sensitive health care are both linked to patient satisfaction (DiPalo, 1997), treatment adherence (Salganicoff, 2002), and better health outcomes (Stansbury, Jia, Williams, Vogel, & Duncan, 2005). Despite these findings that support implementing patient-centered culturally sensitive health care practices, there are

currently no published valid and reliable culturally sensitive health care assessment inventories for providing information that can help guide such practices.

**Research.** Assessments of patient-centered culturally sensitive health care can also be used to conduct needed research to examine the associations among health care provider engagement in culturally sensitive health care behaviors and patient satisfaction, patient adherence, and patient health outcomes. Currently, there is a paucity of empirical research evidence regarding the associations between patient-centered culturally sensitive health care practices and health outcomes/statuses of patients (Betancourt, 2005). However, such evidence is required in order to promote adequate investments in health care resources, research, and training to promote culturally sensitive health care (Lavizzo-Mourey & MacKenzie, 1995) and in order to discontinue the existing skepticism about the value of cultural sensitivity and cultural competency training for providers (Betancourt, 2004).

### **Purpose of the Proposed Study**

The proposed research responds to the call for and the need for valid and reliable assessments of patient-centered culturally sensitive health care. Specifically, the present study will (a) examine the reliability, construct validity, and factor structure of the pilot Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI)-Provider Form using a sample of medical students who provide care to patients (i.e., 3<sup>rd</sup> and 4<sup>th</sup> year medical students), and (b) explore the associations between medical students' self-reported scores on the T-CSHCI-Provider Form and selected demographic and education variables (i.e., gender, age, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year in medical school, prior or current enrollment in a course on culturally competent/sensitive health care, and self-reported level of experience with providing health care to racial/ethnic minority patients).

The pilot T-CSHCI-Provider Form is a self-assessment instrument for use by health care providers to report their perceived level of engagement in patient-centered culturally sensitive health care behaviors and attitudes. The items on the pilot T-CSHCI-Provider Form were generated or identified in a prior focus group study in which low-income African American, Hispanic/Latino, and non-Hispanic White primary care patients identified provider behaviors and attitudes that make them (the patients) feel trusting of, comfortable with, and respected by their health care providers (Tucker, Herman, Pedersen, Higley, Montrichard, & Ivery, 2003). The preliminary reliability and validity data for the pilot T-CSHCI-Provider Form suggested that this inventory is reliable and valid; however, these initial findings were based on a small sample of providers (Tucker, Mirsu-Paun, et al., 2007).

If the T-CSHCI-Provider Form is found to be valid and reliable for a large group of advanced medical students who provide health care, support will be provided for using this assessment instrument across the country to evaluate self-perceived levels of patient-centered culturally sensitive health care among medical students who provide health care to culturally diverse patients. If these self-evaluations differ in association with any found specific factors that constitute the T-CSHCI-Provider Form or in association with any of the demographic or training experience variables that will be investigated, guidance will be provided for the type of general and individualized training that may help prepare medical students for providing culturally sensitive health care.

### **Research Questions**

The following research questions will be addressed:

1. What are the dimensions or factor structures that constitute patient-centered culturally sensitive health care as assessed by the T-CSHCI-Provider Form when this form is used with a sample of medical students who see patients?

2. When used with a sample of medical students who see patients, will any found T-CSHCI-Provider Form subscales identified through factor analytic procedures have high internal consistency, split-half reliability, and construct validity? The construct validity will be determined by examining the correlations between the T-CSHCI-Provider Form subscales and the Service Delivery and Practice subscale of the Cultural Competence Assessment Questionnaire-Service Provider Version.
3. Do levels of medical students' self-assessed patient-centered cultural sensitivity in the health care they provide, as assessed by the T-CSHCI-Provider Form, differ in association with their gender, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year of medical school (i.e., 3<sup>rd</sup> or 4<sup>th</sup>), prior or current enrollment in a course on culturally competent/ sensitive health care, and self-reported level of experience with providing health care to racial/ethnic minority patients and to low-income patients?

## CHAPTER 2 REVIEW OF THE LITERATURE

The proposed study will examine the factor structure, reliability, and construct validity of the pilot Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI)-Provider Form, which is used to assess perceived levels of patient-centered culturally sensitive health care. In this literature review chapter, the definition of patient-centered culturally sensitive health care is provided, and the differences between this care and other types of health care quality are discussed. In addition, the steps used to develop the pilot T-CSHCI-Provider Form are described. The limitations of the existing assessment instruments to evaluate cultural competence and cultural sensitivity in health care delivery are also discussed.

Research and other literature evidencing the need for patient-centered culturally sensitive health care and for assessments such as the pilot T-CSHCI-Provider Form to evaluate levels of such care among advanced medical students are also reviewed in this chapter. Finally, the potential usefulness of the T-CSHCI-Provider Form for advancing health and health care disparities research and interventions and for promoting medical training that better prepares medical students to provide health care to culturally diverse patients are presented in this chapter.

### **Definition of Patient-Centered Culturally Sensitive Health Care**

The development of the pilot T-CSHCI-Provider Form is based on a conceptualization of patient-centered culturally sensitive health care that is alike and yet distinct from other health care types described in the literature (e.g., culturally competent health care). Defining patient-centered culturally sensitive health care is warranted especially since experts in the field are still not in agreement regarding the definitions of different types of health care.

Tucker and her colleagues (Tucker, Herman, Pedersen, Higley, Montrichard, & Ivery, 2003) introduced the notion of patient-centered culturally sensitive health care and defined it as

health care that focuses on displaying specific behaviors and attitudes, conveying knowledge, and creating physical health care environments and policies that culturally diverse patients—rather than professional experts—view as indicators of respect for their culture and that enable these patients to feel comfortable with, trusting of, and respected by their providers. According to Tucker (Tucker, Herman, et al., in press; Tucker, Mirsu-Paun, et al., 2007) the specific characteristics of patient-centered culturally sensitive health care are as follows: (a) it includes but extends beyond cultural competence, and thus is referred to as “cultural competence plus;” (b) it conceptualizes the patient-provider relationship as a partnership that emerges from patient centeredness; (c) it is patient empowerment oriented; and (d) it is displayed by patient-desired modifiable and measurable provider and staff behaviors and attitudes and clinic environment characteristics and policies that patients identify as making them feel comfortable with, respected by, and trusting of their providers.

Culturally sensitive health care is patient-centered in that (a) it advocates for health care decisions that are consistent with patients’ wants, needs, and preferences; (b) patients have the knowledge and support needed to share their wants, needs, and preferences with providers; and (c) patients are encouraged to participate in decision-making about their care in a manner that is respectful to their cultural background. Patient-centered care involves a partnership among practitioners, patients, and their families, and central to these partnerships are providers who demonstrate empathy, compassion, and responsiveness to the needs, values, and preferences of their patients (Institute of Medicine, 2002). In contrast, cultural competence is usually considered to be inclusive of awareness, knowledge, and skills of providers (Campinha-Bacote, 1999) without mentioning the importance of patients’ perspectives and/or patients’ experiences with regard to their health care providers’ behaviors and attitudes, their health care center’s office

staff members' behaviors and attitudes, or their health care centers' environment and policies. For example, in a published field study (Betancourt et al., 2003), thirty-seven experts in cultural competence (e.g., experts from managed care, organizations, government, and medical schools) were asked their perspectives on cultural competence, but patients were excluded from this group of experts.

The construct of patient-centered culturally sensitive health care proposed by Tucker and her colleagues also emphasizes specific modifiable provider and clinic staff behaviors and attitudes and health care environments and policies that are sensitive to and/or reflect what patients want, need, perceive, and feel in the process of receiving their health care. This emphasis renders patient-centered culturally sensitive health care to be a practical and relevant concept for developing the research, training, practice, and assessment tools required for improving the quality of health care at individual, clinic/center, and organizational levels (Tucker, Herman, et al., in press). In contrast, cultural competence promotes constructs that are difficult to teach and evaluate, such as “showing appreciation for cultural differences”, “avoiding stereotypes”, or “explaining an issue from another’s perspective”.

Culturally sensitive health care interventions are also patient-empowerment oriented. Researchers focused on empowerment issues (e.g., Rappaport, 1987)—in particular issues related to the empowerment of Blacks (Solomon, 1976) and Hispanics (Gutiérrez & Ortega, 1991) agree that empowerment must include promotion of a psychological sense of personal and interpersonal control; attention to social, political, and legal factors that influence valued social roles; and patient preferences in processes and outcomes such as health care decision-making and treatment choices, respectively. Such patient-centered patient-provider partnerships have been associated with increased treatment adherence by patients (Beck, Daughtridge, & Sloane,

2002) and reductions in misdiagnosis of patients' health problems due to poor communication (DiMatteo, 1998). Moreover, collaboration between patients and their providers was strongly associated with patient health status improvements (Michie, Miles, Weinman, 2003) such as control over levels of blood pressure, blood glucose, cholesterol levels, and pain levels (Wasson, Johnson, Benjamin, Phillips, & MacKenzie, 2006). It is also noteworthy that racial/ethnic minority and low-income patients want to be active partners in their health care (Earnest, Ross, Wittevrongel, Moore, & Lin, 2004). In contrast, culturally competent care focuses on providers' racial or ethnic group-specific knowledge or attitudes and self-efficacy (Doorenbos, Schim, Benkert, & Borse, 2005) with no reference to patients' wants and needs.

### **Review of the Existing Assessments of Culturally Competent Health Care and Culturally Sensitive Health Care**

According to the American Association of Medical Colleges (2005), studies that use standardized and valid measures of patient-centered culturally sensitive health care are critical in order to assess the effectiveness of cultural competence and cultural sensitivity training on providers' attitudes, skills, knowledge, and behaviors in their interactions with culturally diverse patients. A review of the extant literature on assessments of culturally sensitive health care and culturally competent health care reveals that there are only a few published measures of culturally competent health care and no published measures of culturally sensitive health care and/or measures of patient-centered cultural sensitivity in physical health care provision. However, the Commonwealth Fund has identified the development and use of surveys/assessments of patient-centered culturally sensitive health-care as part of its 2020 vision (Davis et al., 2005). Further, a recent AHRQ report refers to the development of such assessment instruments as a "dire need" (Beach et al., 2004).

Examples of some of the existing health care provider self-assessments of culturally competent health care include the Cultural Competence Assessment (CCA) (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 et al., 2003), the Tool for Assessing Cultural Competence Training (TACCT) (AAMC, 2005), and the Clinical Cultural Competency Questionnaire (CCCQ) (US DHHS, 2005).

These and similar measures of culturally competent health care are limited in one or more of the following ways: (a) the scope of item content is limited to the developers' operational definition of cultural competence, (b) the definitions of cultural competence are based on judgments or observations provided by "experts" or scholars rather than by the patients themselves who experience the quality of care provided, (c) existing normative data is based on specific, non-representative samples such as hospice health care professionals, (d) the existing measures lack empirical reliability across independent samples beyond those which are used in their development, and (e) the existing measures focus on testing specific knowledge pertaining to racial/ethnic groups, which only operationalizes select aspects of a broader concept of culturally sensitive health care. There is a need for reliable patient-centered culturally sensitive health care assessments to evaluate training programs to promote such care and to help facilitate medical students', physicians', and other health care providers' self-assessment of levels of cultural sensitivity in their interactions with their culturally diverse patients. Such assessment data will have implications for improving the quality of health care experienced by culturally diverse patients, particularly those who are racial/ethnic minorities.

## **Development of the Pilot Tucker-Culturally Sensitive Health Care Inventory (CSCHI)-Provider Form**

To address the limitations of existing culturally competent health care assessments, Tucker and her research team developed the pilot Tucker Culturally Sensitive Health Care Inventory (T-CSHCI) Provider Form, which is based upon a “patient-centered” definition of health care, in accordance with Tucker’s Patient Centered Culturally Sensitive Health Care Model (Tucker, Herman, et al., in press). The items of the pilot T-CSHCI-Provider Form were identified in focus groups by low-income, primary care clinic patients (i.e., African American, Latino/Hispanic, and non-Hispanic White patients) as being characteristic of culturally sensitive health care in accord with the Grounded Theory of Qualitative Research (Morrow & Smith, 2000). These items consist of provider behaviors and attitudes and thus these items address the identity-orientation dimension of quality of care, as defined in the Quality of Care Theory (Wilde, Starrin, Larsson, & Larsson, 1993).

### **The Tucker Patient-Centered Culturally Sensitive Health Care Model**

Tucker’s literature-based Patient-Centered Culturally Sensitive Health Care Model (Tucker, Herman, et al., in press) postulates that (a) patient-centered culturally sensitive health care, as indicated by provider behaviors and attitudes as well as by clinic environmental characteristics and policies, 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 level of health care satisfaction, (b) the latter influences patients’ level of treatment adherence, and (c) both level of treatment adherence and level of engagement in a health promoting lifestyle directly influence health outcomes/statuses.

A recent pilot test of Tucker’s Patient Centered Culturally Sensitive Health Care Model separately with small samples of African American and non-Hispanic White primary care

patients with hypertension and/or related chronic health problems (e.g., diabetes) provided some empirical support for this model. It is noteworthy that significant findings from a test of this model differed to some degree by race. Specifically, Tucker and her research team found that (a) among African American patients, perceived levels of culturally sensitive provider behaviors had significant positive associations with levels of engagement in health promoting behaviors and levels of patient satisfaction, which in turn had significant positive associations with glucose levels and levels of dietary adherence, respectively; and (b) among non-Hispanic White patients, perceived levels of culturally sensitive provider behaviors had significant positive associations with levels of engagement in health promoting lifestyle behaviors and levels of patient satisfaction, which were significantly associated with these patients' levels of medication adherence, which in turn had a significant positive association with their systolic blood pressure (Tucker, Herman, et al., in press).

### **The Grounded Theory of Qualitative Research**

The Grounded Theory of Qualitative Research (Morrow & Smith, 2000) supports qualitative analyses as an effective modality for studying the health care needs of culturally diverse patients. The items for the pilot T-CSHCI-Provider Form were identified in focus groups of mostly low-income African American, Hispanic/Latino, and non-Hispanic White primary care patients at community-based health care clinics/centers. These patients were asked in these groups to identify provider behaviors and attitudes, and clinic environmental characteristics and policies that enabled them to feel trusting of, comfortable with, and respected by their health care providers, and that enabled them to experience a sense of belonging in their health care. The focus group sessions were recorded, transcribed, and analyzed using the constant comparative method that is consistent with the Grounded Theory of Qualitative Research.

The Grounded Theory of Qualitative Research advocates for an inductive approach to research, in that (a) investigators and participants interact with each other as the researchers immerse themselves into the participants' world, (b) participants often serve as co-researchers—especially in interpreting and analyzing the data and determining the implications of the research findings, and (c) a theory emerges from the data itself through an emphasis on participant views rather than researcher views (Morrow & Smith, 2000; Strauss & Corbin, 1990). Specifically, data is collected from participants via such procedures as focus groups and then this data undergoes open, axial, and selective codings in order to identify categories, relationships between categories, and overall core themes. The results of these procedures are then subjected to a constant comparative analysis against the extant data as new data continue to emerge. Once no new properties continue to emerge, the core category can be considered to be saturated. Rigor is determined by coherence of the data, structural corroboration via internal category consistency, comparisons to the new data for goodness of fit, and ecological applicability as judged by the audience (Morrow & Smith, 2000; Strauss & Corbin, 1990).

### **The Quality of Care Theory**

The Quality of Care Theory (Wilde, Starrin, Larsson & Larsson, 1993) provides theoretical support for patient-centered culturally sensitive health care, and thus for inventories such as the pilot T-CSHCI-Provider Form to assess its occurrence. Overall, this theory asserts that there are four dimensions of health care. The first two of these dimensions have been traditionally recognized and valued, and they have been described as resembling the traditional medical model of care. These dimensions are (a) the medical-technical competence of the caregivers and (b) the physical-technical conditions of the care organization. The other two dimensions that help define quality of care have been described as resembling the psychosomatic model of care—a model more contemporary than the traditional medical model and that recognizes the value of

psychological and emotional aspects of health and illness. These second two dimensions are (a) the identity-orientation in the attitudes and actions of caregivers (i.e., showing interest in treating the patient with respect, not treating the patient as one of the crowd, valuing a patient-caregiver collaboration/partnership, and encouraging and supporting patient involvement in the health-care delivery process) and (b) the socio-cultural atmosphere of the care organization (i.e., resembling home, enabling comfort, allowing for socializing and space to be alone).

The pilot T-CSHCI aims to evaluate the identity-orientation dimension of quality of care. Specifically, the items constituting the pilot T-CSHCI-Provider Form identify health care provider behaviors and attitudes that African American, Latino/Hispanic, and non-Hispanic White patients identified in gender and race concordant focus groups as making them feel trusting of, comfortable with, and respected by their providers (Tucker, Herman, et al., 2003). Preliminary reliability coefficients for the pilot T-CSHCI-Provider Form were calculated using a convenience sample of 22 providers. Its internal consistency was .98; its split-half reliability was .97; and its five-month test-retest reliability was .70. Given that these reliability findings are based on a small convenience sample, these data were viewed only as supportive of further development of the pilot T-CSHCI-Provider Form.

### **Literature and Research Evidence Supporting the Need for Patient-Centered Culturally Sensitive Health Care**

#### **Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Health Disparities Literature**

The United States public health care system continues to be challenged by perpetuated racial/ethnic, socio-economic, and linguistic health care disparities (Agency for Healthcare Research and Quality [AHRQ], 2003; United States of Health and Human Services [HHS], 2002). The term health disparities refers to existing differences among specific groups with regard to adverse health conditions, including differences in the incidence, prevalence, mortality,

and burden of diseases (National Institutes of Health, 1999). The *Unequal Treatment Report* from the Institute of Medicine (IOM) defined “disparities” as differences in measures of health that remain after accounting for patients’ needs, preferences, and health care availability (Smedley, Smith, & Nelson, 2002).

Evidence of existing health disparities is abundant. The 2004 National Health Disparities Report (AHRQ, 2005) states that when compared with non-Hispanic White Americans, African American patients receive poorer quality of health care on about two thirds of the report’s health care quality measures, and Latino/Hispanic patients receive poorer quality of care for about half of the same health care quality measures (Moy, Dayton, & Clancy, 2005). In addition, according to a report from the National Institutes of Health, African Americans, Hispanics, and Native Americans as compared to non-Hispanic White Americans experience higher proportions of mortality and morbidity in at least seven areas: (1) cancer, (2) HIV/AIDS, (3) diabetes, (4) cardiovascular disease, (5) infant mortality and immunizations, (6) hypertension, and (7) renal disease (DHHS, 2001).

### **Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Health Care Disparities Literature**

Health care disparities are defined as differences in the treatment of individuals from different groups when these differences are not justified by clinical appropriateness or by patient preference (IOM, 2003). An increasingly large, consistent body of research indicates that race/ethnicity and income-related disparities in health care quality still exist in the U.S. and are a significant contributor to the existing health disparities. For example, compared to majority and higher income patients, racial/ethnic minorities are less likely to receive even routine medical procedures, experience a lower quality of health services (Geiger, 2001; Lillie-Blanton et al., 2001; Rutledge, 2001), and experience lower health care satisfaction and poorer health status

(Andrulis, 2003). In addition, studies of the Veterans Health Administration, Medicare, and single health plans clearly demonstrate that racial/ethnic minority Americans have different experiences in the health care system as compared with racial/ethnic majority patients, even when they have similar medical conditions and medical coverage (Conigliario et al., 2000; Oddone et al., 2002; Robbins et al., 1998; Schneider et al., 2002; and Smedley et al., 2002).

Factors associated with health care disparities include socio-economic status (SES) (Cohen, Farley, & Mason, 2003), insurance coverage, disease stage/severity, access to health care services (Stewart & Napoles-Springer, 2003), treatment preferences, environmental hazards in homes and neighborhoods, the scarcity of effective disease prevention programs tailored to the needs of specific communities (Satcher, 2001), and shortages of health professionals in urban areas where minority populations are high (Rosenblatt, Andrilla, Curtin, & Hart, 2006). When these factors are controlled for, existing health care disparities are usually reduced but are not eliminated. This reality suggests that other factors, such as social/environmental health care factors (e.g., the interpersonal aspects of the health care environment) significantly contribute to the existing health care disparities. Evidence supporting this conclusion comes from research studies that link race/ethnicity-related health care disparities with (a) racial/ethnic minority patients' mistrust of the health care system (Coleman-Miller, 2000) and perceived discrimination in the health care they received (Krieger, 1999), (b) poor communication between racial/ethnic minority patients and their providers (Vermeire et al., 2001; Woloshin et al., 1995), and (c) lack of cultural sensitivity and cultural competence on the part of physicians and other health care workers (Rutledge et al., 2001; Geiger, 2001; Canto, Allison, & Kiefe, 2000).

Indeed, culturally insensitive health care systems represent a major contributor to the health disparities problem in the U.S. (American College of Physicians, 2004). According to

Brach and Fraser (2002), the growing diversity among patients in this country increases the likelihood that cultural differences between patients and providers will lead to diagnostic errors, missed opportunities for screening, failure to take into account differing responses to medication, harmful drug interactions resulting from simultaneous use of conventional and traditional folk medications, and inadequate patient adherence to prescriptions, self-care, and follow-up visits recommended by their providers. As a result, in recent years there have been increasing national calls for American health care providers to provide patient-centered culturally sensitive health care, which could improve the quality of health care in the U.S. and could reduce the costly health disparities between majority and minority American patients (American College of Physicians, 2004; Betancourt, Green, Carrillo, & Ananeh-Firemong, 2003; Betancourt, Green, Carrillo, & Park, 2005; Genao, Bussey-Jones, Brady, Branch, & Corbie-Smith, 2003; Institute of Medicine, 2002). The sources of such national calls include two landmark reports—Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century (IOM, 2001) and Unequal Treatment Confronting Racial and Ethnic Disparities in Health Care (Smedley, Stith, & Nelson, 2002).

These calls for culturally competent and culturally sensitive health care are supported by literature such as the conceptual model proposed by Brach and Fraser (2002). This model provides a path from cultural competence techniques to reduced health care disparities. Specifically, Brach and Fraser's model indicates that interventions such as the use of interpreter services, racially or linguistically concordant clinicians and staff, and culturally competent education and training have the potential of increasing the knowledge of epidemiology, health beliefs, and effective treatments relevant in providing health care to racial/ethnic minority patients, which in turn can improve the communication and trust between health care providers and these patients. Brach and Fraser's model indicates that improved patient-provider

communication ultimately results in improved health outcomes, increased health care access and quality, and improved health outcomes among racial/ethnic minority groups. It is noteworthy that Brach and Fraser's model has not been empirically tested, which speaks to the current lack of empirical research and assessments to evidence the links between either culturally competent or culturally sensitive health care and reduced health care and health disparities.

### **Evidence of the Need for Patient-Centered Culturally Sensitive Health Care from the Demographic Characteristics of the U.S. Medical Students and Physicians in the U.S.**

According to the American Association of Medical Colleges (AAMC, 2007), among the 69,167 medical students who were enrolled in US medical schools in the year 2006, 63.0% identified as non-Hispanic White whereas only 20.9% identified as Asian, 7.6% as Hispanic (Mexican American, Puerto-Rican, Cuban, etc.), 7.2% as Black, 0.8% as Native American, 0.2% as Native Hawaiian, 1.4% as foreign/international, and 1.86% identified as unknown. This race/ethnicity distribution among physicians mirrors the statistics for medical students.

According to the American Medical Association, the race/ethnicity related statistics for the year 2004 among the physicians in this country were as follows: 47.8% non-Hispanic White, 8.3% Asian American, 3.2% Hispanic, 2.3% African American, .06% American Native, and 36% unknown race/ethnicity (AMA, 2007). Clearly, non-Hispanic Whites are the best represented racial group among medical students and physicians in this country, while patients are increasingly becoming more racially/ ethnically diverse (US Bureau of Census, 2002).

This racial/ethnic homogeneity of tomorrow's physician population in the context of an increasingly diverse U.S. general population and patient population is associated with medical students feeling unprepared to provide health care services to culturally diverse patients (Weissman et al., 2005). This state of affairs may contribute to the racial/ethnic disparities in access to care and in health care quality that have a disproportionately negative impact on the

health status of minority and low income patients (Grumbach et al., 2003). Support for this view comes from research findings indicating that racial/ethnic minority physicians as compared with majority physicians are more likely to see minority patients and to choose to practice in urban and underserved areas, including those areas with the greater concentration of underprivileged patients (Mertz and Grumbach, 2001). There is also some evidence that many minority patients prefer to receive care from providers of the same race/ethnicity and are more satisfied with care provided by providers of concordant race-ethnicity (Saha et al, 2000).

A qualitative study from Nunez-Smith et al. (2007) indicated that a provider's race/ethnicity can play a significant role in the medical encounter in an overt or covert manner. The twenty-five African American providers who participated in this qualitative study felt that race permeated their experience in the workplace, shaped their interpersonal interactions, and defined their institutional climate. These African American providers also reported that their responses to racism at work ranged from minimization to confrontation and that the health care workplace was often silent on the issues of race. Given these findings, it is not surprising that Betancourt and Reid (2007) stated that one of the possible consequences of mostly White providers delivering health care to increasingly diverse patients is that these providers are likely to unwillingly stereotype or act in a prejudicial manner toward their minority patients.

Very limited research literature is currently available regarding the cultural sensitivity or cultural competency of foreign/international medical students and/or physicians in this country. A secondary data analysis study by Howard et al. (2006) indicated that international medical school graduates as compared with US medical school graduates treated more African-American elders and more patients who had less education, lower incomes, less insurance, were in poorer health, and who lived in rural areas. At the same time, the elderly non-Hispanic White (but not

African American) patients raised communication, cultural competency, and ageism concerns related to their health care interactions with their international medical school graduate physicians.

Another significant demographic variable that has been associated with quality of care is provider gender. The gender distribution among medical students during the year 2006 was 48.7% females and 51.3% males (AAMC, 2007). The gender distribution among physicians in the U.S. during the year 2004 was 73.2% males and 26.6% females (AMA, 2007). A number of studies provide evidence that significant differences exist between male and female health care providers regarding their patterns of interaction with their patients. For example, there is research evidence to demonstrate that female providers as compared with male providers are more likely to take more time with their patients, to use more positive talk, to be emotionally focused, to use more partnership building techniques, and to use more positive nonverbal communication in their interactions with patients (Hall & Roter, 2002; Roter, Hall, & Aoki, 2002). In addition, female providers seem to communicate higher degrees of empathy to their patients compared with male providers (Bylund & Makoul, 2002). However, research studies revealed no significant differences between male and female providers regarding the amount of biomedical information discussed and the quality of information provided to patients (Hall & Roter, 2002; Roter, Hall, & Aoki, 2002).

Significant findings regarding the combined influence of race/ethnicity and gender on levels of cultural competence in health care were recently revealed in a study conducted by Lee and Coulehan (2006). These authors found that upon entry into medical school, women and minority group medical students scored significantly higher than males and non-Hispanic White students on the Quick Discrimination Index (QDI), a measure of racial diversity and gender

equity attitudes. In addition, over a four-year period, minority medical students who participated in this study showed a significant increase in their awareness of racial diversity and gender equity as measured by the QDI, while non-Hispanic White male medical student participants experienced a non-significant decline in their QDI scores. Unfortunately, these findings speak to the current need for medical schools to implement effective patient-centered culturally sensitive health care training curricula that would address the learning needs of all medical students, and particularly the needs of White and male medical students.

Findings demonstrating gender-related and race/ethnicity-related differences in health care behaviors of providers are noteworthy because they could produce corresponding differences in patients' behaviors directed back at them. For example, a provider smiling is more likely to receive smiles back from patients (Bylund & Makoul, 2002). Clearly, high-quality medical training is needed that provides racially/ethnically diverse medical students opportunities to assess their level of engagement in specific behaviors and attitudes that constitute patient-centered culturally sensitive health care.

### **The Potential Usefulness of Patient-Centered Culturally Sensitive Health Care Assessments in Research to Reduce Disparities**

Currently there is a lack of adequate research on health and health care disparities among members of racial/ethnic minority groups (AHRQ, 2004) despite that this type of research is necessary for generating professional guidelines for the provision of quality health care to different minority groups (U.S. Surgeon General, 2001). According to Sue and Sue (2003), factors associated with the existing scarcity of research studies focused on the needs of racial/ethnic minority patients include (a) lack of sufficient research funding necessary to conduct such research, (b) lack of readily available cross-culturally valid assessments and diagnostic procedures (e.g., measures that take into account cultural differences in symptom

presentation), (c) lack of an adequate amount of knowledge and theory regarding culturally sensitive health care, and (d) lack of an agreement among researchers regarding disparities research issues. A lack of valid and reliable assessment measures of culturally sensitive health care has also been identified as a factor associated with the current scarcity of research on culturally sensitive and culturally competent health care (Sue & Dhindsa, 2006).

According to the conceptual framework provided by Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine (2006), research to reduce health and health care disparities includes three different types of approaches: (a) *detection* of health disparities, which involves identifying vulnerable populations, and developing valid measures for studying both; (b) *understanding* why disparities exist, which involves identifying factors that explain gaps in health and health care between vulnerable and less vulnerable groups; and (c) *reducing or eliminating* the health care disparities through the development, implementation, and evaluation of intervention programs. The first type of research approach is the most common one, and yet it is the second and third approaches that can contribute in a meaningful manner to the reduction of existing health care and health disparities.

The research literature suggests the existence of three determinants of health care and health disparities: (a) patient factors such as beliefs and preferences, cultural and familial context, education and resources, and biology; (b) provider factors such as knowledge and attitudes, competing demands, and biases; and (c) clinical encounter factors such as provider communication and culturally competent and/or culturally sensitive health care communication.

Regarding the provider factors, there is some empirical evidence that links patient health outcomes/statuses to providers' conscious or unconscious biases. An example of such research is a highly publicized research study by Schulman et al. (1999) which found that physicians were

less likely to refer African American and female patients for cardiac catheterization as compared with male and non-Hispanic White patients, respectively. In addition, it has been found that providers are less likely to schedule a lung cancer surgery for elderly African Americans versus non-Hispanic Whites even after controlling for socio-economic factors, access to care, and clinical severity (Bach, Cramer, & Warren, 1999).

Regarding the clinical encounter factors mentioned above, African American patients may feel less engaged with their care or less included in the decision-making process compared with non-Hispanic White patients, which in turn can lead to mistrust in treatment procedures (Burgess, Fu, & van Ryn, 2004). Lack of engagement in treatment among racial/ethnic minority patients and subsequent inadequate health care have been associated with provider communication style and with provider cultural sensitivity and/or provider cultural competence. For example, in a study that analyzed taped conversations between providers and patients, providers were more likely to communicate in a verbally dominant manner with their African American patients compared with their non-Hispanic White patients (Johnson, Roter, Powe, & Cooper, 2004).

Providers may also fail to consider their patients' culture within the clinical encounter and subsequently fail to provide culturally sensitive health care to their culturally diverse patients or they may treat their racial/ethnic minority patients unfairly (Freimuth & Quinn, 2004). For example, the Commonwealth Fund (2001) conducted a telephone survey of close to 7,000 people to inquire whether African American, Hispanic, Asian American, and non-Hispanic White patients who had had a medical visit in the last two years had trouble understanding their doctor, whether they felt that their doctor did not listen, and if they had medical questions they were afraid to ask. Survey results revealed that 19% of all patients experienced one or more of these

problems; however, 16% non-Hispanic White patients reported experiencing such difficulties, compared with 23% of the African American patients, 33% of the Hispanic patients, and 27% of the Asian American patients. Moreover, findings from another survey (Kaiser Family Foundation, 2006) included that significant mistrust of the health care system exists among racial/ethnic minority patients and highlighted the importance of culturally sensitive provider communication to overcome such mistrust. Among the patients who responded to this later survey, 36% of Hispanics and 35% of African Americans as compared with 15% of non-Hispanic White patients felt that they had been treated unfairly in the health care system in the past. The Hispanic and African American patient participants in this study also reported expectations that they will continue to be treated unfairly in the future.

In sum, improving patient-provider communication through culturally sensitive health care behaviors by providers has been identified as a key factor for improving patient trust and ultimately for helping to reduce health care disparities (Braveman, 2003). Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine (2006) asserted that developing, implementing, and assessing effective provider training programs to promote engaging in health care behaviors represents the focus of the most important and yet the most challenging type of disparities research.

Evaluation is an important component of an intervention process (Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine, 2006). Conducting health care quality research requires assessments of patient-centered culturally sensitive health care—such as the T-CSHCI-Provider Form—that are constructed based on patient (rather than “expert”) definitions of culturally sensitive health care, that utilize a clear operational definition of cultural sensitivity, and that contain items that reflect the culture-specific health care preferences among culturally diverse patients. Such assessments can be used to (a) collect data from providers regarding their level of

performance in providing patient-centered culturally sensitive health care, (b) examine the association between health care providers' self-reported levels of cultural sensitivity and measurable health outcomes, and (c) evaluate the effectiveness of patient-centered culturally sensitive health care training programs by assessing and comparing pre- and post-training levels of providers' self-reported patient-centered culturally sensitive health care behaviors.

**The Potential Usefulness of Patient-Centered Culturally Sensitive Health Care Assessments in Medical Training Efforts to Reduce Disparities**

The Institute of Medicine (IOM, 2002), the Society of Teachers of Family Medicine (STFM, 2005), and the Liaison Committee on Medical Education (2005) have all emphasized the need for patient-centered culturally sensitive health care medical training and practice with the goal of improving the quality of care and ultimately the elimination of health care disparities in this country. Addressing this need requires valid and reliable instruments for assessing the effectiveness of these training programs.

It is noteworthy that (a) medical students represent tomorrow's professionals in the field of medicine—those who will provide health care to an increasingly diverse U.S. population and (b) despite the increased focus on provider culturally competent health care education programs, providers sometimes fail to engage in behaviors and attitudes that patients experience as culturally sensitive (Paterson, 2001). It is especially noteworthy that medical students as well as more experienced physicians often feel unprepared to provide culturally sensitive health care to their culturally diverse patients (Weisman et al., 2005).

Assessment represents an important component of medical school training programs (Rapp, 2006). The Liaison Committee for Medical Education (LCME) has included standards mandating that medical schools demonstrate the achievement of learning objectives (e.g., students' ability to successfully engage in culturally sensitive health care behaviors and attitudes)

and that cultural competence and cultural sensitivity curricula include assessment of training outcomes (LCME, 2004). Valid and reliable assessments are indeed needed to evaluate the effectiveness of culturally sensitive and culturally competent health care curricula.

The criteria that can be used to establish the effectiveness of culturally competent and culturally sensitive training programs include (a) trainee mastery of culturally competent knowledge, attitudes, and skills; (b) successful application of culturally competent knowledge, attitudes, and skills in a culturally sensitive manner by trainees; and (c) patient satisfaction and ultimately improved patient health outcomes (Betancourt, 2003). An increasing body of research literature uses these effectiveness criteria to evaluate cultural competence and cultural sensitivity training programs in medical schools. Importantly, some of these criteria are more commonly used than others (Betancourt, 2003). For example, there are numerous modalities to determine whether students are acquiring these attitudes, knowledge, and skills (e.g., pre- and posttests, surveying, structured interviewing, presentation of clinical cases, videotaped/audiotaped clinical encounters, etc). At the same time, there are fewer ways to determine if students actually employ these attitudes, knowledge, and skills in a culturally sensitive manner (e.g., medical record review, qualitative physician and patient interviews, or videotaped/ audiotaped clinical encounters). There are even fewer modalities for assessing the impact of cultural sensitivity and cultural competence training on health outcomes and quality of care (e.g., measurement of patient and provider satisfaction, and medical record review).

According to the National Research Council (1996), the functions of assessment include (a) providing a description of students' level of attainment upon completion of an activity, module, or course, (b) providing diagnostic feedback to students and instructors at periodic intervals (e.g., medical students can receive periodic feed-back regarding their levels of patient-

centered culturally sensitive health care), (c) providing instructors with feed-back regarding the effectiveness of a course in patient-centered culturally sensitive health care, and (d) building student/faculty insight and understandings about their own learning/teaching.

The most commonly used assessment strategies to evaluate the effectiveness of training programs to promote culturally competent and culturally sensitive health care are: (a) self-assessment by medical students or providers, (b) assessment of students by faculty, and (c) patient assessment of their providers. Research findings suggest that self-assessments are the most effective and widely used methods of assessment. For example, a literature review of the existing cultural competence training in medical schools (AHRQ, 2004) indicates that most studies used provider self-assessment to evaluate the effectiveness of cultural competence medical curriculum. Self-assessments involve a self-judgment and making decisions about the next steps (Boud, 1995).

Self-assessments present several advantages, among which are the following: (a) they do not represent an end in itself and have to be followed by action (Boud, 1995); (b) they enhance one's motivation to improve his or her own knowledge, communication, and performance (Gordon, 1991); (c) they can be used to serve different functions such as competency assessment or professional growth assessment (Brown, Bull, & Pendlebury, 1997); (d) they provide an opportunity for self-evaluation without labeling one's performance due to the fact that an individual is compared with him or herself over time rather than with other individuals (Mason, 2001); (e) they foster reflection upon one's work due to the fact that the same person conducts the assessment and is being assessed (Evans, McKenna, & Oliver, 2002); (f) they are likely to be more accurate than ratings by others due to a reduced social desirability effect (Evans, McKenna, & Oliver, 2002); (g) they offer the opportunity for trainees and/or students to set standards for

themselves, which is likely to increase their motivation to adhere to these self-defined standards (Brown & Glasner, 1999); and (h) they allow trainers to function as consultants and/or moderators rather than examiners, which can help decrease trainees' defensiveness in their interactions with their trainers (Brown & Glasner, 1999).

In sum, assessments are most valuable when they not only diagnose students' level of attainment but also enhance further learning and skills development, as well as help promote the application of health care behaviors that culturally diverse patients perceive to be culturally sensitive. Assessments that focus on knowledge and skills reflect the traditional Western model that values knowledge of facts and mastery of clinical skills over patient focused interactions, communication skills, and processes of self-reflection and self-critique (Tervalon & Murray-Garcia, 1998). Unfortunately, a recent study of professional competence found that few assessments are successful at measuring competencies other than core knowledge, problem solving skills, and basic clinical skills (Epstein & Hundert, 2002). Unlike these existing assessments of culturally competent health care, the T-CSHCI-Provider Form focuses on assessing health care behaviors and attitudes that culturally diverse patients perceive to be culturally sensitive and has the potential to promote further learning by medical students.

The need for and benefits of valid and reliable assessments of patient-centered culturally sensitive health care previously outlined in this chapter provide support for further validation of the pilot T-CSHCI-Provider Form. Thus, the specific goals of this study are as follows: (a) to determine the factor structure of the T-CSHCI-Provider Form using a sample of medical students, (b) to determine the internal consistency, split-half reliability, and construct validity of the T-CSHCI-Provider Form factors/subscales previously identified through factor analytic procedures, and (c) to determine if there are differences in medical students' self-ratings of their

cultural sensitivity as measured by the T-CSHCI-Provider Form scores in association with selected medical student demographic and clinical experience variables (i.e., gender, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year of medical school, prior or current enrollment in a course on culturally competent/ sensitive health care, and self-reported level of experience with providing health care to racial/ethnic minority patients and low-income patients).

## CHAPTER 3 METHOD

### **Participants**

Participants were 217 medical students recruited from the University of Florida College of Medicine, the University of Miami Miller School of Medicine, the University of South Florida College of Medicine, and the School of Medicine at the University of Louisville. The criteria for inclusion in this study were: (a) being 18 or older, (b) being able to provide informed consent, and (c) being a 3<sup>rd</sup> or 4<sup>th</sup> year medical student (this criterion was set to ensure that medical student participants were involved at a level of training that involved actually seeing patients). A total of 1,199 medical students (598 in their third year and 601 in their fourth year) were invited to participate in the present study and 217 of them actually participated, resulting in a return rate of 18.1%.

Participant ages ranged from 22 years to 56 years (mean = 26 years, standard deviation = 3.4 years). One hundred and two (47%) of the participants were males and 114 (53%) of them were females. The race/ethnicity distribution among participants was as follows: 144 (66.4%) Non-Hispanic White, 34 (15.7%) Asian American, 19 (8.8%) Latino/Hispanic American, 12 (5.5%) African American, and 8 (3.7%) of another ethnic/racial group (e.g., Indian, Greek, Nigerian, etc.). These percents indicating the racial/ethnic distribution among participants in this study are representative of the racial/ethnic distribution among medical students in the U.S. Of all of the participants, 199 (91.7%) reported being citizens of the United States, and 18 (8.3%) reported being citizens of a country other than the United States. Regarding languages that participants spoke, 120 (55.3%) reported speaking English exclusively and 97 (44.7%) reported speaking at least one other language in addition to English. In addition, 101 (46.5%) of

participants reported being in their third year of medical school and 115 (53%) of them reported being in their fourth year of studies (Table 3-1).

Table 3-1 Participant demographic and medical education information

	Frequency	Percent
<b>Gender</b>		
Male	102	47.0%
Female	114	53.0%
<b>Ethnicity</b>		
African American	12	5.5%
Asian American	34	15.7%
Latino/Hispanic American	19	8.8%
Non-Hispanic White	144	66.4%
Other	8	3.7%
<b>Citizenship status</b>		
US citizen	199	91.7%
Non-US citizen	18	8.3%
<b>Languages spoken</b>		
English only	120	55.3%
English +	97	44.7%
<b>Year in medical school</b>		
Third	101	46.5%
Fourth	115	53.0%
<b>Taken a cultural sensitivity class</b>		
Yes	110	50.7%
No	106	48.8%
<b>Experience with racial minority patients</b>		
Very low	1	0.5%
Low	0	0%
Average	65	30.0%
High	69	31.8%
Very high	80	36.9%
<b>Experience with low income patients</b>		
Very low	0	0%
Low	0	0%
Average	35	16.1%
High	78	35.9%
Very high	103	47.5%

Some percents do not add up to 100% because of missing data.

## **Instruments**

The assessment battery (AB) was comprised of three assessment instruments: the pilot T-CSHCI-Provider Form, the Service Delivery and Practice subscale of the Cultural Competence Self-Assessment Questionnaire (CCSAQ), and a Demographic and Clinical Experience Data Questionnaire. Each of these measures is described below.

The Pilot Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI) Provider Form is a 141-item self-report measure of behaviors and attitudes that mostly low-income racially/ethnically diverse primary care patients have indicated to be important for promoting trust in their provider, comfort with their provider, and feeling respected by their provider. The instructions on the T-CSHCI-Provider Form ask providers to self-rate their level of agreement that each listed behavior and attitude is characteristic of themselves using a scale from 1 (strongly disagree) to 4 (strongly agree). Each T-CSHCI-Provider Form item can thus be scored 1, 2, 3, or 4 and the total score is computed adding the scorings from each item. Higher scores indicate higher levels of patient-centered culturally sensitive health care behaviors and attitudes.

Examples of items on the T-CSHCI-Provider Form are as follows: “I am honest and direct with my patients”, “I chat with my patients during their visits”, and “I let my African American patients know about illnesses and diseases common among members of their race”. The pilot T-CSHCI-Provider Form items were constructed based on what mostly low-income African American, Hispanic/Latino, and non-Hispanic White primary care patients identified in an earlier study as culturally sensitive health care provider behaviors and attitudes (Tucker et al., 2003). The pilot T-CSHCI-Provider Form items are worded to reflect culturally sensitive behaviors and attitudes, with the exception of six items that are reversed items (i.e., they reflect culturally insensitive physician behaviors and attitudes). Consequently, higher T-CSHCI-Provider Form

scores indicate higher levels of engagement in culturally sensitive health care behaviors and attitudes.

The Service Delivery and Practice subscale of the Cultural Competence Self-Assessment Questionnaire-Service Provider Version. The Cultural Competence Self-Assessment Questionnaire (CCSAQ) (Mason, 1995) is designed to assess cultural competence training needs of mental health and human service professionals. Specifically, it assesses the degree to which specific culturally competent behaviors routinely occur. The CCSAQ is composed of six subscales that include Knowledge of Community, Personal Involvement, Resources and Linkages, Staffing, Service Delivery and Practice (for direct service staff only), Organizational Policies and Procedures, and Reaching Out to Communities. All of the CCSAQ subscales have yielded alpha coefficients of .80 or higher, except the Personal Involvement subscale which yielded an alpha coefficient of .60 (Mason, 1995). No validity coefficients were reported by the author of the CCSAQ. The items of the CCSAQ were initially developed based on a literature review followed by focus group discussions to facilitate the development of subscale items. Focus group members were professionals from the service disciplines of mental health, child welfare, special education, maternal and child health, and alcohol and drug treatment. The author constructed the CCSAQ items based upon comments from these recognized experts (Mason, 1995).

For the purpose of the present study, only the Service Delivery and Practice subscale of the CCSAQ was used. This subscale is composed of 19 items that measure knowledge of problems with mainstream diagnoses, awareness of the particular needs of culturally diverse populations, and self-perceived ability to formulate treatment plans in accord with patients' cultural values. The instructions on the CCSAQ Service Delivery and Practice subscale are to answer each item

by marking the response that most accurately reflects one's own perceptions. Sample items include "Are you familiar with the limitations of mainstream diagnostic tools as applied to people of color?" and "Do you discuss racial/cultural issues with consumers in the treatment process?" Each item is rated on a scale from 1 (not at all) to 4 (very well/often) and the subscale score is computed as the mean score for all the subscale items. Higher scores indicate higher cultural competence in the service delivery and practice of health care providers.

A brief Demographic and Clinical Experience Data Questionnaire (DCE-DQ) was constructed by the principal investigator for the purpose of this study. It solicits the following information from research participants: gender, age, race/ethnicity, nationality status (i.e., American or other), fluency in a language other than English, year of medical school (i.e., year 3 or 4), prior or current enrollment in a culturally competent/ sensitive health care course, and self-reported level of experiences with providing health care to racial/ethnic minority patients and to low income patients using a scale from 1 (very low level) to 5 (very high level).

### **Procedure**

**Recruitment of Research Collaborators and Research Assistants.** The data for the present study was collected from the University of Florida College of Medicine, the University of Miami Miller School of Medicine, the University of South Florida College of Medicine, and the University of Louisville School of Medicine. Prior to the data collection procedures, approval was obtained from the University of Florida Institutional Review Board (UF IRB) for conducting this study. Approval from the Institutional Review Board (IRB) of one of the participating universities (i.e., University of Louisville) was also required in order to collect data from the medical school of this institution.

At a first step of the data collection, three medical school faculty members and/or administrators and one medical student were recruited to participate in this study. These medical

school faculty and administrator collaborators and medical student research assistant were chosen based on their self-stated interest in issues related to culturally competent/ culturally sensitive health care training and/or their association with the target medical student body based on their position title (e.g., Dean of Student Affairs, etc.). The role of the medical school faculty and administrator collaborators and medical student research assistant was to forward to medical students at their respective schools via medical student e-mail list-serves an e-mail message inviting 3<sup>rd</sup> and 4<sup>th</sup> year medical students to participate in the present study.

The method for recruiting the medical school faculty and administrator collaborators and the medical student research assistant involved sending them e-mail correspondence. This e-mail correspondence contained information regarding the goals of the proposed study, research procedures, Institutional Review Board approval, the role of study collaborators in participant recruitment, participant inclusion criteria, participant payment information, and the approximate length of time required for medical student participants to complete the online AB (see Appendix A for a sample e-mail message). The medical school faculty collaborators and medical student research assistant were also notified of the two-month time frame for completing the data collection for this study. In addition to the e-mail correspondence with the medical faculty and administrator collaborators and the medical research assistant, the principal investigators met in person with the medical school faculty research collaborator located at the same university as the investigators for the present study. The purpose of this meeting was to identify ways to simplify the methods for participant recruitment. This collaborator also helped to identify medical school research sites that would provide a fairly diverse population of medical students, thus increasing the likelihood of recruiting a diverse sample of study participants.

**Recruitment of Medical Student Participants.** The medical school faculty research collaborators and the medical student research assistant who agreed to help with recruitment of study participants were sent an e-mail message to be forwarded to the 3<sup>rd</sup> and 4<sup>th</sup> year medical student list-serves at their respective medical schools. This e-mail message was addressed to medical students and contained the following information: (a) the purpose of the study, (b) details regarding the tasks that participation in this study involves, (c) the amount of time required for completing the online assessment battery [AB], (d) potential risks and benefits of being a research participant, (e) the amount paid to each participant for their research participation, and (g) information regarding the ways that the anonymity and confidentiality of participants' answers would be protected. This message also provided the web site address where participants could access the AB to be completed online (see Appendix B).

Medical students interested in participating in this study were directed to access the online web site containing the assessment battery (AB). Once medical students accessed the web link, they first saw the online Informed Consent Form that briefly describes the goals of the study, its benefits and risks, the monetary compensation for being a research participant (i.e., \$10), the procedures to protect the anonymity and confidentiality of participants' answers, the time required to complete the AB (i.e., approximately 20 minutes), and the principal investigators' contact information (see Appendix C). Medical students were asked to indicate their consent to participate in this study by checking a box at the bottom of the online Informed Consent Form. After indicating their agreement to participate, medical student participants were able to access and complete the AB.

Due to budget restrictions, no more than 200 medical student participants could be offered the \$10 payment for being research participants. Participants recruited at the University of

Louisville, who were recruited to participate in this study at a later point compared with the other participants, were invited and agreed to participate in the present study without the \$10 monetary incentive.

Participants who received payment for their participation were asked to access a separate web page asking them to provide an e-mail address where they wanted to be contacted with information regarding their payment. This web page also briefly stated that participants' e-mail addresses were saved in a file completely separate from the file that contained their answers to the AB and that their answers could not be connected to their e-mail addresses (see Appendix D for a copy of this web page). The anonymity and confidentiality of participants' answers were protected through storing these answers in a file which did not contain any identifiable information and which was completely independent from the file containing participants' e-mail addresses. In addition, only the principal investigators had access to both participants' answers and their e-mail addresses.

No later than three days after each participant completed the online AB, one of the principal investigators sent each participant an e-mail message with detailed information regarding the payment process and with the form W-9 required for payment purposes attached to the message. The content of this e-mail message is provided in Appendix E. Medical student participants were instructed to return their completed W-9 forms by mail or fax them to the person in charge of processing participant payments at the university where the principal investigators were based. Participants who completed the AB and the W-9 Form were mailed a \$10 check within 6-8 weeks. In addition, participants were provided the contact information of the principal investigators, and they were invited to contact the principal investigators in case

they had questions, suggestions, or concerns. The data collection process took approximately two months to complete.

## CHAPTER 4 RESULTS

This chapter is organized in three parts, each of which presents the results of the statistical analyses conducted to address each of the three research questions set forth in this study.

Descriptive data for the variables of interest in this study and the results of preliminary analyses (e.g., correlations between the variables of interest) are also presented. All statistical analyses were performed using the Statistical Package for Social Science (SPSS).

### **First Research Question**

The first Research Question was as follows: What are the dimensions of factor structures that constitute patient-centered culturally sensitive health care as assessed by the T-CSHCI-Provider Form when this form is used with a sample of medical students who see patients? To examine this research question, an exploratory factor analysis (EFA) with principal axis factors (PAF) extraction and with both Varimax and Promax rotations was conducted using the Statistical Package for Social Sciences (SPSS) Program. A factor analysis brings intercorrelated variables together under more general, underlying variables. The goal of factor analysis procedures is to explain the variance in the observed variables in terms of underlying latent factors. The steps recommended by Kahn (2006) for conducting a factor analysis were used in this study and an iterative approach to conducting factor analysis was adopted. Specifically, several separate factor solutions were first explored to identify the best combination of items with an identifiable underlying factor structure. Once the best factor solution was identified, the analyses were repeated with the specified number of factors. This type of iterative approach to exploratory factor analysis increases the likelihood of finding interpretable factor results (Kahn, 2006).

As a first step, descriptive statistics were obtained for the T-CSHCI-Provider Form items. The normal distribution of the data was tested using the total score for the T-CSHCI-Provider Form, which was computed as the mean score for all the items of this assessment instrument. The skeweness coefficient was .105, the kurtosis coefficient was -1.27, and the Kolmogorov-Smirnov coefficient Z was 1.47,  $p < .05$ , indicating that the data slightly deviated from a normal distribution.

The data factorability was tested using the Bartlett's test of sphericity which was significant ( $p < .0001$ ), suggesting that the data was suitable for factor analysis. The factorability of data was also tested using Pearson correlations between the T-CSHCI-Provider Form items. The correlation matrix showed low to moderate correlation coefficients (i.e., the coefficient absolute values ranged from .02 to .63) suggesting that a factor analysis would produce acceptable factor loadings for some of the T-CSHCI-Provider Form items. Due to the large volume of correlations between the T-CSHCI-Provider Form items to be analyzed (i.e., 141 by 141 correlation coefficients), the correlation matrix could not be reproduced in this text.

A principal axis factors (PAF) analysis was chosen in this study, in accord with recommendations from Costello & Osborne (2005) for data that is not normally distributed. The factor communalities (i.e., the estimates of the variance in each variable accounted for by the factor solution) were higher than .40, which is the commonly accepted minimum for communality values in the "moderate" range. Initial communalities ranged from .96 to 1.00 and extraction communalities ranged from .58 to .93, indicating that all of the 141 T-CSHCI-Provider Form items fit well the factor solutions that were obtained.

The next step in the factor analysis was to use a scree plot to determine the number of factors to be retained, and the five- or six-factor solutions that met the Guttman-Kaiser rule for

factor retention. According to this rule, the items with an eigenvalue greater than 1 were retained (see Figure 4-1). The eigenvalues and the percentages of variance explained by each factor in the initial (unrotated) factor solutions are summarized in Table 4-2.

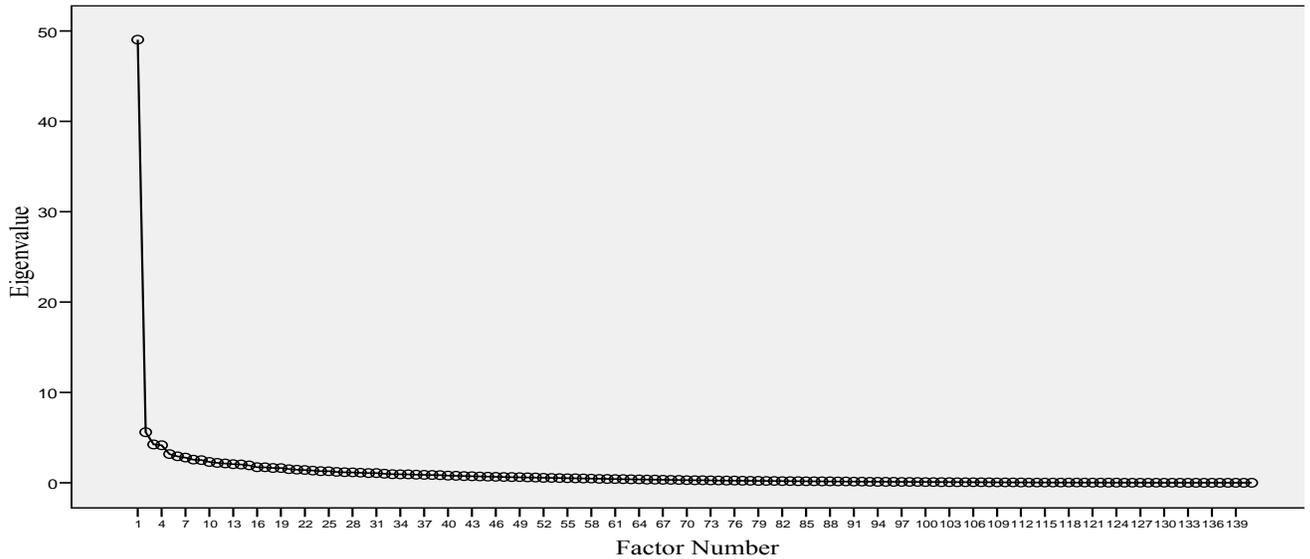


Figure 4-1 Scree plot for the T-CSHCI-Provider Form items

Table 4-2 Eigenvalues and Variance Explained in the Initial Factor Solutions

	Five-Factor Solution	Six-Factor Solution
Eigenvalues		
Factor 1	49.039	49.039
Factor 2	5.598	5.598
Factor 3	4.241	4.241
Factor 4	4.153	4.153
Factor 5	3.174	3.174
Factor 6	—	2.932
Percentage of Variance Explained		
Factor 1	34.61	34.61
Factor 2	34.61	34.61
Factor 3	2.81	2.81
Factor 4	2.75	2.75
Factor 5	2.06	2.06
Factor 6	—	1.88
Cumulative Variance	46.00%	47.88%

As the next step, the rotated factor solutions were explored using both Varimax and Promax rotations. Field (2000) recommended conducting both types of factor rotations when the most appropriate type of rotation is uncertain, in order to determine which rotation can provide a more reliable and effective factor structure. A reliable factor structure is characterized by eigenvalues greater than 1, item loadings larger than .30, few cross-loadings between factors, and no factors with fewer than three items. A Varimax rotation, which is a type of orthogonal rotation, has the advantage that it rotates the factor solution to maximize the variability of the loadings and it has the disadvantage that it keeps the factors uncorrelated. A Varimax rotation usually provides a simpler factor structure compared with a Promax rotation—which is a type of oblique rotation and represents a more comprehensive type of factor rotation compared with a Varimax rotation. A Promax rotation allows factors to be correlated and it provides an estimate of the correlations between factors, but it does not always provide a structure that can be easily interpreted (Kahn, 2006).

The results for this study revealed that the factors obtained through a Promax rotation correlated in the low and moderate range with each other (the factor correlation coefficients ranged from .01 to .65 with the majority of values being in the .2 to .3 range). These findings suggested the existence of factor correlations and supported using a Promax rotation. However, the factor solutions obtained using a Varimax versus a Promax rotation had very similar item compositions (i.e., the T-CSHCI-Provider Form items had similar factor loadings). In addition, Field (2000) suggested that a Varimax rotation provides a more interpretable factor solution than a Promax rotation. Using a Varimax rotation also presented the advantage of an easily interpretable T-CSHCI-Provider Form factor/subscale scoring guide. Since Promax rotation would allow the T-CSHCI-Provider Form items to load on more than one factor/subscale,

scoring procedures would be more difficult to determine in this instance. In light of the differences between Varimax rotation and Promax rotation, it was determined that a Varimax rotation was more appropriate for identifying the dimensions of patient-centered culturally sensitive health care using the T-CSHCI-Provider Form items.

To determine the number of factors/subscales to be retained, the five-factor solution and the six-factor solution were compared based on (a) the total variance explained by each of these two factor solutions, (b) the extraction sum of squared loadings for each of the two factor solutions, (c) the rotation sum of squared loadings for each of the two factor solutions, and (d) the number of items per factor (Worthington & Whittaker, 2006). Table 4-3 shows the results for the five-factor solution and the six-factor solution; the five-factor solution was a better data fit.

Table 4-3 Comparison of the Rotated Five-Factor and Six-Factor Solutions

	Factor Solution	
	Five Factors	Six Factors
Total Variance Explained	45.01%%	46.77%
Extraction Sums of Squared Loadings		
Factor 1	48.55	48.57
Factor 2	5.02	5.04
Factor 3	3.67	3.69
Factor 4	3.59	3.62
Factor 5	2.62	2.64
Factor 6	—	2.38
Rotations Sums of Squared Loadings		
Factor 1	17.87	19.72
Factor 2	16.72	16.86
Factor 3	10.30	19.72
Factor 4	9.86	8.86
Factor 5	8.70	6.49
Factor 6	—	4.99
Number of Items		
Factor 1	48	50
Factor 2	36	36
Factor 3	21	19
Factor 4	23	21
Factor 5	13	11
Factor 6	—	4

The step following the decision regarding the number of factors/subscales to be retained was to repeat the factor analyses using five factors/subscales as the default number, which increased the likelihood of obtaining an interpretable factor solution (Kahn, 2006). The iterative process was used to eliminate items with the following characteristics: (a) items with factor loadings less than .32, (b) items with cross-loadings less than .15 difference from the highest factor loading, (c) items with absolute loadings higher than .32 on two or more factors/subscales, and (d) items with communalities less than .40 (Worthington & Whittaker, 2006). Using these item elimination criteria, a PAF factor analysis with Varimax rotation was conducted successively four times until no items met the above specified criteria anymore. Each time, 50 items, 21 items, 13 items, and 4 items respectively were eliminated.

A total of 53 items were retained in the final factor solution. The final factor solution is presented in Table 4-4 with the item loadings for each of the T-CSHCI-Provider Form factors/subscales highlighted and with the number of items per factor/subscale specified.

The percent variance accounted for by each T-CSHCI-Provider Form factor/subscale and the number of items per factor/subscale are shown in Table 4-5. The correlations between the five T-CSHCI-Provider Form factors/subscales retained as the final factor solution are presented in Table 4-6.

Table 4-4 Factor/Subscale Item Composition and Factor Loadings for the Five-Factor Solution

Item No.	Item Summary	Factor Loadings				
		1	2	3	4	5
Factor 1: Patient Centeredness (23 items)						
141	Shows understanding of patients' feelings.	.75	.22	.15	.15	.25
82	Responds to patients' requests.	.75	.19	.22	.18	.08
83	Makes helpful and reasonable recommendations.	.74	.17	.23	.22	.06
95	Evaluates patients' problems as soon as they come in.	.69	.10	.20	.20	.12
88	Is available for patients.	.65	.26	.21	.17	.20
119	Is informative to patients.	.65	.29	.19	.22	.19

Table 4-4. Continued.

Item No.	Item Summary	Factor Loadings				
		1	2	3	4	5
93	Takes time with patients while examining them.	.63	.17	.21	.21	.14
94	Is prepared to quickly examine patients.	.61	.14	.23	.17	.18
116	Prescribes treatments and medicines that work.	.61	.06	.15	.16	.13
49	Makes patients feel like their visits to the clinic were informative or productive.	.61	.28	.22	.16	.09
52	Puts patients' minds at ease.	.60	.25	-.08	.18	.23
73	Is concerned about patients' situations.	.59	.20	.24	.13	.20
51	Makes patients feel at home while at the clinic.	.59	.21	-.02	.01	.28
53	Shows patients familiarity with their health.	.59	.26	-.11	.17	.20
80	Knows how to make patients feel comfortable.	.58	.17	-.03	.12	.30
65	Prepares patients for the next steps.	.58	.17	.15	.23	.25
91	Explains prescribed medications.	.54	.12	.26	.06	.31
92	Refers patients to a specialist upon request.	.51	.05	-.05	.10	.05
100	Uses standard examining procedures.	.49	.05	.11	.24	.14
50	Cares more about patients than making money.	.41	.24	.16	-.04	.24
70	Refers patients for tests that they think they need.	.40	.09	-.14	.04	.01
32	Explains everything he/she does to patients.	.38	.16	.15	.23	.24
89	Puts on a fresh pair gloves in front of the patients.	.38	.18	.23	.07	.33
Factor 2: Interpersonal Skills (7 items)						
6	Is friendly to patients.	.16	.73	.15	.17	.07
8	Is polite to patients.	.31	.70	.13	.13	.01
11	Is compassionate with patients.	.28	.64	.11	.16	.19
48	Is nice to patients.	.32	.63	.24	.13	.08
37	Talks to patients during their visits.	.26	.61	.22	.28	.05
22	Is willing to learn.	.18	.41	.13	.27	.07
9	Is relaxed with patients.	.22	.39	-.05	.11	.23
Factor 3: Disrespect/Disempowerment (8 items)						
77	Talks down to some patients.	.17	.03	.66	.12	.07
15	Sometimes embarrasses patients.	.03	-.01	.58	.15	.12
139	Looks down on some patients.	.21	.14	.56	-.08	.27
41	Mistakenly diagnoses patients' problems as psychological.	.11	.03	.54	-.09	-.06
129	Brings medical students into the room without patient's permission.	.03	.18	.53	.07	.00
117	Makes patients wait long.	.03	.01	.50	.21	.10
66	Questions the truth of what patients say.	.02	.16	.50	-.09	-.08
55	Assumes patients are just looking for a way to "get high" when they ask for pain medications.	.19	.21	.46	-.17	.00
Factor 4: Competence (9 items)						
21	Is knowledgeable about the field of medicine.	.25	.05	-.01	.66	.01
20	Is well educated.	.25	.19	.17	.62	-.03

Table 4-4. Continued.

Item No.	Item Summary	Factor Loadings				
		1	2	3	4	5
27	Knows what to do with patients.	.06	.13	-.13	.62	.12
1	Is confident in his/her abilities.	.16	.13	.08	.59	-.01
3	Is right about why patients are sick.	.07	.06	-.17	.55	.28
26	Has a lot of schooling.	.22	.21	.11	.40	.06
35	Is aware of limits in illnesses he/she can treat.	.18	.10	.15	.36	.08
107	Correctly diagnose and treat patients' illnesses.	.26	.11	-.05	.36	.25
4	Is honest and direct with patients.	.30	.25	.19	.30	.08
Factor 5: Cultural Knowledge/Responsiveness (6 items)						
125	Is educated in working with patients of different cultures and social statuses.	.21	.02	.11	.16	.64
126	Understands the African American culture.	.22	-.01	-.07	.16	.60
130	Works to make the clinic more racially integrated.	.20	.06	.01	-.02	.46
19	Is respectful of patients' religious beliefs.	.32	.25	.15	.25	.44
134	Understands about the difficulties related to cultural and/or economic differences.	.32	.23	.10	.08	.40
127	Understands that people of different cultures believe in different medical practices.	.29	.18	.21	.04	.39

Items presented in this table are abbreviations of the actual T-CSHCI-Provider Form items.

Table 4-5 Percent of Variance and Number of Items per Factor/Subscale

Factor	Percent of Variance	Number of Items
1 - Patient-Centeredness	17.78%	23
2 - Interpersonal Skills	7.32%	7
3 - Disrespect/Disempowerment	6.76%	8
4 - Competence	17.78%	9
5 - Cultural Knowledge/Responsiveness	5.46%	6
TOTAL	44.00%	53

Table 4-6 T-CSHCI-Provider Form Factor/Subscale Correlations

Factor	Factor				
	PC (1)	IS (2)	D/D (3)	C (4)	CS/CR (5)
PC (1)	1.00				
IS (2)	0.649	1.00			
D/D (3)	-0.359	-0.351	1.00		
C (4)	0.585	0.544	-0.233	1.00	
CS/CR (5)	0.627	0.452	-0.226	0.392	1.00

1 = Patient-Centeredness (PC); 2 = Interpersonal Skills (IS); 3 = Disrespect/ Disempowerment (/D); 4 = Competence; 5 = Cultural Knowledge/Responsiveness. All correlations were significant at the  $p < .01$  level.

## Second Research Question

The second investigated Research Question was as follows: When used with a sample of medical students who see patients, will any found T-CSHCI-Provider Form subscales identified through factor analytic procedures have high internal consistency, split-half reliability, and construct validity? The construct validity will be determined by examining the correlations between the T-CSHCI-Provider Form subscales and the Service Delivery and Practice subscale of the Cultural Competence Assessment Questionnaire-Service Provider Version? Descriptive statistics for each T-CSHCI-Provider Form factor/subscale are shown in Table 4-7.

Table 4-7 Descriptive Information for the T-CSHCI-Provider Form Factors/Subscales

T-CSHCI-Provider form factor/subscale	N	Minimum	Maximum	Mean	Std. Dev.
1 - Patient-Centeredness	216	2.57	4.00	3.30	.37
2 – Interpersonal Skills	216	2.71	4.00	3.65	.34
3 – Disrespect/Disempowerment	216	1.00	3.50	2.01	.44
4 – Competence	216	2.33	4.00	3.28	.31
5 – Cultural Knowledge/Responsiveness	216	2.17	4.00	3.18	.41

The ratings for Factor 3 – Disrespect/Disempowerment are reverse-scored; thus, high scores indicate low levels of patient-centered culturally sensitive health care.

Internal consistency of the T-CSHCI-Provider Form factors/subscales was examined using the Chrombach’s Alpha coefficient, which provides information regarding the strength of inter-item correlations. The split-half reliability of the T-CSHCI-Provider Form factors/subscales was computed using the Spearman-Brown split-half reliability coefficient. As Table 4-8 indicates, the T-CSHCI-Provider Form factors/subscales were found to be valid and reliable.

Table 4-8 T-CSHCI-Provider Form Factor/Subscale Psychometric Properties

T-CSHCI-Provider Form Factor/Subscale	Internal Consistency	Split-Half Reliability
1 - Patient-Centeredness	.94	.92
2 – Interpersonal Skills	.84	.82
3 – Disrespect/Disempowerment	.79	.75
4 – Competence	.80	.72
5 – Cultural Knowledge/Responsiveness	.77	.68

Correlations marked \*\* were significant at  $p < .01$ .

The construct validity of the T-CSHCI Physician Form factors/subscales was tested using Pearson correlations between the mean score of each of the T-CSHCI-Provider Form factors/subscales and the mean score on the Service Delivery subscale of the Cultural Competence Self-Assessment Questionnaire (CCSAQ). As indicated in the section describing the assessment battery for this study, the CCSAQ is a measure of culturally competent health care that is expected to be moderately but not highly associated with the T-CSHCI due to the conceptual differences between culturally sensitive health care and culturally competent health care explained in Chapter 2 of this paper. The correlation coefficients are presented in Table 4-9.

Table 4-9 Pearson Correlations between the T-CSHCI-Provider Form Factors/Subscales and the CCSAQ

T-CSHCI-Provider Form Factor/Subscale	CCSAQ-Service Delivery
1 - Patient-Centeredness	.352(**)
2 – Interpersonal Skills	.245(**)
3 – Disrespect/Disempowerment	-.092
4 – Competence	.315(**)
5 – Cultural Knowledge/Responsiveness	.501(**)

Correlations marked \*\* are significant at the 0.01 level (2-tailed).

As Table 4-9 shows, the correlations between the T-CSHCI-Provider Form factors/subscales and the CCSAQ-Service Delivery subscale were low to moderate, and only the Disrespect/Disempowerment subscale did not correlate significantly with the Service Delivery subscale of the CCSAQ.

In conclusion, the five T-CSHCI-Provider Form factors/subscales identified in this study through factor analyses conducted on data from 3rd and 4th year medical students proved to be valid and reliable constructs that independently measure dimensions of patient-centered culturally sensitive health care.

### **Third Research Question**

The third Research Question examined in this study was as follows: Do levels of medical students' self-assessed patient-centered cultural sensitivity in the health care they provide, as assessed by the T-CSHCI-Provider Form, differ in association with their gender, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year of medical school (i.e., 3<sup>rd</sup> or 4<sup>th</sup>), prior or current enrollment in a course on culturally competent/sensitive health care, and self-reported level of experience with providing health care to racial/ethnic minority patients and to low-income patients?

Two separate multivariate analyses of variance (MANOVAs) were conducted, with gender, race/ethnicity, and fluency in a language other than English as independent variables in one analysis, and year of medical school, prior or current enrollment in a culturally competent/sensitive health care course, and level of experience with providing health care to racial/ethnic minority patients and to low income patients as the independent variables in the other analysis. The dependent variables for both MANOVAs were scores for each factor/subscale of the T-CSHCI-Provider Form (i.e., Patient-Centeredness, Interpersonal Skills, Disrespect/Disempowerment, Competence, and Cultural Knowledge/Responsiveness) as determined from the factor analytic procedures to address Research Question 1.

A preliminary Spearman correlation analysis for use with categorical variables was performed to determine any relationship (a) between the dependent and the independent variables and (b) among the dependent variables. These resulting correlations were used to (a) determine the variables to be entered in the multivariate analyses of variance (i.e., only the independent variables that were significantly associated with the dependent variables were considered for further analyses), and (b) determine the degree of multicollinearity among the dependent variables. The correlation coefficients, shown in Table 4-10 and Table 4-11, indicated

significant correlations between (a) participants' gender and their self-reported levels of Interpersonal Skills and Disrespect/ Disempowerment behaviors and attitudes, (b) participants' race/ethnicity and their levels of Interpersonal Skills and Cultural Knowledge/Responsiveness, (c) participants' knowledge of a language other than English and their Interpersonal Skills and Cultural Sensitivity/ Responsiveness, (d) participants' past or current enrollment in a cultural competence course and their levels of Patient-Centeredness, Competence, and Cultural Knowledge/Responsiveness, (e) participants' prior exposure to racial/ethnic minority patients and their levels of Competence and Cultural Knowledge/Responsiveness, and (f) participants' prior exposure to low-income patients and their self-reported levels of Competence.

Table 4-10 Spearman Correlation Coefficients for the Associations between the T-CSHCI-Provider Form Factors/Subscales and Participants' Demographic Variables

Factor/Subscale	Gender	Race/ Ethnicity	Citizenship	Other Languages
1 - Patient-Centeredness	0.116	0.032	-0.104	0.109
2 – Interpersonal Skills	0.178**	0.136*	-0.052	0.188**
3 – Disrespect/Disempowerment	-0.215**	-0.047	-0.011	0.000
4 – Competence	-0.074	0.118	-0.095	0.125
5 – Cultural Knowledge/Responsiveness	0.097	-0.173**	-0.099	0.238**

Correlation marked \*\* is significant at the 0.01 level. Correlation marked \* is significant at the 0.05 level.

Table 4-11 Spearman Correlation Coefficients for the Associations between the T-CSHCI-Provider Form Factors/Subscales and Participants' Medical Training Variables

Factor/Subscale	Year in School	Cultural Sensitivity Course	Exposure to Minority Patients	Exposure to Low Income Patients
1 - Patient-Centeredness	0.032	0.148*	0.110	0.131
2 – Interpersonal Skills	-0.021	0.065	0.115	0.078
3 – Disrespect/Disempowerment	0.062	-0.095	-0.104	-0.061
4 – Competence	0.123	0.154*	0.187**	0.192**
5 – Cultural Knowledge/Responsiveness	0.019	0.140*	0.194**	0.121

Correlation marked \*\* is significant at the 0.01 level. Correlation marked \* is significant at the 0.05 level.

Preliminary correlations among the dependent variables (i.e., the T-CSHCI-Provider Form factors/subscales) were not high enough to raise concern about the distinctiveness of the dependent variables (i.e., concern that they measured the same construct). The absolute values of the correlation coefficients between the dependent variables ranged from .23 to .65 (see Table 4-6), which were smaller than the agreed-upon criterion value of .70.

The first MANOVA was conducted to determine if there are any significant differences in participants' self-reported scores on the five T-CSHCI-Provider Form factors/subscales (i.e., Patient-Centeredness, Interpersonal Skills, Disrespect/ Disempowerment, Competence, and Cultural Knowledge/Responsiveness) in association with their gender, race/ethnicity, and knowledge of one or more languages other than English. The multivariate analyses using Wilk's Lambda indicated overall significant multivariate effects for gender ( $F[5, 204] = 4.89, p < .0001, \eta^2 = .11$ ), race/ethnicity ( $F[20, 677] = 2.80, p < .0001, \eta^2 = .06$ ), and other languages ( $F[5, 204] = 3.16, p < .01, \eta^2 = .07$ ). Specifically, the analyses of variance indicated the presence of significant main effects of (a) gender on Interpersonal Skills ( $F[1, 208] = 11.02, p < .001, \eta^2 = .05$ ) and gender on Disrespect/ Disempowerment ( $F[1, 208] = 7.18, \eta^2 = .03$ ), (b) race/ethnicity on Interpersonal Skills ( $F[4, 208] = 2.71, p < .05, \eta^2 = .05$ ) and race/ethnicity on Cultural Knowledge/Responsiveness ( $F[4, 208] = 4.82, p < .001, \eta^2 = .08$ ), and (c) other languages on Interpersonal Skills ( $F[1, 208] = 10.58, p < .001, \eta^2 = .05$ ) and other languages on Cultural Knowledge/Responsiveness ( $F[1, 208] = 8.76, p < .005, \eta^2 = .04$ ). The multivariate effects of gender, race/ethnicity, and citizenship status on the T-CSHCI-Provider Form factors/subscales are summarized in Table 4-12.

Table 4-12 Multivariate Effects of Gender, Race/Ethnicity, and Knowledge of Other Languages on the T-CSHCI-Provider Form Factors/Subscales

Source	Dependent Variable	Df	F	p	Partial Eta Squared
Gender	Patient-Centeredness	1	2.99	0.08	0.01
	<i>Interpersonal Skills</i>	1	11.02	0.00	0.05
	<i>Disrespect/Disempowerment</i>	1	7.18	0.00	0.03
	Competence	1	0.57	0.45	0.00
	Cultural Knowledge/Responsiveness	1	1.08	0.30	0.00
Race/Ethnicity	Patient-Centeredness	4	0.85	0.49	0.01
	<i>Interpersonal Skills</i>	4	2.71	0.03	0.05
	<i>Disrespect/Disempowerment</i>	4	2.00	0.09	0.03
	Competence	4	0.71	0.58	0.01
	<i>Cultural Knowledge/Responsiveness</i>	4	4.82	0.00	0.08
Other Language	Patient-Centeredness	1	2.87	0.09	0.01
	<i>Interpersonal Skills</i>	1	10.57	0.00	0.04
	<i>Disrespect/Disempowerment</i>	1	1.59	0.20	0.00
	Competence	1	3.59	0.06	0.02
	<i>Cultural Knowledge/Responsiveness</i>	1	8.76	0.00	0.04

Follow-up Tuckey post-hoc tests indicated that: (a) male participants reported significantly lower scores than female participants on Interpersonal Skills (mean difference = -.15,  $p < .001$ ), (b) male participants reported significantly higher scores than female participants on Disrespect/Disempowerment (mean difference = .16,  $p < .01$ ), (c) African American participants reported significantly higher scores than Asian American participants on Cultural Sensitivity/Responsiveness (mean difference = .39,  $p < .05$ ), (d) African American participants reported significantly higher scores than non-Hispanic White participants on Cultural Sensitivity/Responsiveness (mean difference = .45,  $p < .005$ ), (e) participants who reported speaking at least one other language in addition to English had significantly higher Interpersonal Skills scores than participants who spoke English only (mean difference = .16,  $p < .001$ ), and (f) participants who reported speaking at least one other language in addition to English had significantly higher Cultural Knowledge/Responsiveness scores than participants who spoke English only (mean

difference = .17,  $p < .005$ ). It is noteworthy that although a significant effect of race/ethnicity on Interpersonal Skills was found, the post-hoc analyses did not show any significant differences in self-reported Interpersonal Skills scores.

The second MANOVA was conducted to determine if there are any significant differences in participants' self-reported scores on the five T-CSHCI-Provider Form factors/subscales (i.e., Patient-Centeredness, Interpersonal Skills, Disrespect/ Disempowerment, Competence, and Cultural Knowledge/Responsiveness) in association with participants' enrollment in a cultural competence/sensitivity course, and their self-reported levels of exposure to low-income and to racial/ethnic minority patients. The multivariate analyses using Wilk's Lambda showed no significant multivariate effects of the independent variables in association with the dependent variables.

## CHAPTER 5 DISCUSSION

The present study responded to calls for valid and reliable instruments for assessing self-reported levels of cultural sensitivity in health care provided (AHRQ, 2004). These calls are motivated by research that supports the view that patient-centered culturally sensitive health care can contribute to reducing the existing health care and health disparities in this country, as well as by the scarcity of assessment instruments which medical students and other providers can use to evaluate their perceived levels of patient-centered culturally sensitive health care. The primary purpose of the present study was to determine the factors/subscales of the T-CSHCI-Provider Form that represent dimensions of patient-centered culturally sensitive health care as measured by the T-CSHCI-Provider Form and to explore the reliability and validity of these factors/subscales. Another purpose of the present study was to examine the associations between medical students' self-ratings on the T-CSHCI-Provider Form factors/subscales and selected demographic and medical training characteristics of these students. These medical training and demographic variables were gender, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year in medical school, prior enrollment in a culturally competent or culturally sensitive health care course, and self-reported level of experience in providing health care to racial/ethnic minority patients and low-income patients. The following sections summarize and interpret the results from this study, the limitations of the present study and future directions of research, as well as the implications of this study.

### **Summary and Interpretation of the Results**

#### **Research Questions 1 and 2**

Research Question 1 in the present study was: What are the dimensions of factor structures that constitute patient-centered culturally sensitive health care as assessed by the T-CSHCI-

Provider Form when this form is used with a sample of medical students who see patients?

Research Question 2 in this study was: When used with a sample of medical students who see patients, will any found T-CSHCI-Provider Form subscales identified through factor analytic procedures have high internal consistency, split-half reliability, and construct validity?

In order to address Research Questions 1 and 2, a principal axis factors (PAF) factor analysis with Varimax rotation followed by reliability and validity analyses to evaluate the psychometric properties of the resulting T-CSHCI-Provider Form factors/subscales were conducted. The PAF factor analysis with Varimax rotation revealed that a five-factor solution had the best data fit, accounting for a total of 45.01% of the data variance. A total of 53 items were retained in the final 5-factor solution, and 88 items were eliminated. The five T-CSHCI-Provider Form factors/subscales obtained through factor analyses on a sample of medical students who provide health care services (i.e., 3<sup>rd</sup> and 4<sup>th</sup> year medical students) were named Patient-Centeredness, Interpersonal Skills, Disrespect/Disempowerment, Competence, and Cultural Sensitivity/ Responsiveness based on the item content of these factors/subscales. The number of items retained for each of these factors was 23, 7, 8, 9, and 6 respectively. In addition, the findings for Research Question 2 suggested that all five T-CSHCI-Provider Form factors/subscales were reliable. The Chronbach's Alpha coefficients of internal consistency ranged from .77 to .94 and the Spearman-Brown coefficients of split-half reliability ranged from .68 to .92.

The five T-CSHCI-Provider Form factors/subscales obtained through the factor analyses applied to the self-reported patient-centered culturally sensitive health care data obtained from advanced medical students are consistent with the current literature on the quality of health care. Specifically, the five T-CSHCI-Provider Form factors/subscales that emerged from the factor

analysis in the present study have been cited in the literature as necessary ingredients for culturally sensitive, culturally competent, and/or patient-centered health care.

The first T-CSHCI-Provider Form factor/subscale that emerged was Patient-Centeredness. Sample items in this factor/subscale included “I show my patients that I understand their feelings and views,” “I put my patients’ minds at ease,” and “I explain everything I do to my patients.” Patient-centered physician behaviors and attitudes, as well as health care systems, are considered to be of major importance for improving the quality of health care available to racial/ethnic minority patients and for reducing the race/ethnicity-related health disparities in this country (Beach, Saha, & Cooper, 2006). Thus, the items of the Patient-Centeredness factor/subscale identified in this study are in accord with the definitions and descriptions of patient-centeredness that are currently available, such as the conceptual model of patient-centered care developed by Mead and Bower (2000). This model describes patient-centered encounters between patients and health care providers as being composed of five domains: (a) adopting the bio-psycho-social (i.e., not narrowly biomedical) perspective, (b) understanding the patient as a person not an illness, (c) sharing power and responsibility between the doctor and the patient, (d) building a therapeutic alliance, and (e) understanding the physician as a person rather than as a skilled technician in his/her interactions with patients (Mead & Bower, 2000).

Patient-centered health care was defined by Beach, Saha, & Cooper (2006) as perceiving and evaluating health care from the patient’s perspective and then adapting care to meet the needs and expectations of patients. Pilot evidence for the associations between patient-centered care and positive health outcomes such as blood pressure is provided by the pioneering research conducted by Tucker (Tucker, Herman, et al., in press). In addition, Anderson et al. (1995) found that when patients were equipped with sufficient skills and support from the health services to

feel empowered to make informed choices for themselves, these patients reported increased self-efficacy and even a modest improvement in blood glucose levels. A study by Martin and Bass (1989) also showed that the extent to which patients with chronic illnesses reported that their problems had been discussed in a helpful manner was positively associated with these patients' self-reported treatment adherence. Patient-centered care has also been found to have a positive association with levels of well-being and quality of life of patients with Type 2 diabetes (Kinmonth, Woodcock, Griffin, Spiegel, & Campbell, 1998).

The second T-CSHCI-Provider Form factor/subscale that emerged in the present research was Interpersonal Skills. Sample items included "I am friendly with my patients," "I talk to my patients during their visits," and "I am relaxed with my patients." Physicians' interpersonal skills in the context of patient-physician communication have been examined as a significant dimension of the health care process, and have been found to be critical in efforts to reduce the race/ethnicity-related health disparities that plague the U.S. (US DHHS, 2005). A consistent body of research suggests that there are indeed associations between health professionals' interpersonal skills, which are reflected by the patients' reports of feeling understood and at ease with their physician and trusting of their physician, and patient satisfaction and/or improved health outcomes among patients.

For example, physicians' nonverbal communication skills (i.e., physicians' ability to understand and attend to nonverbal communication and their capacity to express emotions appropriately through verbal and non-verbal messages) have been found to be positive predictors of patients' satisfaction with health care received (DiMatteo, Taranta, Friedman, & Prince, 1980). Significant associations were also found between providers' interpersonal skills and patients' reports of lower levels of pain (Selfe, Matthews, & Stones, 1998). Moreover,

physicians' interpersonal skills were rated by a large group of patients as one of the most important factors that can influence their satisfaction with their physicians (Anderson, Barbara, & Feldman, 2007).

The third T-CSHCI-Provider Form factor/subscale that emerged in the present study was Disrespect/ Disempowerment. Sample items included "I talk down to some of my patients," "I make my patients wait long," and "In private or in public I sometimes embarrass my patients." The items of the Disrespect/Disempowerment T-CSHCI-Provider Form factor address specific provider behaviors that culturally diverse and low-income patients identified as being disrespectful to them. Physicians' behaviors that convey disrespect to their patients have been a topic of interest in the health care quality literature. However, due to evident research limitations such as ethical considerations, research focused on the effects of disrespectful/disempowering physician behaviors is overall difficult to conduct. According to the American Medical Association (AMA, 2003), such behaviors on the part of physicians can generate patients' reluctance to seek or to trust medical care, and thus create an environment that strains relationships among patients, physicians, and the health care team.

The fourth T-CSHCI-Provider Form factor/subscale that emerged in this study was Competence. Sample items included "I am knowledgeable about the field of medicine", "I know what I am doing with my patients", and "I know my limits as to what illnesses I can treat". Physician medical competence has been linked with trust in physician (Hall, Dugan, Zheng, & Mishra, 2001), which in turn has been associated with adherence to treatment recommendations, not changing physicians, not seeking second medical opinions, perceived effectiveness of care, and improvement in self-reported health (Safran et al., 1998; Thom et al., 1999; Hall et al., 2002). In short, trust in physician established on the basis of physicians' medical competence is

“good for business, good for effective care, and good for reducing medical disputes” (Hall, Dugan, Zheng, & Mishra, 2001 p. 629). Interestingly, Hall, Dugan, Zheng, & Mishra (2001) noted that perceived medical competence is oftentimes assessed by patients on the basis of their interactions with their health care provider rather than on the basis of objective measures of physician’s medical knowledge. Thus, physician competence can be viewed as another dimension of the physician-patient communication process.

The fifth T-CSHCI-Provider Form factor/subscale that emerged from the present study was Cultural Knowledge/Responsiveness. Sample items included “I understand the African American culture,” “I understand that people of different cultures have, and believe in, different medical practices,” and “I am respectful of my patients’ religious beliefs.” Calls such as the ones from the American College of Physicians (2004) and the United States Department of Health and Human Services (2001) have lead to increases in the amount of research focused on the need for and benefits of culturally sensitive, culturally competent, and culturally responsive health care providers and the health care systems. It is currently accepted that physician behaviors which are sensitive and responsive to patients’ cultural background can contribute to reducing health care and health disparities (Beach, Saha, & Cooper, 2006).

It is noteworthy that the five T-CSHCI-Provider Form factors/subscales identified in this study seem to address two of the dimensions of health care promoted by the Quality of Care Theory (Wilde, Starrin, Larsson, & Larsson, 1993). The Quality of Care Theory influenced the conceptualization of patient-centered culturally sensitive health care as measured by the T-CSHCI-Provider Form and it promotes a view of health care as composed of four dimensions. Two of these dimensions resemble the traditional medical model of care (i.e., the medical-technical competence of the caregivers and the physical-technical conditions of the care

organization) while the other two dimensions promote understanding a patient as more than an illness (i.e., the identity-orientation in the attitudes and actions of caregivers and the socio-cultural atmosphere of the care organization). The T-CSHCI-Provider Form factors/subscales of Patient-Centeredness, Interpersonal Skills, Disrespect/Disempowerment, and Cultural Knowledge/Responsiveness seem to be consistent with the identity-orientation dimension of health care quality, while the Competence factor/subscale seems to be consistent with the medical-technical competence dimension of health care quality.

The construct validity of the T-CSHCI-Provider Form items was examined using the correlation coefficients between the T-CSHCI-Provider Form factors/subscales and the Service Delivery subscale of the Cultural Competence Self-Assessment Questionnaire (CCSAQ). Four of these correlations were significant and ranged from .24 (Interpersonal Skills) to .50 (Cultural Knowledge/Responsiveness), while one correlation (Disrespect/Disempowerment) was not significant. The conceptual differences between culturally competent and patient-centered culturally sensitive health care presented in Chapter 2 of this paper explain the low to moderate correlations between four of the five T-CSHCI-Provider Form factors/subscales and the CCSAQ. Specifically, these correlations indicate that culturally competent health care and patient-centered culturally sensitive health care are two similar and yet independent constructs. Both the items of the Patient-Centeredness, Interpersonal Skills, Competence, and Cultural Knowledge/Responsiveness factors/subscales of the T-CSHCI-Provider Form and the items of the Service Delivery subscale of the CCSAQ items address provider behaviors and attitudes that reflect (a) knowledge of the health issues confronting specific racial/ethnic minority groups, (b) openness in the patient-provider communication process, (c) awareness of the systemic factors (e.g., health care clinic characteristics, lack of transportation, etc.) that might contribute to health care

disparities, and (d) openness to exploring medical practices that people from various cultures embrace. Despite these similarities, the T-CSHCI-Provider Form factors/subscales and the Service Delivery subscale of the CCSAQ are also different in several significant ways. First, some of the CCSAQ items placed more value on provider knowledge (e.g., “Are you familiar with the limitations of mainstream diagnostic tools as applied to people of color?”) rather than interpersonal behaviors while the T-CSHCI-Provider Form items address mostly provider behaviors (e.g., “I refer my patients to a specialist when they request it”). Second, the Service Delivery subscale of the CCSAQ consists of items that are more general (e.g., “How well do you use cultural strengths and resources when planning services to patients of color?”) than the T-CSHCI-Provider Form items (e.g., “I am respectful of my patients’ religious beliefs”). Third, some of the items on the Service Delivery Subscale of the CCSAQ address provider knowledge that is not directly related to the patient-provider interactions (e.g., “Are you familiar with the use of moderator variables?”) while the T-CSHCI-Provider Form items mostly address the provider-patient interactions (e.g., “I put my patients’ minds at ease”).

Indeed, the above differences between the items on the Service Delivery Subscale of the CCSAQ and the items on the T-CSHCI-Provider Form items seem to provide evidence for the fact that cultural sensitivity is “cultural competence plus” (Tucker, 200; Tucker, Herman, Pedersen, Higley, Montrichard, and Ivery, 2003; Herman, Tucker, et al., in press) in that the items of the latter extend beyond an emphasis on displaying cultural competence in health care to an emphasis on engaging in specific provider behaviors and attitudes that patients want, need, perceive, and feel in the process of receiving culturally competent health care.

The non-significant association between the Disrespect/Disempowerment T-CSHCI-Provider Form factor/subscale and the Service Delivery and Practice subscale of the CCSAQ

also provides support for the conceptual difference between patient-centered culturally sensitive health care and culturally competent health care. Specifically, the concept of patient-centered culturally sensitive health care seems more comprehensive than the one of culturally competent health care since it includes a focus not only on behaviors and attitudes considered sensitive to patients' cultural backgrounds but also behaviors and attitudes that are not sensitive to patients' cultural background.

### **Research Question 3**

Research Question 3 explored the associations between medical students' self-ratings on the T-CSHCI-Provider Form factors/subscales and selected demographic and medical training variables (i.e., gender, race/ethnicity, U.S. citizenship status, fluency in a language other than English, year in medical school, prior enrollment in a culturally competent or culturally sensitive health care course, and self-reported level of experience with providing health care to racial/ethnic minority patients and low income patients). The multivariate analyses of variance (MANOVA) with gender, race/ethnicity, and fluency in a language other than English as the independent variables and the scores on the five T-CSHCI-Provider Form factors/subscales as the dependent variables followed by Tuckey's post-hoc analyses revealed that: (a) male participants as compared with female participants rated themselves significantly lower on Interpersonal Skills and higher Disrespect/Disempowerment; (b) African American participants as compared with Asian American and non-Hispanic White participants rated themselves significantly higher on Cultural Sensitivity/ Responsiveness; (c) participants who reported speaking at least one other language in addition to English rated themselves significantly higher on Interpersonal Skills and Cultural Knowledge/Responsiveness than participants who spoke English only.

The significant association found between gender and self-reported scores on Interpersonal Skills and Disrespect/Disempowerment skills suggests that there are differences between male and female medical students regarding their ability to interact with culturally diverse patients in a culturally sensitive manner. These findings suggest that female medical students who participated in the present study perceived themselves as more effective than male medical student participants regarding a more general dimension that seems to refer to interpersonal and empathy skills. These findings are not surprising given the research literature that supports the view that female physicians are more attuned to the non-verbal communication patterns between them and their patients, show more empathy in the health care process, and display overall improved communication skills compared with their male counterparts (Hall & Roter, 2002; Roter, Hall, & Aoki, 2002). It is noteworthy that no significant differences were found between female and male medical students regarding their self-reported scores on Patient-Centeredness, Competence, and/or Cultural Knowledge/Responsiveness.

The found association between ethnicity and Cultural Knowledge/Responsiveness scores supports the view that medical students' own racial/ethnic minority group membership might equip them with useful tools for engaging in a culturally sensitive and respectful manner with their culturally diverse patients. However, these findings from African American and Asian American medical student participants in this study did not shed light regarding which aspect of being a member of these racial/ethnic groups contributed to higher levels of self-reported Cultural Knowledge/Responsiveness. For example, research literature indicates that a match between the race/ethnicity of patients and that of their physicians can contribute to improved communication (Nunez-Smith et al., 2007). Thus, African American medical students might experience higher levels of comfort and self-confidence in interacting with African American

patients. Another possible explanation is that the African American and Asian American medical students who participated in this study were able to draw upon personal experiences of discrimination and perceived lack of power in order to better connect with their minority patients, which allowed these patients to feel empowered and respected in the health care provision process. Future research is needed to explore the found link between medical students' race/ethnicity and their self-reported levels of patient-centered culturally sensitive health care as measured by the T-CSHCI-Provider Form.

The significant associations between ability to speak one or more language(s) other than English and Interpersonal Skills and Cultural Knowledge/Responsiveness scores suggest that medical students who reported knowledge of at least another language in addition to English evaluated themselves higher regarding their interpersonal interactions with their patients and their cultural knowledge/responsiveness. It is possible that these medical students' knowledge of at least one language other than English represents an indicator of their increased openness and willingness to meet the needs of culturally diverse patients and to be respectful of these patients' needs and wants. Medical students' willingness to meet the needs of their patients could, in turn, enhance these medical students' interpersonal and cultural knowledge/responsiveness skills and behaviors in their interactions with their patients. Further research is needed to explore the found associations between medical students' ability to speak a language other than English and their self-reported levels of patient-centered culturally sensitive health care as measured by the T-CSHCI-Provider Form.

### **Limitations and Future Directions of Research**

One limitation of the present study is that the sample of participants was relatively small (N = 217) for conducting some of the proposed statistical analyses (i.e., exploratory factor analyses). This relatively low number of participants was due to constraints such as financial

constraints (i.e., participant payment) and time constraints (i.e., the need for data collection to occur within a specified amount of time). However, the number of medical students who participated in the present study was larger than the minimum number of participants that most authors consider acceptable for conducting a factor analysis. Despite this participant sample size limitation, the five T-CSHCI-Provider Form factors/subscales obtained through the exploratory factor analyses were highly reliable and valid. Thus, the number of participants did not constitute a significant deterrent to identifying the dimensions or factor structures that constitute patient-centered culturally sensitive health care as assessed by a sample of advanced medical students using the T-CSHCI-Provider Form.

A second limitation was that only two states (i.e., Florida and Kentucky) were participant recruitment locations. This limitation was caused by logistic difficulties such as finding medical faculty and administrator collaborators to help with the participant recruitment for this study. Medical school faculty from three other universities in other U.S. states were contacted via e-mail and invited to be collaborators in this study but this approach was not successful. However, despite the fact that the research participants came from a limited geographical area, the medical student sample for this study roughly paralleled the racial/ethnic and gender composition of the medical student population in this country. Future research to test the reliability of the five T-CSHCI-Provider Form factors/subscales identified in this study is needed and this testing ideally should occur using a large, national sample of advanced medical students (i.e., 3<sup>rd</sup> and 4<sup>th</sup> year medical students). Such a national sample of participants would allow conducting a confirmatory factor analysis to test the identified five factors/subscales, since this type of factor analysis requires larger samples due to its increased complexity.

A third limitation of this study is the inclusion of only medical students who provide health care. While a focus on this particular participant group was necessary in order to demonstrate the T-CSHCI-Provider Form to be a valid and reliable assessment instrument to be used in the context of formal medical education, future research is needed to explore the factor structure and the reliability and validity of the T-CSHCI-Provider Form on a national sample of health care providers including but not limited to physicians, physician assistants, and nurse practitioners. The goal of such research would be to demonstrate that the T-CSHCI-Provider Form is valid and reliable when used with a large and representative sample of health care providers throughout the country.

Another limitation of the present study is that only one assessment of culturally competent health care was used to validate the T-CHSCI Provider Form factors/subscales obtained in this study. Future research needs to test the validity of the T-CSHCI-Provider Form using assessments of culturally competent health care other than the Service Delivery and the Service Delivery and Practice subscale of the CCSAQ. The correlation coefficients among other assessments of culturally competent health care and the T-CSHCI-Provider Form ratings are expected to be in the moderate range, thus providing further evidence for the conceptual difference between patient-centered culturally sensitive health care and culturally competent health care.

A fifth limitation of the present study was the fact that a measure of social desirability was not included in the assessment battery. Social science research often struggles with social desirability, especially when skill levels, knowledge, or engagement in socially desirable behaviors are being assessed. Social desirability is seen when individuals are motivated to present in a way society regards as positive, thereby distorting their responses. Although social

desirability is always a threat and limitation to social science research, it was expected that medical students who participated in this study would complete the online assessment battery in an honest manner due to the anonymous and self-selection based data collection process. Another reason for not including a measure of social desirability was related to the amount of time required for completing the online assessment battery. Specifically, it was expected that the addition of a measure of social desirability would have increased the amount of time required to participate in this study, decreased medical student's willingness to participate, and ultimately would have decreased the participation rate for this study—while it would not have added significantly to the overall purpose of this study.

### **Implications of this Study**

One implication of the present study is based on the finding that the T-CSHCI-Provider Form is a valid and reliable assessment instrument. Specifically, it appears that the T-CSHCI-Provider Form can be used with medical students to assess their levels of patient-centered culturally sensitive health care behaviors and attitudes. Additionally, the T-CSHCI-Provider Form can be administered to medical students at multiple time points in order to examine their progress in engaging in patient-centered culturally sensitive health care behaviors and attitudes and to provide these students with opportunities for diagnostic feed-back and autonomous learning (i.e., learning that is self-directed versus other-directed). The T-CSHCI-Provider Form can also be used in combination with the T-CSHCI Patient Form—the patient equivalent of the T-CSHCI-Provider Form which was also developed by Tucker and her research team—with the goal of determining the degree of agreement between medical students' self-evaluations and the evaluations provided by their patients regarding the occurrence of health care behaviors and attitudes assessed by both forms.

Third, subscales scores of the T-CSHCI-Provider Form (versus a global score) present the advantage of providing more detailed information about specific components of patient-centered culturally sensitive health care, which in turn can facilitate the development of effective training content modules (e.g., interpersonal skills, patient-centeredness skills, etc.) and training methods (e.g., providing specific feed-back to medical student trainees). The factors/subscales of the T-CSHCI-Provider Form can also facilitate health-related research (e.g., determining which patient-centered culturally sensitive health care components are associated with specific health outcomes).

It is particularly noteworthy that significant differences were found in medical students' self-reported scores on some T-CSHCI-Provider Form factors/subscales (i.e., Interpersonal Skills, Disrespect/Disempowerment, and/or Cultural Knowledge/Responsiveness) in association with these students' race/ethnicity, gender, and ability to speak at least one other language than English. The implication of this finding is that patient-centered culturally sensitive health care training in medical schools perhaps needs to be tailored to the self-evaluations of culturally diverse medical students regarding their perceived levels of behaviors and attitudes that constitute patient-centered culturally sensitive health care. A more general implication of this study is that the cultural diversity among health care providers represents a significant variable in efforts to improve the health care quality experienced by culturally diverse patients.

### **Implications for Counseling Psychologists**

Counseling psychologists are equipped with a unique set of knowledge and skills that can be used for research, training, and interventions to promote patient-centered culturally sensitive health care and to help alleviate the existing health disparities (Tucker, Ferdinand, et al., in press). These skills include but are not limited to (a) scientist-practitioner training skills, (b) knowledge of multicultural counseling theories and interventions, and (c) awareness of, and

involvement with social advocacy issues. The T-CSHCI-Provider Form represents a valid and reliable self-assessment instrument for medical students to evaluate their levels of patient-centered culturally sensitive health care following interventions by counseling psychologists to promote such care by medical students.

Counseling psychologists can use their knowledge of test development and validation to contribute to furthering the development of the T-CSHCI-Provider Form using national samples of medical students, physicians, and other health care providers. It is noteworthy that such efforts are currently underway through research conducted by Tucker and her research team.

Furthermore, counseling psychologists can contribute to promoting assessments such as the T-CSHCI-Provider Form by educating health care providers and administrators (i.e., medical school faculty, medical school administrators, and medical students) about the advantages of using valid and reliable assessments of patient-centered culturally sensitive health care such as the T-CSHCI-Provider Form. Ways in which counseling psychologists can accomplish this goal include: (a) advocating for the effectiveness of patient-centered culturally sensitive health care provider behaviors and attitudes, (b) presenting to the medical community research evidence of the usefulness of medical students' self-assessments of their patient-centered culturally sensitive health care levels, (c) being involved with the development, implementation, and assessment of patient-centered culturally sensitive health care training programs, and (d) identifying, testing, and promoting specific ways in which medical students can use their T-CSHCI-Provider Form scores to increase their patient-centered culturally sensitive health care skills.

Counseling psychologists can also use the T-CSHCI-Provider Form as a tool for developing patient-centered culturally sensitive health care medical training programs and for assessing the effectiveness of such programs. Specifically, counseling psychologists can use their

knowledge of behavior and learning theories to design and implement training programs that would help medical students to improve their ability to interact with their culturally diverse patients in a patient-centered and culturally sensitive manner. Such patient-centered culturally sensitive health care training programs can consist of specific training modules that can be used to teach the patient-centered culturally sensitive health care dimensions represented by the five T-CHSCI Provider Form factors/subscales identified in the present study. For example, a training module focused on Interpersonal Skills can teach medical students specific skills for interacting with their culturally diverse patients in ways that demonstrate friendliness, politeness, compassion, being relaxed, and being willing to talk to patients. In addition, counseling psychologists can assess the effectiveness of patient-centered culturally sensitive health care training programs implemented in medical schools through using the T-CSHCI-Provider Form as a self-assessment tool for medical students. The T-CSHCI-Provider Form can be administered at pre-, post-, and delayed post-training in order to compare medical students' performance over time as a function of assessment and training in patient-centered culturally sensitive health care. In addition, counseling psychologists can contribute to lobbying efforts for promoting the implementation of patient-centered culturally sensitive health care training programs in medical schools across the country.

Finally, counseling psychologists can become involved in conducting outcome research to evaluate the effects of patient-centered culturally sensitive health care training on providers' behaviors and attitudes, and on patients' health care and health promotion behaviors and health status. Due to their knowledge and skills in research methods, counseling psychologists are particularly well trained to conduct such empirical research and presents the findings in professional journals.

## **Conclusions**

Overall, the findings from the present study support the view that the T-CSHCI-Provider Form is a valid and reliable measure of patient-centered culturally sensitive health care. Furthermore, five valid and reliable T-CSHCI-Provider Form factors/subscales were identified through factor analyses, and significant associations were found between the scores on these factors/subscales and medical students' race/ethnicity, their gender, and their ability to speak at least one language other than English.

The present study provided evidence for using the T-CSHCI-Provider Form to assess the effectiveness of patient-centered culturally sensitive health care training (such as pre-post training comparisons using the T-CUSHCI scores). The T-CSHCI-Provider Form can also be used as a useful tool for self-directed learning of patient-centered culturally sensitive health care behaviors and attitudes by advanced medical students, which can benefit these students in their interactions with culturally diverse patients. In addition, the T-CUSHCI has potential for promoting needed research to determine if there are measurable links between culturally sensitive health care as defined by ethnic minority patients and the costly and unjust disparities between majority and minority Americans.

APPENDIX A  
E-MAIL MESSAGE TO MEDICAL SCHOOL FACULTY CO-INVESTIGATORS

Dear Dr. \_\_\_\_\_,

My name is Anca Mirsu-Paun and I am a doctoral candidate at the University of Florida. I am writing to ask for your help with the data collection for a research study conducted for my doctoral degree, which aims to validate the Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI) Provider Form. This is a self-assessment instrument of culturally sensitive health care that was developed by Dr. Carolyn Tucker and her research team as part of a larger, ongoing study conducted at the University of Florida.

I am currently collecting data from medical students who see patients (i.e., 3<sup>rd</sup> and 4<sup>th</sup> year students) from various medical schools across the country. This study received approval from the UF IRB (protocol # 2006-U-615). Taking the online survey takes approximately 20 minutes and medical students who agree to participate can receive \$10 for their participation. More information about this study, as well as the assessment instrument per se can be found at this web address: <http://survey.psych.ufl.edu/physician/>

I hope that you will be interested to help us with this study that addresses an actual and much needed research topic. I believe that medical students can benefit from participating in this study on culturally sensitive health care in that anonymously answering the items of the T-CSHCI-Provider Form will allow them to (a) self-evaluate their levels of cultural sensitivity in the health care they provide, and also (b) gain a better understanding of what provider behaviors are considered to be culturally sensitive by culturally diverse patients (since the T-CUSHCI items address specific behaviors identified by patients themselves).

In case you will decide to help us by inviting medical students at your school to participate in this study, please find the attached succinct message that you could use to forward to medical students.

I very much appreciate your attention to this issue, and I would be happy to answer any further questions if needed.

With my best regards,

Anca Mirsu-Paun, M.S.  
Doctoral Candidate in Counseling Psychology  
University of Florida  
Department of Psychology  
P.O. Box 112250  
Gainesville, Florida 32611-2250

E-mail: [ancamp@ufl.edu](mailto:ancamp@ufl.edu)  
Phone: (352)392-0601 Ext. 260  
Fax: (352)392-7985

APPENDIX B  
E-MAIL MESSAGE TO MEDICAL STUDENT PARTICIPANTS

Hello,

If you are a third or fourth year medical student, please consider answering an online questionnaire on health care provision to culturally diverse patients. You will receive \$10 for your participation.

Your participation in this research study will be anonymous. In case you decide to answer this 20-minute online questionnaire, please go to <http://survey.psych.ufl.edu/physician/>

This research study is conducted at the University of Florida Department of Psychology and it investigates culturally sensitive health care behaviors. The study has been approved by the University of Florida IRB (protocol # 2006-U-615).

I hope that you will consider participating, and I would be happy to answer any questions you might have. The best way to contact me is at [ancamp@ufl.edu](mailto:ancamp@ufl.edu).

Thank you for your attention,

Anca Mirsu-Paun, M.S.  
Doctoral Candidate in Counseling Psychology  
University of Florida

APPENDIX C  
ONLINE COVER LETTER/INFORMED CONSENT FORM WITH UF IRB APPROVAL

Dear Medical Student:

We are inviting medical students who are seeing patients to participate in our study called “*Assessing Patient-Defined Culturally Sensitive Health Care*.” The purposes of this study are (a) to further develop the Tucker-Culturally Sensitive Health Care Inventory (T-CUSHCI)—Provider Form for use as a tool for providers to self-assess their level of engagement in behaviors and attitudes that culturally diverse patients view as indicators of cultural sensitivity, and (b) to determine the level of self-perceived patient-defined cultural sensitivity that medical students report having. This research project is being conducted by Dr. Carolyn M. Tucker, Distinguished Alumni Professor, Anca Mirsu-Paun, M.S., doctoral candidate, and Dr. Caridad Hernandez—from the University of Florida.

Participation in this research study includes completing an online survey that should take approximately 20 minutes to complete. This research study is designed to ensure that your responses will be anonymous and that your participation will be confidential. **To ensure anonymity of your responses, DO NOT place your name on the survey.**

We do not believe that participating in this study will cause you any harm. However, you may stop completing the survey at any time and for any reason without penalty. You also have the right to not answer any questions that you do not want to answer. Participation in this research study is completely voluntary and upon the completion of this online survey you will receive \$10 for your participation. In order for you to receive your compensation, we will ask you to provide your email address, name, and mailing address. However, this information will be stored separately from your responses, and it will not be possible for anyone to connect you with your responses.

If you decide to participate in this study, you can indicate your willingness to do so by clicking the link at the end of this letter.

We look forward to your participation and believe that this study offers great potential for helping medical students to optimize their ability to provide culturally sensitive health care to their patients. If you have any questions or desire further information about this study, please call Dr. Carolyn Tucker or Anca Mirsu-Paun at (352) 392-0601 ext. 260. Questions or concerns about your rights as a research participant may be directed to the UFIRB office, University of Florida by mail (Box 112250—Gainesville, FL 32611), phone (352) 392-0433, or e-mail [irb2@ufl.edu](mailto:irb2@ufl.edu).

Sincerely,

Carolyn M. Tucker, Ph.D.  
Distinguished Alumni Professor  
Joint Professor of Psychology and  
Professor of Community Health and Family Medicine  
Professor of Pediatrics (Affiliate)

Anca Mirsu-Paun, M.S.  
Doctoral Candidate  
Department of Psychology

*I have read the information above, and by clicking the below link I agree to voluntarily participate in this research study.*

[Press Here To Start The Survey](#)

Approved by  
University of Florida  
Institutional Review Board 02  
Protocol # 2006-U-615  
For Use Through 06-28-2007

APPENDIX D  
ONLINE PAYMENT INFORMATION WITH UF IRB APPROVAL

**You have now completed the online assessment battery. If you have questions, concerns, or you just want to know more about this research please contact Dr. Carolyn M. Tucker at [cmtucker@ufl.edu](mailto:cmtucker@ufl.edu) or Anca Mirsu-Paun at [ancamp@ufl.edu](mailto:ancamp@ufl.edu).**

**Please provide your e-mail address where you would like us to contact you with detailed information regarding your \$ 10 payment. Your e-mail address will be saved in a confidential file that is separate from the file containing your answers. In order to protect your anonymity, there is no possibility of connecting the two files and we are not saving any IP or other information from your computer. Only the principal investigators will have access to both these files.**

PLEASE ENTER E-MAIL ADDRESS HERE

**We will contact you by e-mail within 3 days and you will be asked to provide your name and a mailing address where you would like to receive your payment check.**

Approved by  
University of Florida  
Institutional Review Board 02  
Protocol # 2006-U-615  
For Use Through 06-28-2007

APPENDIX E  
E-MAIL MESSAGE TO MEDICAL STUDENTS WITH PAYMENT INFORMATION

Dear Medical Student:

Thank you so much for your participation in the study entitled "*Assessing Patient-Defined Culturally Sensitive Health Care*." We received your data and would like to promptly process your payment.

In order to process your payment, we need you to complete the attached W-9 form (the **highlighted** sections only are required). In accord with the University of Florida regulations, we cannot process your payment without having your information on the W-9 form. Please send your completed W-9 to:

Mail: Patty Troll (Cultural Sensitivity Study)  
University of Florida  
Department of Psychology  
PO Box 112250  
Gainesville, FL 32611

Fax: 352-392-7985 (Attn: Patty Troll—Cultural Sensitivity Study)

We anticipate that you will receive your \$10 check within a minimum of 6-8 weeks.

Please do not hesitate to send us any questions or comments that you might have. You can write to Anca Mirsu-Paun at [ancamp@ufl.edu](mailto:ancamp@ufl.edu).

Sincerely,

Anca Mirsu-Paun, M.S.  
Doctoral Candidate in Counseling Psychology  
University of Florida  
Department of Psychology  
P.O. Box 112250  
Gainesville, Florida 32611-2250

E-mail: [ancamp@ufl.edu](mailto:ancamp@ufl.edu)  
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## BIOGRAPHICAL SKETCH

Anca Mirsu-Paun was born in Romania, where she lived until the age of 23. She graduated with a B.S. in Psychology from the University of Bucharest in 2000 and she became a graduate student in counseling psychology at the University of Florida in 2001. As a graduate student, Anca worked with Dr. Carolyn M. Tucker and her research team as a director on the Behavioral Medicine and Health Psychology Research Project between 2002 and 2006, and she was also involved in the local community as a volunteer counselor at the Alachua County Crisis Center. Anca completed her pre-doctoral internship at the University of South Florida Counseling Center. She received her Ph.D. in 2007.

Anca's was the recipient of the Threadgill Dissertation Award from the College of Liberal Arts and Sciences at the University of Florida, the Outstanding Researcher Award from the Behavioral Medicine Research Team at the University of Florida, the Outstanding International Student Award from the College of Liberal Arts and Sciences at the University of Florida, and the Richard McGee Service Award from the Alachua County Crisis Center.

Anca's interests and hobbies include: spending time with friends, traveling, exercising, watching movies, nature watching, mountain climbing, and gardening.