Assessments for Measuring Patient-Centered Cultural Sensitivity in Community-Based Primary Care Clinics

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Objective: To develop and test the reliability of three race/ethnicity-specific forms of the pilot Tucker–Culturally Sensitive Health Care Inventory (T-CUSHCI) for use by patients at community-based primary care centers to evaluate the level of patient-centered cultural sensitivity perceived in the health care that they experience.

Methods: This research involved two studies using independent samples of primary care patients. In study 1, mostly low-income African-American, Hispanic and non-Hispanic white American patients (N=221) rated the importance of specific provider and office staff behaviors and attitudes, and center policies and physical environment characteristics that were earlier identified in previous focus groups as characteristics of patient-centered culturally sensitive healthcare. In study 2, three pilot race/ethnicity-specific T-CUSHCI patient forms were constructed from the items rated as at least important in study 1. Mostly low-income African-American and non-Hispanic white American patients (N=180) provided data to determine the reliability of the T-CUSHCI patient form for their racial/ethnic group.

Results: The pilot T-CUSHCI-African-American patient form and the pilot T-CUSHCI-non-Hispanic white American patient form were found to have Cronbach's alpha coefficients ranging from 0.71–0.96 and six-month test-retest and split-half reliabilities ranging from 0.92–0.99.

Conclusion: The pilot T-CUSHCI patient forms (one each for African Americans, Hispanics and non-Hispanic whites) should be further tested using a national sample of patients. In the interim, these inventory forms can be used as clinical tools to obtain patient feedback for providing "individualized" patient-centered culturally sensitive healthcare.

Key words: assessments ■ cultural competence ■ healthcare

BACKGROUND

Despite the fact that patients in the United States are increasingly becoming more racially and ethnically diverse,[1] the U.S. healthcare system continues to be largely staffed with non-Hispanic white American healthcare providers.[2] Some research suggests that healthcare providers demonstrate limited levels of the culture-related knowledge, skills, experience, and awareness needed to effectively and respectfully communicate with ethnically and racially diverse patients.[3]

Racial/ethnic minority patients have consistently reported experiences of discrimination in the healthcare they receive,[4,5] and they have reported disrespectful and otherwise unsatisfactory treatment quality that is not related to their socioeconomic status, insurance coverage, disease stage or severity, access to healthcare services or treatment preferences.[6-8] Consequently, these patients are less likely to return for additional medical appointments or to adhere to their treatment regimen.[9] These consequences contribute to poor health outcomes.[10,11]

In recent years, there has been a growing consensus that quality of care is a major factor in health disparities. Key strategies for improving healthcare quality include: a) promoting cultural and linguistic competence in physical and mental healthcare delivery,[12] and b) promoting culturally sensitive healthcare through improving the patient–provider relationship.[13] These strategies are being impeded by the lack of patient-centered assessments to measure cultural competence and cultural sensitivity in healthcare provision.[13]

CULTURALLY COMPETENT AND CULTURALLY SENSITIVE HEALTHCARE

Culturally competent healthcare has been defined as care in which a healthcare system, agency, program or individual provider can function effectively and appropriately in healthcare delivery to culturally diverse individuals. Furthermore, it involves having an understand-

ing, appreciation, and respect for cultural differences and similarities within, among and between culturally diverse patient groups.[14]

There is now wide acceptance of the conceptualization of cultural competence set forth by Cross and Bazron, which involves the integration of principles and values of cultural competence into the policies, structures, attitudes, behaviors and practices within healthcare organizations and systems.[15] Because cultural competence often differs within and across those domains over time, it is increasingly conceptualized as being on a continuum[2] and as involving a developmental process over time rather than as being a finite outcome.[16]

Cultural competence at the practice level includes an emphasis on healthcare provision being respectful, sensitive, responsive to patients and reflective of cultural awareness.[17] This practice-level description of cultural competence is consistent with common descriptions of cultural sensitivity in healthcare provision. For example, cultural sensitivity in healthcare has been described as "the ability to be appropriately responsive to the attitudes, feelings or circumstances of groups of people that share a common and distinctive racial, national, religious, linguistic or cultural heritage."[18] It is noteworthy that the American College of Physicians has identified culturally insensitive healthcare systems as a major contributor to the health disparities problem.[19]

PATIENT-CENTERED CULTURALLY SENSITIVE HEALTHCARE

It is reasonable to view culturally diverse patients as the experts on the indicators of culturally sensitive/insensitive healthcare. This view provides conceptual support for promoting patient-centered culturally sensitive healthcare, which has been described as cultural competence plus[20] and has the following specific characteristics: a) it emphasizes displaying patient-desired modifiable provider and staff behaviors and attitudes, implementing healthcare center policies, and displaying physical healthcare center environment characteristics that culturally diverse patients identify as indicators of respect for their culture and that enable these patients to feel comfortable with, trusting of and respected by their healthcare providers and office staff; b) it conceptualizes the patient–provider relationship as a partnership that emerges from patient centeredness; and c) it is patient empowerment oriented.[20] The following sections contain brief explanations of these characteristics.

Display of Patient-Identified Indicators

Because healthcare providers and office staff often participate in expert-centered culturally competent healthcare training and yet do not display this competence at posttraining in ways that are recognized by culturally diverse patients,[21] it seems important that such training be primarily based on what culturally diverse

Table 1. Participant demographics for study 1 and study 2

	African Americans	Hispanics	Non-Hispanic White Americans
Study 1			
N	82	45	94
Males	17 (20.7%)	15 (33.3%)	26 (27.7%)
Females	65 (79.3%)	30 (66.7%)	68 70.3%)
Age range	18–83 years	19–75 years	20–70 years
Mean age	57	56	54
Family income of <$20,000	65%	87%	66%
No high-school diploma	12%	20%	10%
High-school diploma only	29%	42%	30%
Technical training or some college education	59%	38%	60%
Study 2			
N	88	-	91
Males	20–34		
Females	68	-	57
Age range	28–85 years	-	25–89 years
Mean age	52.8–57.7		
Family income of <$20,000	82.8%	-	47.8%
Family income of $20,000–$30,000	12.7%	-	14.4%
Family income of >$30,000	5.1%	-	34.8%
No high-school diploma	20%	-	9%
High-school diploma only	37%	-	26%
Technical training or some college education	24%	-	65%

The Hispanic sample in study 2 was too small for use in statistical analyses, thus the data from this small sample was excluded from consideration in study 2.

patients view as indicators of cultural sensitivity. Obtaining this information requires: a) providing opportunities for culturally diverse patients to identify the indicators of culturally sensitive healthcare and evaluate the level of occurrence of these indicators; and b) using this patient evaluation feedback to develop, modify and evaluate training and other interventions to improve healthcare quality as perceived by culturally diverse patients. This assessment, feedback-based intervention and evaluation process must be ongoing over time given that: a) the composition of providers, office staff and patients at any healthcare center changes periodically and b) individual healthcare professionals and organizations vary in their opportunities for and commitment to becoming more culturally sensitive, thus requiring this cultural sensitivity to be a developmental process.

Patient-Centered Patient–Provider Partnerships

Central to these partnerships are providers who demonstrate empathy, compassion, and responsiveness in relation to the assessed needs, values, and preferences of their patients, and patients who are actively involved in identifying these needs, values and preferences.[21] These partnerships have been associated with increased treatment adherence by patients,[23] improvements in the health statuses of patients,[24] and reductions in misdiagnosis of patients' health problems due to poor patient–provider communication.[25] Furthermore, patients want to be active partners in their healthcare.[26,27]

Patient-Empowerment Oriented

There is agreement among researchers who have studied empowerment of blacks[28] and Hispanics[21] that empowerment of minorities must include enabling them to experience a psychological sense of personal and interpersonal control; and attending to social, political and legal factors that influence this perceived control. Thus, promotion of this perceived control among minority patients likely requires the supportive involvement of these patients and their healthcare center providers and office staff as well as individuals (e.g., administrators) at their healthcare centers who control the resources and policies of these centers.

CALLS FOR INSTRUMENTS TO ASSESS PATIENT-CENTERED CULTURAL SENSITIVE HEALTHCARE

There are increasing calls for: a) assessments that serve as vehicles for patients to evaluate the degree to which they experience patient-centered culturally sensitive healthcare, and b) self-assessments for providers and other healthcare staff to evaluate their provision of this care.[29] Yet, no such culturally sensitive healthcare assessments have been published.

There is support for developing race/ethnicity-specific forms of such assessments. Specifically, the Difference Model research approach advocates separately studying groups that are racially, ethnically and otherwise culturally different and viewing cultural differences among groups as differences (versus deficits) for which statistical controls are inadequate in group comparisons.[22,30] Additionally, many researchers have noted that without culture-specific measures and hypotheses, cultural differences are unlikely to emerge and, thus, research will be biased toward confirming a universalist perspective.[31,32]

DEVELOPMENT OF THE TUCKER–CULTURALLY SENSITIVE HEALTHCARE INVENTORY

In a previously published study, the present researchers employed the Difference Model research approach to conduct focus groups for the purpose of determining the indicators of patient-centered culturally sensitive healthcare as perceived among 135 mostly low-income, racially and ethnically diverse patients who utilize community-based primary care centers.[33] Specifically, using 20 ethnicity and gender concordant focus groups involving 52 African-American patients (31 men and 21 women), 45 Hispanic patients (18 men and 27 women) and 38 non-Hispanic white American patients (15 men and 23 women), we identified race/ethnicity-specific and race/ethnicity-unrelated indicators of patient-centered culturally sensitive healthcare. Specifically, we identified behaviors and attitudes of providers and office staff as well as healthcare center policies and physical environment characteristics that made these patient groups feel comfortable with, trusting of and respected by their providers/staff and/or feel a sense of belonging at their healthcare center.

STUDY 1

In study 1, ethnically/racially diverse patients similar to but independent of the patients who participated in the above-mentioned focus group research[33] rated the importance of the indicators of patient-centered culturally sensitive healthcare that emerged from the above mentioned focus group research. In accordance with the Difference Model research approach,[30] the participating patients were asked to rate only the indicators generated by focus groups of their own race/ethnicity.

METHOD

Participants

A total of 221 mostly low-income patients who utilize community-based primary care centers participated in study 1. Eighty-two of these participants self-identified as African American, 45 as Hispanic and 94 as non-Hispanic white American. The Hispanics were of various nationalities, with the two largest groups identifying as Puerto Rican or Cuban. The obtained demographic data on the participants in study 1 are summarized in Table 1.

Measures

An Assessment Battery (AB) for study 1 included: a) a Health Care Importance Rating Survey (HIRS), b) the Marlowe-Crowne Social Desirability Scale-Short Form (MCSDS-SF), and c) a Demographic Data Questionnaire (DDQ).

The Health Care Importance Rating Survey. Three race/ethnicity-specific versions of the HIRS were constructed by the present researchers. Each HIRS consists of race/ethnicity-specific indicators of patient-centered culturally sensitive healthcare that were identified in our previously mentioned focus group research.[33] Specifically, an African-American HIRS, Hispanic HIRS and non-Hispanic white American HIRS were constructed. Each HIRS has five components: 1) Provider Trust Behaviors and Attitudes, 2) Provider Comfort Behaviors and Attitudes, 3) Provider Respect Behaviors and Attitudes, 4) Center Office Staff Behaviors and Attitudes, and 5) center policies and physical characteristics. The first three of these components were derived from the original focus group research questions, while the latter two components are new constructs that emerged from the focus group data. The total number of items on the African-American HIRS, the Hispanic HIRS and the non-Hispanic white American HIRS are 176, 125 and 203, respectively. It is noteworthy that these items may not include some patient-perceived indicators of culturally sensitive healthcare simply because they were not prompted by the original focus group research questions. Examples of such items are operating hours of the center, access to healthcare administrators and community outreach services.

Among the directions to patients on each HIRS is to rate the importance of the listed healthcare provider and office staff behaviors and attitudes in terms of promoting a specified variable (i.e., the patient's trust of her/his provider, comfort with her/his provider, and perceived provider respect for the patient and the patient's culture). Additionally, patients are instructed to rate how important the listed healthcare center policies and character-istics are for enabling patients like themselves to feel comfortable and a sense of belonging at their healthcare center. All the items on each HIRS are rated using a Likert rating scale where 1 = not at all important, 2 = somewhat important, 3 = important, 4 = very important and 5 = extremely important.

The Marlowe Crowne Social Desirability Scale-Short Form. The MCSDS-SF was used to measure the tendency of patients to rate HIRS items in a socially desirable rather than truthful manner. The MCSDS-SF is a 20-item true-false scale that has been shown to be reliable.[34]

Demographic Data Questionnaire. The DDQ was constructed by the researchers to elicit demographic information (e.g., patients' gender, age, race/ethnicity, cultural subgroup, primary language, income level and education level).

Procedure

Participants in study 1 were recruited from seven community-based primary healthcare centers located in or near primarily minority communities in northern central Florida. The following two patient participant recruitment methods were used: 1) a center staff mailing method and 2) a center-based recruitment poster display method. In the first method, two center office staff members were paid $200 each to identify potential patient participants in their patient database using the following patient inclusion criteria: a) being ≥18 years; (b) self-identifying as African American, Hispanic or non-Hispanic white American; and c) having attended their primary care center ≥1 year. Identified potential patient participants were mailed a patient research packet consisting of an assessment battery (AB), two copies of the informed consent form, two preaddressed stamped envelopes and a participation invitation letter. This letter included a summary of the study and a request that patient participants: a) self-administer the AB and then return it within seven days in one of the provided envelopes and b) sign and return one informed consent form in the other provided envelope. A Spanish version of this

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Table 2. Means and standard deviations for patients' importance ratings for the items constituting each of the five HIRS components by racial/ethnicity

HIRS Component	African Americans		Hispanics		Non-Hispanic White Americans	
	M	SD	M	SD	M	SD
Provider trust	4.27	0.49	4.26	0.51	4.11	0.66
Provider comfort	4.13	0.50	3.86	0.69	3.76	0.65
Provider respect	3.93	0.68	4.05	0.66	3.56	0.71
Office staff	3.74	0.64	3.87	0.75	3.67	0.80
Center policies and physical environment	3.70	0.94	3.59	0.71	3.02	0.68

HIRS: Health Care Importance Rating Survey. Likert-scale rating options ranged from 1 = not at all important to 5 = extremely important. Ratings made represent patients' views regarding the level of importance of healthcare provider behaviors and attitudes for promoting patient trust, comfort or respect; center office staff behaviors and attitudes for promoting patients trust, comfort or respect combined; or center policies and physical environment characteristics for promoting patient comfort or sense of belonging.

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packet was mailed to Hispanic patients.

In the center-based recruitment poster display method of recruiting research participants, English and Spanish versions of a recruitment poster with attached patient contact slips were placed in the lobby of each of the participating primary care centers. The poster included a statement that any patient interested in being research participants should complete a patient contact slip and drop it in a secure lockbox beneath the poster. The patient contact slips included a request for information to determine whether a patient met research participation inclusion criteria. A patient research packet was mailed to each patient who completed one of these slips and also met the study inclusion criteria. Trained research assistants later called these patients to see if they had any questions about the study.

Each AB was precoded and did not collect personal information. Names matching the codes were kept in a locked file separate from the precoded data. Research participants were mailed $20 for completing the AB, which took approximately 45 minutes.

RESULTS

For each race/ethnicity-specific HIRS, the mean importance rating for each item and the main importance rating for each component were computed. The HIRS items rated 1 (not at all important) or 2 (somewhat important) were eliminated prior to the calculation of any mean importance ratings. Pearson correlation analyses revealed that the mean component ratings were not significantly correlated with the scores on the measure of social desirability, thus suggesting that patients gave truthful rather than socially desirable responses on the measures in the present study.

With the exception of the Center Policies and Physical Environment Characteristics component, the percent of items in each component of each race/ethnicity-specific HIRS that was rated as 3 (important), 4 (very important) or 5 (extremely important) ranged from 87–100%. The percents of items with these importance ratings in the Center Policies and Physical Environment Characteristics component were 59%, 55% and 80% on the African-American, non-Hispanic white, and Hispanic versions of the HIRS, respectively. The mean importance ratings and the associated standard deviations for the HIRS components by race/ethnicity are presented in Table 2.

Table 2 shows that the mean ratings for all of the HIRS components were higher for the African-American patients and the Hispanic patients as compared to the non-Hispanic white patients. Additionally, for all three racial/ethnic groups, the mean ratings for the provider trust, comfort and respect HIRS components were higher than the mean ratings for the other HIRS components. Furthermore, for all three racial/ethnic groups, the mean rating for the provider trust HIRS component was higher than the mean ratings for all of the other

HIRS components.

Examples of HIRS items rated as important, very important or extremely important by the African-American patients only, Hispanic patients only and non-Hispanic white American patients only are presented in Table 3. It is noteworthy, however, that approximately 80% of the items rated as important, very important or extremely important were common across race/ethnicity.

CONCLUSIONS

The finding that a high percentage of items in most components of each race/ethnicity-specific HIRS were rated as at least important (i.e., rated ≥3), and the finding that all components of each race/ethnicity-specific HIRS were rated as at least important (Table 2) support using these HIRS components and the items constituting them in race/ethnicity-specific forms of a pilot inventory to assess patient-centered culturally sensitive healthcare. Such inventory forms may be particularly informative in healthcare provision to African-American and Hispanic patients similar to those in study 1, given that the investigated indicators of patient-centered culturally sensitive healthcare received higher importance ratings from the African-American and Hispanic patients than from the non-Hispanic white American patients.

These conclusions, however, must be viewed with caution given the small samples of participants in Study 1 and given the nonrepresentativeness of these samples. Indeed, the participating healthcare centers were all in northern central Florida, the patient participant sample included only a small percent of males (20.7%), and this sample was low-income skewed—facts that limit the generalizability of findings in study 1. Yet, the percent of males in study 1 is consistent with the percent of males at the participating healthcare centers. Furthermore, low-income skewed samples in study 1 are consistent with the intent of study 1 to involve low-income primary care patients in this research as it is such patients who have been underrepresented in healthcare quality research.

STUDY 2

Study 2 was conducted to : a) construct the race/ethnicity-specific forms of a pilot inventory to assess patient-centered culturally sensitive healthcare (i.e., the T-CUSHCI) that were implicated by the findings in study 1, and b) determine the psychometric properties of the forms of this pilot inventory using independent but similar groups of primary care patients to those used in study 1. Specifically, a pilot T-CUSHCI African American Patient Form and a pilot T-CUSHCI non-Hispanic white American patient form were constructed, and the test-retest reliability, split-half reliability and alpha coefficient for each form were determined. Additionally, a pilot T-CUSHCI Hispanic patient form was constructed; however, because only a few Hispanic patients were recruited for study 2, this form could not be evaluated for

its psychometric properties.

There are no known published assessment inventories for measuring cultural sensitivity in physical healthcare provision to which to compare the pilot T-CUSHCI patient forms. However, there are major differences between the T-CUSHCI patient forms and both published measures of cultural competence in healthcare, (e.g., the Cultural Competence Self Assessment Questionnaire[35] and the Cultural Competence Scale[36]) and published measures of patient healthcare quality satisfaction (e.g., the Patient Satisfaction Questionnaire[37]). The published cultural competence measures: a) are self-assessments for use by providers, b) emphasize assessing knowledge of and contact with culturally diverse patients and groups, c) assess use of culture specific evaluation and treatment methods, and d) consist of items generated by professional experts. In contrast, the pilot T-CUSHCI patient forms: a) are for use by patients, b) assess specific provider and office staff behaviors and attitudes and healthcare center policies and physical characteristics, c) emphasize assessment of culture-specific interpersonal behaviors, and d) consist of items generated by low-income racial/ethnic minority and majority patients.

The T-CUSHCI patient forms typically differ from published patient satisfaction questionnaires as well as published cultural competence measures in that only the T-CUSHCI patient forms: a) assess behaviors and atti-

tudes of healthcare center office staff; and b) emphasize assessment of nonverbal behaviors and perceived racist and discrimination behaviors and policy violations of which center providers, office staff and administration are often unaware.

METHOD

Participants

Study 2 participants were 179 adult patients who utilize one of two community-based primary care clinics that are located in/near the same low-income community. Eighty-eight of these participants self-identified as African American and 91 self-identified as non-Hispanic white American. The obtained demographic data on these participants are summarized in Table 1. All data for six Hispanics were excluded from study 2 because these data were inadequate for statistical analyses.

Measures

An AB for this study included: a) the pilot T-CUSHCI African-American patient form or the T-CUSHCI non-Hispanic white American patient form, b) the Marlowe Crowne Social Desirability Scale-Short Form (MCS-DS-SF), and c) a DDQ. The MCSDS-SF and DDQ were earlier described in study 1; thus, only the two pilot T-CUSHCI patient forms are described here.

Table 3. Examples of race/ethnicity specific HIRS items by component rated by patients as at least important, and their mean item importance ratings and standard deviations

Patient Group	HIRS Component	Example Item	M	SD
African Americans	Provider Trust	Explains things so that you can understand them	4.79	0.49
	Provider Comfort	Correctly diagnoses and treats your illness	4.82	0.45
	Provider Respect	Knows what he or she is doing	4.65	0.64
	Office Staff	Does not discriminate against you because of your race	4.59	0.72
	Center Policies and Physical Environment	Is odorless	4.19	0.74
Hispanic Americans	Provider Trust	Prescribes treatments and medicines that work	4.73	0.54
	Provider Comfort	Seems interested in your problem	4.45	0.73
	Provider Respect	Is honest and direct with you	4.70	0.64
	Office Staff	Treats all patients equally	4.32	0.86
	Center Policies and Physical Environment	Charges lower fees to patients without insurance	4.42	0.72
NHWAs	Provider Trust	Is more knowledgeable about medicine than you	4.70	0.77
	Provider Comfort	Speaks English well	4.55	0.74
	Provider Respect	Does not talk down to you	4.41	1.01
	Office Staff	Does not act prejudiced	4.34	1.18
	Center Policies and Physical Environment	Has management that lets doctors do their jobs	4.46	0.92

HIRS: Health Care Importance Rating Survey. Likert-scale rating options ranged from 1 = not at all important to 5 = extremely important. Mean ratings represent patients' views regarding the level of importance of the culturally sensitive health care characteristics on the HIRS by component and race; NHWA: non-Hispanic white Americans

The pilot T-CUSHCI African-American patient form (125 items) and the pilot T-CUSHCI non-Hispanic white American patient form (134 items) were constructed using the items listed on the African-American HIRS and the non-Hispanic white American HIRS, respectively, that were rated as the least important in study 1. These two pilot T-CUSHCI patient forms contained the following three components: Provider Behaviors and Attitudes, Office Staff Behaviors and Attitudes, and Center Policies and Physical Environment Characteristics. Because of the overlap among most of the provider behaviors and attitudes that patients identified as promoting patient comfort with, respect for or trust of providers, these behaviors/attitudes were combined.

The directions for each of the pilot T-CUSHCI patient forms instructed patient respondents to rate how much they agreed that: a) their healthcare provider displays each of the listed provider behaviors and attitudes; b) the office staff at their center display each of the listed behaviors and attitudes; and c) their center implements the listed policies and has the listed physical environment characteristics. The rating options were on a Likert rating scale where 4 = strongly agree, 3 = agree, 2 = disagree, and 1 = strongly disagree. Higher scores indicate higher levels of perceived patient-centered cultural sensitivity in healthcare experienced.

Procedure

Participants were recruited as part of an intervention project to promote patient-centered culturally sensitive healthcare. The participation inclusion criteria for this project and thus the larger project were as follows: a) age ≥18 years; b) having received a diagnosis of hypertension with or without diabetes, high cholesterol, and/or coronary artery disease; c) having visited one of the two participating healthcare centers ≥3 times in the past year; and d) identifies as African American, Hispanic or non-Hispanic white American. The specified health ailments were among the inclusion criteria because of the high prevalence of these ailments among both the majority group (non-Hispanic white American) and the two largest racial/ethnic minority groups (African Americans and Hispanics) in the United States and because these ailments are disproportionately more prevalent among the specified minority groups as compared to the majority group. Thus, the health ailment criterion adds to the potential of the present study for advancing future research to reduce health disparities.

A staff member at each participating center was paid $200 to identify patients at her center who met the participant inclusion criteria and to mail each of these patients an invitation letter similar to that used in study 1, two copies of an informed consent form, and a postage-paid preaddressed envelope for returning a signed informed consent form to the researchers. Upon receipt of the latter, the patient who signed the form was mailed a copy of the AB and a cover letter in which patients were asked to self-administer and then return the AB within seven days to the researchers in the provided envelope. Each AB was precoded and did not collect personal identification information. Names matching the codes were kept in a locked file separate from the precoded data. All patients who completed the first set of questionnaires were mailed the retest AB six months later. Each patient was mailed $20 each time she/he completed the AB, which required approximately 45 minutes.

A total of 268 patients met the inclusion criteria for and gave their consent to participate in study 2. Of these patients, 185 (69%) completed and returned the first AB. Given that only six of these 185 patients were Hispanics, the data from these six participants were excluded from research consideration. Of the remaining 179 participants, all of whom were either African American or non-Hispanic white American, 119 (66.5%) completed and returned the retest AB six months after returning the first AB.

RESULTS

Means and standard deviations were calculated for patients' cultural sensitivity ratings for the items constituting each component of the pilot T-CUSHCI African-American patient form and each component of the pilot T-CUSCHI white American patient form. These ratings represent patients' level of agreement that the cultural sensitivity indicators in each of the three components of these forms (i.e., the Provider Behaviors and Attitudes component, Office Staff Behaviors and Attitudes component, and Center Policies and Physical Environment Characteristics component) are characteristic of the primary provider, office staff, or specified policies and physical environment characteristics at the patients' healthcare center.

The obtained cultural sensitivity ratings data are presented in Table 4, which reveals some noteworthy trends. Specifically, for both the African-American patients and the non-Hispanic white American patients, the mean cultural sensitivity ratings for the Provider Behaviors and Attitudes component were slightly higher than the mean cultural sensitivity ratings for the Office Staff Behaviors and Attitudes and for the Center Policies and Physical Environment Characteristics. Additionally, the mean cultural sensitivity rating for the Provider Behaviors and Attitudes was slightly lower for the African-American patients as compared to the non-Hispanic white American patients. In contrast, the mean cultural sensitivity ratings for the Office Staff Behaviors and Attitudes component and for the Center Policies and Physical Environment Characteristics component were slightly higher for the African-American patients as compared to the non-Hispanic white American patients.

The six-month test-retest reliabilities, split-half reliabilities and alpha coefficients for the pilot T-CUSH-

CI patient forms were also determined, as obtaining this data was the primary focus of study 2. For the pilot T-CUSCHI African-American patient form, the six-month test-retest reliabilities for its Provider Behaviors and Attitudes, Office Staff Behaviors and Attitudes, and Center Policies and Physical Environment Characteristics components were 0.99, 0.98 and 0.97, respectively; the split-half reliabilities were 0.90, 0.87 and 0.95, respectively; and the alpha coefficients were 0.98, 0.95 and 0.97, respectively.

For the pilot T-CUSCHI-non-Hispanic white American patient form, the six-month test-retest reliabilities for the Provider Behaviors and Attitudes, Office Staff Behaviors and Attitudes, and Center Policies and Physical Environment Characteristics components were 0.97, 0.98 and 0.99, respectively; the split-half reliabilities were 0.97, 0.92 and 0.89, respectively; and the alpha coefficients were 0.99, 0.98 and 0.92, respectively.

CONCLUSIONS

The pilot T-CUSHCI African-American patient form and the pilot T-CUSHCI non-Hispanic white American patient form constructed in study 2 each appear to have adequate to very good test-retest reliability, split-half reliability and internal consistency. Thus, strong support is provided for future research to examine the reliability and validity of the pilot T-CUSHCI patient forms, including the pilot T-CUSHCI Hispanic patient form, using a large national sample of primary care patients. Given that Hispanic patient populations often include individuals who represent different nationalities, it is important that this future national sample include large numbers of participants who represent each of specified nationalities.

The finding in study 2 that the mean cultural sensitivity ratings by patients on the investigated T-CUSHCI patient form components ranged from 2.94–3.39 on a four-point scale, where 4 reflects the highest perceived cultural sensitivity, is also noteworthy as this finding suggests that there is room for improvement in the perceived levels of patient-centered cultural sensitivity in the healthcare experienced by mostly low-income African American and non-Hispanic white American primary care patients similar to those in study 2. The finding that for both of the investigated T-CUSHCI patient forms, the mean cultural sensitivity ratings for the Provider Behaviors and Attitudes component were slightly higher than the mean cultural sensitivity ratings for the Office Staff Behaviors component and the Center Policies and Physical Environment Characteristics component is also noteworthy. This finding suggests that future healthcare quality measures should ideally include a focus on the verbal and nonverbal behaviors of healthcare office staff—a focus that is presently unique to the pilot T-CUSHCI patient forms. The finding of some racial/ethnic trend differences in the mean cultural sensitivity ratings among the compo-

nents of the T-CUSHCI patient forms provides tentative support for race/ethnicity-specific assessment of the perceived patient-centered cultural sensitivity in the healthcare experienced by culturally diverse patients who use community-based primary care centers.

At present, the findings in study 2 and the stated implications of these findings must be viewed with caution given the small samples of African-American and non-Hispanic white American participants in this study. It is also the case that there were fewer males (22.7%) than females (77.3%) in study 2, yet the gender composition in this study is typical of that in the participating community-based primary care centers. Furthermore, the participants in study 2 were from one small city and were mostly from low-income families, which limit the generalizability of its findings. However, as was the case in study 1, a strength of study 2 is that it intentionally targeted recruitment sites that mostly serve low-income patients.

It is noteworthy that the resulting inadequate sample of Hispanic patients for study 2 was due to the following participant deterrents: a) the federal requirement that research participants each sign a W-2 form, which requires one's social security number in order to be paid for their research participation—a requirement imposed subsequent to implementation of study 1; b) the absence of Hispanic community member research consultants to address research-related questions from potential Hispanic patient participants; and c) the migrant worker status of a large percent of the potential Hispanic patient participants.

Future efforts to involve low-income Hispanic patients in research similar to the present study will likely benefit from using nonmonetary participation incentives (e.g., food, entertainment), and providing potential Hispanic research participants opportunities to receive answers to their questions about the planned research from community members trained to answer these questions.

GENERAL CONCLUSIONS

Currently, there are national calls for patient-centered culturally sensitive healthcare as a way to improve healthcare quality, access, and utilization among racial/ethnic minorities toward the ultimate goal of reducing health disparities. Provision of such healthcare is being impeded by the paucity of research to identify patients' views regarding specific behaviors and attitudes of providers and office staff, and specific center policies and physical environment characteristics that constitute culturally sensitive healthcare; and the lack of assessment instruments for patients to evaluate the level of perceived patient-centered cultural sensitivity that they experience in the healthcare they receive. Such assessments instruments are needed to help determine the need for, content of, and impact of provider and office staff trainings and other interventions to promote patient-centered culturally sensitive health and to ultimately improve health outcomes of patients, especially those who are racial/ethnic minorities.

Thus, in study 1 of the present research, mostly low-income African-American, Hispanic and non-Hispanic white American patients rated the importance of specific provider and office staff behaviors and attitudes, and center policies and physical environment characteristics that were identified in previous patient focus groups as indicators of patient-centered culturally sensitive healthcare. In study 2, three pilot race/ethnicity specific T-CUSHCI patient forms (i.e., the T-CUSHCI African American patient form, the T-CUSHCI Hispanic patient form, and the T-CUSHCI white American patient form) were constructed from the items rated as at least important in study 1. Mostly low-income African-American and non-Hispanic white American patients in study 2 provided data for determining the reliability of the T-CUSHCI patient form for their racial/ethnic group. The number of Hispanic patients in study 2 was too small for obtaining needed data to establish the reliability of the T-CUSHCI Hispanic patient form and, thus, these patients were excluded from study 2.

Major findings from study 1 include that 87–100% percent of the race/ethnicity-specific provider behaviors and attitudes and office staff behaviors and attitudes investigated as indicators of patient-centered culturally sensitive healthcare were rated as at least important by the respective racial/ethnic patient participant group (i.e., African-American patients, non-Hispanic white American patients and Hispanic patients). This finding suggests that there is high agreement among the mostly low-income patients in this study regarding these indicators. The percents of the center policies and physical environment characteristics rated as at least important by the African-American, non-Hispanic white American and Hispanic patients were 59%, 55% and 80%, respectively. Together, these data provided support for constructing pilot race/ethnicity-specific forms of a pilot inventory for patients to evaluate the level of patient-centered cultural sensitivity that they experience in the healthcare they receive.

Other important findings in study 1 include that the African-American patients and the Hispanic patients as compared to the non-Hispanic white American patients gave higher importance ratings to the provider comfort, trust and respect behaviors and attitudes, the office staff behaviors and attitudes, and the center policies and physical environment characteristics. Additionally, all three racial/ethnic groups nearly always gave the highest importance ratings to the provider variables than to the office staff and center variables. These findings provide support for empowering patients to be participants in defining patient-centered cultural sensitivity in the healthcare they experience and doing so in a way that allows recognition of the culture-specific characteristics of this care. Furthermore, these findings suggest that this care may be especially important among racial/ethnic minority patients.

In study 2, major findings included that the constructed and investigated pilot T-CUSHCI African-American patient form and pilot T-CUSHCI non-Hispanic American patient form were found to be highly reliable based on their six-month test-retest reliabilities, split-half reliabilities and alpha coefficients. It was also found that when African-American and non-Hispanic white American primary care patients rated their perceived cultural sensitivity in the healthcare they experienced using a race/ethnicity specific T-CUSHCI patient form, their mean cultural sensitivity ratings on the components of these forms ranged from 2.94–3.39 on a four-point scale where 4 reflects the highest perceived cultural sensitivity. This finding suggests that there is room for improvement in the provision of patient-centered culturally sensitive healthcare to African-American and non-Hispanic white American patients similar to those in study 2. The finding of some racial/ethnic differences in the mean cultural sensitivity ratings for the components of the T-CUSHCI patient forms provide support for race/ethnicity specific assessment of the perceived patient-centered cultural sensitivity in the healthcare experienced by culturally diverse community-based primary care patients.

Together the findings in study 1 and study 2 have several implications. One implication is that low-income primary care patients, especially those who are racial/ethnic minority patients, should be included in determining indicators of patient-centered culturally sensitive healthcare and in evaluating and developing assess-

Table 4. Means and standard deviations for patients' cultural sensitivity ratings for the items constituting each component of the pilot T-CUSHCI African-American patient form and the pilot T-CUSHCI-non-Hispanic white American patient form

	African Americans		Non-Hispanic White Americans	
	Mean	SD	Mean	SD
Provider Behaviors/Attitudes	3.26	0.54	3.39	0.50
Office Staff Behaviors/Attitudes	3.18	0.55	2.98	0.45
Center Policies and Physical Environment Characteristics	3.11	0.52	2.94	0.37

Likert-scale ratings of the items constituting each of the listed three components of the pilot patient T-CUSHCI patient forms were provided using rating options from 4 = strongly agree to 1 = strongly disagree that each item by patients was characteristic of the primary provider, office staff, or specified policies and physical environment characteristics at their health care center.

ments to evaluate the levels of cultural sensitivity in the healthcare they experience.

A second implication of the combined findings from study 1 and study 2 is that it is likely important to train healthcare center office staff and administrators as well as healthcare providers and medical students to engage in and promote patient-centered culturally sensitive healthcare. Making healthcare center policy and physical environment changes appears to be an important aspect of this care. These views are consistent with the widely accepted views that promotion of cultural competence and cultural sensitivity require changes at the provider, organizational and system levels.

A third implication of the findings from studies 1 and 2 is that future research is warranted to further develop the T-CUSHCI patient forms. The planned next-step research will involve a national sample of patients and will focus on determining the factor structure, reliability and validity of a combined version of the pilot T-CUSHCI-Patient Forms, including the pilot T-CUSHCI-Hispanic Patient Form; and determining any factor structure differences by race/ethnicity, gender, age and socioeconomic status. The ultimate goal of this future research is to have one T-CUSHCI patient form with scoring adjustments for identified factors and/or items that are specific to race/ethnicity, gender, age or socioeconomic status.

Until this planned future research occurs, the pilot race/ethnicity-specific T-CUSHCI patient forms can be used as innovative clinical tools for guiding provider interactions with patients. Specifically, patients can be instructed to check those listed provider and staff behaviors and attitudes and center policies and physical environment characteristics on the race/ethnicity-specific T-CUSHCI patient form that are important to them, and later after a few healthcare visits, rate their level of agreement that they experienced the checked behaviors, attitudes and characteristics. Patients can also add items to the T-CUSHCI that are personally important. Each patient's completed T-CUSHCI patient form can be placed in her/his medical chart for review by the attending healthcare provider as standard procedure. Healthcare providers and organizations will likely embrace these clinical tools as part of national healthcare quality improvement efforts.

The above described standard clinical tool procedure and the planned combined T-CUSHCI have much potential for promoting time efficient, culturally sensitive healthcare that accommodates the subcultural and individual differences within cultural groups. Such innovative "individualized" patient-centered culturally sensitive healthcare will foster the patient–provider collaborations and patient healthcare evaluations being called for nationally to help reduce the healthcare disparities that have a disproportionally negative impact on racial ethnic minorities and the poor in our nation.

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REFERENCES

1. U.S. Bureau of the Census. *Current Population Reports, Series P25-1130: Population Projections of the United States by Sex, Race, and Hispanic Origin, 1995 to 2050*. Washington, DC: U.S. Bureau of the Census; 1996.

2. Brach C, Fraser I. Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Med Care Res Rev.* 2000;57(suppl 1):181-217.

3. Shapiro J, Hollingshead J, Morrison EH. Primary care resident, faculty, and patient views of barriers to cultural competence, and the skills needed to overcome them. *Med Educ.* 2002;36:749-759.

4. Chen FM, Fryer GE Jr, Phillips RL Jr, et al. Patients' beliefs about racism, preferences for physician race, and satisfaction with care. *Ann Fam Med.* 2005;3:138-143.

5. Stewart AL, Napoles-Springer A, Perez-Stable EJ. Interpersonal processes of care in diverse populations. *Milbank Q.* 1999;77:305-309,274.

6. Mayberry RM, Mili F, Ofili E. Racial and ethnic differences in access to medical care. *Med Care Res Rev.* 2000;57:108-145.

7. Weinick RM, Zuvekas SH, Cohen JW. Racial and ethnic differences in access to and use of health care services, 1977 to 1996. *Med Care Res Rev.* 2000;57:36-54.

8. Cooper LA, Roter DL, Johnson RL, et al. Patient-centered communication, ratings of care, and concordance of patient and physician race. Commonwealth Fund Web site. December 2003. www.cmwf.org/publications/publications_show.htm?doc_id=221464. Accessed 07/24/06.

9. Agency for Healthcare Research and Quality, US Department of Health and Human Services. *2004 National Healthcare Disparities Report.* Rockville, MD: Government Printing Office; 2004.

10. Proctor EK, Davis LE. The challenge of racial differences: Skills for clinical practice. *Soc Work.* 1994;39:314-323.

11. Snowden L. Ethnic minority populations and mental health outcomes. *New Dir Ment Health Serv.* 1996;71:79-87.

12. Goode TD, Dunne MC, Bronheim SM. The evidence base for cultural and linguistic competency in health care. Commonwealth Fund pub. no. 962; 2006. www.cmwf.org/usr_doc/Goode_evidence_base_cult_linguistic_comp_seattle.pdf.

13. Setting the Agenda for Research on Cultural Competence in Health Care: Final Report. Rockville, MD: U.S. Department of Health and Human Services Office of Minority Health and Agency for Healthcare Research and Quality; 2004.

14. U.S. Department of Health and Human Services, Health Resources and Services Administration. *Definitions of Cultural Competence.* Reviewed 2002. http://bhpr.hrsa.gov/diversity/cultcomp.htm.

15. Cross TL. *Towards a Culturally Competent System of Care. Vol. I: A Monograph on Effective Services for Minority Children who are Severely Emotionally Disturbed.* Washington, DC: CASSP Technical Assistance Center, Georgetown University Child Development Center; 1989.

16. Like RC. Culturally competent managed health care: a family physician's perspective. *J Transcult Nurs.* 1999;10:288-289.

17. Betancourt JR, Green AR, Carrillo JE, et al. Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep.* 2003;118:293-303.

18. U.S. Department of Health and Human Services, Office of Minority Health. *National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health Care.* 2001. www.hablamosjuntos.org/signage/PDF/omh.pdf.

19. American College of Physicians. Racial and ethnic disparities in health care. *Ann Intern Med.* 2004;141:226-232.

20. Tucker CM, Herman KC, Ferdinand LA, et al. Providing patient-centered culturally sensitive health care: A formative model. *Couns Psychol.* In press.

21. Paterson B. Myth of empowerment in chronic illness. *J Adv Nurs.*

2001;34:574-581.

22. Institute of Medicine, Board of Health Sciences Policy, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington, DC: National Academy Press; 2002.

23. Beck R, Daughtridge R, Sloane PD. Physician-patient communication and outcomes: A systematic review. *J Am Board Fam Pract.* 2002;15:25-38.

24. Michie S, Miles J, Weinman J. Patient-centeredness in chronic illness: What is it and does it matter? *Patient Educ Couns.* 2003;51:197-206.

25. DiMatteo MR. The role of the physician in the emerging health care environment. *West J Med.* 1998;168:328-333.

26. Earnest MA, Ross SE, Moore L, et al. Use of a patient-accessible electronic medical record in a practice for congestive heart failure: patient and physician experiences. *J Am Med Inform Assoc.* 2004;11:410-417.

27. Ross SE, Moore LA, Earnest MA. Providing a Web-based online medical record with electronic communication capabilities to patients with congestive heart failure: Randomized trial. J Med Internet Res. 2004;6:(e1)2.

28. Solomon BB. *Black empowerment: Social work in oppressed communities.* New York, NY: Community University Press; 1976.

29. Agency for Healthcare Research and Quality. *2003 National Healthcare Disparities Report.* Rockville, MD: Government Printing Office; 2003.

30. Oyemade U, Rosser P. Development in Black children. *Adv Beh Pediatrics.* 1980;1:153-179.

31. Betancourt H, Lopez SR. The study of culture, ethnicity, and race in American psychology. *Am Psychol.* 1993;48:629-637.

32. Hall GCN. Psychotherapy research with ethnic minorities: Empirical, ethical, and conceptual issues. *J Couns Clin Psychol.* 2001;69:502-510.

33. Tucker CM, Herman KC, Pedersen TR, et al. Cultural sensitivity in physician-patient relationships. Perspectives of an ethnically diverse sample of low-income primary care patients. *Med Care.* 2003;41:859-870.

34. Crowne DP, Marlowe D. A new scale of social desirability independent of psychopathology. *J Consult Psychol.* 1960;24:349-354.

35. Mason J. *Cultural competence self-assessment questionnaire: a manual for users.* Portland, OR: Portland State University, Research and Training Center on Family Support and Children's Mental Health; 1995.

36. Kim-Godwin YS, Clarke, PN, Barton LA. Model for the delivery of culturally competent community care. *J Adv Nurs.* 2001;35(6):918-925.

37. Marshall GN, Hays, RD. The Patient-Satisfaction Questionnaire Short-Form (PSQ-18). Form P-7865. Santa Monica, CA: Rand Corp.; 1994. ■