

# Development of an Inventory for Health-Care Office Staff to Self-Assess Their Patient-Centered Cultural Sensitivity

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## Abstract

**Background:** Patient-centered culturally sensitive health care (PC-CSHC) is a best practice approach for improving health-care delivery to culturally diverse populations and reducing health disparities. Despite patients' report that cultural sensitivity by health-care office staff is an important aspect of PC-CSHC, the majority of available research on PC-CSHC focuses exclusively on health-care providers. This may be due in part to the paucity of instruments available to assess the cultural sensitivity of health-care office staff. The objective of the present study is to determine the psychometric properties of the Tucker-Culturally Sensitive Health Care Office Staff Inventory-Self-Assessment Form (T-CSHCOSI-SAF). This instrument is designed to enable health-care office staff to self-assess their level of agreement that they display behaviors and attitudes that culturally diverse patients have identified as office staff cultural sensitivity indicators.

**Methods:** A sample of 510 health-care office staff were recruited at 67 health-care sites across the United States. These health-care office staff anonymously completed the T-CSHCOSI-SAF and a demographic data questionnaire.

**Results and Level of Evidence:** Confirmatory factor analyses of the T-CSHCOSI-SAF revealed that this inventory has 2 factors with high internal consistency reliability (Cronbach's  $\alpha$ s = .916 and .912).

**Conclusion and Implications:** The T-CSHCOSI-SAF is a useful inventory for health-care office staff to assess their own level of patient-centered cultural sensitivity. Such self-assessment data can be used in the development and implementation of trainings to promote patient-centered cultural sensitivity of health-care office staff and to help draw the attention of these staff to displaying patient-centered cultural sensitivity.

## Keywords

patient-centeredness, practice management, primary care, cost-effectiveness, quality improvement

## Introduction

Patient-centered culturally sensitive health care (PC-CSHC) has been recognized as a best practice approach for improving health-care delivery to culturally diverse populations and reducing health disparities.<sup>1-3</sup> The PC-CSHC has been defined by culturally diverse patients as health care that enables these patients to feel comfortable with, trusting of, and respected by their health-care providers, health-care office staff, and the health-care clinic environment and policies.<sup>4</sup>

Despite patients' report that culturally sensitive health care is multifaceted, the majority of available research pertaining to PC-CSHC focuses exclusively on health-care providers.<sup>4-6</sup> Additionally, despite evidence regarding patients' perception of the important role of health-care office staff in the

health-care delivery system and in patients' experience of PC-CSHC, there is limited research on the patient-centered cultural sensitivity of health-care office staff.<sup>7-10</sup> This may be due in part to the paucity of inventories available to measure the patient-centered cultural sensitivity of health-care office staff.<sup>3</sup> Tucker and colleagues introduced and validated the only

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Submitted December 9, 2015. Accepted December 9, 2015.

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known inventory designed for culturally diverse patients to evaluate the patient-centered cultural sensitivity of their health-care office staff.<sup>3</sup> This inventory is the Tucker-Culturally Sensitive Health Care Office Staff Inventory-Patient Form (T-CSHCOSI-PF).<sup>3</sup>

While the T-CSHCOSI-PF provides a means for patients to assess the cultural sensitivity of their health-care office staff, there are no known inventories designed for health-care office staff to self-assess their level of patient-centered cultural sensitivity. Self-assessment inventories are commonly used and valued in health-care research and practice and have been recommended for use as a tool to improve health-care quality and increase cultural sensitivity and competence.<sup>11,12</sup> Self-assessment inventories also encourage self-awareness and self-reflection—hallmarks of multicultural training/competence and improved clinical care.<sup>12,13</sup>

The purpose of the present study is to develop the final version of the Tucker-Culturally Sensitive Health Care Office Staff Inventory—Self Assessment Form (T-CSHCOSI-SAF). The T-CSHCOSI-SAF is a revised version of the T-CSHCOSI-PF.<sup>3</sup> The difference between the 2 assessment inventories is that the T-CSHCOSI-PF is used by patients to rate the level of patient-centered cultural sensitivity of their health-care office staff, whereas the T-CSHCOSI-SAF is used by health-care office staff to rate their own level of patient-centered cultural sensitivity. The items that assess various characteristics of health care on both assessment inventories are similar and were generated from focus groups with culturally diverse patients (eg, African American, Hispanic/Latino, and non-Hispanic white patients) during which these patients were asked to identify specific behaviors, attitudes, and knowledge of health-care office staff that enable patients to feel comfortable with, respected by, and trusting of their health-care office staff.<sup>9,14</sup>

The specific purpose of the present study is 2-fold. First, this study sought to establish the final version of the T-CSHCOSI-SAF through the use of factor analyses applied to the items on the pilot version of this inventory. Second, this study sought to determine the internal consistency and reliability of the resulting factors/subscales of the final version of the T-CSHCOSI-SAF.

## Method

### Participants and Procedure

The present study was part of a large national study investigating the characteristics of patient-centered culturally sensitive health care and included 3 steps. In step 1, the research team identified and recruited health-care sites that serve primarily ethnic/racial minorities and low-income patients. These health-care sites were located in the Midwest, Northeast, South, and West regions of the United States.

In step 2, administrators who agreed to have their health-care site participate in the study identified a staff person to be a data collection coordinator (DCC) who in turn

identified 2 community members to be data collectors (DCs). The DCCs for each site then received telephonic training and recruitment and participation materials (ie, payment release forms, informed consent forms, and assessment batteries by mail).

In step 3, health-care office staff received (from the DCs) an invitation letter to participate in the study and study materials (eg, assessment battery). The health-care office staff members who chose to participate completed an informed consent form, which included their name, and the assessment battery, which was anonymous. Each participating health-care office staff then returned their signed informed consent form and their completed assessment battery to a DCC in separate sealed envelopes. The full procedures pertaining to the recruitment of health-care sites and study participants, as well as study implementation, are discussed in detail elsewhere.<sup>3</sup> Prior to study implementation, Institutional Review Board approval was obtained from the host institution.

Data for the present study were collected from 510 health-care office staff at 67 volunteer health-care centers throughout the United States. Criteria for health-care office staff to participate in this project were as follows: (1) be at least 18 years old, (1) be employed as office staff at 1 of the 67 health-care sites participating in the project, and (3) be able to communicate either verbally or in writing in English and/or Spanish.

Of the 510 health-care office staff, 56 (11%) were males, 446 (87.5%) were females, and 8 individuals did not report their sex. This sex composition is reflective of the higher national proportion of females working in office staff positions when compared to males.<sup>15</sup> In terms of race/ethnicity of the study participants, 40% were white, 28% were Hispanic/Latino, 19.4% were African American, 4.9% were Asian/Asian American, 0.4% were American Indian/Native American, 2.5% identified as other race/ethnicity, and 4.7% did not report their race/ethnicity. The sample's age distribution was as follows: 18 to 24 (8.8%), 25 to 34 (30.9%), 35 to 44 (26.3%), 45 to 54 (22%), 55 to 64 (9.5%), and 65+ years (2.4%). A few (1%) participants did not report their age.

### Measures

For the purpose of this study, the following 2 questionnaires were used:

Demographic data questionnaire for office staff (DDQ-OS):

The DDQ-OS was designed to collect demographic information on each office staff participant including gender, age, race/ethnicity, and professional title.

Pilot tucker-culturally sensitive health care office staff inventory-office staff form (T-CSHCOSI-SAF): This 62-item pilot inventory is a self-assessment instrument for use by health-care office staff to report their self-perceived level of patient-centered cultural sensitivity during their interactions with patients. This pilot inventory consists of the same items as those on the pilot

version of the T-CSHCOSI-PF—an inventory used by patients to rate their perceived level of patient-centered cultural sensitivity by office staff.<sup>14</sup> Items on the pilot T-CSHCOSI-SAF are rated on a 4-point Likert-type scale in which 1 = “strongly disagree” and 4 = “strongly agree.” Sample items include “I take time with our patients” or “I know our patients’ names.”

## Results

### Exploratory Factor Analysis

In order to determine the latent factor structure of the pilot T-CSHCOSI-SAF, an exploratory factor analysis (EFA) using MPLUS 7 was conducted on the 62 items constituting this pilot inventory. An oblique, promax rotation was employed, given the expected correlation between factors.<sup>16</sup>

The investigators explored a 2-factor structure using a priori knowledge based on factor analyses of variants of the pilot T-CSHCOSI-PF, which resulted in 2 factors in the final version of this inventory: Sensitivity/Interpersonal Skill and Professionalism/Punctuality/Responsiveness.<sup>3</sup> The scree plot of eigenvalues was examined to corroborate a 2-factor model using the data from the pilot (T-CSHCOSI-SAF). A point of inflexion was observed about the third factor, suggesting a 2-factor model.<sup>17</sup> In order to increase the interpretability of the factor solution, an iterative approach was practiced.<sup>18,19</sup> This process resulted in the retention of 49 of the original items, which are described in Table 1.

The 2-factor model produced a root mean square error of approximation (RMSEA) fit index of .05 suggesting a close fit.<sup>20</sup> The 2-factor model included factor 1 (interpersonal skills/professionalism) and factor 2 (responsiveness/sensitivity/fairness) and explained on average 53% of the variance in the set of predictors. The 2 factors produced a correlation of .367.

### Internal Consistency and Reliability

Reliability and internal consistency were examined using the results produced by the 2-factor EFA. Cronbach  $\alpha$  was calculated for each of the 2 latent factors to examine internal consistency. The 2 factors of the T-CSHCOSI-SAF, Interpersonal Skills/Professionalism ( $\alpha = .916$ ) and Responsiveness/Sensitivity/Fairness ( $\alpha = .912$ ), evidenced excellent internal consistency.<sup>21</sup>

### Confirmatory Factor Analysis

A confirmatory factor analysis (CFA) was used to test the fit of the 2-factor model. The comparative fit index (CFI) and the Tucker-Lewis Fit Index (TLI) produced indices of .925 and .921 respectively, suggesting an excellent fitting model.<sup>22-24</sup> The RMSEA value of .06 ( $P < .05$ ) suggests a reasonable error of approximation.<sup>23</sup> Factor loadings for the final 2-factor solution are provided in Table 1.

## Discussion

The present study sets forth an inventory for health-care office staff to self-assess their level of patient-centered cultural sensitivity in interactions with culturally diverse patients—an inventory called the T-CSHCOSI-SAF. The T-CSHCOSI-SAF was developed through performing factor analyses on data collected using the pilot version of the T-CSHCOSI-SAF.

The evidence in this study indicating that the T-CSHCOSI-SAF may be a promising and reliable inventory for use among health-care office staff has several implications. First, the T-CSHCOSI-SAF can be completed by health-care office staff to facilitate their awareness of (1) the specific behaviors, attitudes, and knowledge that indicate patient-centered cultural sensitivity by healthcare office staff and (2) their self-ratings of their level of display of these behaviors, attitudes, and knowledge. These self-ratings of patient-centered cultural sensitivity by health-care office staff can be used to guide and tailor training of these staff. Furthermore, this training can be organized to focus on the 2 distinct subscales of the T-CSHCOSI-SAF: (1) Interpersonal Skills/Professionalism and (2) Responsiveness/Sensitivity/Fairness.

In future research, the T-CSHCOSI-PF (ie, an inventory that allows patients to rate the patient-centered cultural sensitivity of the office staff at their healthcare site) and the T-CSHCOSI-SAF could be used in tandem to identify discrepancies between patients’ ratings of the cultural sensitivity of their office staff and these same office staff’s self-assessment of their personal level of patient-centered cultural sensitivity. Discrepancies may help inform training of health-care office staff to display patient-centered cultural sensitivity in interactions with culturally diverse patients. Finally, the inventory could be used to encourage introspection, self-reflection, and increased self-awareness of patient-centered cultural sensitivity among office staff as a means to improve PC-CSHC.<sup>12</sup>

There are noteworthy study limitations that should be considered when interpreting the present study findings. First, the self-report T-CSHCOSI-SAF developed in this study may encourage socially desirable responding. However, self-report measures are commonly used in and valued in health-care research and practice.<sup>25</sup> Additionally, some researchers recommend the use of external assessments (eg, external observation) as a more accurate way to assess cultural competence.<sup>26</sup> Given this recommendation, it may be helpful to use external assessments such as external observations of the occurrence of health-care office staff displays of patient-centered cultural sensitivity, in addition to their self-assessments of their cultural sensitivity using the T-CSHCOSI-SAF.

Furthermore, findings from this study are based on a convenience sample of health-care office staff. In an effort to recruit culturally diverse health-care office staff from a variety of different health-care sites across the United States, health-care office staff participants were not randomly selected, which in turn limits the generalizability of the present study findings.

Future research is needed to establish the reliability of the T-CSHCOSI-SAF when it is used by randomly selected

**Table 1.** Standardized Factor Loadings for the 49-Item Confirmatory Factor Analysis.<sup>a</sup>

	Interpersonal Skills/Professionalism	Responsiveness/Sensitivity/Fairness
OS Item 25, respect	0.920	
OS Item 3, polite	0.906	
OS Item 1, friendly	0.885	
OS Item 2, helpful	0.850	
OS Item 10, pleasant in person	0.849	
OS Item 26, treat like person, not number	0.842	
OS Item 5, considerate	0.827	
OS Item 15, professional	0.824	
OS Item 22, attention	0.815	
OS Item 59, communication skills	0.804	
OS Item 19, show concern	0.773	
OS Item 58, treat patients equally	0.756	
OS Item 24, listen	0.752	
OS Item 12, willing to please	0.744	
OS Item 6, encouraging	0.729	
OS Item 13, people skills	0.724	
OS Item 62, show care	0.723	
OS Item 11, pleasant on phone	0.717	
OS Item 49, take time	0.676	
OS Item 8, humble	0.663	
OS Item 39, confidentiality	0.651	
OS Item 60, offer help	0.605	
OS Item 51, respond quickly to provider requests	0.462	
OS Item 45, efficiency	0.454	
OS Item 31, care for soon after entering		0.755
OS Item 30, admit quickly		0.748
OS Item 36, allow reschedule		0.742
OS Item 47, acknowledge arrival		0.725
OS Item 33, get provider to see patient at appointment time		0.723
OS Item 16, reminder cards		0.720
OS Item 35, inform patients of changes		0.695
OS Item 27, fair decisions		0.690
OS Item 37, focus more on patients in room vs. on calls		0.679
OS Item 34, quickly process paperwork		0.677
OS Item 17, reminder calls		0.634
OS Item 50, immediately put patients on hold		0.633
OS Item 38, close sliding door		0.629
OS Item 52, inform patients of costs		0.620
OS Item 32, threaten collection agency		0.600
OS Item 54, put patients on hold long time		0.581
OS Item 55, explain bills		0.571
OS Item 21, assist with payment		0.503
OS Item 56, follow up		0.499
OS Item 48, assume cheating behavior		0.486
OS Item 53, Send accurate bills		0.463
OS Item 29, grab patients' children		0.455
OS Item 28, know patient names		0.449
OS Item 42, prepare patients		0.432
OS Item 57, mail forms		0.412

<sup>a</sup>All loadings significantly greater than zero,  $P < .001$ .

health-care office staff in diverse settings over an extended period of time. Such research will further ensure use of the T-CSHCOSI-SAF to promote patient-centered cultural sensitivity by healthcare office staff and thus foster overall patient-centered culturally sensitive health care—care that has been linked to improving health-care quality and reducing the health-care disparities that plague the United States.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Financial

support for this research was provided by the Robert Wood Johnson Foundation.

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