ASSOCIATIONS AMONG PERCEIVED PROVIDER CULTURAL SENSITIVITY, TRUST IN PROVIDER, AND TREATMENT ADHERENCE IN A SAMPLE OF LOW-INCOME ASIAN AMERICAN PATIENTS

By

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To my mother and father
ACKNOWLEDGMENTS

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ASSOCIATIONS AMONG PERCEIVED PROVIDER CULTURAL SENSITIVITY, TRUST IN PROVIDER, AND TREATMENT ADHERENCE IN A SAMPLE OF LOW-INCOME ASIAN AMERICAN PATIENTS

By

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There are persistent and severe health disparities among ethnic minority groups in the U.S., including Asian Americans. Studies have consistently shown that Asian Americans’ rate of health service utilization and treatment adherence is very low relative to other racial/ethnic groups. Asian Americans are also more likely than their European American counterparts to experience unfairness and discrimination in health care and to express lower trust in their health care providers. It is also noteworthy that Asian Americans face various cultural barriers when seeking and receiving health care. In order to address health disparities in this underserved minority group, it is essential to develop culturally sensitive health care services. This study examined the associations among Asian American patients’ perceived provider cultural sensitivity, trust in provider, and treatment adherence. Study participants included 63 Asian Americans with low socioeconomic status recruited in a national study on patient-centered culturally sensitive health care. Pearson correlations revealed that Asian American patients’ perceived provider cultural sensitivity was associated significantly and positively with treatment adherence. Moreover, mediation analysis revealed that Asian American patients’ trust in their provider mediated the relationship between patient-perceived provider cultural sensitivity and
treatment adherence. The results of this study have implications for promoting patient-centered culturally sensitive health care among Asian American patients.
CHAPTER 1
INTRODUCTION

Literature Review

There are an estimated 18.9 million Asian Americans living in the U.S., which accounts for 5.8% of the U.S.’s population (U.S. Census Bureau, May 2014). Even though Asian Americans are the fastest-growing ethnic group in the U.S., they remain one of the most understudied (Hall & Yee, 2012; Ngo-Metzger, Legedza, & Phillips, 2004).

There are persistent and severe health disparities among Asian Americans as is the case among other ethnic minority groups (Agency for Healthcare Research and Quality [AHRQ], 2013; Institute of Medicine [IOM], 2003). The 2013 National Healthcare Disparities Report indicated that there is no significant change in health disparities for Asian Americans over time (AHRQ, 2013).

Contrary to the “Model Minority” myths, Asian Americans, low-income Asian Americans particularly, are at high risk for lung cancer, cardiovascular disease, unintentional injuries, hepatitis B, tuberculosis, liver disease and diabetes (Chen & Hawks, 1995; Hall & Yee, 2012, Smedley, Stith, & Nelson, 2002; Sorkin & Ngo-Metzger, 2013). Asian Americans’ unique experiences with acculturative stress and discrimination expose them to high risk of psychopathology; however, the mental health needs of Asian Americans have been largely neglected (Hall & Yee, 2012). Such health disparities reveal the unmet health needs of Asian Americans.

Studies have found that Asian Americans have low rates of preventive screening, immunizations, and counseling services (Sorkin & Ngo-Metzger, 2013; AHRQ, 2013). Asian Americans have one of the lowest rates of preventive screening for cancer and cardiovascular disease among racial/ethnic groups, even though cancer and cardiovascular disease are the
leading causes of death for Asian Americans (Sorkin & Ngo-Metzger, 2013). Additionally, Asian Americans are at a substantial higher risk for hepatitis B relative to other racial/ethnic groups; yet the rate of hepatitis B vaccination among these Americans is only 31% (Wu, Lin, So, & Chang, 2007).

Treatment adherence is important for minimizing the negative impact of diseases for which such treatments are prescribed. Yet, treatment adherence is a multidimensional issue that is shaped by sociodemographic, economic, and systemic factors (World Health Organization, 2003). A study found that rate of medication adherence in older Chinese immigrants with hypertension was below the suggested level, and their hypertension control was low (Li, Wallhagen, & Froelicher, 2008). Another study identified the following predictors of medication non-adherence in Chinese immigrants with hypertension: (a) higher perceived benefit of Chinese herbs, (b) lower perceived benefit of Western medication for hypertension, and (c) longer length of stay in the emigrated country (Li, Stewart, Stotts, & Froelicher, 2006). Accordingly, Chinese immigrants’ unique cultural heritage, health perceptions, and health practices influence their health behaviors (e.g. medication adherence; Li et al., 2006).

As pointed out by Earnshaw, Bogart, Dovidio, and Williams (2013), there is limited physical health disparities research on Asian Americans. In the mental health literature, it has been constantly shown that Asian American patients’ rate of treatment adherence is low (Hall & Yee, 2012; Meyer, Zane, Cho, & Takeuchi, 2009). According to the U.S. Surgeon General, Asian Americans, as compared to other racial/ethnic groups, are more likely to underutilize and prematurely terminate counseling services, even though they have the same, if not greater, level of need as other racial/ethnic groups (U.S. Department of Health and Human Services, 2001). The contributing factors to Asian Americans’ underutilization of psychological services and their
high dropout rate include the following: (a) a lack of racially or ethnically similar mental health professionals; (b) mental health professionals’ lack of cultural sensitivity; and (c) conflict between Asian American culture and psychotherapy processes (Atkinson & Gim, 1989; Sorkin & Ngo-Metzger, 2013; Yeung, Chang, Gresham, & Nierenberg, & Fava, 2004).

Several research studies have also focused on the health care experienced by Asian Americans. Findings from such research include that Asian Americans are more likely than their European American counterparts to report poorer quality of health care received, to be unsatisfied with health care service received, and to rate provider performance lower (Meredith & Siu, 1995; Murray-Garcia, Selby, Schmittidiel, Grumbach, & Quesenberry, 2000; Ngo-Metzger, Legedza, & Phillips, 2004; Sorkin, Ngo-Metzger, & Alba, 2010). Asian Americans are also more likely than non-Hispanic Whites to report problems with experienced health care (Meredith & Siu, 1995; Murray-Garcia et al., 2000). When patients believe the quality of health care they received is lower than the one received by members of other racial/ethnic groups, they are likely to have a poorer rate of treatment adherence (Sorkin et al., 2010; Van Houtven et al., 2005).

In general, racial/ethnic minorities have significantly lower trust in their providers than non-Hispanic Whites (Gordon, Street, Sharf, Kelly & Soucheck, 2006; Malat & Hamilton, 2006; Dovidio & Fiske, 2012). Patients’ low level of trust in their providers prevents them from seeking health care services and/or reduces their treatment adherence rate (Dovidio et al., 2008; Rhoads, Cullen, Ngo, & Wren, 2012; Dovidio & Fiske, 2012). Research has shown that medical mistrust occurs at both individual and structural levels, and it may lead to reluctance among patients to adhere to providers’ medication recommendations (Earnshaw et al., 2013). A study on Hmong people’s health care experiences in the U.S. revealed that Hmong women and men have
low level of trust in their providers due to providers’ lack of understanding of culture, familiarity, and tradition (Thorburn, Kue, Keon, & Lo, 2012). Some Hmong patients’ experiences of differential treatment in health care led to their medical mistrust, and it negatively impacted their health care seeking behaviors (Thorburn et al., 2012). As a result of the low level of trust in their providers, Hmong women tend to delay or avoid breast or cervical cancer screening (Thorburn et al, 2012).

Culturally unresponsive health care services are those that lack language and/or ethnic matches and cross-cultural understanding (US Department of Health and Human Services, 2001). In a health care study involving Asian Americans, it was found that culturally unresponsive health care is related to lower service satisfaction, lower confidence in their provider, and higher levels of symptomatology (Zane, Enomoto, & Chun, 1994). Asian Americans with limited English proficiency are one of the least well-served groups in the health care system (Ngo-Metzger et al., 2003; Weech-Maldonado et al., 2004). Asian immigrants display unique patterns of help-seeking, communication styles, and expectations for the doctor-patient relationship (Sorkin & Ngo-Metzger, 2013; Ngo-Metzger, Sorkin, & Phillips, 2009). Research indicates that racial/ethnic minorities are more likely than non-Hispanic Whites to report a lack of respect for their cultural values and practices when seeking health care (Sorkin & Ngo-Metzger, 2013). Abe-Kim (2012) found that Asian Americans who perceived that their doctors did not understand their background and values are less likely to be very satisfied with the health care they received, and they are more likely to express less trust in their providers.

As the U.S. population becomes more diverse, there is an increasing need for culturally responsive and linguistically appropriate health care services for all patients despite their backgrounds (AHRQ, 2013; Office of Minority Health [OMH], 2001). In order to reduce and
eliminate racial/ethnic health disparities, it is imperative to provide equitable access to services, enable effective doctor-patient communication, and provide culturally competent health care (OMH, 2001).

Li and colleagues (2006) suggested that a culturally sensitive model for treatment adherence is needed to enable clinicians to identify who are at risk for treatment non-adherence and who may benefit from treatment adherence related interventions. Again, there is a dearth of research on culturally sensitive physical health care for Asian American patients, however, previous studies have reported that Asian American clients perceive culturally sensitive mental health service providers as having higher credibility than less culturally sensitive providers (Gim, Atkinson, & Kim, 1991; Kim, Ng, & Ahn, 2005). Ratzliff and colleagues (2013) found that integrating patients’ cultural perspectives into patient education to foster medication adherence was associated with better treatment outcomes and higher patient satisfaction.

Culturally sensitive health care is patient-centered and respectful of patients’ cultural differences (Foronda, 2008). Tucker and colleagues have defined patient-centered culturally sensitive health care (PC-CSHC) as health care that enables culturally diverse patients “to feel comfortable with, trusting of, and respected in patient-provider health care interactions” (p. 660, 2007a). Culturally sensitive health care is positively associated with minority patients’ treatment adherence and better treatment outcomes (Metghalchi et al., 2008). Other studies have reported finding that patient-perceived provider cultural sensitivity predicts treatment adherence (Brach, Fraser, & Paez, 2005; IOM, 2003). Moreover, Tucker and colleagues (2011) found that African American patients’ perceived provider cultural sensitivity has significant positive effects on patients’ treatment adherence as well as on trust in providers. More recent research by Tucker and colleagues revealed that African American patients’ perceived provider cultural sensitivity
predicted their satisfaction with provider care, and that trust in provider served as a mediator of this linkage (Tucker, Moradi, Wall, & Nghiem, 2014). It has also been found in a study involving Hispanic patients that patient-perceived provider cultural sensitivity had an indirect effect on treatment adherence via trust in physician (Nielson et al., in press). This research was guided by Tucker’s Patient-Centered Culturally Sensitive Health Care Model, which proposes linkages between patients’ perceived provider cultural sensitivity (as defined by culturally diverse patients) and patients’ treatment adherence. However, little is known about Asian American patients’ perceived provider cultural sensitivity and level of trust in providers, and the association of these variables with these patients’ treatment adherence.

**Hypotheses**

In order to address this gap in the literature, this study proposed to examine the associations among Asian American patients’ perceived provider cultural sensitivity, trust in provider, and treatment adherence. The hypotheses are informed by an aspect of the Tucker’s Patient-Centered Culturally Sensitive Health Care Model. The specific aspect of this model tested in the present study is presented in Page 31.

Specifically, the following hypotheses were tested in the present study:

1. The three aspects of patient-perceived provider cultural sensitivity (i.e., competence/confidence, sensitivity/interpersonal skills, and respect/communication) will be positively associated with treatment adherence among the Asian American sample;

2. Patient-perceived provider cultural sensitivity will be a significant positive predictor of treatment adherence among the Asian American sample;

3. Patient-perceived provider cultural sensitivity will be a significant positive predictor of trust in provider (i.e., the core aspect of perceived health care justice) among the Asian American sample; and

4. Trust in provider will mediate the relationship between patient-perceived provider cultural sensitivity and treatment adherence among the Asian American sample.
CHAPTER 2
METHOD

Participants

The participants in the present study were part of a larger national patient-centered culturally sensitive health care study conducted by Tucker and colleagues (Tucker et al., 2007b). In the larger study, there were 1,724 patient participants recruited from 67 health care sites located in the Northeast, the Midwest, the South, and the West of the U.S. The inclusion criteria for participants in the larger study were (a) being at least 18 years old; (b) having seen a health care provider at least once in the past year; (c) being able to communicate with others orally or in writing; and (d) giving written consent to participate in the study. The larger study focused on testing the reliability and validity of instruments to separately assess the cultural sensitivity of providers, the front desk staff, and the physical health care environment and health care policies.

The present study, which is different in focus from the larger study, used data on the Asian American participants \((n = 63)\) that was obtained in the larger study. These participants were approximately 4% of the total sample in the larger study. There were 30 male and 33 female Asian American participants. The modal age range for Asian American participants in this study was 45-54 years old (30.2%). The modal annual income for these participants was less than $10,000 (27%). Of the total number of these participants, 38.1% completed college, and 42.9% were unemployed. Approximately 32.2% of the participants’ parents were born in the U.S., while 67.8% of their parents were born in another country. Among the 63 Asian Americans, 28.6% self-identified as Filipino, 20.6% self-identified as Vietnamese, 9.5% self-identified as Chinese, 22.2% self-identified as other Asian, and 19% did not report their ethnicity. Additional demographic data for the study sample are provided in Table 2-1.
Instruments

Study participants completed an Assessment Battery consisting of four questionnaires/inventories. The following sections provide descriptions of these questionnaires/inventories.

The Patient Demographic Data Questionnaire

The research team for the larger national study constructed the Patient Demographic Data Questionnaire (DDQ). The DDQ contains items for obtaining information regarding patient participant’s sex, age, marital status, race/ethnicity, level of education, employment status, immigration generation status, annual household income, and provider’s race/ethnicity. Only information on sex, age, level of education, employment status, immigration generation status, and annual household income was used in the present study.

The Tucker-Culturally Sensitive Health Care Provider Inventory-Patient Form

The Tucker-Culturally Sensitive Health Care Provider Inventory-Patient Form (T-CSHCPI-PF) is used to assess patients’ perceived levels of patient-centered cultural sensitivity demonstrated by their providers (Tucker, Nghiem, Marsiske, & Robinson, 2013). The items on the 27-item T-CSHCPI-PF were generated by culturally diverse patients, and thus the cultural sensitivity assessed by this inventory is described as patient-centered. The T-CSHCPI-PF consists of three subscales with nine items each. These subscales and reliability data for each are as follows: Competence/Confidence (Cronbach’s alpha = .96); Sensitivity/Interpersonal Skill (Cronbach’s alpha = .94); and Respect/Communication (Cronbach’s alpha = .94). Sample items for each of the three subscales, respectively, are as follows: “Acts professionally;” “Explains the medications and procedures he or she prescribes;” and “Is polite and courteous.” All items on these subscales are rated on a four-point Likert-type scale, on which 1 = “Strongly Disagree”, 2 = “Disagree”, 3 = “Agree”, and 4 = “Strongly Agree”. Mean scores are calculated for each
subscale as well as for the overall scale. Higher scores reflect higher perceived patient-centered provider cultural sensitivity. In the current sample, the internal reliability (i.e., Cronbach’s alpha) for the 27-item T-CSHPPI-PF was .98. The reliability of each subscales were as follows: Competence/Confidence (Cronbach’s alpha = .97), Sensitivity/Interpersonal Skill (Cronbach’s alpha = .94), and Respect/Communication (Cronbach’s alpha = .93).

**The General Adherence Measure**

The General Adherence Measure (GAM) is used to assess patient participants’ tendency to follow medical recommendations from their providers (DiMatteo, Hays, & Sherbourne, 1992). It is one of the commonly used self-report measures of medical treatment adherence. The GAM consists of five items and includes the instruction to rate one’s adherence to medical treatment in the past year using a four-point Likert-type scale on which 1 = “None of the time”, 2 = “Some of the Time”, 3 = “Most of the Time”, and 4 = “All of the time”. A sample item on this measure is “I followed my provider’s suggestions exactly.” A general medical treatment adherence score can be calculated by averaging the scores of the five items on the GAM. Higher scores indicate higher medical treatment adherence. Past studies found satisfactory internal consistency reliability for the GAM (Cronbach’s alpha = .81; DiMatteo, Giordani, Lepper, & Croghan, 2002). For the current sample, the internal reliability of the GAM was .65.

**The Health Care Justice Inventory-Provider**

The Health Care Justice Inventory-Provider (HCJI-P) is used to measure justice level in the health care context (Fondacaro, Frogner, & Moo, 2005). This inventory consists of three subscales; however, only the 5-item Trust Subscale is used in the present study. Items on the HCJI-P are rated on a four-point Likert–type scale which ranges from 0 = “Strongly Disagree”, 1 = “Mainly Disagree”, 2 = “Mainly Agree”, and 3 = “Strongly Agree”. A sample item is “You felt comfortable with the way your health care provider handles situations.” There is no total score.
for the HCJI-P. Subscale scores are computed by averaging the scores of the five items in the subscale. For the Trust Subscale, higher scores indicate greater perceived trust in provider. A previous study has demonstrated that the HCJI-P subscales have very high internal consistencies when employed in a sample of culturally diverse patients, with Cronbach’s alpha = .93 for the Trust Subscale (Fondacaro et al., 2005). For the present Asian American patient sample, the internal reliability was .88.

Procedure

Tucker and colleagues employed a three-step process for the data collection aspect of the abovementioned larger national study (Tucker et al., 2007b). In Step 1, the research team obtained approval from the Institutional Review Board (IRB) at the university where the researchers for the larger study are based. The research team then identified a list of national health care-focused organizations as well as health care sites throughout the U.S. (i.e., the Northeast, the Midwest, the South, and the West). Afterwards, the research team sent an invitation letter to the identified organizations and health care sites. The research team later arranged telephone meetings with the health care site administrators who expressed interest in the study. The purpose of the telephone meetings was to explain the purpose of the study, potential study benefits, participation tasks, the study timeline, and compensation for study participation.

In Step 2, after administrators from the health care sites agreed to have their sites enroll in the study, the research team worked closely with them to obtain approval for the study at their respective sites. After obtaining the required IRB approval, administrators from each health care site appointed a staff to be a Data Collection Coordinator (DCC) and identified two community members to be Data Collectors (DCs) for the study. The research team then mailed study participation packets to the DCCs. English, Spanish, Chinese, and Vietnamese versions of study
materials were available. Next, the research team provided telephone-based training to the DCCs
and the DCs on their study roles.

In Step 3, the DCs posted the recruitment flyers on information boards at their health care
sites, and distributed the flyers to patients in the waiting rooms at these sites. The DCs assisted
patients who wanted to participate in the study complete the study enrollment process. This
enrollment process involved having patients reading and signing an Informed Consent Form,
signing a payment release form, and completing the Assessment Battery, and then placing the
signed informed consent form and the signed release form in one of two study participation
envelopes and placing the completed Assessment Battery in the other envelope. The patient
participants then were asked to seal the envelopes and place them in a secure drop box at their
respective clinic. At the end of the three-month data collection period, the DCCs mailed the
study participation envelopes to the research team. The research team mailed a $15 money order
to each patient participant, a $50 money order to each DCC, and a money order in an amount
based on $8 per hour to each DC according to the amount of time the DC spent in participant
recruitment.
Table 2-1. Demographic Characteristics of the Asian American Participant Sample in the Present Study

<table>
<thead>
<tr>
<th>Characteristic</th>
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</tr>
<tr>
<td>65 or older</td>
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<td>9.5</td>
</tr>
<tr>
<td>Income</td>
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</tr>
<tr>
<td>Less than 10,000</td>
<td>17</td>
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<td>10,000-20,000</td>
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CHAPTER 3
RESULTS

Preliminary Analysis

Prior to testing the hypotheses, variables of interest (i.e., patient-perceived provider cultural sensitivity, trust in provider, and treatment adherence) were examined for accuracy of data entry and missing values. According to Parent (2012), insufficient data was defined as missing more than 20% of all the study items and/or missing an entire scale or subscale of interest. Five participants (7.9%) failed to provide sufficient data for the 37 items across the three measures in the study, and two of those five participants (3.2%) missed an entire scale or subscale of interests. Descriptive statistics of the variables of interest are shown in Table 3-1.

The parametric nature of mediation analysis requires data to be normally distributed. The normality assumption was checked via verifying values of Z statistic for skewness and kurtosis as well as inspecting histograms and normal curves of the variables of interests. Table 3-2 shows the skewness and kurtosis values of the studied variables. Accordingly, patient-perceived provider cultural sensitivity, competency/confidence, respect/communication, and trust in provider were non-normally distributed.

In order to meet the normality assumption of multivariate analysis (mediation), a Blom transformation was employed to normalize the distributions of the investigated variables (Blom, 1958). During this transformation, each value is replaced by the probit of its empirical distribution function probability, which converts the proportion responding to a level of the variable to the corresponding Z-score on a standard normal curve (Blom, 1958). The normalized scores resulting from Blom transformation emerge with a pseudo-Z transformation (Blom, 1958). After the Blom transformation, all the variables of interest meet the normality assumption of multivariate analysis. An alpha level of .05 was used for all statistical tests.
Analyses to Test the Hypotheses

Hypothesis 1

Hypothesis 1 stated that the three aspects of patient-perceived provider cultural sensitivity (i.e., competence/confidence, sensitivity/interpersonal skills, and respect/communication) would be positively associated with treatment adherence among the Asian American sample. Pearson correlations were conducted to test this hypothesis. Pairwise deletion of observations with missing data was used for missing data (i.e., the default option in SPSS). Despite its limitations, the pairwise approach was selected due to the small sample size and the small number of missing data (7.9%) for this study (Roth, 1994).

As shown in Table 3-3, competence/confidence \( r = .31, p = .014 \) and respect/communication \( r = .25, p = .05 \), measured by two subscales of T-CSHCPI-PF, were significantly and positively associated with treatment adherence among Asian American patients. The association between sensitivity/interpersonal skills (i.e., measured by a subscale of T-CSHCPI-PF) and treatment adherence was not significant \( r = .14, p = .27 \). Patient-perceived provider cultural sensitivity, as measured by the 27-item T-CSHCPI-PF, was significantly and positively associated with treatment adherence \( r = .26, p = .044 \). Hence, the above results partially supported Hypothesis 1, indicating that patient-perceived provider cultural sensitivity, specifically competence/confidence and respect/communication, were significantly and positively associated with treatment adherence in the Asian American sample of the study.

Hypotheses 2–4

Hayes and Preacher’s (2011) MEDIATE macro for SPSS was employed to examine the following hypotheses: (a) Patient-perceived provider cultural sensitivity will be a significant positive predictor of treatment adherence among the Asian American sample (Hypothesis 2); (b) Patient-perceived provider cultural sensitivity will be a significant positive predictor of trust in
provider (the core aspect of perceived health care justice) among the Asian American sample (hypothesis 3); and (c) Trust in provider will mediate the relationship between patient-perceived provider cultural sensitivity and treatment adherence among the Asian American sample (hypothesis 4). Specifically, patient-perceived provider cultural sensitivity was entered as the independent variable (X), trust in provider was entered as the mediating variable (M), and treatment adherence was entered as the outcome variable (Y).

The mediation macro generated 1000 bootstrap samples by randomly sampling with replacement from the data. Estimates of the indirect effect and bias-corrected 95% confidence intervals (CI) were calculated by testing the model 1000 times in the bootstrap samples. Zero falling outside the bias-corrected 95% CI indicates significant indirect effects (Preacher & Hayes, 2004). Any cases that were system missing on any of the three variables (i.e. cultural sensitivity, trust in provider, and treatment adherence) were deleted from the mediation analysis (i.e., listwise deletion). Figure 3-1 presents the path diagram for the mediation model testing the direct and indirect effects of patient-perceived provider cultural sensitivity on treatment adherence through the proposed mediator (i.e., trust in provider). The model explained 13.9% of the variance in treatment adherence ($R^2 = .14$, $F(2,59) = 4.75$, $p = .012$).

**Hypothesis 2.** The total effect of patient-perceived provider cultural sensitivity on treatment adherence was both positive and significant ($\beta = .26, p = .044$). Thus patient-perceived provider cultural sensitivity was a significant positive predictor of treatment adherence among the Asian American sample. This finding confirmed Hypothesis 2.

**Hypothesis 3.** The path from treatment adherence to trust in provider was both positive and significant ($\beta = .64, p < .001$). Hence patient-perceived provider cultural sensitivity was a
significant positive predictor of trust in provider for the study sample. This finding supported Hypothesis 3.

**Hypothesis 4.** The path from trust in provider to treatment adherence was positive and significant ($\beta = .35, p = .029$). The test of the mediated path of patient-perceived provider cultural sensitivity on treatment adherence through trust in provider was statistically significant (95% CI [.03, .43], $p < .05$). After controlling for trust in provider, the path from cultural sensitivity to treatment adherence was no longer significant ($\beta = .04, p = .80$), thus trust in provider completely mediated the relationship between perceived provider cultural sensitivity and treatment adherence. This finding supported Hypothesis 4. See Table 3-4 for bootstrap results of the mediation model.
Table 3-1. Descriptive Mean Statistics and Cronbach’s Alphas for Variables of Interest in the Present Study, Using Listwise Deletion

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>Range</th>
<th>SD</th>
<th>α</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Sensitivity</td>
<td>3.15</td>
<td>1</td>
<td>4</td>
<td>0.57</td>
<td>.98</td>
</tr>
<tr>
<td>Competency/ Confidence</td>
<td>3.27</td>
<td>1</td>
<td>4</td>
<td>0.59</td>
<td>.96</td>
</tr>
<tr>
<td>Sensitivity/ Interpersonal Skill</td>
<td>3.0</td>
<td>1</td>
<td>4</td>
<td>0.69</td>
<td>.94</td>
</tr>
<tr>
<td>Respect/ Communication</td>
<td>3.20</td>
<td>1</td>
<td>4</td>
<td>0.58</td>
<td>.93</td>
</tr>
<tr>
<td>Trust of Provider</td>
<td>2.32</td>
<td>0</td>
<td>3</td>
<td>0.56</td>
<td>.88</td>
</tr>
<tr>
<td>Treatment Adherence</td>
<td>3.0</td>
<td>2</td>
<td>4</td>
<td>0.57</td>
<td>.65</td>
</tr>
</tbody>
</table>

Note. Higher scores indicate higher levels of the construct assessed.
Table 3-2. Skewness and Kurtosis for Variables of Interest in the Present Study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
<th>SE</th>
<th>Kurtosis</th>
<th>SE</th>
<th>Skewness/SE</th>
<th>Kurtosis/SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient-Perceived Provider</td>
<td>-0.72</td>
<td>0.30</td>
<td>1.80</td>
<td>0.60</td>
<td>-2.39</td>
<td>3.02</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competency/Confidence</td>
<td>-0.87</td>
<td>0.30</td>
<td>2.08</td>
<td>0.60</td>
<td>-2.86</td>
<td>3.46</td>
</tr>
<tr>
<td>Sensitivity/Interpersonal Skill</td>
<td>-0.48</td>
<td>0.30</td>
<td>0.60</td>
<td>0.60</td>
<td>-1.60</td>
<td>1.01</td>
</tr>
<tr>
<td>Skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect/Communication</td>
<td>-0.81</td>
<td>0.30</td>
<td>1.85</td>
<td>0.60</td>
<td>-2.67</td>
<td>3.09</td>
</tr>
<tr>
<td>Trust in Provider</td>
<td>-1.20</td>
<td>0.30</td>
<td>3.65</td>
<td>0.60</td>
<td>-3.98</td>
<td>6.13</td>
</tr>
<tr>
<td>Treatment Adherence</td>
<td>0.41</td>
<td>0.30</td>
<td>-0.89</td>
<td>0.60</td>
<td>1.35</td>
<td>-1.48</td>
</tr>
</tbody>
</table>

Note. n = 63.
Table 3-3. Pearson Correlations for Variables of Interest in the Present Study, using pairwise deletion

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Treatment Adherence</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Trust of Provider</td>
<td></td>
<td>.37**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Patient-Perceived Provider Cultural Sensitivity</td>
<td>.26*</td>
<td>.64***</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Competency/Confidence</td>
<td></td>
<td>.31*</td>
<td>.64***</td>
<td>.90***</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Sensitivity/Interpersonal Skill</td>
<td>.14</td>
<td>.48***</td>
<td>.90***</td>
<td>.70***</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>6. Respect/Communication</td>
<td></td>
<td>.25*</td>
<td>.68***</td>
<td>.91***</td>
<td>.81***</td>
<td>.72***</td>
</tr>
</tbody>
</table>

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. 
Table 3-4. Indirect effects of trust of provider through treatment adherence due to provider cultural sensitivity

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Bootstrap estimate</th>
<th>SE</th>
<th>BCa 95% CI lower</th>
<th>BCa 95% CI upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust of Provider</td>
<td>.36</td>
<td>.16</td>
<td>.04</td>
<td>.68</td>
</tr>
<tr>
<td>Total Indirect Effect</td>
<td>.21</td>
<td>.10</td>
<td>.03</td>
<td>.43</td>
</tr>
</tbody>
</table>

Note. \( n = 62 \). Based on 1,000 bootstrap samples.
Figure 3-1. Schematic of the mediation model tested in this study (n = 62, value reflects unstandardized coefficients and standard errors, *p < .05, ** p < .01, ***p < .001).
CHAPTER 4
DISCUSSION

Summary of Findings

The purpose of the present study was to examine the associations among Asian American patients’ perceived provider cultural sensitivity, trust in provider, and treatment adherence. It is an important study in that it addresses a gap in the health care literature—the absence of studies on patient-centered culturally sensitive health care among Asian American patients. Four hypotheses were investigated in this study.

Hypothesis 1 in this study stated that the three aspects of patient-perceived provider cultural sensitivity (i.e., competence/confidence, sensitivity/interpersonal skills, and respect/communication) will be positively associated with treatment adherence among the Asian American sample. Results from the correlation analyses to test this hypothesis showed that competence/confidence and respect/communication (i.e., two aspects of patient-perceived provider cultural sensitivity) were significantly and positively associated with treatment adherence among the participants. However, the association between sensitivity/interpersonal skills and treatment adherence was not significant. This non-significant finding may suggest that Asian American participants value their providers’ competence/confidence and respect/communication more than their sensitivity/interpersonal skills. Alternatively, it may be that the term “sensitivity” is construed by the participants in this study in a way that is different from the way it was construed by the normative sample for the measure of provider cultural sensitivity used in this study.

The findings from the analysis to test Hypothesis 1 provide partial support for this hypothesis. These findings are consistent with findings in other studies that culturally sensitive
health care is positively associated with minority patients’ treatment adherence and better treatment outcomes (Metghalichi et al., 2008; Tucker et al., 2011).

The other three hypotheses in this study were as follows: (a) Patient-perceived provider cultural sensitivity will be a significant positive predictor of treatment adherence among the Asian American sample (Hypothesis 2); (b) Patient-perceived provider cultural sensitivity will be a significant positive predictor of trust in provider (i.e., the core aspect of perceived health care justice) among the Asian American sample (Hypothesis 3); and (c) Trust in provider will mediate the relationship between patient-perceived provider cultural sensitivity and treatment adherence among the Asian American sample (Hypothesis 4). The mediation analysis used in this study to test these hypotheses showed that patient-perceived provider cultural sensitivity was a significant and positive predictor of both trust in provider and treatment adherence among the Asian American sample. Specifically, when Asian American patients’ level of perceived provider culturally sensitivity increased, their level of trust in providers and ratings of treatment adherence also increased. These findings support Hypothesis 2 and Hypothesis 3. Furthermore, these findings are consistent with previous research indicating that minority patients express more trust in their providers and have higher treatment adherence when their providers demonstrate more cultural sensitivity (Abe-kim, 2012; Tucker et al., 2011; Brach, Fraser, & Paez, 2005; IOM, 2003).

Moreover, the results revealed that trust in provider fully mediated the relationship between patient-perceived provider cultural sensitivity and treatment adherence among the Asian American participants. This finding supports Hypothesis 4. This finding is particularly important given that Asian American patients are less likely than White patients to report a great deal of trust in their providers (Ngo-Metzger et al., 2004). This finding is consistent with earlier research
indicating that racial/ethnic minority patients stress the importance of trust in their providers, and that trust in provider in turn influences patients’ decision whether to follow their providers’ treatment recommendations (Moy, Park, Feibelmann, Chiang, & Weismann, 2006). Hence, it seems important to enhance patient-centered cultural sensitivity among providers as a way of promoting treatment adherence of their culturally diverse patients, including those who are Asian Americans.

**Limitations of the Study**

This study has four noteworthy limitations. First, the sample size of Asian American participants in this study ($n = 63$) was relatively small, and thus may have been insufficient to detect an association between sensitivity/interpersonal skills and treatment adherence. Additionally, because of the small sample size, the findings from the present study may not be generalizable to the Asian American population in the U.S. It is also noteworthy that the sample was not randomly selected.

Second, it should be noted that the present study relied solely on self-report measures, which could have resulted in over-reporting of treatment adherence. Indeed, it has been asserted in existing literature that self-report measures may result in over-reporting or under-reporting in relation to assessed variables (Adams, Soumerai, Lomas, & Ross-Degnan, 1999; Rolnick et al., 2013; Boase & Ling, 2013). Despite the limitations of self-report measures, they have been commonly used and have been found to be reliable in health care research (DiMatteo et al., 2002; Marshall & Hays, 1994). Future research similar to the present study would benefit from also using electronic monitoring devices or electronic event monitors to record treatment adherence (Koehler & Maibach, 2001; Van den Boogaard, Lyimo, Boeree, Kibiki, & Aarnoutse, 2011).
Third, this study did not differentiate the US-born and foreign-born Asian Americans. Previous research has shown that these two groups of Asian Americans differ significantly in acculturation level, and that acculturation level is positively linked to Asian Americans’ reported health care experiences (Gim et al., 1991). Furthermore, the term “Asian American” covers a diverse group consisting of more than 30 distinct ethnic groups; thus, lumping all the Asian ethnicities together is inappropriate (Shinagawa et al., 1999).

**Strengths of the Study**

In spite of the limitations, this study has several significant strengths that make it an important contribution to the health care research literature focused on Asian Americans. One of these strengths is the novelty of this study. Specifically, this is the only known study that examined the associations among Asian American patients’ perceived provider cultural sensitivity, treatment adherence, and trust in provider. Additionally, this study demonstrated that the Tucker-Culturally Sensitive Health Care Provider Inventory-Patient Form (T-CSHCPPI-PF) and its subscales have good reliabilities when used with Asian American patients.

Involving Asian American patients with lower socio-economic status as research participants is also an important strength of this study as such patients are typically underrepresented in health care research (Earnshaw et al., 2013). Furthermore, inclusion of these patients provided needed information about treatment adherence among these patients. The existing literature evidences the scarcity of such information.

Another strength of this study is that it is consistent with the Difference Model research approach, which is a culturally sensitive research approach suggested by Oyemade and Rosser (1980). According to the Difference Model research approach, researchers should separately study groups that differ on major variables such as race/ethnicity. Inherent in the Difference
Model research approach is the importance of understanding differences in performance of individuals or groups within their socio-cultural environments. This approach is in contrast to the Deficit Model research approach in that the latter approach compares the performance of racial/ethnic minority groups with that of the white majority group and uses the performance of the white majority group as the comparison standard. When racial/ethnic minority groups perform differently from or lower than the white majority group, the performance of the racial/ethnic minority groups is viewed as deficit performance. Hence, the present study focused on patient-perceived provider cultural sensitivity among only Asian Americans.

**Implications**

This study has important implications for future research and health care practice. One implication is that studies similar to the present study are needed to further understand the linkages among patient-centered cultural sensitivity by providers (i.e., level of providers’ competence/confidence, respect/communication, and sensitivity/interpersonal skill as defined and perceived by patients), patient-reported trust in provider, and patient treatment adherence in samples of low-income Asian American patients. These future studies ideally should be conducted using large, randomly selected samples of Asian American patients with low incomes who use health care clinics in the U.S. Future studies of patient-centered culturally sensitive health care should also consider separate examinations of specific ethnic groups of Asian Americans. If these future studies validate the findings in the present study, support will be provided for developing interventions that foster Asian American patients’ trust in providers and perceived cultural sensitivity in their health care interactions with their providers.

The second implication of this study is that Asian American patients may benefit from having usual care by one primary care provider so that trust in that provider can develop over time. Research has shown that patients having usual primary care providers have greater trust in
providers (AHRQ, 2013). Another way to build trust between patients and their providers is by allowing sufficient time for patients and doctors to communicate in each appointment, which is especially important when providers and patients have different cultural, racial, or ethnic backgrounds (Ngo-Metzger et al., 2004).

The third implication of the findings from the present study is that a highly reliable measure of treatment adherence is needed for use with Asian American patients similar to those in the present study. The General Adherence Measure (GAM) used in the present study had less than ideal reliability when used with the Asian Americans in the present study. It is important that future measures of treatment adherence include a representative sample of Asian Americans, which is currently not the case.

**Implications for Counseling Psychologists**

Counseling psychologists’ unique training to foster their multicultural competence and sensitivity when conducting research and engaging in practice activities enables them to assume leading roles in improving health care services for Asian American and other racial/ethnic minority patients. Thus, the findings in the present study have important implications for counseling professionals. Specifically, counseling psychologists can (a) conduct research to identify ways to foster Asian American patients’ trust in providers; (b) design training programs for health care providers on how to deliver patient-centered culturally sensitive health care service to Asian American patients; (c) advocate for empowerment of Asian American patients to have a voice in the health care they experience and provide these patients with any desired assertiveness and communication skills to promote this voice; and (d) advocate for health care policies that focuses on promoting culturally sensitive health care services for Asian American
patients and other racial/ethnic minority patients (Atkinson, Thompson, & Grant, 1993; Altmaier, 1991; Tucker et al., 2007a).

Conclusion

This study is particularly valuable considering the low treatment adherence rate as well as the underutilization of health care services among Asian Americans in the U.S. The findings from the present study provides empirical evidence that among Asian American patients with low incomes, perceived provider cultural sensitivity predicts level of treatment adherence and this predictive relationship is mediated by trust in provider. These findings may help provide impetus for training of health care providers in delivering patient-centered culturally sensitive health care, particularly when providing care to Asian Americans with low incomes. It is important that such provider training includes a major focus on promoting trust in providers. Empowering Asian American patients to identify the characteristics of trust in providers and patient-centered culturally sensitive health care may lead to greater satisfaction with health care services among these patients. Such satisfaction with care may likely foster treatment adherence among Asian American patients.
APPENDIX A
PATIENT DEMOGRAPHIC DATA QUESTIONNAIRE

Directions: Please answer the questions below by filling in the blank or shading in the circle next to the answer you choose like this: ●.

1. What is your gender?
   ○ Male
   ○ Female

2. What is your age?
   ○ Age 18-24
   ○ Age 25-34
   ○ Age 35-44
   ○ Age 45-54
   ○ Age 55-64
   ○ Age 65 or older

3. Which of the following best describes you?
   ○ Single, living without a partner
   ○ Single, living with a partner
   ○ Married, living with a partner
   ○ Married, not living with a partner
   ○ Divorced or separated
   ○ Widow/Widower

4. Please shade in one or more of the circles below that best describes your race/ethnicity:
   ○ African American/Black American
   ○ Hispanic/Hispanic American/Latino(a)
   ○ White/European American
   ○ Other Hispanic/Latino(a) (please specify: _____________________)
   ○ American Indian/Native American
   ○ Other (please specify: _____________________)
   ○ Asian/Asian American/Pacific Islander
   ○ Other Asian (please specify: _____________________)

5. If Hispanic/Latino or Asian/Asian American, please shade in one or more of the circles that best describes your ethnicity:
   If Hispanic/Latino(a) shade below:
   ○ Cuban/Cuban American
   ○ Mexican/Mexican American/Chicano(a)
   ○ Puerto Rican
   ○ Other Hispanic/Latino(a) (please specify: _____________________)
   If Asian/Asian American shade below:
   ○ Chinese/Chinese American
   ○ Vietnamese/Vietnamese American
   ○ Filipino/Filipino American
   ○ Other Asian (please specify: _____________________)

6. What is the highest level of education that you have completed?
   ○ Elementary School
   ○ Middle/Junior High School
   ○ High School
   ○ Some College/Technical School
   ○ College
   ○ Graduate School
7. What is your employment status?
   - Work Full Time
   - Work Part Time
   - Do Not Work

8. What is your yearly household income?
   - Less than $10,000
   - $10,000 – 20,000
   - $20,001 – 30,000
   - $30,001 – 40,000
   - $40,001 – 50,000
   - $50,001 – 60,000

9. How religious are you?
   - Not At All Religious
   - Slightly Religious
   - Somewhat Religious
   - Religious
   - Very Religious

10. How spiritual are you?
    - Not At All Spiritual
    - Slightly Spiritual
    - Somewhat Spiritual
    - Spiritual
    - Very Spiritual

11. How often do you pray/meditate?
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very Often

12. Where do you usually receive your health care services?
    - Health Care Center/Clinic
    - Private Practice
    - Hospital
    - Other
    - Health Department
      (please specify: ________________)

13. What is the gender of the primary health care provider that you see most often?
    - Male
    - Female

14. What do you think is the age of the health care provider that you see most often?
    - Age 18-24
    - Age 25-34
    - Age 45-54
    - Age 55-64
15. What is the race/ethnicity of the health care provider that you see most often?
- African American/Black American
- White/European American
- American Indian/Native American
- Asian/Asian American
- Hispanic/Latino(a)
- Other (please specify: ____________________)

16. How many times each year do you see the health care provider that you see most often?
- 1 time
- 2 to 5 times
- Over 10 times

17. Where were you born?
- In the United States
- In Another Country

18. Where were your parents born?
- In the United States
- In Another Country

19. Do you have children?
- Yes (How many? _________)
- No

20. If so, do your children live with you?
- Yes
- No

21. Where in the United States is your community located?
- Northeast (Pennsylvania to Maine)
- Midwest (Ohio to Kansas)
- Southeast (West Virginia to Texas)
- West (New Mexico to California, including Hawaii and Alaska)

22. In general, how would you describe your health?
- Excellent
- Very Good
- Fair
- Poor
23. What is your height?

________________ feet and ______________ inches

24. What was your weight the last time you were weighed? ______________ pounds
Directions: Please fill out the survey using the following steps: Take a moment to think about your experiences with the provider you see most often at your health care center or office. This provider might be a doctor, a nurse practitioner, or some other health care provider. Now please rate how much you agree that this provider shows each health care characteristic or behavior listed below. Please use a rating of 1, 2, 3, or 4, where 1 = “Strongly Disagree”, 2 = “Disagree”, 3 = “Agree”, and 4 = “Strongly Agree”. Please shade in the circles below like this: ●.

THE HEALTH CARE PROVIDER I SEE MOST OFTEN WHEN I VISIT MY HEALTH CARE CENTER OR OFFICE:

1. Is honest and direct with me.  
2. Is dedicated to her or his work.  
3. Enjoys what he or she is doing.  
4. **Is well educated.**  
5. Is knowledgeable about medicine.  
6. Knows what he or she is doing.  
7. Is confident in his or her abilities.  
8. Is right about why I am sick.  
10. Takes my concerns seriously.  
11. Does not question the truth or accuracy of what I am feeling.  
12. Does not try to diagnose all my problems as psychological or “in my mind”.  
13. Does not talk down to me.  
14. Tries to communicate with me.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<td>4.</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>5.</td>
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<td>6.</td>
<td>○</td>
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<td>10.</td>
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<tr>
<td>11.</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>12.</td>
<td>○</td>
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<tr>
<td>13.</td>
<td>○</td>
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<td>14.</td>
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<td>○</td>
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</tr>
<tr>
<td>15.</td>
<td>Tries to educate me.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Takes all my concerns seriously even if he or she does not consider them to be serious.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Does not embarrass me in private or public.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Prescribes medicine only when he or she is sure of my illness.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Does not make me wait long.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Follows up on my visits.</td>
<td></td>
<td></td>
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<tr>
<td>21.</td>
<td>Lets me know about illnesses and diseases common among people of my race/ethnicity.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>22.</td>
<td>Prepares me for the next steps in treating my illness.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Understands my financial situation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Shows appreciation for me and all of his or her other patients.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Shows care and concern for my child/children.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Is respectful of my religious beliefs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Understands my culture.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C
GENERAL ADHERENCE MEASURE (GAM)

**Directions**: Please tell us how *often* was each of the following statements true for you during the last 12 months regarding your health care provider’s treatment recommendations. Please shade in the circle beneath the answer you choose like this: ●.

<table>
<thead>
<tr>
<th></th>
<th>None of the time</th>
<th>Some of the time</th>
<th>Most of the time</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I had a hard time doing what my provider suggested I do.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. I followed my provider’s suggestions exactly.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3. I was unable to do what was necessary to follow my provider’s treatment plans.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. I found it easy to do the things my provider suggested I do.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. Generally speaking, how often during the past 12 months were you able to do what your provider told you?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
**APPENDIX D**  
**HEALTH CARE JUSTICE INVENTORY (HCJI)**

**Directions:** Rate each item on a scale from 0 (strongly disagree) to 3 (strongly agree). Please shade in the circle beneath the answer you choose like this: ○.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Mainly Disagree</th>
<th>Mainly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You accept your health care provider’s decisions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. You felt comfortable with the way your health care provider handles situations.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3. You fully agreed with the solutions that you and your health care provider arrived at.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. The decisions about your health care have been based on as much good information as possible.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. Your health care provider was honest with you.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
APPENDIX E
HEALTH CARE SITE PARTICIPATION AGREEMENT CONTRACT

HEALTH PROMOTION SITE AGREEMENT
STATEMENT OF TERMS

1. TERMS
_________________________ hereby agrees to serve as a Health Promotion Site for the Family Health Self-Empowerment (FHSE) project. As a health promotion site, ______________________ agrees to allow project participants to access their facility during the term of the project. This will include access to a scale

2. COMPENSATION
Health promotion site will be compensated in the amount of $100 to be paid at the end of the term of the agreement. Health promotion site will also be given a scale that can be retained by the site after the program.
APPENDIX F
HEALTH CARE SITE DEMOGRAPHIC AND HEALTH DATA QUESTIONNAIRE

Directions: Please answer the questions below. If you have trouble understanding a question, answer it to the best of your ability. Shade in the circle beneath the answer that you choose like this: ●.

1. Does your agency (health care center) utilize interpreters to work with non-English speaking persons?
   ○ ○ ○ ○ ○
   NOT AT ALL  SOMETIMES  OFTEN

2. Does your agency (health care center) subscribe to publications (local or national) in order to stay abreast of the latest information about populations of color?
   ○ ○ ○ ○
   NOT AT ALL  SOMETIMES  OFTEN

3. Does agency (health care center) staff regularly attend cross-cultural workshops?
   ○ ○ ○ ○
   NOT AT ALL  SOMETIMES  OFTEN

4. Are there people of color on the staff of your agency (health care center)?
   ○ ○ ○ ○
   NONE  A FEW  SOME  MANY

5. Does your agency (health care center) provide training that hESHs staff work with people of color?
   ○ ○ ○ ○
   NOT AT ALL  SOMETIMES  OFTEN

6. Does your agency (health care center) emphasize active recruitment of people of color?
   ○ ○ ○ ○
   NONE  A LITTLE  SOME  A LOT

7. How well has your agency (health care center) been able to retain people of color on its staff?
8. Does your agency (health care center) staff routinely discuss barriers to working across cultures?

NOT AT ALL  BARELY  FAIRLY WELL  VERY WELL

9. Does your agency (health care center) convene or reward activities that promote learning new languages relevant to the communities of color that the agency (health care center) serves?

NOT AT ALL  SELDOM  SOMETIMES  OFTEN

ORGANIZATIONAL POLICY AND PROCEDURES

10. As matter of formal policy, does your agency (health care center) …

<table>
<thead>
<tr>
<th>Current No Policy</th>
<th>Considering Policy</th>
<th>Writing Formal Policy</th>
<th>Policy In Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Use culture-specific assessment instruments for diagnosis?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>b. Use culture-specific treatment approaches?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>c. Envision community empowerment as a treatment goal?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>d. Review case practice on a regular basis to determine its relevancy to clients (patients) of color?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>e. Provide or facilitate child care?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>f. Provide or facilitate transportation (e.g., bus tickets, ride-sharing)?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>g. Allow access after regular business hours (e.g. through message-beeper, agreements with crisis-providers, etc.)?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>h. Specifically consider culture in service plans?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
i. Conduct outreach to community based organizations, service agencies, natural hERSHers, or extended families?

j. Take referrals from non-traditional sources?

k. Translate agency (health care center) materials into languages that reflect the linguistic diversity in your service area?

l. Advocate for better quality of life for persons of color in addition to providing services?

11. In general, how well are policies communicated to agency (health care center) staff?

12. Is information on the ethnicity or culture of clients (patients) specifically recorded in your organization’s management information system?

REACHING OUT TO COMMUNITIES

13. How well do you assure that communities of color are aware of your program and the services and resources you offer?

14. Does your organization or agency (health care center) reach out to . . .

a. Churches and other places of worship, clergy persons, ministerial alliances, or indigenous religious leaders in communities of color?

b. Medicine people, health clinics, chiropractors, naturopaths, herbalists, or midwives that provide service in communities of color?

c. Publishers, broadcast or other media sources within communities of color?
d. Formal entities that provide services?  

e. Cultural, racial, or tribal organizations where people of color are likely to voice complaints or issues?  

f. Business alliances or organizations in communities of color?  

15. Are people of color depicted on agency (health care center) brochures or other print media?  

- NOT AT ALL  
- SELODM  
- SOMETIMES  
- OFTEN  

16. Does your agency (health care center) participate in cultural, political, religious, or other events or festivals sponsored by communities of color?  

- NOT AT ALL  
- SELODM  
- SOMETIMES  
- OFTEN  

Directions: Please answer the questions below. Shade in the circle next to the answer you choose like this: ●.

1. Which of the following best describes the health care site where you work?  

- Community Health Care Center/Clinic  
- Hospital  
- Health Department  
- Private Practice  
- Other (please specify ____________________________)  

2. Where in the United States is your health care site located?  

- Northeast (Pennsylvania to Maine)  
- Midwest (Ohio to Kansas)  
- Southeast (West Virginia to Texas)  
- West (New Mexico to California, including Hawaii and Alaska)
☐ Other (please specify ________________________________)

3. Directions: Please fill in the following table with information pertaining to your health care site.

<table>
<thead>
<tr>
<th>Total Number of Patients Served</th>
<th>Average Total Number of Health Care Providers with Patient Interaction</th>
<th>Average Total Number of Front Office Staff with Patient Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly</td>
<td>Weekly</td>
<td>Yearly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yearly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weekly</td>
</tr>
</tbody>
</table>

52
Informed Consent to Participate in Research and Authorization for Collection, Use, and Disclosure of Information for Phase I Patient Participants

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

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

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

   ____________________________________________
   
   (Please put your first and last name here)

2. **Title of Research Study**:  
   Patient-Centered Culturally Sensitive Health Care and Health Promotion Project

3. **Source of Funding or Other Material Support**:  
   This research is being funded by the Robert Wood Johnson Foundation.

4. **Purpose of the research study**:  
   The purpose of this study is to find out about how patients view the attitudes and behaviors of their health care providers and office staff, and to find out about how patients view the characteristics and policies of their health care centers and doctor’s offices.

5. **What you will be asked to take part in the study**:  
   You will be asked to fill out a set of questionnaires. Specifically, one questionnaire will ask how much you agree or disagree with statements that describe certain behaviors and attitudes of your health care provider and office staff. It will also ask you how much you agree or disagree with statements that describe your health care center or doctor’s office. Other questionnaires will ask about your lifestyle and culture, your relations with health care providers, your stress level, and your health behaviors. You will also be asked to complete a questionnaire about yourself which asks about your age, gender/sex, race, years of having any long-term health problems, any communication problems you may have, how you pay
for your health care, your current health care clinic or doctor’s office, and the number of visits that you have made to your current health care clinic or doctor’s office in the past year. You will also be asked to provide your name and address below for payment purposes.

Filling out all of the questionnaires should take less than one hour. Please try to complete the questionnaires by filling them out at the health care clinic or doctor’s office you attend before you leave. One of our research assistants will be at your clinic to help you fill out the questionnaires if you need any help or have any questions.

You will be paid for your participation. To see how much money is paid for participation, see Section 7 of this form.

6. Possible Risks and Benefits:
We do not expect any risk to you for participating in this study. There are no known risks to completing the questionnaires. We do not anticipate that you will benefit directly by participating in this project.

7. Compensation:
You will be paid $15 compensation in the form of a money order for participating in this research. This compensation will be mailed to you at the address you provide below.

8. Confidentiality:
Your identity will be kept confidential to the extent provided by law. Your name will not be placed on the questionnaires. Instead, researchers will place a code number on the surveys that you fill out. Your questionnaires will be immediately separated from any documents that may be able to identify you (like your signed informed consent form) and locked in separate filing cabinets in room 293 at the Department of Psychology at the University of Florida. Your individual responses will only be seen by the researchers who are conducting this study and only they will know whether you are participating in the study or not. Also, your answers on the questionnaires will be completely anonymous.

9. Voluntary participation:
Your participation in this study is completely voluntary. There is no penalty for not participating. In addition you may stop completing the questionnaires if it makes you feel uncomfortable, and you may skip any question that you do not wish to answer.

10. Right to withdraw from the study:
You have the right to withdraw from the study at anytime without consequence, but you will only receive your gift card or money order once we receive your completed set of questionnaires.

Whom to contact if you have questions about the study:
Carolyn M. Tucker, Ph.D.
Distinguished Alumni Professor
Joint Professor of Psychology and
Professor of Community Health and Family Medicine
Professor of Pediatrics (Affiliate)
1-352-273-2153 or (Toll-free) 1-866-290-5770

Whom to contact about your rights as a research participant in the study:
University of Florida Institutional Review Board Office
Box 112250 University of Florida
Gainesville, FL 32611-22250
(352)392-0433

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

Participant: ________________________________ Date: __________

Investigator: ______________________________ Date: __________

Name and Address for Payment:
Please write your name and the address where you would like your gift card to be mailed:

Name: ______________________________________

Address Line 1: ______________________________
Address Line 2: ______________________________
City, State, Zip ______________________________

*Please place the first copy of this form in the white envelope and keep the second copy for your records.
Informed Consent to Participate in Research and Authorization for Collection, Use, and Disclosure of Information for Phase I Patient Participants

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Agreement:
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Participant:_____________________________ Date:___________

Investigator:____________________________ Date:___________

Name and Address for Payment:
Please write your name and the address where you would like your gift card to be mailed:

Name: ____________________________________________

Address Line 1: __________________________________
Address Line 2: __________________________________
City, State, Zip __________________________________

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

Thank you for your interest in our research study entitled, “Patient-Centered Culturally Sensitive Health Care and Health Promotion Project.” The purpose of this study is to find out about how patients view the attitudes and behaviors of their health care providers and office staff, and to find out about how patients view the characteristics and policies of their health care centers and doctor’s offices.

Participation in this study involves completing the attached questionnaires, which should take less than one hour. The study is designed to make sure that your responses will be anonymous. Your individual information and responses will not be seen by anyone other than the researchers who are conducting this study. Also, your name will not be placed on the questionnaires that you complete. In addition you may stop completing the questionnaires if it makes you feel uncomfortable, and you may skip any question that you do not wish to answer.

Participation in this study is completely voluntary. We believe that the information you give us is very important because it may help us improve the health care that you and other patients like you may receive from health care providers.

If you decide to participate in this study, you can indicate your willingness to do so by signing the informed consent form and completing the attached questionnaires. If you would like to complete the questionnaires, you can ask a family member or friend to read them to you and record your responses on the form; however, they will not be compensated for doing so. Please keep a copy of the informed consent for yourself, and place the signed copy in the white envelope and seal it. Then place the set of completed questionnaires in the brown envelope and seal it. Please hand the two sealed envelopes to the person that approached you about participating in this study, or place it in the data collection box near the front desk. For your participation you will be mailed a $15 gift card that can be used at most stores or a $15 money order (but not both). You will receive this gift card or money order within three weeks after I receive your signed informed consent form and completed questionnaires.

If you have any questions or desire further information about this study, please call my research associates at (toll-free) 1-866-290-5770 ext. 255. If you have any concerns about this study please call the University of Florida Institutional Review Board office at (352) 846-1494.

If you agree to be a research participant, thank you for agreeing to do so.

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)
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Shuchang Kang was born in Chengdu, China, in September 1988. Shuchang obtained a Bachelor of Social Sciences in behavioral science from Lingnan University in Hong Kong, in 2011. In 2013, she graduated from Columbia University in the City of New York with a Master of Arts in clinical psychology. In 2014, Shuchang moved to Gainesville, Florida, to pursue her Doctor of Philosophy in counseling psychology at the University of Florida. While at University of Florida, Shuchang received a Master of Science in psychology in May 2016.