Cultural Identity and Patient Trust Among Older American Indians

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BACKGROUND: Patients' trust in healthcare providers and institutions has been identified as a likely contributor to racial-ethnic health disparities. The likely influence of patients' cultural characteristics on trust is widely acknowledged but inadequately explored.

OBJECTIVE: To compare levels of patients' trust in primary care provider (interpersonal trust) with trust in healthcare organizations (institutional trust) among older American Indians (AIs), and determine associations with cultural identity.

DESIGN: Patient survey administered following primary care visits.

PARTICIPANTS: Two-hundred and nineteen American Indian patients ≥ 50 years receiving care for a non-acute condition at two clinics operated by the Cherokee Nation in northeastern Oklahoma.

MAIN MEASURES: Self-reported sociodemographic and cultural characteristics. Trust was measured using three questions about interpersonal trust and one measure of institutional trust; responses ranged from strongly agree to strongly disagree. Finding substantial variation only in institutional trust, we used logistic generalized estimating equations to examine relationships of patient cultural identity with institutional trust.

KEY RESULTS: Ninety-five percent of patients reported trusting their individual provider, while only 46 % reported trusting their healthcare institution. Patients who strongly self-identified with an AI cultural identity had significantly lower institutional trust compared to those self-identifying less strongly (OR: 0.6, 95 % CI: 0.4, 0.9).

CONCLUSIONS: Interpersonal and institutional trust represent distinct dimensions of patients' experience of care that may show important relationships to patients' cultural characteristics. Strategies for addressing low institutional trust may have special relevance for patients who identify strongly with AI culture.

KEY WORDS: trust; intercultural communication; patient-provider communication; Indians, North American; cultural identity; ethnic minority patient.

J Gen Intern Med 29(3):500–6

DOI: 10.1007/s11606-013-2578-y

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INTRODUCTION

Patients' trust is positively associated with receptivity to medical advice and adherence to treatment recommendations.^{1–6} Racial-ethnic minorities commonly report lower trust in providers and healthcare systems than non-Hispanic Whites,^{5–14} and lower trust has been identified as a likely contributor to health disparities.^{1,3,5–13,15,16} Patient trust may be measured at the interpersonal level, involving interactions with individual health professionals; or at the institutional level, meaning trust in healthcare organizations, such as insurance companies or care delivery systems. Individuals can exhibit high scores for one form of trust but not for the other.^{17–19} For example, in a large nationally representative sample, compared to non-Hispanic Whites, racial-ethnic minority patients had similar interpersonal trust scores, yet lower institutional trust scores.²⁰

While much of the literature on relationships between patient race-ethnicity and patient trust has focused on African Americans,^{5–13} four studies using qualitative in-depth individual and group interviews with samples ranging from 20 to 91 individuals have also identified trust as influential for patient-provider interaction among American Indians (AIs).^{21–24} In the rare studies that have used quantitative measures of patient trust in large tribal samples, AIs have reported lower trust compared to non-Hispanic Whites.^{14,25}

Culture is widely acknowledged as an important variable in patient-provider interactions.^{26–30} Approaches advocating “cultural competency” emphasize training providers to meet healthcare needs among racial-ethnic subpopulations as a strategy for addressing health disparities.^{26,31,32} Unfortunately, this goal is poorly supported by quantitative research; most surveys fail to measure *culture*, instead relying on check-one-

Received November 26, 2012

Revised May 31, 2013

Accepted June 26, 2013

Published online September 4, 2013

box measures of *racial ancestry*—a strategy that very likely obscures as much as it reveals.³³ In addition, current theories of cultural identity argue that individuals commonly identify with *more than one* cultural group,^{34,35} while studies of healthcare interactions suggest that such bicultural persons may also score higher on some health measures than monocultural individuals.^{27,28,36} The limited research calls for investigation that directly operationalizes cultural characteristics in ways that allow for the real complexity of respondents' identities; such inquiry promises special relevance for older patients, for whom cultural values are often especially salient.^{29,30}

Our study was guided by Cultural Health Capital (CHC) theory, which provides a framework for examining influences of cultural identity on patient trust.³⁷ Building upon Pierre Bourdieu's concept of cultural capital, CHC theory proposes that patients' display of certain interaction resources—including "linguistic facility, a proactive attitude toward accumulating knowledge, the ability to understand and use biomedical information, and an instrumental approach to disease management"—influence medical encounters. Such interaction resources, communicated via verbal and non-verbal cues, are unequally distributed, reflecting experiences and values tied to specific cultural locations. They also provide a foundation upon which trust builds or degrades. CHC theory extends the assumption that culture is important to medical interaction by considering *how* this may be true, and whether certain patient subgroups are especially affected.

A substantial body of work argues for distinctive tribal cultural norms and values related, for instance, to eye contact,^{38,39} interruptive patterns, speech speed and volume, use of silence,^{24,40,41} and overall "communication style."⁴² CHC theory points to the possibility that providers, drawing on experiences available in their own social location, interpret such verbal and non-verbal cues as indicators of whether patients are alert, competent, interested in recovery, and so on; it further proposes that exchanges with culturally distinctive patients can pose special issues relevant to the outcomes of medical interaction, including trust. Nevertheless, little research has probed empirical links between trust and patients' cultural characteristics. Our project addressed this gap by examining trust and its associations with patients' cultural characteristics in AI older adults, all of whom received non-acute outpatient care at two clinics operated by the Cherokee Nation in northeastern Oklahoma.

METHODS

Setting and Participants

The Cherokee Nation, headquartered in Tahlequah, Oklahoma, is one of the largest AI tribes. It administers one of the largest tribally operated healthcare systems in the United

States, consisting of eight health centers and one hospital. Two clinics in different parts of the tribal service area were chosen in consultation with the Cherokee Nation Health Services to include substantial numbers of respondents who self-identified to various degrees with American Indian culture, White American culture, or both.

We chose to sample AI aged ≥ 50 years, based on tribal concerns for a patient group that is held in high cultural regard while suffering serious health challenges.⁴³ Participants were required to understand English and to be mentally competent as judged by in-take nurses. Based on these criteria, no patients were excluded.

Our sample derived from two waves of data collection conducted over 12 consecutive clinic days in May 2007 and 12 consecutive clinic days in May 2008; The two-stage data collection responded to tribal preferences related to context-specific constraints; researchers know of no significant changes between the first and second waves, either at the level of the tribe or of the health services division, that would urge against combining the data.

During the clinic in-take process, a nurse screened patients for eligibility and invited patients to learn more about the study. Patients provided written consent after receiving a description from a bilingual Cherokee/English research assistant. After their medical visit, patients completed a survey with questions specific to the medical interaction and patient and visit characteristics. The questionnaire was designed to be self-administered, although some respondents (29 %) asked to have the form read to them. It took patients about 20 min to complete the survey of 80 short, mainly Likert-scale questions after their medical visits. Refusal rates ranged from 39 % in 2007 to 32 % in 2008. Participants were similar to those who refused with respect to sex, age, and education. The point of refusal for virtually all patients was at intake; one patient ran short of time at the end of the visit and did not fully complete the survey, causing it to be excluded from analysis. Ten primary care healthcare providers participated; after consenting, they completed a separate survey describing their characteristics and 12 Likert-scale questions for each patient encounter, which took 1–2 min to complete. Data collection was approved by Cherokee Nation and Boston College Institutional Review Boards, and this secondary analysis was deemed exempt by University of Iowa and University of Washington Institutional Review Boards.

Patients' Interpersonal and Institutional Trust

Four survey items measured patient trust.⁴⁴ They included three questions about *interpersonal trust*, reflecting confidence in patients' own provider: "I trust my healthcare provider to put my medical needs above all other considerations when treating my medical problems," "I sometimes think that my doctor might perform unnecessary tests or procedures," and "I think my doctor may not refer

me to a specialist when needed.” Items also included one measure of *institutional trust*, reflecting patients’ confidence relevant to healthcare organizations: “I think my doctor is strongly influenced by tribal or clinic rules when making decisions about my medical care.” The five possible responses ranged from strongly agree to strongly disagree. For consistency, we created categories of strong trust, trust, unsure, distrust, and strong distrust. We examined each item separately because of low internal consistency reported in previous studies.^{20,45}

Patient and Provider Cultural Identity

We assessed patients’ cultural characteristics via two separate and independent scales derived from work by Oetting and Beauvais.³⁵ Notably, the scales focus directly on culture, conceptualized as “way of life,” and they do not force respondents to choose a single cultural identity; they allow respondents to describe identification with *more than one* culture and in varying degrees. While originally developed with younger persons, the instruments have been adapted and used successfully with older adults.^{34,46–52} Three questions were used to measure American Indian cultural identity and three questions for White American cultural identity. Items included “To what extent do you live by or follow the AI [White American] way of life?” “To what extent does your family live by or follow the AI [White American] way of life?” “How important is it for you to follow religious or spiritual beliefs that are based on traditional Indian beliefs [Christian Beliefs]? Response choices ranged from 0 (not at all) to 3 (a lot). Using approximate tertiles, we categorized AI cultural identity scores into low (referent category), moderate, and high. For White identity, we dropped the third question asking about Christian beliefs, as it was uncorrelated with other items. Because over half (52 %) of patients had the highest possible value on the White identity scale, we dichotomized these scores into low (referent category) and high categories.

Covariates

Patients, all of whom were enrolled citizens of a federally recognized tribe, reported age at last birthday, sex, marital status, and education. Age and education were treated as continuous variables. For descriptive purposes, education was dichotomized as those with < 12 years of education versus those with ≥ 12 years of education. Tribal affiliation was categorized as Cherokee Nation versus any other tribe. Marital status was dichotomized as married or living together versus all others. Providers similarly reported age, sex, race, tribe, marital status, and training (e.g., physician).

Visit length was categorized as ≤ 20 min versus > 20 min. Number of previous visits with same provider was categorized as ≥ 2 versus < 2 . Both these variables were measured by patient report.

Data Analyses

To describe patient and provider characteristics, we calculated means with ranges for continuous variables and percentages for categorical variables. We examined the distribution of the four trust items using bar graphs. Trust outcomes with sufficient variability were dichotomized by grouping categories consistent with high trust (strong trust/trust) and categories consistent with low trust (unsure/distrust/strong distrust). We then used logistic generalized estimating equations (GEE) to examine relationships of patient cultural identity with trust, while accounting for correlation among patients nested within the same providers. First, we ran univariate models for both the AI and White American cultural identity scores with trust. Subsequently, we ran a multivariate model that included both cultural identity scores, and adjusted for patient age, sex, marital status, and education, as well as number of previous visits and duration of visit. To explore effects of bicultural cultural identity, we examined whether associations of each cultural identity measure depended on the other by testing for interactions between the AI and White American identity scores in the multivariate model.

Our sample included too few providers ($n=10$) to adjust for provider characteristics. However, we did an exploratory analysis of the relationship between patient–provider cultural identity concordance and institutional trust. We included two dichotomous yes/no variables one for patient–provider concordance of White American cultural identity and one for concordance American Indian cultural identity, as suggested by previous studies examining patient–provider racial concordance and patient satisfaction.⁵³

We excluded five patients lacking data on one or more trust outcome and three lacking data on cultural identity. Number of previous visits was missing for two patients and visit length was missing for an additional six patients; these cases were excluded only for analyses involving these variables. Associations were represented as odds ratios (OR) with 95 % confidence intervals (CI) and a type-1 error rate of 0.05 determined statistical significance. Stata version 11.2 (StataCorp, College Station, Texas) was used for all analyses.

RESULTS

After exclusions for missing data, 219 of 227 patients were available for analyses. Characteristics of patient and providers appear in Table 1. The majority (89 %) of patients were enrolled citizens of the Cherokee Nation. Patient age ranged from 50 to 94 years, with a mean of 64 years. Most patient participants were female (63 %), most were married (64 %), and nearly three-quarters had ≥ 12 years of education. Overall, 60 % of medical visits involved patients who had previously

Table 1. Characteristics of Patients and Providers*

Characteristics	Patients (n=219)	Providers (n=10)
Sociodemographics		
Age, mean years (SD)	64 (9.5)	51 (17.9)
Males, n (%)	82 (37)	5 (50)
Race, n (%)		
American Indian	219 (100)	4 (40)
White	0	6 (60)
Primary tribal affiliation, n (%)		
Cherokee	194 (89)	4 (40)
Other tribe	25 (11)	0
None	0	6 (60)
Married or living with partner, n (%)	140 (64)	8 (80)
Education		
≥ 12 years, n (%)	161 (74)	10 (100)
Mean years (SD)	12 (2.8)	—
Visit characteristics		
Previously seen provider, n (%)		
Twice or more	131 (60)	—
Length of medical visit, n (%)		
20 min or less	167 (78)	—
Cultural identity		
American Indian cultural identity scale		
Mean score (SD)	1.3 (0.9)	0.6 (0.7)
Response categories, n (%)		
Low	73 (33)	6 (60)
Moderate	83 (38)	4 (40)
High	63 (29)	0
White American cultural identity scale		
Mean score (SD)	2.5 (0.9)	2.5 (0.6)
Response categories, n (%)		
Low	104 (47)	5 (50)
High	115 (53)	5 (50)

*Number of previous visits was unknown for two participants and length of medical visit was unknown for six participants

seen the same provider ≥ 2 times and most visits lasted ≤ 20 min. Patients were evenly distributed across the full spectrum of the AI cultural identity scale, while most patients scored near the maximum value of the White American cultural identity scale. The two cultural identity scores were not highly correlated ($r=-0.21$), suggesting that they indeed captured separate cultural identities.

Of the ten providers, seven were physicians, two were nurse practitioners, and one was a physician's assistant. Half were female, and 40 % were AI, all Cherokee. Provider age ranged from 34 to 78 years, with a mean of 51 years.

Patterns of trust across the four measures are shown in the Figure 1. All interpersonal trust items showed high scores, with almost all participants indicating either trust or strong trust. Due to this lack of variability, we were not able to examine associations of interpersonal trust with cultural identity.

By contrast, there was substantial variation for the measure of institutional trust, which asked about influence of "tribal or clinic rules" on providers' decisions. Percentages for each response category were similar, although a smaller proportion of patients reported strong distrust. Of 219 patients, 101 (46 %) reported either trust or strong trust on this institutional measure, while the remainder reported uncertainty or distrust.

Next, we considered relationships between patients' cultural identities and institutional trust. Table 2 presents unadjusted and adjusted regression estimates for these associations. Strength of identification with White American cultural identity was not significantly related to institutional trust in either the unadjusted or adjusted models. Significant associations did emerge, however, in multivariate analyses relating AI identity to trust; patients with high AI identity scores reported significantly *less* institutional trust compared to those who scored low (OR: 0.6; 95 % CI: 0.4, 0.9). Those with moderate AI identity did not differ significantly on institutional trust from those with low AI identity. We found no significant interaction ($p=0.46$) between AI cultural identity score and White American cultural identity score, indicating that associations between AI cultural identity and institutional trust did not vary significantly by White American identity scores. In addition, when the patient-provider cultural identity concordance variables were included in the model, there were no notable changes in the effect size of relationships between cultural identity and institutional trust.

DISCUSSION

Our study found high interpersonal trust among AIs and considerable variability in institutional trust. Consistent with literature describing other racial-ethnic subpopulations,^{10,18,20} this finding suggests that patients who have strongly trusting relationships with their own providers may simultaneously display low trust in the larger healthcare organizations—the "faceless" bureaucracy with whose representatives they do not interact. Notably, patients who scored high on AI identity reported significantly lower institutional trust, after adjustment for sociodemographic and visit characteristics, as compared to patients who scored low on this cultural measure.

Previous work with Cherokee elders has found that AI identity influences medical communication and may be associated with lower satisfaction with medical interactions.⁴⁸⁻⁵² Our findings about institutional trust identify additional variations by cultural identity among AI elders. Our findings are relevant to Cultural Health Capital (CHC) theory, which posits that qualities of patient-provider relationships, including trust, are influenced by the patient's culturally grounded interaction resources.³⁷ CHC theory suggests a pathway through which patient cultural identity may become important to patient's experience of healthcare.⁵² Interestingly, the association of strong AI cultural identification with lower trust was not significantly attenuated among those simultaneously identifying strongly with White American culture. Thus, this finding does not support a conclusion that bicultural individuals have greater cultural resources for medical interaction. However, this result may be a consequence of inadequate sample size to detect interaction effects. While previous research hints that patient-provider racial-

Figure 1. Distribution of levels of patient trust.

ethnic concordance may influence institutional trust, our exploration of cultural identity concordance did not similarly influence institutional trust.⁵⁴

Our project cannot identify particular dimensions of AI culture that affect patient trust. It seems possible that

Table 2. Model Estimates for Associations of Patient Cultural Identity with Patient Trust that Provider is Not Strongly Influenced by Tribal or Clinic Rules When Making Decisions About Patient's Healthcare

	Unadjusted OR* (95 % CI)	Adjusted OR† (95 % CI)
American Indian cultural identity scale		
Low	1.0	1.0
Moderate	0.9 (0.5, 1.4)	0.8 (0.5, 1.5)
High	0.6 (0.4, 1.0)	0.6 (0.4, 0.9)
White American cultural identity scale		
Low	1.0	1.0
High	0.9 (0.5, 1.6)	0.8 (0.5, 1.3)

OR odds ratio; CI confidence interval. Estimates represent odds of greater trust

*n= 219

†Estimates are adjusted for both American Indian and White cultural identity scores as well as patient age, sex, marital status, education, number of previous visits, and length of medical visit, (n= 211)

high scores on the measure of AI cultural identity imply identification with a subgroup wherein information about historic abuses by healthcare institutions is common knowledge. For example, state policies of forced sterilization targeted tribal people and other vulnerable American subpopulations at least into the late 1970s;^{55,56} perhaps memories of such abuses contributed to the lower institutional trust observed among persons with strong AI identities.

This research implies considerable clinical relevance. Contemporary efforts to render healthcare more patient-centered and culturally appropriate frequently focus on enhancing providers' cultural competency,⁵⁷ and we commend such efforts. Indeed, our high observed levels of interpersonal trust may reflect that most sampled patients (92 %) visited a provider who had honed cultural competence by completing interviewing skills training as well as a tribally sponsored Cherokee Nation history course. Yet, our findings suggest an additional strategy that responds to the possibility that even patients who trust their individual providers may maintain anxieties about the larger healthcare system. Accordingly, organizations may wish to create educational policies directed at patients as well as providers; these might render

processes of rule-setting and health decision-making more transparent. Our findings suggest such efforts may be especially appropriate among patients identifying most strongly with AI cultures. Providers may also wish to explicitly acknowledge and address patient concerns about institutional entities beyond themselves.

This study has limitations. Because the sample includes only older AI patients drawn from two rural clinics that primarily serve Cherokee citizens, findings can be generalized only with caution. Further research must determine whether similar relationships characterize other tribal populations, including urban and non-tribally enrolled AI populations.

In addition, high levels of interpersonal trust prevented any examination of relationships between this form of trust and patients' cultural characteristics, and the cross-sectional design of the study limits conclusions about causality. It is likewise possible that observed associations could change with the addition of unmeasured variables to the models; for example, our analysis did not include measures of perceived discrimination, communication quality, or patient satisfaction, and such related areas require further investigation. These other variables have been examined with this population; however, not in relationship to patient trust.^{48–52} Finally, our sample was biased towards people who use the healthcare system; it may have excluded those with such low trust that they refuse care altogether.

In conclusion, our study found that while most older AI patients had high trust in their providers, issues of institutional trust were more complex, recommending strategies for amelioration that go beyond training individual providers in culturally competent care. Research on medical interaction, especially with minority subpopulations, should direct further attention to the influence of culture, using measures that respond to the complexity of patients' identities.

Acknowledgements: The authors gratefully acknowledge the guidance of the Cherokee Nation Institutional Review Board, as well as help in data collection and Cherokee translation from Research Assistants George Stopp and Amanda Bighorse Dominick, and from staff and volunteers at the research site. The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of Boston College, the University of Iowa, Oregon State University, University of Washington, University of Colorado-Denver, or the Cherokee Nation.

Funders: Data collection and analysis was supported by a grant from the National Institute on Aging [1K01 AG022434-01A2, PI: Garrouette]. Data analysis and manuscript preparation was also supported by a grant under the Resource Centers for Minority Aging Research program [P30AG015292, PI: Manson].

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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