Measuring African-American Parents' Cultural Mistrust While in a Healthcare Setting: A Pilot Study

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Background: African Americans' mistrust of healthcare is often cited as a cause of racial disparities in health and has been linked to cultural mistrust. African-American parents' level of cultural mistrust while in a general healthcare setting has not been previously measured.

Objective: To determine the performance, participant acceptance, feasibility of administration and demographic associations of a measure of cultural mistrust, the Cultural Mistrust Inventory (CMI), in African-American parents seeking healthcare.

Methods: A cross-sectional sample of 69 self-identified African-American parents of minor children recruited in a university-affiliated, urban pediatric/family practice outpatient clinic completed an anonymous, self-administered questionnaire containing demographic items and the CMI.

Results: The response rate was 91% (n=63), and 49 (78%) answered all questions. Measured mistrust did not vary with gender, insurance or education. The CMI's internal consistency was similar to previously published studies of the instrument (α=0.92). Parents indicating discomfort with the CMI's questions reported significantly less mistrust than parents who did not indicate discomfort (p=0.01).

Conclusions: The CMI is feasible to administer in a clinic setting and demonstrates good internal consistency. It can be a useful tool to assess the effect of cultural mistrust on the healthcare decisions African-American parents make for their children. However, when measuring cultural mistrust in a healthcare setting, respondents' comfort with the survey questions should be assessed.

Key words: African Americans ■ pediatrics ■ mistrust

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INTRODUCTION

Racial and ethnic disparities in healthcare have been documented for more than two decades.[1-12] The causes of these disparities are believed to be multifactorial, including income and access to care. The Institute of Medicine, in its landmark report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*,[13] implicated providers' prejudice and a resulting decrease in patients' trust as a fundamental cause of racially based disparities in healthcare.

In healthcare, trust can influence patient outcomes. The degree to which an adult patient trusts his or her physician predicts adherence to treatment, satisfaction with care, continuity of care as well as receipt of preventive care.[14-17] Minorities, especially African Americans, have been found to have less trust in physicians than non-Hispanic whites.[18-20]

Low levels of physician trust clearly contribute to suboptimal healthcare. Adult patients with less trust or greater mistrust are less likely to receive preventive care such as screening mammography,[14,21] are less adherent to treatment, have less physician continuity, report less satisfaction[15,19,22,23] and have a greater reluctance to consent to interventions such as organ donation or renal transplantation.[24-26] African-American college students and adult mental health clients with greater measured mistrust are less willing to accept mental health counseling with a racially discordant counselor, have diminished expectations for the outcome of such counseling and are more likely to prematurely terminate that counseling.[27,28] Mistrust limits African-American enrollment in clinical trials and prevents patients from utilizing effective medications for the treatment of AIDS.[29-31] Research has shown that African-American mistrust of healthcare is based on the knowledge of the historical mistreatment of African Americans by the medical establishment (e.g., the Tuskegee Syphilis Study) combined with personal experiences of racism and discrimination in and outside of healthcare.[29,30,32-35]

Recent surveys demonstrate that many African Americans, including physicians, believe that they

experience discrimination in their daily lives.[36,37] These experiences may affect their interpretation of societal events. For example, it is not difficult to find African Americans who believe that the AIDS epidemic was deliberately created by the government to reduce the African-American population.[38-40] A poll conducted shortly after Hurricane Katrina showed that more African Americans than whites believed that the response of the federal government would have been faster had the victims been white.[41] This mistrust of society by African Americans has been termed by researchers as "cultural mistrust."[32,42]

Given the positive health effects of a trusting relationship with physicians, understanding the association of African Americans' trust (or mistrust) of society with their trust of physicians is key. Measuring cultural mistrust when African Americans are in healthcare settings is a necessary first step to determining the role of cultural mistrust in African-American health-seeking behavior.

No prior studies of African American cultural mistrust have been conducted in a general healthcare setting. Furthermore, despite the central role of parents in children's health, no studies have examined *parents'* levels of cultural mistrust while in a healthcare setting or whether parental mistrust influences healthcare decisions for their children.

The objectives of this study were to describe the feasibility, psychometric properties and demographic associations of the Cultural Mistrust Inventory (CMI), a validated measure of African-American cultural mistrust, including participant acceptance of the instrument; ease of administration in a clinic setting; internal consistency; and item-scale, scale-total and item-total correlations in a sample of African-American parents in an outpatient healthcare setting. Demographic variables tested were parental age, gender, educational level, marital status and child health insurance status.

METHODS

Instrument

The CMI is a validated 48-item questionnaire written for administration to African Americans, designed to measure their mistrust of whites in specific social situations (Appendix 1).[32] The CMI contains positively and negatively worded statements describing situations in which whites may act in ways opposed to the interests of African Americans. It consists of four subscales assessing mistrust in four nonhealth-related areas: 1) education/training, 2) interpersonal relationships, 3) business/work and 4) politics/law. Statements include the following: 1) "White teachers deliberately ask black students questions which are difficult so they will fail" (education/training subscale); 2) "Blacks should be suspicious of a white person who tries to be friendly" (interpersonal relationships subscale); 3) "There are some white businessmen who are honest in business transactions with blacks" (business/work subscale; this item is reverse-scored); 4) "White policemen will slant a story to make blacks appear guilty" (politics/law subscale).

Response options are on a seven-point Likert scale ranging from "strongly disagree" to "strongly agree," and the possible scoring range is 48–336. Higher scores on the CMI indicate higher levels of mistrust. Prior

Table 1. Demographics and CMI scores (N=49)

CMI Scores

	% (n)	Mean (SD)	Median Score	Range
Total	100 (49)	183.5 (34.6)	184.0	103–274
Gender				
Female	71 (35)	184.5 (36.4)	184.0	103–274
Male	27 (13)	181.5 (31.9)	184.0	130–225
Marital Status				
Married	35 (17)	188.8 (44.6)	184.0	103–274
Single	55 (27)	182.8 (29.0)	185.0	112–231
Divorced/widowed/separated	5 (10)	169.0 (24.0)	173.0	130–196
Education				
≤ High school	41 (20)	174.7 (29.7)	181.5	103–221
≥ Some college	59 (29)	189.6 (36.9)	184.0	112–274
Insurance				
Any public	51 (25)	187.9 (23.5)	187.0	130–231
Only private	45 (22)	178.0 (45.0)	180.0	103–274
None				
Age				
20–29	33 (16)	184.7 (39.3)	193.0	103–231
30–39	43 (21)	178.4 (28.6)	177.0	130–261
40–49	24 (12)	190.8 (39.0)	188.0	130–274

studies have shown the CMI to be internally consistent (α=0.89) with good test–retest reliability (r=0.86).[26,32] Scores correlate positively with measures of perceived racial discrimination. In contrast, the instrument has little correlation with measured social desirability.[32]

Sample

A consecutive sample of African-American parents was recruited in the reception area of an urban, community-based, university-affiliated general pediatric/family practice clinic in southeast Michigan. Eligible participants were self-identified African Americans, able to read and understand English, had children aged <19, and were awaiting healthcare for themselves or a child. An African-American researcher approached all potential subjects for participation after check-in.

Data Collection

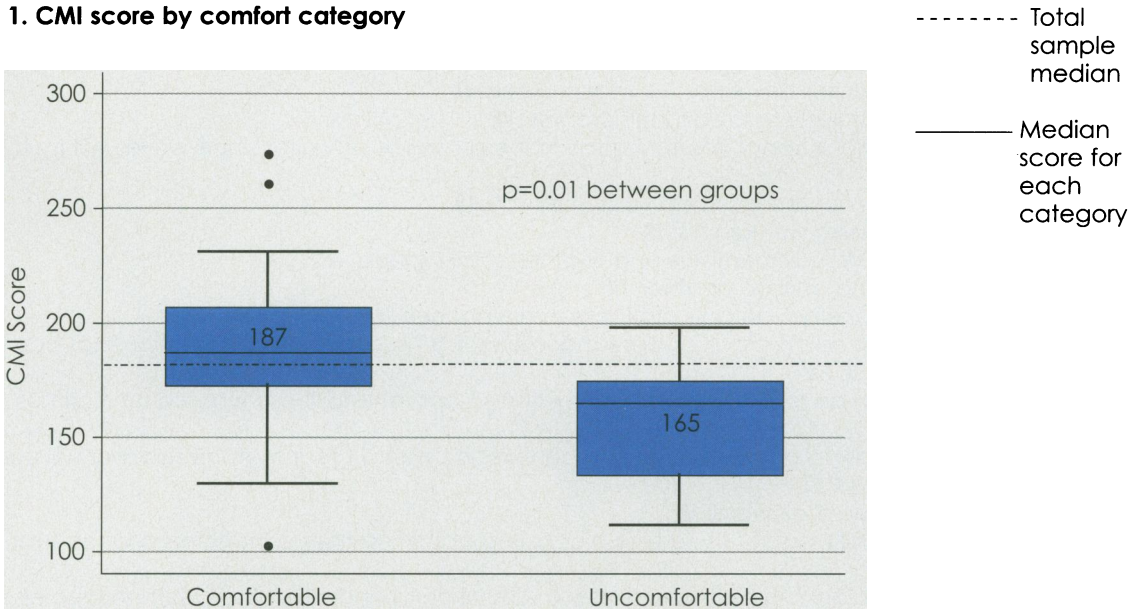
The anonymous, self-administered survey, consisting of the CMI and demographic items (self-identified race, age, education, marital status and insurance status), was distributed during the summer and early fall of 2003. Parents were asked to complete the questionnaire independently in the clinic reception area or in the exam room prior to their appointment. Parents were assured of anonymity both verbally and in a written document. Completed questionnaires were returned directly to the research assistant or placed in a closed envelope in the clinic reception area.

Variables

Our main outcome variable was the CMI score. Predictor variables were gender, age, marital status, education and child insurance status (as a rough proxy for parental income). All parents self-identified their race using the U.S. Census categories.[43]

Many of the statements on the CMI could be considered extreme views, leading to concerns about the acceptability of the CMI to participants in healthcare settings.[44] Though responses on the CMI have not correlated previ-

Figure 1. CMI score by comfort category



Comfortable: slightly or not at all uneasy on survey comfort question; Uncomfortable: very or moderately uneasy on survey comfort question; Shaded areas within boxes: interquartile range (IQR: 25th–75th percentiles); Lines at either end: minimum and maximum observations; Dots: suspected outliers (1.5 x IQR)

Table 2. CMI total and subscale scores and internal consistency

Scale	Items	N* (%)	Mean	SD	Median	Range (Possible Range)	Scale-Total Correlation†	Alpha‡
Education/training	7	58 (92)	22.3	7.2	22	9–43 (7–49)	0.54	0.77
Interpersonal relations	14	55 (87)	48.5	10.9	48	22–71 (14–98)	0.79	0.76
Business/work	15	52 (83)	57.4	11.2	58	28–88 (15–105)	0.90	0.77
Politics/law	12	58 (92)	53.1	10.5	53	22–76 (12–84)	0.74	0.76
Total	48	49 (78)	183.5	34.6	184	103–274 (48–336)	1.00	0.92

* Number of respondents with 100% completion of scale or subscale; %: percentage of respondents with 100% completion of scale or subscale of total respondents; † Correlation of sub-scale to total scale score; ‡ Cronbach's alpha

Appendix 1. The Cultural Mistrust Inventory

Responses are on a seven-point scale ranging from strongly disagree to strongly agree

1) *Whites are usually fair to all people regardless of race. ***BW***
2) White teachers teach subjects so that they favor whites. ***ET***
3) White teachers are more likely to slant the subject matter to make blacks look inferior. ***ET***
4) White teachers deliberately ask black students questions which are difficult so they will fail. ***ET***
5) There is no need for a black person to work hard to get ahead financially because whites will take what you earn anyway. ***BW***
6) *Black citizens can rely on white lawyers to defend them to the best of their ability. ***PL***
7) Black parents should teach their children not to trust white teachers. ***ET***
8) White politicians will promise blacks a lot but deliver little. ***PL***
9) White policemen will slant a story to make blacks appear guilty. ***PL***
10) *White politicians usually can be relied on to keep the promises they make to blacks. ***PL***
11) Blacks should be suspicious of a white person who tries to be friendly. ***IR***
12) *Whether you should trust a person or not is not based on his race. ***IR***
13) Probably the biggest reason whites want to be friendly with blacks is so they can take advantage of them. ***BW***
14) *A black person can usually trust his or her white co-workers. ***BW***
15) If a white person is honest in dealing with blacks, it is because of fear of being caught. ***BW***
16) A black person cannot trust a white judge to evaluate him or her fairly. ***PL***
17) *A black person can feel comfortable making a deal with a white person simply by a handshake. ***BW***
18) Whites deliberately pass laws designed to block the progress of blacks. ***PL***
19) *There are some whites who are trustworthy enough to have as close friends. ***IR***
20) Blacks should not have anything to do with whites since they cannot be trusted. ***IR***
21) It is best for blacks to be on their guard when among whites ***IR***
22) Of all ethnic groups, whites are really the Indian-givers. ***IR***
23) *White friends are least likely to break their promise. ***IR***
24) Blacks should be cautious about what they say in the presence of whites since whites will try to use it against them. ***IR***
25) Whites can rarely be counted on to do what they say. ***IR***
26) *Whites are usually honest with blacks. ***IR***
27) *Whites are as trustworthy as members of any other ethnic group. ***IR***
28) Whites will say one thing and do another. ***IR***
29) White politicians will take advantage of blacks every chance they get. ***PL***
30) When a white teacher asks a black student a question, it is usually to get information that can be used against him or her. ***ET***
31) *White policemen can be relied on to exert an effort to apprehend those who commit crimes against blacks. ***PL***
32) *Black students can talk to a white teacher in confidence without fear that the teacher will use it against him or her later. ***ET***
33) *Whites will usually keep their word. ***IR***
34) *White policemen usually do not try to trick blacks into admitting they committed a crime that they did not do. ***PL***
35) *There is no need for blacks to be more cautious with white businessmen than with anyone else. ***BW***
36) *There are some white businessmen who are honest in business transactions with blacks. ***BW***
37) White storeowners, salesmen, and other white businessmen tend to cheat blacks whenever they can. ***BW***
38) Since whites can't be trusted in business, the old saying "one in the hand is worth two in the bush" is a good policy to follow. ***BW***
39) Whites who establish businesses in black communities do so only so that they can take advantage of blacks. ***BW***
40) White politicians have often deceived blacks. ***PL***
41) *White politicians are equally honest with blacks and whites. ***PL***
42) Blacks should not confide in whites because they will use it against you. ***IR***
43) *A black person can loan money to a white person and feel confident it will be repaid. ***BW***
44) *White businessmen usually will not try to cheat blacks. ***BW***
45) White business executives will steal the ideas of their black employees. ***BW***
46) A promise from a white is about as good as a three dollar bill. ***BW***
47) Blacks should be suspicious of advice given by white politicians. ***PL***
48) *If a black student tries, he will get the grade he deserves from a white teacher. ***ET***

*Items are reverse-scored; PL: Politics and Law subscale; ET: Education and Training subscale; BW: Business and Work subscale; IR: Interpersonal relations subscale

ously with measures of social desirability, the instrument had never been administered in outpatient healthcare settings apart from mental health clinics. Answering questions about mistrust of whites while awaiting the receipt of healthcare from clinicians who are predominately white could create discomfort, leading to less truthful, more socially desirable answers. We hypothesized that participant discomfort with the questionnaire's statements could affect their willingness to give truthful responses. Hence, we assessed the acceptability of the CMI by measuring participant discomfort with the survey statements, using a single item placed after the CMI. "These questions sometimes have different kinds of effects on people. We'd like your opinion about the questions in this questionnaire. Did these questions make you feel: 'very uneasy,' 'moderately uneasy,' 'slightly uneasy,' 'not at all uneasy'?" Participants were asked to circle a single response.

Data Analysis

Descriptive statistics were generated for the entire sample. Cronbach's alpha, corrected item-total and subscale-total correlations, range, mean and median scores were determined for all subscales as well as the full instrument. Though the distribution of scores for the entire sample was approximately normally distributed, demographic subgroupings were skewed. Therefore, we used Wilcoxon signed-rank tests to analyze relationships between respondent characteristics and CMI scores for all subgroups consisting of >10 subjects.

Education was dichotomized as high-school graduate or less versus at least some college. Insurance status was categorized as "any public," "only private" or none. We dichotomized the responses to the survey discomfort question into "comfortable" ("not at all uneasy" or "slightly uneasy") and "uncomfortable" ("very uneasy" or "moderately uneasy") and compared median CMI scores between the two groups. Feasibility of administration was assessed by the proportion of completed surveys to distributed surveys and the proportion of items left blank for those who chose to respond. All analyses were performed using Stata 8.1 (Stata Corp., College Station, TX). This study was approved by the institutional review board of the University of Michigan Medical School.

RESULTS

Of sixty-nine parents approached, 63 (91%) agreed to participate and returned surveys for analysis. The majority of the participants responded to all items in the survey (78%). Individual subscales had higher completion rates, ranging from 83% (business/work scale) to 92% (education/training and politics/law scales).

Nearly three-quarters of the respondents were women, and all were between 20–49 years of age (Table 1). In bivariate analysis, none of the measured demographic variables were significantly associated with the CMI score.

The CMI demonstrated internal consistency similar to or better than previously published studies (α=.92).[26] Subscale to total scale correlations ranged from 0.54 (education/training) to 0.90 (business/work). Subscales were also internally consistent (Table 2).

Of the 49 surveys with complete data for the CMI, 94% (46/49) completed the survey discomfort question. Most (79%) were comfortable with the survey questions. Participants reporting greater discomfort with the survey questions had lower median CMI scores, indicating less mistrust (165 vs. 187, p=0.01, Figure 1). The relationship of lower CMI score with greater survey discomfort remained consistent regardless of age, sex, insurance status or education.

DISCUSSION

The results of this study show that the CMI demonstrates internal consistency equal to or greater than prior published studies. It is feasible to administer in a clinic setting, since more than three-quarters of the participants completed all questions prior being seen for their appointment. We found that parental levels of cultural mistrust were higher than most previously studied populations and are most similar to scores obtained from adult mental health clients.[24,27,28,32,45-48] Scores did not vary significantly by any of the demographic variables we studied, although our small sample size may have led us to miss small differences.

African-American parents' cultural mistrust was high in this study. This finding is important for future research in child health disparities. In contrast to the "sick" role of an adult patient, the parental role is protective, especially when the child is young. When parents are seeking healthcare for their children, the effect of cultural mistrust on physician trust, or adherence to recommendations, can be expected to differ from the effect of mistrust on their own healthcare. Measuring parents' cultural mistrust while in healthcare settings is an important prerequisite to investigating the effect cultural mistrust might have on the healthcare decisions African-American parents make for their children.

We also found that parents indicating greater discomfort with the survey questions reported less mistrust. Parents characterizing themselves as uncomfortable may have done so for one of two reasons: 1) they are truly less mistrustful, and their discomfort arises from their disagreement with many of the survey statements; or 2) they are *highly* mistrustful and respond less truthfully. This is a potentially important, previously unrecognized finding and a possible limitation of all survey research on racial differences in trust and mistrust in healthcare settings. If a significant portion of participants are uncomfortable responding to questionnaires about race, trust and healthcare while in healthcare settings, measured trust could be overestimated. To assess the extent of this potential source of bias future

studies of healthcare-related trust should, at a minimum, include an evaluation of the study setting and population (minorities or nonminorities) as well as an evaluation of participant discomfort with the survey.

The strength and generalizability of these conclusions is necessarily limited by our small sample size. It is possible, for instance, that a larger study may have found significant differences in CMI score by gender, age, insurance status, education or marital status, so the lack of associations we report here should be interpreted with caution. Our measure of ethnicity and/or national origin may also have affected our results. Although all parents self-identified as African American, we did not include questions about national origin or Hispanic ethnicity. It is possible that non-U.S.-born and/or Hispanic African Americans may differ in societal mistrust. Indeed, research on racial disparities is increasingly turning to more finely tuned racial identification than is found in the U.S. Census.

Comparisons of our results to prior studies should be pursued cautiously, as prior research using the CMI consisted primarily of college students (primarily male) and mental health clients. These respondents' beliefs and attitudes with respect to cultural mistrust may differ significantly from parents (mostly mothers) in a pediatric/family practice clinic.[24,26,27,44,46-49] In addition, our sample consisted only of young and middle-aged adults. It is likely that older patients may have different, possibly higher levels of mistrust.

Our study participants were assured of complete anonymity in order to minimize social desirability bias. As such, we did not ask for information that could be construed as providing personally identifiable information, such as the length of their relationship with the physician, the race of the physician or their child's health status—factors which have been shown to be related to physician trust for adult patients.[45,50-53] Future studies should evaluate the association of cultural mistrust with these factors as well as with specific child health measures, such as medication adherence or missed appointments. In addition, qualitative interviews of participants with a racially concordant interviewer after they complete the CMI could better illuminate the relationship we found between lower trust and CMI discomfort.

We have shown the CMI to be an internally consistent instrument that can be feasibly administered in an outpatient setting. Given our finding that those reporting greater discomfort with the survey also reported less mistrust, we recommend that future investigators using the CMI or similar instruments include measures of participant discomfort as well as the use of techniques to minimize it.

As research continues to explore ways to eliminate or ameliorate health disparities between African Americans and non-Hispanic whites, examining the association of cultural mistrust with physician trust and its effect on healthcare decision-making should not be ignored. The CMI can be a useful tool in this investigation.

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