Racial Differences in Trust in Health Care Providers

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Background: Although trust in health care providers (physicians, nurses, and others) may be lower among African Americans compared with whites, limited information is available on factors that are associated with low trust in these populations. This study evaluated the association between trust in health care providers and prior health care experiences, structural characteristics of health care, and sociodemographic factors among African Americans and whites.

Methods: National survey of 954 non-Hispanic adult African Americans (n=432) and whites (n=522).

Results: African Americans (44.7%) were more likely than whites (33.5%) to report low levels of trust in health care providers (χ^2=12.40, P<.001). Fewer quality interactions with health care providers had a significant effect on low trust among African Americans (odds ratio [OR], 3.23; 95% confidence interval [CI], 1.97-5.29; P<.001) and whites (OR, 3.99; 95% CI, 2.44-6.50; P<.001). Among African Americans, respondents whose usual source of care was not a physician's office were most likely to report low trust (OR, 1.73; 95% CI, 1.15-2.61; P=.02), whereas among whites, women (OR, 1.54; 95% CI, 1.04-2.30; P=.03) and respondents with fewer annual health care visits (OR, 1.52; 95% CI, 1.02-2.28; P=.04) were most likely to report low trust.

Conclusions: Compared with whites, African Americans were most likely to report low trust in health care providers. While fewer quality interactions with health care providers were associated significantly with low trust in both populations, usual source of medical care was only associated with low trust among African Americans, whereas sex and the number of annual health care visits were associated with low trust among whites. Different factors may influence trust in health care providers among African Americans and whites.

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INCREASINGLY, TRUST IS BEING RECognized as a critical aspect of medical care. Trust has been described as an expectation that medical care providers (physicians, nurses, and others) will act in ways that demonstrate that the patient's interests are a priority.[1-3] Trust is a multidimensional construct that includes perceptions of the health care provider's technical ability, interpersonal skills, and the extent to which the patient perceives that his or her welfare is placed above other considerations.[1,2,4,5] Trust is an important determinant of adherence to treatment and screening recommendations and the length and quality of relationships with health care providers.[3,6-8]

Although prior studies[9,10] have shown that African Americans report lower levels of trust in health care providers compared with whites, limited information is available on factors that are associated with low trust in these populations. Because trust is determined in part by the provider's interpersonal skills and by whether patients believe that providers are acting in their best interest,[2,4] low trust may be linked to prior interactions with health care providers. Racial concordance with physicians has been associated with greater satisfaction and higher ratings of care among African Americans and whites[11,12]; thus, low trust may also be associated with physician race. Because trust in health care providers develops over time, trust may also be low among individuals with fewer health care visits. Previous research[9] has also shown that trust may be low among individuals who receive care in settings with limited physician continuity. Developing a better understanding of how health care experiences and structural factors shape trust among African Americans and whites is needed to identify specific aspects of the health care system that should be addressed to improve trust among these populations.

The present study evaluated the relationship between trust in health care providers and prior health care experiences (including the number of health care vis-

its) and structural characteristics of health care (including usual source of care and racial concordance with physicians) in a national sample of African Americans and whites. Because prior studies[3,10] on trust in health care providers have included limited numbers of African Americans, an additional objective of this study was to evaluate racial differences in trust. We hypothesized that African Americans would be significantly more likely than whites to report low levels of trust. We also predicted that individuals with fewer socioeconomic resources would be most likely to report low trust based on prior research[9] showing that trust is low among individuals with low incomes. In addition, we hypothesized that individuals with fewer quality interactions with health care providers and those with fewer annual health care visits would be most likely to report low trust. We also predicted that individuals without racially concordant physicians and those who usually received medical care in settings with limited physician continuity (health clinics and emergency departments) would be most likely to report low trust.

METHODS

STUDY POPULATION AND PROCEDURES

We analyzed data from the Kaiser Family Foundation Survey of Race, Ethnicity, and Medical Care in the present study.[13,14] The Kaiser survey evaluated the health care experiences and characteristics of African American, Hispanic (Mexican, Puerto Rican, or some other Latin American descent), and white men and women 18 years and older, and was administered to a representative sample of households in the United States with telephones, identified through random-digit dialing. African Americans and Latinos were oversampled. The final response to the survey was 49%[14]; African Americans made up 30% of respondents with completed interviews. Interviews were conducted between July 7, 1999, and September 19, 1999, by the Princeton Survey Research Associates, in English or Spanish, depending on the respondent's preference. Factors associated with trust were not evaluated in the original analysis of the survey[14] or in other reports.[15]

The survey included 46 items that evaluated trust in health care providers and sociodemographics, prior health care experiences, and structural characteristics of care. Some items, including trust in health care providers, were asked of a random split-half sample of respondents. Because we were interested in trust among African Americans and whites, we created a subset of the data that only included non-Hispanic African Americans (n=581) and whites (n=752) who were asked this question. Respondents who were missing data for sociodemographics and health care experiences were also excluded; as a result, 432 (74.4%) of the African Americans and 522 (69.4%) of the whites who were asked about trust in health care providers were included in the analysis. Thus, the sample for the present report included 954 African Americans and whites.

MEASURES

Predictor Variables

Sociodemographics. Marital status and educational level were obtained using Likert-style items. We recoded marital status and education into dichotomous variables (eg, married vs not married) based on the frequency of responses. Age was determined based on the respondent's date of birth, and sex was obtained using a binary item. All respondents were asked to indicate if their annual income was less than $25 000 or $25 000 or more.

Prior Health Care Experiences. Prior health care experiences were evaluated in terms of the number of annual health care visits and the quality of interactions with health care providers. Specifically, respondents were asked to indicate how often they usually have health care examinations or checkups (1 indicates more than once a year; 2, once a year; 3, less than once a year; and 4, no particular schedule). We created a dichotomous variable for the number of annual health care visits (once a year or more vs less than once a year) based on the distribution of responses. Binary items were used to assess the quality of interactions with health care providers. Specifically, respondents were asked if they believed that their health care providers asked enough questions about their medical history, provided clear explanations, and were attentive during their most recent medical visit (yes or no). These items were similar to measures used in previous research[16] to evaluate the quality of interactions between patients and physicians. We summed these items to create an index of the quality of interactions with health care providers; 1 point was given for each item endorsed as yes. This index had good internal consistency in this sample (Cronbach $\alpha = .71$ for African Americans and whites).

Structural Characteristics of Health Care. Structural characteristics of health care were evaluated in terms of source of health care and racial concordance with physicians. Specifically, respondents were asked to indicate the type of facility where they usually obtained medical care (eg, physician's office, clinic or health center, health maintenance organization, hospital emergency department, or hospital outpatient department). To determine racial concordance with physicians, respondents were asked to provide the racial background of their physician or the physician seen at their last health care visit, and a variable for racial concordance was created based on responses to this question. Specifically, African American respondents who indicated that their physician was African American were categorized as having a racially concordant physician; those who indicated that their physician was white, Hispanic, or Asian were categorized as not having a racially concordant physician. This same strategy was used to determine racial concordance with physicians for whites.

Outcome Variable

Trust in health care providers was evaluated using a Likert-style item that asked respondents to indicate how much of the time they think they can trust physicians or health care providers to do what is best for patients (1 indicates almost all of the time; 2, most of the time; 3, some of the time; and 4, almost none of the time). Trust was dichotomized into a binary variable (almost all and most of the time vs some and almost none of the time) because this question was asked of a random split-half sample of respondents, which resulted in small cells for some comparisons.

DATA ANALYSIS

Descriptive statistics were generated to characterize respondents in terms of sociodemographics. χ^2 Tests of association were then conducted to evaluate the relationship between trust and race. We used this same strategy to evaluate the relationship between trust and sociodemographics, prior health care

Table 1. Characteristics of the 954 Study Participants by Race

Characteristic	Total Sample (N = 954)*	African Americans (n = 432)*	Whites (n = 522)*	χ^2 Value
Sex				
Male	**438** (45.9)	197 (45.6)	241 (46.2)	0.03
Female	**516** (54.1)	235 (54.4)	281 (53.8)	
Marital status				
Married	**457** (47.9)	160 (37.0)	297 (56.9)	37.36†
Not married	**497** (52.1)	272 (63.0)	225 (43.1)	
Educational level				
>High school	**542** (56.8)	230 (53.2)	312 (59.8)	4.10‡
≤High school	**412** (43.2)	202 (46.8)	210 (40.2)	
Annual income, $				
≥25 000	**649** (68.0)	261 (60.4)	388 (74.3)	21.04†
<25 000	**305** (32.0)	171 (39.6)	134 (25.7)	
Health insurance status				
Yes	**813** (85.2)	356 (82.4)	457 (87.5)	4.95‡
No	**141** (14.8)	76 (17.6)	65 (12.5)	

*Data are given as number (percentage) of each group.
†$P<.001$.
‡$P<.05$.

experiences, and structural characteristics. *t* Tests were used to evaluate the association between trust and the quality of interactions with health care providers. These analyses were stratified by race because prior studies[14,17-19] have shown that there are significant differences between African Americans and whites in terms of sociodemographics, health care experiences, and structural characteristics of health care. Next, logistic regression analysis was used to generate models of low trust for all respondents, for African Americans, and for whites. Each model was created including variables that had a significant bivariate association ($P<.10$) with low trust in each racial group.

RESULTS

SAMPLE CHARACTERISTICS

The sample consisted of 954 non-Hispanic African American (n=432) and white (n=522) men and women. **Table 1** shows the sociodemographic characteristics of the study population. The mean age of respondents was 42.3 (SD, 15.2) years. There were significant racial differences in marital status, education, annual income, and health insurance status (Table 1). In addition, the mean age of respondents was significantly lower among African Americans (39.8 years) compared with whites (44.4 years) ($t=4.66$, $P=.001$).

RACIAL DIFFERENCES IN TRUST IN HEALTH CARE PROVIDERS

African Americans were significantly more likely than whites to report low trust. Of African Americans, 44.7% reported low trust compared with 33.5% of whites ($\chi^2=12.40$, $P<.001$). As shown in **Table 2**, sociodemographic factors were not associated significantly with low trust in health care providers among African Americans (eg, the mean [SD] age of those with low vs high trust was 40.6 [14.1] vs 39.2 [14.8] years; $t=0.97$, $P=.33$). However, the quality of interactions with health care providers was significantly lower among African Americans with low trust (mean [SD] score, 2.41 [0.94]) compared with those with high trust (mean [SD] score, 2.79 [0.60]) ($t=4.83$, $P<.001$). Of the structural characteristics, only source of medical care was associated significantly with trust. African Americans who usually obtained medical care at facilities other than a physician's office were most likely to report low trust.

Among whites, health insurance status and the number of annual health care visits were associated significantly with low trust; respondents without health insurance and those with fewer annual health care visits were most likely to report low trust. Sex and educational level were marginally associated with trust; women and respondents with less education were more likely to report low trust compared with men and those with more than a high school education. Age was not associated significantly with trust for whites (the mean [SD] age for those with low vs high trust was 43.4 [15.6] vs 44.8 [15.4] years; $t=0.98$, $P=.33$); however, the quality of interactions with health care providers was significantly lower among respondents with low trust (mean [SD] score, 2.39 [0.99]) compared with those with high levels of trust (mean [SD] score, 2.86 [0.43]) ($t=6.01$, $P<.001$). As shown in Table 2, source of medical care and racial concordance with physicians were marginally associated with low trust among whites. Respondents without racially concordant physicians and those who did not receive care at a physician's office were most likely to report low trust.

MULTIVARIATE MODEL OF TRUST

The results of logistic regression analyses are provided in **Table 3**. For these analyses, the quality of interactions with health care providers was recoded into a dichotomous variable using the median split to facilitate interpretation of the results. Low trust was associated significantly with African American race, fewer quality interactions with health care providers, and not receiving medical care at a physician's office. In the stratified analy-

Table 2. Association Between Trust and Sociodemographic Factors, Prior Health Care Experiences, and Structural Characteristics of Health Care Among African Americans and Whites

Variable	African Americans (n = 432) Low Trust, %	African Americans (n = 432) χ^2 Value	Whites (n = 522) Low Trust, %	Whites (n = 522) χ^2 Value
Sociodemographic factors				
Sex				
Male	45.2	0.04	29.9	2.68*
Female	44.3		36.6	
Marital status				
Married	48.1	1.22	32.3	0.45
Not married	42.6		35.1	
Educational level				
>High school	44.8	0.002	30.8	2.64*
≤High school	44.6		37.6	
Annual income, $				
≥25 000	44.1	0.10	34.3	0.05
<25 000	45.6		33.2	
Health insurance status				
Yes	45.2	0.25	30.8	11.75†
No	42.1		52.3	
Prior health care experiences				
No. of annual health care visits				
≥1	43.2	1.16	28.7	8.91‡
<1	49.1		41.4	
Structural characteristics of health care				
Usual source of medical care				
Other sources§	52.3	8.27†	39.4	3.59*
Physician's office	38.5		38.5	
Racial concordance with physicians				
Yes	47.9	0.69	31.4	3.50*
No	43.4		40.7	

*$P<.10$.
†$P<.001$.
‡$P<.01$.
§These include health centers, clinics, health maintenance organizations, emergency departments, and hospital outpatient departments.

ses, African American respondents who had fewer quality interactions with health care providers were about 3 times more likely to report low trust compared with those with more quality interactions. Respondents who did not usually receive medical care at a physician's office were also significantly more likely to report low trust. Among whites, sex, number of annual health care visits, and the quality of interactions with health care providers were associated significantly with low trust. Women were significantly more likely than men to report low trust. Compared with respondents with 1 or more annual health care visits, those with fewer visits were significantly more likely to report low trust. In addition, respondents with fewer quality interactions with health care providers were about 4 times more likely to report low trust compared with those with more quality interactions.

COMMENT

Consistent with previous research,[9,10] African Americans were significantly more likely than whites to report low trust in health care providers in this study. Even after controlling for sociodemographics, prior health care experiences, and structural characteristics of care, African American race had a significant effect on low trust. However, different factors were associated with low trust among African Americans and whites. Among African Americans, usual source of medical care had a significant independent association with low trust, whereas among whites, sex and the number of annual health care visits were associated significantly with low trust. It is possible that different factors were associated with low trust among African Americans and whites because of differences in health care experiences and sources of medical care between these populations. For example, African Americans may be more likely than whites to use emergency departments, community health clinics, and hospitals as their usual source of medical care.[17-20] The results of our study suggest that experiences with health care providers and sources of medical care may be more important to trust in health care providers among African Americans than sociodemographics.

African Americans and whites with fewer quality interactions with health care providers were likely to report low trust. Prior studies[21,22] have demonstrated that effective patient-physician communication is important to health outcomes, including patient satisfaction. Our findings are consistent with previous research[23] and suggest that experiences with health care providers who communicate well (eg, use direct and empathetic com-

Table 3. Multivariate Regression Model of Low Trust in Health Care Providers*

Variable	Total Sample	Whites	African Americans
Health insurance (no vs yes)	1.01 (0.67-1.50)	1.62 (0.91-2.88)†	0.60 (0.35-1.05)†
No. of annual health care visits (<1 vs ≥1)	1.33 (0.98-1.80)†	1.52 (1.02-2.28)‡	1.04 (0.66-1.66)
Quality of interactions with health care providers (<3 vs 3)	3.58 (2.53-5.05)§	3.99 (2.44-6.50)§	3.23 (1.97-5.29)§
Usual source of health care (other sources vs physician's office)‖	1.42 (1.06-1.89)¶	1.25 (0.82-1.91)	1.73 (1.15-2.61)¶
Sex (female vs male)	1.30 (0.98-1.72)†	1.54 (1.04-2.30)‡	NA
Educational level (more than high school vs high school or less)	0.87 (0.66-1.15)	0.75 (0.50-1.11)	NA
Racial concordance with physician (yes vs no)	1.04 (0.75-1.43)	0.84 (0.53-1.34)	NA
Race (African American vs white)	1.57 (1.14-2.16)¶	NA	NA

Abbreviation: NA, data not applicable.
*Health care providers include physicians, nurses, and others. Data are given as odds ratio (95% confidence interval).
†$P<.10$.
‡$P<.05$.
§$P<.001$.
‖Other sources include health centers, health maintenance organizations, clinics, emergency departments, and hospital outpatient departments.
¶$P<.01$.

munication) may improve patient trust among both populations. Thus, interventions that focus on improving physician behaviors, such as communication skills and partnership building,[24] may improve trust among African Americans and whites. Within these programs, it may be useful to enhance provider skills with respect to encouraging patients to talk more about their health conditions, express opinions about their symptoms, and ask questions, and then providing clear answers.[23,25] However, additional factors may also need to be targeted to improve trust among African Americans.

We found that among African Americans, respondents whose medical care source was not a physician's office were most likely to report low trust. The interpersonal relationship between patients and health care providers is a critical component of patient trust[1,2]; it is possible that the environmental characteristics of hospital emergency departments, outpatient departments, health maintenance organizations, and clinics and health centers may not be amenable to establishing an effective patient-physician relationship. Interestingly, racial concordance with physicians was not associated with low trust among African Americans in the present study. This suggests that increased access to health care in settings where there is greater opportunity to develop effective interpersonal relationships with providers, regardless of the provider's racial or ethnic background, may improve trust among African Americans. However, increased access to care through physicians' offices, where effective relationships with providers may be more likely to develop because of greater physician continuity, is a significant challenge because access is influenced by health insurance coverage. Prior reports[19,26-28] have shown that African Americans are less likely than whites to have any health insurance coverage and may be most likely to be publicly insured. Thus, it may be especially important to direct training efforts for enhancing communication with patients to health care providers practicing in settings where continuity may be limited.

Although this study provides novel information on correlates of trust in health care providers among African Americans and whites, several limitations should be noted. First, we used single items to evaluate trust in health care providers, prior health care experiences, and structural characteristics of health care. However, these items had acceptable face validity and single-item assessments of health care experiences and structural characteristics of care are commonly used in survey research on access to care and health behaviors in the general population (eg, the Behavioral Risk Factor Surveillance Survey). Furthermore, our findings are consistent with racial differences in trust reported in other studies[10] that used items from validated surveys of patient trust. Nevertheless, use of a single item to assess trust is a limitation and multiitem scales may be preferable for measuring trust in health care providers. The cross-sectional nature of the data is an additional limitation that prevents us from establishing the causal relationship between trust and health care experiences and structural characteristics. Because respondents were asked about trust in physicians or health care professionals, it is also not possible to determine if their responses related to trust in a specific physician or to health care providers in general. Although survey data were obtained from a national sample of African American and white adults in the United States, the use of telephone interviews may limit the generalizability of our results. In addition, nonresponse bias to the survey is a potential limitation; however, the final response rate to the survey is consistent with the rates observed in other settings. Finally, because patient-physician communication or physician communication with standardized patients during an actual medical encounter could not be observed through telephone interviews, future studies are needed to evaluate the relationship between trust and objective assessments of physician behaviors with African American and white patients receiving care in different types of health care settings.

Despite these potential limitations, the present study increases our understanding of trust in health care providers among African Americans and whites and underscores the importance of identifying factors that are associated with trust in these populations. Training designed to improve provider communication with patients may be needed to improve trust for African Americans and

whites. However, it may be especially important to direct these efforts to health care providers practicing in settings where continuity with patients may be limited to improve trust among African Americans. In addition, greater access to health care settings (eg, physicians' offices) where more effective relationships with providers can be developed may also improve trust in health care providers among African Americans.

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