

Effects of Perceived Racism, Cultural Mistrust and Trust in Providers on Satisfaction with Care

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Discriminatory treatment of African Americans in healthcare is well recognized, yet the literature is unclear on the specific role that perceived racism and mistrust play in the patient-provider relationship. The purpose of this study was to test a mid-range theoretical model entitled Perceptions of Racism and Mistrust in Health Care (PRMHC). This model hypothesized that perceived racism influences cultural mistrust, which affects trust in providers—and these combined psychosocial aspects of healthcare affect satisfaction with the care received. One-hundred-forty-five African-American subjects participated in structured interviews to collect demographic and psychosocial data. Provider data was obtained through chart audits. In a group of low-income African Americans in two primary care clinics, perceptions of racism and mistrust of whites had a significant negative effect on trust and satisfaction. Perceived racism had both a significant, inverse direct effect on satisfaction as well as a significant indirect effect on satisfaction mediated by cultural mistrust and trust in provider. Structural equation modeling analysis supported the hypothesized theoretical relationships and explained 27% of the variance in satisfaction with care. The findings add to the existing literature by enhancing our understanding of the complex perspectives on trust and overall satisfaction with care among African-American patients. Results suggest that improving health outcomes for African Americans requires a broader understanding of cultural competence, one that addresses societal racism and its impact on provider-patient relationships.

Key words: racism ■ mistrust ■ provider race

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Disparities in the prevalence of multiple diseases exist between African Americans and non-African-American populations. These disparities for African Americans have been associated with unequal, discriminatory treatment and systemic racism.¹ Racism is insidious, cumulative and considered to be a chronic stressor in the life of most African Americans.² The untoward effects of this stressor have been posited to be a factor that has contributed to the increased prevalence of disease and health disparities among African Americans.^{3–8} Although it is known that African Americans experience racism in their interactions with healthcare providers and the healthcare system,^{6–9} the literature is less clear on the role perceived racism plays in the patient-provider relationship and health disparities.

Trust is critical to the provider-patient relationship, yet studies of trust in the healthcare literature are fraught with conflicting definitions and measurements and limited data.^{10–11} Few studies of trust using African-American samples could be found,^{9,12,13} and the majority of these same studies used qualitative designs and small samples. Still, all of these studies have found that providers and health systems can behave in an untrustworthy manner towards African-American patients. Participants report an overarching theme of a “generalized worry”¹³ that health professionals will “overlook” important health issues of “blacks” based on a racial bias and a lack of knowledge.⁹ These generalized worries are supported by significant empirical evidence that indicates racial disparities in the quality and outcomes of treatment for African Americans.^{1,7–8} The trust dilemmas are unfortunate because trust in one’s provider has been shown to affect willingness to seek care and follow up on treatment recommendations. In the only study that examined the relationship between trust and health outcomes in an African-American sample, O’Malley and colleagues¹⁴ found that higher trust was associated with greater use of recommended preventive screening services. With a dearth of research, a case for a direct effect of race on trust of one’s provider remains inconclusive.¹³

In response to discriminatory treatment, African-

American individuals have developed a mistrust of many structural aspects of society. Many structural or institutional systems in U.S. society are dominated by white individuals who have repeatedly mistreated African Americans. Healthcare is one such system that has a legacy of poor treatment and abuse of African-American individuals.^{9,12,15-17} It is possible that trust in and satisfaction with a dominant group (white) health-care provider would also be affected by cultural mistrust, which is defined as a tendency to distrust whites based upon a legacy of direct or vicarious exposure to racism or unfair treatment.¹⁸⁻¹⁹ Cultural mistrust has been shown to affect processes and outcomes in mental health counselor–client interactions, including depth of disclosure and early terminations of relationships with non-African-American counselors.²⁰⁻²³ In a similar study, Thompson and colleagues²⁴ examined the relationship of medical mistrust to breast cancer screening in African-American and Latino women. Operationally defined as a racial and ethnic group-based mistrust of the healthcare system, the authors found that medical mistrust was associated with women having a long-term lapse in breast cancer screening or no breast cancer screening in their lifetime. Although no studies using cultural mistrust as a distinct psychological aspect of primary care delivery could be found, it is possible to expect that high levels of mistrust would diminish trust in one's healthcare provider with a concomitant effect on follow-through with provider recommendations.^{12,25}

Patient satisfaction with primary care has been the most frequently studied independent variable linked to health outcomes, including following provider recommendations.²⁶ Satisfaction with the psychosocial aspects of the patient–provider interaction contributes to the level of adherence with medical plans of care.²⁷⁻²⁹ A review of the evidence suggests that older patients, women and healthier patients are more likely to be satis-

fied with their healthcare.³⁰ In contrast, African Americans, both men and women, have been found to be less satisfied with their primary care.³¹⁻³³ These findings change, however, when the patient has a choice in the selection of the primary care provider.³² A wealth of research is available from African-American patients on satisfaction with non-Hispanic white and African-American primary care physicians, yet there has been relatively little growth in the number of studies utilizing foreign medical graduates, foreign-born medical residents, and nonphysician providers such as nurse practitioners³⁴⁻³⁶ and physician's assistants.³⁷

Perceived racism, cultural mistrust and trust all provide plausible contributions to the satisfaction with care among African Americans, yet all of these variables likely exhibit within-group variations that are unexplored. The intersections of race, socioeconomic standing, age, cultural mistrust, perceptions of racism and trust in one's provider create a complex set of variables that could influence patient satisfaction. No studies testing a model of the relationships among perceived racism, cultural mistrust, trust and satisfaction within an African-American population, while controlling for contributing factors (gender, socioeconomic status and age) could be found despite a suspected empirical linkage among the constructs. The purpose of this study was to test a mid-range theoretical model, entitled Perceptions of Racism and Mistrust in healthcare (PRMHC). The PRMHC is a fully mediated model that hypothesized that perceived racism influences cultural mistrust, which affects trust in providers. These combined psychosocial aspects of healthcare affect satisfaction with the care received. The model specifically hypothesized that: 1) perceived racism would have a positive and direct effect on cultural mistrust; 2) cultural mistrust would have negative and direct effect on trust in provider, 3) trust in provider would have a positive and

Table 1. Patient and provider sample characteristics

Patient	Number (%) or Mean (SD)	Provider	Number (%) or Mean (SD)
Gender (n=145)		Gender (by visit): (n=137; missing=8)	
Men	71 (49%)	Men	41 (28%)
Women	74 (51%)	Women	96 (66%)
Age in Years	Range: 27–68 years M=49.4 (8.08)	Provider Type (by visit):	
Self-Identified Race		Physician	78 (54%)
African-American	97 (67%)	Nurse practitioner	65 (45%)
Black	29 (20%)	Provider Race/Ethnicity (by visit):	
Afro-American	15 (10%)	Caucasian	69 (47%)
Black American	4 (3%)	African-American	10 (7%)
		Black (African or Caribbean)	2 (1%)
		East Asian (India/Pakistan)	23 (15%)
		Asian (China/Japan)	5 (3%)
		Arab	28 (19%)
		Hispanic/Latino	5 (3%)
		Other/missing	7 (5%)

direct effect on satisfaction, and 4) that cultural mistrust and trust would mediate the effect of racism on satisfaction. Testing these theoretical linkages was done to increase our understanding of factors affecting the interpersonal aspects of healthcare from an African-American perspective.

METHODS

Design and Power

A causal modeling design using structural equation modeling techniques (SEM) was used for this study. SEM was chosen as this analytical method, which can provide necessary, but not sufficient, evidence of causality using cross-sectional data that reflect longitudinal processes. Thus, SEM provides an alternative to experimentation for examining the plausibility of hypothesized models.³⁸ Using *a priori* power analysis to detect a medium effect size (power of 0.80; alpha at 0.05), as well as making a determination based on the number of free parameters to be estimated for model fit, 140 adults were considered sufficient to address all the study aims.

Sample and Setting

Following approval from the Human Investigation Committee, a convenience sample of 145 urban-dwelling African Americans receiving care within an urban ambulatory health center were recruited from two different primary care clinics. With care provided by nurse practitioners (NPs) and medical residents, the first clinic has a patient population that included indigent persons between 21–64 years of age. The second clinic is a nurse-managed primary care clinic that serviced a diverse patient population that included the “working poor,” university faculty and medical center employees. Patients were eligible to participate in the study if they were between 18–80 years of age, self-identified as African-American or black, used English as their primary language, had no handicapping conditions (e.g., stroke, dementia) and consented to participate. Participants also had to have been a patient in the clinic <18 months. The time frame was chosen based on the one author’s (RB) knowledge of primary care practice and past research, which suggests that trust and satisfaction are affected by the length of the primary care relationship.⁹ It was felt that beyond 18 months the provider and patient would have established sufficient trust through patient–provider visits to diminish the effect of trust on satisfaction with care.

MEASURES

Participants completed four study questionnaires: 1) Racism and Life Experience Scales (RaLES), 2) Cultural Mistrust Inventory (CMI), 3) Trust in Physician Scale (TPS), and 4) the Michigan Academic Consortium Patient Satisfaction (MAC-PS) questionnaire (Table 1).

Racism

The brief version of the RaLES³⁹⁻⁴⁰ was used to measure perception and experience of racism. The RaLES is based on a multidimensional conceptualization that suggests that racism is experienced individually and directly and also collectively, vicariously and transgenerationally.³⁹⁻⁴⁰ The RaLES brief version is a nine-item instrument with a five-point scale (0 = no experience of racism, 4 = extreme levels of perceived racism). The brief version of the RaLES has been reported to have a Cronbach’s alpha of 0.79 in African Americans.³³ The Cronbach’s alpha in the current study was 0.81.

Cultural Mistrust

The CMI^{19,23} is a 48-item, seven-point response format (1 = do not in the least agree, 7 = entirely agree) instrument that measures blacks’ mistrust and suspiciousness of whites in four general areas (politics and law, interpersonal relations, education and training, business and work). Higher CMI scores represent higher mistrust of whites. A two-week test-retest reliability estimate of 0.85 has been reported.⁴¹ Internal consistency using a variety of populations has been found to be good with Cronbach’s alphas ranging from 0.85–0.89.⁴²⁻⁴³ Cronbach’s alpha for the CMI in the current study was 0.93. No validity testing with other ethnic groups who have historically been categorized as “white” (e.g., Asian) could be found in the literature.

Provider Trust

General trust in the provider was assessed using the TPS.⁴⁴ It is an 11-item instrument measured on a five-point scale (1 = strongly disagree, 5 = strongly agree). Questions are intended to refer to a patient’s primary care provider rather than to physicians in general. The instrument has high internal consistency with Cronbach’s alphas ranging from 0.85–0.90 in diverse populations.⁴⁴ Cronbach’s alpha in the current study was 0.88.

Satisfaction

Patient satisfaction with care was assessed using the MAC-PS.³⁴ This is a 17-item instrument measured on a five-point scale. The first 15 items and the last two items have different scaling (1 = strongly disagree, 5 = strongly agree and 1 = definitely not, 5 = definitely yes, respectively). The scale was developed using experts in evaluation and the Health Employer Data and Information Set (HEDIS).⁴⁵ The tool includes indicators commonly found in the patient satisfaction literature, such as access to care, technical skills, interpersonal manner and overall satisfaction. The instrument has high internal consistency with Cronbach’s alpha of 0.94 in diverse populations.³⁴ Cronbach’s alpha in the current study was 0.88.

Procedure

Potential subjects were identified by clinic staff, given a brief overview of the study, and if interested in participating, introduced to study personnel. After obtaining consent, study personnel used a structured-interview technique to collect demographic and psychosocial variable data. The interviews were conducted in a private room in the clinic area and took 40 minutes on average to complete. Participants were given a monetary incentive for completing the interview. Chart reviews were conducted by registered nurses to obtain information about the participant's health status (e.g., blood pressure, comorbid conditions) as well as to obtain provider demographic data.

Data Analysis

Analysis of the mid-range theory was conducted using SEM techniques calculated with the AMOS (version 6) software program.⁴⁶ SEM moves beyond typical bivariate and multivariate analyses by allowing for a more-precise estimation of the indirect effects of exogenous variables on all endogenous variables, and allowing complete and simultaneous testing of all hypothesized relationships. SEM output includes path coefficients, which provide evidence of bivariate associations; squared multiple correlations, which indicate the amount of variance in an outcome variable explained by the predictor variables; indirect effect, which tests for mediation; and model fit data, which determine how well the hypothesized relationships fit a set of observed data.^{38,47-48} An advantage of using SEM is that it allows for a more-precise estimation of the indirect effects of the exogenous variables on all endogenous variables. Testing for both direct and indirect effects provides information about the total effect of predictor variables on the outcome variable of interest. Direct and indirect effects provide information about the influence of one variable on other variables; however, model testing

allows determination of the combination of relationships. Model fit was determined by assessing absolute-, relative- and adjusted-fit indices. Absolute-fit indices determined if there was appreciable residual or unexplained variance following model fit. These included the Chi-squared statistic and, because Chi-square is sensitive to sample size, the Chi-squared minimum value of discrepancy divided by its degrees of freedom (CMIN/df) ratio also was calculated.⁴⁷ The Comparative Fit Index (CFI) is a measure of relative fit. It was calculated to determine how well the set of observed data fit the hypothesized model compared to all other possible models.³⁸ The Root Mean Square Error of Approximation (RMSEA) was the adjusted-fit index used. RMSEA examines how well the hypothesized model would fit the population covariance matrix if it were available. Since RMSEA is expressed per degree of freedom, it also adjusts for model complexity.^{38,47-48} Criteria for good fit are presented in Table 3.

Ancillary analyses also were conducted to further evaluate the data based on participant scores on the various instruments, as well as determining if there are differences on those instruments based on patient or provider demographic characteristics. SPSS (version 14)⁴⁹ statistical software was used to calculate descriptive statistics, Pearson's Product-Moment Correlations (*r*), independent sample *t* tests and analysis of variance. Following a significant test of overall group differences, post hoc analysis (Bonferroni procedure) also was conducted to compare all possible pairs of groups and to adjust the observed significance level based on the fact that multiple comparisons were made. Significant results are described in the following section.

RESULTS

Sample and Provider Demographics

Table 1 presents sample data for both patient and

Table 2. Instrument data (n=145)

Instrument	Cronbach's Alpha	Rating Scale	Possible Range	Study Range	Total Score Mean (SD)	Scale Mean	Low	High	Moderate
RaLES	0.81	0-4	0-36	4-31	17.25 (6.32)	1.9	30% (n=44)	21% (n=31)	47% (n=68) (some)
Cultural mistrust	0.93	1-7	48-336	66-276	185.65 (37.82)	3.8	33% (n=45)	0% (n=0)	48% (n=78) (moderate)
Trust in provider	0.88	1-5	11-55	14-55	42.50 (6.17)	3.8	3% (n=4)	10% (n=15)	72% (n=104) (mod.-high)
Satisfaction with care	0.88	1-5	17-85	24-85	70.53 (9.70)	4.1	1% (n=2)	28% (n=41)	64% (n=92) (moderately high)

RaLES: Racism and Life Experience Scale

providers. The patients were well distributed by gender and age, and most identified themselves as African-American. Income was significantly skewed with 80% (n=114) reporting earning <\$10,000/year. Educational levels, however, ranged from 5–20 years (M=12.2, SD=2.03). This may have been an artifact, as low income was a requirement to obtain care in one of the clinics. Participants also were evenly distributed by provider type. Providers were more likely to be women and white. No education or income data were obtained from providers. Only 8% (n=12) of the patient visits were conducted by black providers, who included African Americans as well as black providers from the Caribbean and Africa. As a result, race concordance was not possible for 92% (n=133) of the patient visits. The majority of patients (n=92%) did not have a choice of provider or clinic assignment.

Scale Data

All instruments performed well with internal consistency reliabilities ranging from 0.81–0.93 (Table 2). A wide range of scores were reported for the level of perceived racism and cultural mistrust. The majority of participants responded in the middle range of scores on both of these instruments, reporting some experiences of racism and a moderate level of mistrust. In contrast, the majority of patients reported high levels of trust in their provider and high levels of satisfaction with care (Table 2).

Relationships among Variables

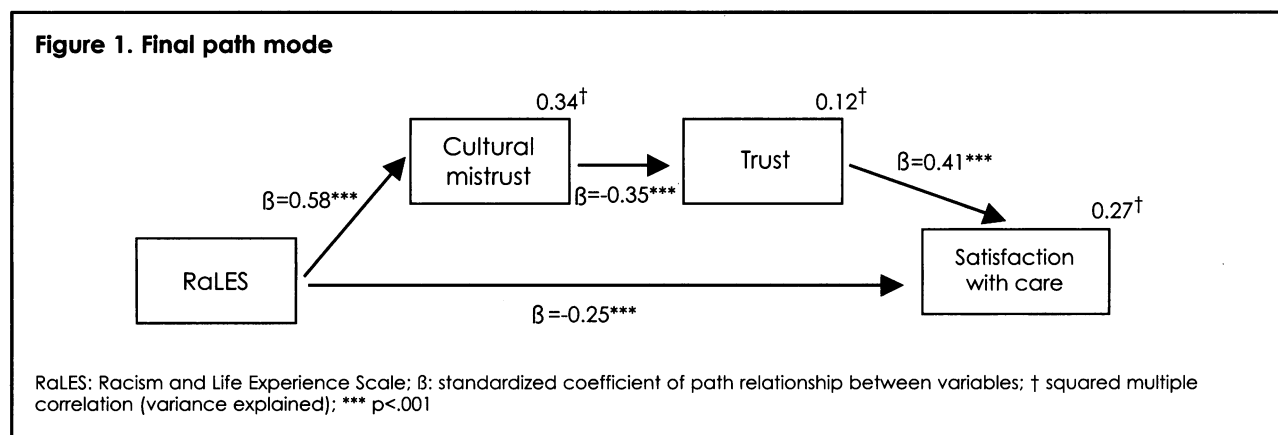
There was a strong positive correlation noted between perceived racism and cultural mistrust ($r=0.58$, $p<0.001$), suggesting that these constructs are related but not redundant (Table 3). There also was a strong, positive correlation noted between trust and satisfaction with care ($r=0.47$, $p<0.01$). Small-to-moderate, inverse, significant relationships were observed between satisfaction with care and both perceived racism ($r=-0.35$, $p<0.01$) and cultural mistrust ($r=-0.24$, $p<0.01$) (Table 3).

Further analysis based on demographic data revealed

that there were no significant differences on any of the psychosocial measures due to patient age, gender, level of education or total number of visits to the provider. Analysis by provider demographics revealed differences in responses on the measures of cultural mistrust and trust in providers but no differences in perceived racism or satisfaction with care. Cultural mistrust was significantly higher based on provider ethnicity. Patients seen by Asian providers (India, Pakistan, China) reported higher levels of cultural mistrust than patients seen by white providers [$F_{(4)}=2.41$, $p=0.05$]; Bonferroni post hoc analysis= -23.86 , $p=0.04$). There was a significant difference noted on level of trust by provider type. Patients being treated by nurse practitioners reported higher levels of trust than those treated by physicians [$t_{(143)}=2.56$, $p=0.011$]. Patients treated in the nurse-managed clinic (NMC) clinic reported higher levels of trust [$t_{(143)}=3.62$, $p=0.000$] than patients seen in the joint managed clinic (JMC). Additionally, a trend was noted with patients being seen by a female provider more likely to report a high level of trust than those seen by male providers [$t_{(135)}=1.92$, $p=0.057$]. Given that the majority of NPs were women and that only NPs practiced in the NMC, a regression analysis was performed. Results revealed that when controlling for gender and provider type, clinic type (NMC) remained a significant predictor of trust ($t=2.67$, $p=0.008$).

SEM Analysis

Analysis of the originally hypothesized theoretical model indicated that the psychosocial variables accounted for 22% of the variance in satisfaction with care but revealed a “marginal” fit based on established criteria (Table 4). Examination of the statistical output revealed a large modification index, suggesting a possible direct path between perceived racism and satisfaction. Such a linkage could be supported theoretically so the model was respecified. The addition of the path from RaLES to satisfaction (Figure 1) increased the amount of variance explained in satisfaction by 22% (to 27%), which was significant at the 0.000 level, and the overall model fit



was significantly improved (Table 4). Additionally, the two models were compared using the Akaike Information Criterion (AIC), which takes into account the measure of fit and model complexity, and provides a relative ordering of models. The model with the lower AIC value is considered to provide a better means of data description than the model with higher AIC index. Use of the AIC provided additional support for accepting the fit of Model B.⁴⁷⁻⁴⁸ In the final model, all direct paths are significant and in the hypothesized direction (Figure 1), meaning that perceived racism has a significant direct effect on satisfaction and cultural mistrust. Cultural mistrust has a significant direct effect on trust and similarly trust has a significant effect on satisfaction. The significance of the direct effect can be evaluated by reviewing the path coefficients, which reflects the regression analyses and is presented as the standardized beta regression coefficients (β) (e.g., the direct effect of cultural mistrust on trust has a β of -0.35 and is significant ($p < 0.001$), and amount of variance explained by the predictor on the outcome is determined by the squared multiple correlations (\dagger) (e.g., cultural mistrust explains 12% of the variance in trust of the provider).

The overall test of indirect paths also is significant, and each of the indirect paths is significant. Indirect effects were a test of mediation where the amount of variance explained in an outcome variable (satisfaction) is a consequence of both proximal (trust) and distal (racism and cultural mistrust) predictor variables. Perceived racism had an indirect effect of on trust mediated by cultural mistrust ($\beta = -.20$, $p = 0.005$), and a significant indirect effect on satisfaction, mediated by both mistrust and trust ($\beta = -.08$, $p = 0.011$). Cultural mistrust, mediated by trust, had a significant indirect effect on satisfaction ($\beta = -1.4$, $p = 0.02$). The indirect effect represents a compound path that was calculated by testing the products of the path coefficients of the predictor paths leading to the outcome of patient satisfaction (e.g., the product of the path from racism to mistrust and the paths from mistrust to trust, and trust to satisfaction determined the significance of the indirect effect of all predictors on satisfaction). Direct and indirect effects provide information about the influence of one variable on other variables; however, model testing allows determination of the combination of relationships. The combined relationships of the direct and indirect paths were signifi-

cant and explained 27% of the variance in overall satisfaction with care.

DISCUSSION

This study was one of the first to examine the combined effects of perceived racism and cultural mistrust on the trust in one's healthcare provider and overall satisfaction with care among African Americans. In a group of low-income African Americans in two primary care clinics, perceptions of racism and mistrust of whites had a significant negative effect on the trust and satisfaction with care. Perhaps most significant, perceived racism had a moderate, inverse significant direct influence on satisfaction with care, and perceived racism had a significant indirect effect on satisfaction with care—mediated by cultural mistrust and trust in provider. Despite the negative effects of perceived racism on trust and satisfaction, the majority of participants were fairly trusting of the provider and satisfied with the care they had received. The combined findings revealed support for all four hypotheses. The effect of perceived racism and cultural mistrust was not influenced by age or gender differences.

The amount of perceived racism reported by this sample was lower than that found by Harrell and colleagues,³⁹⁻⁴⁰ but was similar to another study also conducted with African Americans living in Detroit.⁶ The lower amount of reported perceived racism may be due to the fact that Detroit is one of the most highly segregated cities in the country. Limited interracial contact due to high levels of racial segregation is a possible explanation for the findings.

The majority of participants reported neutral cultural mistrust scores, which is consistent with Whaley's⁴³ sample of inpatient psychiatric patients. Despite the racial concordance between the interviewer and participant, the institutional setting may have created its own added mistrust factor, causing participants to report a more socially desirable response about the system. Although Benkert and colleagues⁹ found that African-American women in Detroit reported an early mistrust of the provider and healthcare system, participants in this study may not have reported stronger perceptions of mistrust for several reasons, one of which could have been fear of losing their only source of healthcare. Similar to Whaley,⁴³ the orally administered process of data

Table 3. Correlation matrix of variables (n=145)

	1	2	3	4
1. RaLES	1.00			
2. Cultural mistrust	0.57**	---		
3. Trust in provider	-0.28**	-0.36**	---	
4. Satisfaction with care	-0.35**	-0.24**	0.47**	---

RaLES: Racism and Life Experience Scale

collection may also have contributed to a socially desirable response set. Whaley found no correlation between the CMI and a measure of social desirability. The current study did not assess social desirability so the results are not able to support or contradict Whaley's data. The moderate-to-lower levels of cultural mistrust may also be due to the cultural mistrust instrument. The instrument items emphasize black-white system mistrust, and more than half of the healthcare providers were people of color, including 8% African-American or black. Anecdotal discussions during the interviews found that respondents felt that the issue of mistrust was more of an issue with "foreign" people than whites. LaVeist and Carroll's³² research found that African Americans are less satisfied with Asian physician providers. While LaVeist and colleagues did not measure mistrust levels, lower satisfaction could be a function of higher mistrust. It is also possible that the instrument is measuring cultural beliefs above and beyond the race differences as Terrell and Terrell⁴¹ have indicated that the CMI may be sensitive to institutional racism. Although the CMI was designed to capture mistrust of whites in a white-dominated society,²³ it is unknown whether other racial or ethnic groups could be associated with this overall mistrust or whether the higher mistrust scores found in this study are linked to perceived institutional racism. Several county-funded clinics in the area employ foreign medical graduates as primary care providers in which language barriers between provider and patient exist. However, a larger pool of providers from a variety of racial and ethnic backgrounds with more detail on communication skills and communication style will be needed to distinguish the varied effects that race and ethnicity have on the mistrust of providers.

Over 100 participants reported a moderate level of trust in the providers. The results differ significantly from O'Malley and colleagues,¹⁴ where nearly 70% of the sample reported high trust in their regular provider. One explanation for the differences may be the in the distinct measurement mechanisms. The current study used a longer instrument (11 items) with a narrower

Likert scale, as compared to a single-item measure of trust. Trust is a complex construct with multiple elements.¹⁰ The current study may have captured a broader concept of trust; the results are consistent with earlier studies using the same instrument with a predominantly white clinic sample.⁵⁰ O'Malley's study¹⁴ with its limited items may have skewed the results toward a higher level of trust; in fact, the comparable group of participants from public health or community health centers had the lowest "high trust" scores, suggesting that in low-income populations trust can be earned but it may not be as high as when one has a choice of provider.³³

The finding that trust was significantly higher in patients from a NMC warrants some discussion. No other quantitative studies of trust of NPs could be found, yet it is possible that the care delivery in NMCs enhances trust of the providers. Previous research has found that NPs in NMCs emphasize "listening to a patient's story," sharing decision-making and involving the family in care.⁹ All of these factors have been found to be important to trust development in African Americans.¹²⁻¹³ Benkert and colleagues³⁴ have found that satisfaction with care across a variety of NMCs was quite high, but NMCs were not compared to JMCs, and trust was not measured. More research on NPs from a variety of settings is needed to clarify these findings.

The high levels of satisfaction contradict LaVeist's³²⁻³³ research. One explanation for these findings is the differences in socioeconomic status between the samples. Research has found differences in satisfaction by socioeconomic status for African Americans.^{31,51} Another explanation for the contradiction in findings may be that the current study participants were comparing the current clinics to the other options available through this county-funded program. The other local clinics have been anecdotally reported to be "factory mills," where the emphasis on saving money overrides the delivery of quality care. A final explanation may be that the hospital in which the clinics are housed may have swayed the results. Benkert and colleagues⁹ found that the particular hospital in which the current study took place holds significant

Table 4. Model fit results (n=145)

Indices	Desired Fit Criteria ⁴³⁻⁴⁶	Model A [±] Initial	Model B ^{±±} Final
χ^2		12.51	2.13
df (p value)	p>0.05	3 df (p=0.006)	2 df (p=0.34)
CMIN/DF	<2.0	4.17	1.06
CFI	>0.95	0.92	1.00
RMSEA (90% CI)	<0.08 (not wide)	0.15 (0.07-0.24)	0.02 (00-0.17)
AIC	smaller	34.51	26.13

± Model A: Initial fully mediated model that hypothesized that perceived racism influences cultural mistrust, which affects trust in providers; and these combined psychosocial aspects of healthcare affect satisfaction with the care received; ±± Model B: Final revised model, which hypothesized direct and indirect paths to satisfaction where: 1) perceived racism directly affected satisfaction with care; and 2) perceived racism influenced cultural mistrust, which affected trust in providers. These combined indirect effects influenced satisfaction with care.

respect in the community; the hospital was one of the first in the city to grant admitting privileges to African-American physicians and to admit black patients.

These findings add to the conflicting literature with regards to provider gender and satisfaction. The current study found a trend toward greater satisfaction with female providers, but the significance did not hold when controlling for gender and provider type during regression analysis. It remains unclear whether gender differences in satisfaction are a function of communication style⁵²⁻⁵³ or a phenotypic characteristic. More likely, satisfaction and trust are affected by the skill and abilities of the provider.⁵⁴⁻⁵⁵ More research on male and female providers from multiple healthcare disciplines and from a variety of settings will be needed.

All hypothesized direct and indirect paths in the model were significant. The data support the hypothesized effect of psychosocial variables on satisfaction with care, explaining 26% of the variance in satisfaction. The current investigation is the first study to empirically evaluate the hypothesized linkages among these constructs. The findings from this study of moderately positive correlations between the primary constructs (perceived racism and cultural mistrust, and trust and satisfaction) are consistent with the existing literature and indicate that the constructs are related but are not redundant constructs. Previous multiple regression studies have found associations among selected variables. Using bivariate and regression analyses, previous studies have found associations between trust and satisfaction, but no studies of these two variables have been explored in an African-American sample. Clinicians will need to be aware that trust in and satisfaction with providers is possible with a predominantly low-income African-American sample; however, persistent exposure to racism within society and the healthcare system has a direct impact on the level of satisfaction. In addition, the level of societal mistrust of whites has a direct impact on levels of trust of the provider.

The direct and indirect effect of perceived racism on satisfaction is a new finding that adds to the existing literature, exploring the correlates of this psychosocial stressor. The findings will need to be replicated, but the nearly perfect model fit suggests that our theoretical linkages are accurate. The findings provide tentative support for the work of David Thom and his colleagues.⁵⁴⁻⁵⁵ Trust-building skills in physicians and NPs may enhance patient satisfaction among African-American patients, which has been linked to improved health outcomes.²⁶ The findings also suggest that the trust-building skill development may need to be tailored to the African-American population. The skill development would need to include avenues to assess and work through various levels of perceived racism and cultural mistrust prior to creating a patient-provider partnership as advocated in the Institute of Medicine report.¹

No study is without limitations, and this one is no exception. The primary limitation was the cross-sectional and convenience sampling process. As such, the sampling limits the generalizability to lower-SES African Americans, especially those without a choice of provider or site of care. An assessment of social desirability would have helped to rule out response bias as an explanation. Also, given research highlighting the mitigating effects of other racism-related variables on the relationship between perceived racism and health outcomes,^{3-6,56-58} the failure to examine other potentially important variables might have led to an overly simplistic interpretation of the associations among the study variables. Finally, because of the inadequate number of African-American physicians, additional research will be needed to determine if race concordance would have had an effect on the study variables. Several studies have suggested that ethnic or racial matching is not sufficient to overcome mistrust of providers.^{21,59}

The above limitations notwithstanding, within the practice arena, the findings suggest that providers need to be aware that low-income African-American patients may bring experiences of perceived racism and cultural mistrust to the healthcare encounter, and these experiences may affect trust in the provider and satisfaction with care. To work effectively with African Americans, providers will also need a broader understanding of cultural competence, one that includes aspects of societal racism and its ramifications on provider-patient relationships. Finally, skills at developing trust between provider and patient may mediate the effects of perceived racism on satisfaction.

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