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Impact of sociodemographic factors and previous interactions with the health care system on institutional trust in three racial/ethnic groups

Rebecca J. Schwei [a], Kelley Kaduncb [b], Anthony L. Nguyen [b], Elizabeth A. Jacobs [a,c,*]

[a] Department of Medicine, University of Wisconsin School of Medicine and Public Health, Madison, USA
[b] University of Wisconsin School of Medicine and Public Health, Madison, USA
[c] Department of Population Health Sciences, University of Wisconsin School of Medicine and Public Health, Madison, USA

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ABSTRACT

Objective: Our objective was to explore whether there are differences in institutional trust across racial/ethnic groups and what factors might contribute to these differences.
Methods: We studied a convenience sample of 569 adults in Chicago grocery stores who self-identified as African American, Mexican-Hispanic, or white. We measured institutional trust and dichotomized responses into "high" and "low" trust. We used chi squared tests to examine differences in institutional trust across racial/ethnic groups and stepwise multivariable logistic regression to investigate how sociodemographic factors, health care access, health care usage, and previous negative experience with the health care system modified this relationship.
Results: In unadjusted analysis, race/ethnicity was significantly associated with institutional trust ($p < 0.001$). In the fully adjusted model, African Americans and Mexican-Hispanics had greater odds of reporting low trust compared to whites (OR: 1.90; 95%CI, 1.13–3.17; and OR: 2.34; 95%CI, 1.43–3.81, respectively); reporting a previous negative health care experience was the only other factor significantly related to having low trust (OR: 2.84; 95%CI, 1.83–4.41).
Conclusion: We found lower institutional trust in African Americans and Mexican-Hispanics and among participants reporting previous negative health care experiences.
Practice implications: Improving health care experiences, especially for racial/ethnic minority groups, could improve institutional trust and decrease health disparities in these populations.

1. Introduction

Trust is a fundamental component of the patient-physician relationship and effective medical care in general. It can broadly be defined as a patient's expectation that his or her best interests will be kept in mind at all times by those caring for them [1]. There are two types of trust in health care: interpersonal trust, defined as a patient's trust in their individual physician, and institutional trust, defined as a patient's trust in the medical profession, hospitals, insurers, health care organizations and systems [1,2]. The two are related. For example, institutional trust is important in a patient's willingness to enter a particular health care institution, engage with a healthcare provider, and therefore develop interpersonal trust in that healthcare provider. A patient needs to believe that an institution will keep his or her best interests in mind and provide a safe environment for their care [1,3–6] so that they decide to seek care at that institution.

The literature on institutional trust has shown that lower levels of institutional trust are associated with higher rates of changing physicians and seeking second opinions [7], reduced reliance on the judgment of physicians [7,8], and decreased patient satisfaction [9]. Higher levels of institutional trust are associated with improved perceived physical and mental health status [4,10–12], decreased emergency room visits [12], increased acceptance and use of anti-retroviral medication [12,13], increased willingness to donate organs [14], and increased acceptance of the HPV vaccination [15].

In many studies, African Americans and Hispanic populations have reported lower levels of institutional trust when compared to the white population [9,16–22], and this difference in trust likely contributes to disparities in health care. However, many of these studies have only examined differences in institutional trust between African Americans and whites [9,16–20] or have only evaluated medical mistrust [9,16–21]. Previous work has shown

* Corresponding author at: Health Innovation Program, Suite 210, MC 9445, 800 University Bay Drive, Madison, WI 53705, USA. Tel.: +1 608 262 8302; fax: +1 888 263 2864.
E-mail addresses: eajacobs@medicine.wisc.edu, eajacobs3@wisc.edu (E.A. Jacobs).

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that trust and distrust do not necessarily operate on a single continuum, but that patients may be trusting and distrusting simultaneously [22]. This paper fills a gap in the current literature because we evaluate institutional trust using a new measure that incorporates items that measure both trust and distrust, was developed based on perspectives of African Americans, Mexican-Hispanics and whites, and has been shown to be reliable and valid in all three of these racial and ethnic groups [22,23].

Our overall objectives were to see if there are differences in institutional trust across three racial/ethnic groups and if the relationship between these differences can be explained by health care access, exposure to health care and previous health care experiences. We hypothesized that there would be differences in institutional trust across the three racial/ethnic groups and across socioeconomic status and that these differences would persist even after controlling for sociodemographic, access, health care utilization, and previous health care experiences.

2. Methods

2.1. Study participants and survey development

We conducted a cross-sectional, computer adapted survey among a convenience sample of adults shopping at selected supermarkets in 12 socioeconomically diverse neighborhoods in Chicago, IL. Participants volunteered after passing the research table set up at the entrance of each supermarket; when we reached a sample of 200 participants from a particular racial/ethnic group, we no longer took volunteers from that group allowing us to achieve a target study sample of 600 adults with equal proportions self-identifying as African American, Mexican-Hispanic and white. To be eligible, individuals were required to be fluent in English or Spanish, 18 years of age or older, and to not have cognitive impairment that would preclude giving informed consent. We administered the computer-adapted survey in English or Spanish according to the preference of the respondent. The Institutional Review Boards of the Cook County Bureau of Health Services and the University of Wisconsin School of Medicine and Public Health approved all study activities.

2.2. Measures

The questionnaire consisted of 235 items that included questions about sociodemographic characteristics, health care access, health care usage, perceived discrimination, interpersonal trust, institutional trust and previous negative health care experience. We measured institutional trust using a 36-item Health-Related Trust Measure (HTM). All 36 statements in the measure are statements about institutional trust in general and they were grouped together into 7 factors based on similar content. The factors included: discrimination in health care (3 items), equity (6 items), hidden agenda (4 items), insurance (3 items), negative physician perception (5 items), positive physician perception (12 items), and system welcoming (3 items) [23]. The HTM is a cross-cultural measure that was developed by Dr. Jacobs and her team to measure institutional trust across the three largest racial/ethnic groups in the United States: African Americans, Mexican-Hispanics and whites. For each of the 36 questions, participants responded that the statements were never true, a little true, half the time true, mostly true, or always true, and each response received a corresponding score of 0–4. Examples of items on the hidden agenda, positive physician perception and system welcoming factors respectively are: doctors will not do what is best for a patient if it means that doctors will earn less money; doctors listen carefully to their patients; and clinic front desk staff are friendly to patients. The HTM instrument performed well overall ($\alpha = 0.94$) and individually in African Americans ($\alpha = 0.95$), Mexican-Hispanics ($\alpha = 0.94$), and whites ($\alpha = 0.96$).

We included sociodemographic variables in the analysis that have been shown to be related to trust in medical care: race/ethnicity (self-reported as African American, Mexican-Hispanic or white), age (years), gender (male or female), and marital status (married, previously married, never married), employment status (employed, unemployed or homemaker/retired/student), income ($\leq$\$15,999, \$16,000–34,999, \$35,000–74,999, $\geq$\$75,000, or do not know/no response), and education level (less than high school, high school/GED, trade school/associate's degree or bachelor's degree and above).

We included the variables insurance status and forgoing health care due to cost as measures of access to health care. Participants reported their insurance status as private insurance, Medicare/Medicaid or no insurance. We asked participants the following question to see if they had previously avoided care due to cost: "Is there any time in the past two years, when you did not seek medical care because it was too expensive or health insurance did not cover it? Do not include dental care." Possible responses included yes, no or not sure.

We used the number of annual visits to the doctor to assess health care use. We asked participants "Have you seen any doctor in the last 12 months? If yes, about how many times in the last 12 months have you seen a doctor (including your personal doctor)?" We ultimately classified responses into the following discrete categories: 0, 1–2, 3–5, or $\geq$6 visits in the last 12 months.

We included one variable assessing previous negative health care experience. We asked participants: "In the past five years, have you had a health care experience you considered to be bad or negative?" (yes or no).

2.3. Data analysis

To calculate an overall institutional trust score we summed the values of all 36 items in the measure. When necessary items were reverse coded so that a response of "always true" indicated lower trust and received a score of four. The possible range of values was 0–144 with higher values indicating lower institutional trust. Eleven participants did not answer 1 of the 36 questions, and for these individuals we imputed the missing value by using the mean value for participants in the same racial/ethnic and gender demographic (e.g. African American women) who did respond to the question. Because overall trust scores were normally distributed, we dichotomized the variable into high trust and low trust using the mean value of 57 as the cut-point. We assessed differences in institutional trust across the three racial and ethnic groups with a chi-squared test.

We used multivariable stepwise logistic regression to determine the relationship between institutional trust and race/ethnicity. Model 1 included only race/ethnicity; Model 2 included all sociodemographic variables; Model 3 included all sociodemographic, access to and use of health care and previous health care experience variables.

We then dropped whites from our sample and did chi square and multivariable stepwise logistic regression analysis to see if there were any differences in institutional trust between African Americans and Mexican-Hispanics.

3. Results

Of the 569 respondents, 33% identified as African American, 33% identified as Mexican-Hispanic and 34% identified as white. Table 1 describes the distribution of sociodemographic, access to health care, use of health care, previous negative health care experience and institutional trust overall and across three racial/ethnic