

Trust in the Healthcare System: The Effects of Individual Characteristics
and Experiences of Adults in Pittsburgh

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Abstract

The purpose of this study is to find the difference between African Americans and white Americans' healthcare trust due to their economic information, personal experience, and preference. Previous research surveyed Americans about their trust level with the healthcare system and also their personal thoughts on racism. We hypothesized that white Americans trusted the healthcare system more than African Americans. We also hypothesized that differences in trust due to gender, education, insurance, discrimination, and preference in their doctors' race. Information from 172 people was gathered using an online survey. We found trust differences by race, gender, insurance, experience with racial discrimination, but not education. For African Americans, having a black doctor did not determine one's trust. Overall, healthcare trust depends a lot on race and gender, which might negatively affect their health.

Introduction

The relationship between society and the healthcare system depends on many categories, such as economic information, personal experience, personal trust and preference (1). It is common that white Americans have better healthcare opportunities due to access to better education and family wealth than African Americans (2). Due to that, white Americans have more of a positive outcome when dealing in the healthcare system. African Americans are known to have less trust and a different perspective on the healthcare system (3). In this study, we examine how African Americans' characteristics and their personal experiences affect their trust in the healthcare system. This is important because knowing what affects trust will help doctors improve their care and how they communicate with patients.

Healthcare Perceptions & Outcomes

One factor that might affect how patients see their doctors is the amount of trust they have, as it relates to race (3). Adegbembo et al. looked at trust between patients and the healthcare system in Miami. In a survey of 550 black and 374 white low-income residents, the researchers asked how much residents trust the healthcare system, and their thoughts about racism in the healthcare system. They found that in general whites trusted the system more than black Americans, while younger males trusted the system the most. Black residents perceived a lot more racism in the system, and this perception was the main reason why blacks trusted the healthcare system less. This is important to the current study because perceptions of racism explain mistrust between races, then black Americans with negative racial experiences may trust their doctor less.

Trust is also important with patients and their physicians (2). In another survey for trust and distrust in the healthcare system, African Americans and Hispanics had a higher distrust level than white Americans. Economic factors also played a role with trust; lower income, lower education and public insurance were related to patients' trust. These are major reasons to show distrust in the healthcare system and the differences. Insurance plans also play a role in one's trust of the healthcare system (4). African Americans had less trust in the hospitals than whites due to different types of insurance common in each group. According to research, white American trust hospitals more than other races. The reason for those may be because the experiences they went through and the types of insurance they have.

Doctor and Healthcare Trust

Experiencing discrimination with doctors can motivate African Americans to prefer the same race physician (5). In a study on race concordance, researchers found about 83% of 1,189 African Americans preferred the same race doctors, due to experiencing discrimination in the healthcare system. More than half of African Americans thought that race affects routine medical treatment. Even though many had a preference in their physician, many did not have a choice in their doctor due to their insurance or their age. Many older African Americans were not used to having a choice in their doctor because when younger, there were very few black doctors to choose from. White Americans are, on average, known to have high income and better insurance, and therefore they most likely have better doctors and better treatment (1). In a survey of African Americans and whites, Black patients were most likely to have black doctors because they were low income and had public insurance and black doctors often worked in those places.

Mothers have all different types of outcomes when it comes to the healthcare system (6). A study of thousands of mothers' medical records found that African American mothers were most likely to be young, less educated, not married and have worse outcomes compared to white mothers. It was also found that African American newborns are more commonly born premature and with low birth weight. Everything that happens to mothers and their babies plays an important role in trust with mothers and the hospitals. Depending on her experiences giving birth, being a mother is a good reason to have preferences and also low or high trust in the healthcare system.

Study Hypotheses

Overall, the research says individual personal experiences with racism and personal characteristics (such as gender, age, education, race, insurance, income) affect a person's trust in the healthcare system and may affect their health. In this study, we will be looking at the same questions, but in Pittsburgh, surveying TNA students, their parents, and TNA teachers and employees. We want to see if the same things are true in 2020 in Pittsburgh.

Given this information, we hypothesize the following:

1. There will be a difference between the trust in men and women; women will be most likely to have less trust due to the experience of giving birth (6).
2. White participants trust the healthcare system more than African American participants (4).
3. Participants with more education and private insurance have more trust in the healthcare system (1).
4. Individuals that think they experienced discrimination with the healthcare system have less trust (3).
5. African Americans with racially concordant doctors have more trust than those who don't (5).
6. Younger individuals will be more likely to prefer a same-race doctor (5).

Methods

The participants in our survey were 20% male and 80% female of all races: 14% white, 84.3% African American and 1.7% others. They were asked to give their age, type of insurance and highest education. There were a variety of ages from 17-66 years old of participants. A variety of education also from some high school (14%), associates degree (11%), some college (16%), bachelor's degree (30%) and masters degree or above (29%). I surveyed students and staff members of The Neighborhood Academy and also the parents and social contacts, there were a total of 172 people.

The survey asked about trust with the healthcare system. We also asked women about the trust they have with the doctors and the healthcare system and their experience with giving birth. It also asks about discrimination based on race and gender and the race participants would prefer for their doctor. A digital survey was done due to the pandemic and school rules. We asked TNASTaff and seniors and also asked them to forward the survey to friends and family.

Results

The goal of this study was to investigate the trust between people and the healthcare system and their doctors. That relationship with the healthcare system may depend on categories such as economic information, personal experience, personal trust and preference. We surveyed people of all ages, education levels, race and asked about their trust to get different results.

The first hypothesis is that women will have less healthcare trust than men. Four respondents were excluded, as they did not answer the trust questions, for a total of 168 people. The healthcare score is the sum of two questions: trust in your doctor and trust in the healthcare

system overall. The lowest possible score is a 2 (disagree strongly on both), and the highest was a 10 (agree strongly on both). An independent t-test found there was a significant difference in trust by gender ($t(166) = -2.76, p = 0.003$). Males ($M = 7.3$) had more trust than females ($M = 6.4$). There wasn't a big difference when we looked at only females who gave birth ($M = 6.5, p = 0.02$) versus men's trust scores.

To investigate if childbirth is the reason why females have less trust, we looked at the relationship between childbirth scores and trust. We asked three questions about childbirth regarding the staff, doctor and the overall experience and added up the scores, with a possible range of 3-15. A r-test revealed a significant positive relationship between childbirth experience and trust ($r(69) = 0.33, p = 0.005$). People who had a more negative experience, trusted the health system less.

Healthcare Trust by Gender

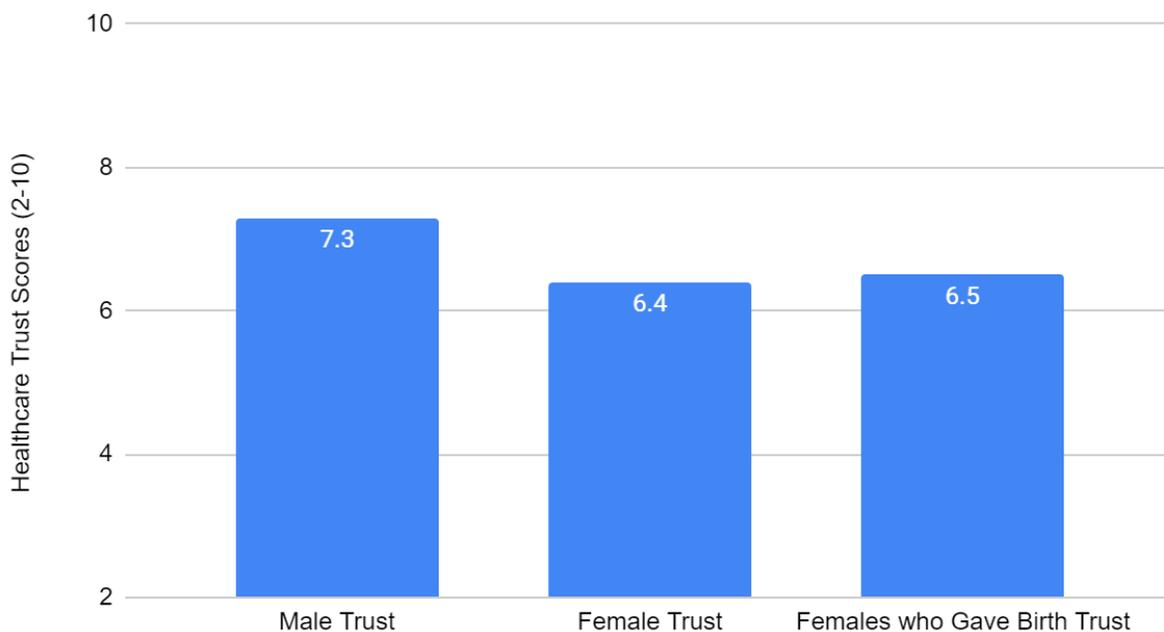


Figure 1. Healthcare Trust by Gender.

Childbirth Satisfaction Scores vs. Healthcare Trust Scores

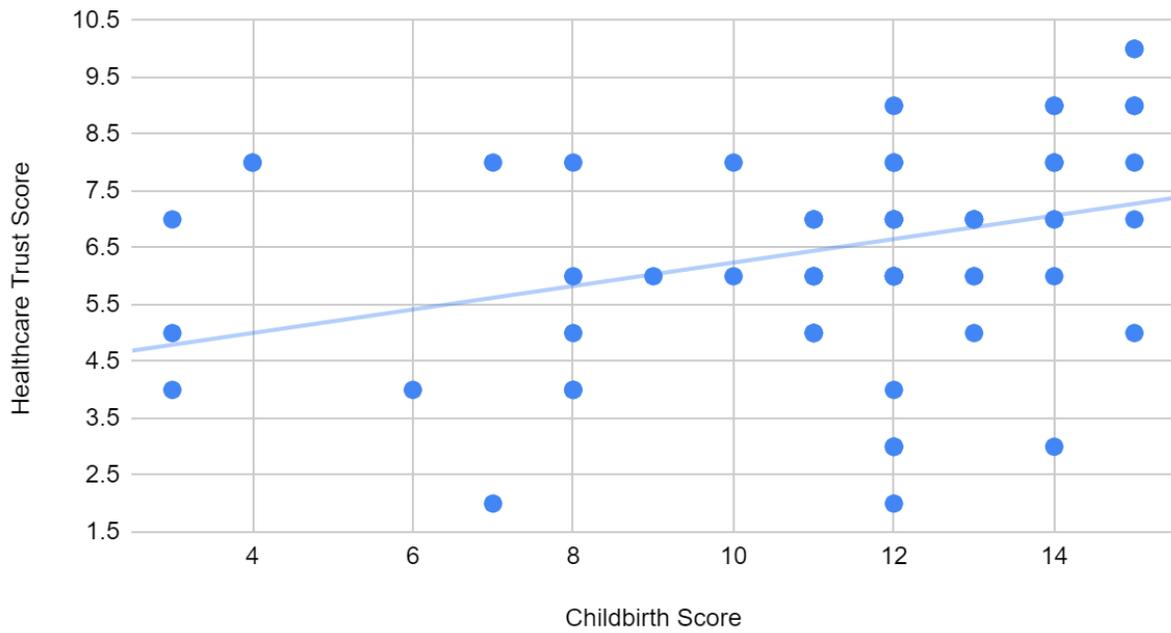


Figure 2. Childbirth Satisfaction vs. Healthcare Trust

Healthcare Trust by Race

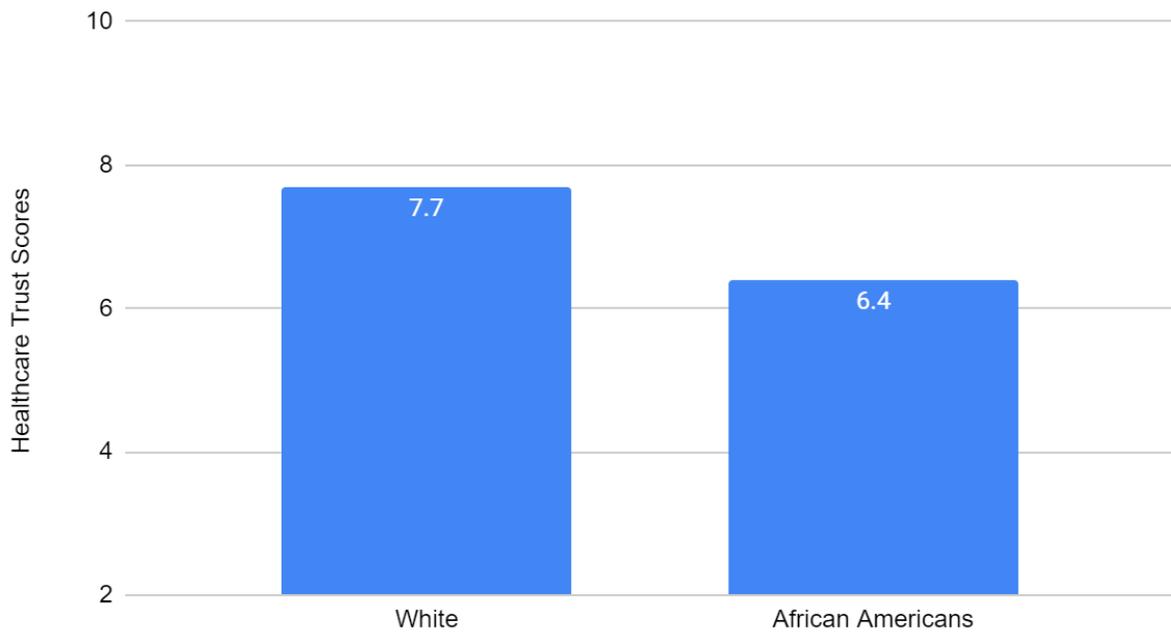


Figure 3. Healthcare Trust by Race.

The second hypothesis is that white participants have more trust in the healthcare system than African American participants. To test this hypothesis, we tested 22 white participants and 143 African Americans. We excluded three participants who listed their race as "other". An independent t-test found there was a significant difference in trust by race ($t(163) = -3.31$, $p = 0.0006$). Whites ($M = 7.7$) had more trust than African Americans ($M = 6.4$).

The third hypothesis is that participants with more education and private insurance have more trust in the healthcare system. We excluded 19 people that listed do not know or do not prefer to answer about their health insurance. There were 114 people listed for private insurance, 63% African American. There were 35 people listed for public insurance, 100% African American. An independent t-test found a significant difference by insurance ($t(147) = 2.71$, $p = 0.004$). Those with private insurance ($M = 6.8$) trusted the healthcare system more than those with public insurance ($M = 5.9$).

Next, we are comparing the trust scores for African Americans that have private insurance and white Americans that also have private insurance. An independent t-test found a significant difference by trust with private insurance based on African American and white people ($t(109) = -2.84$, $p = 0.003$). African American with private insurance ($M = 6.5$) trusted less than whites with private insurance ($M = 7.8$). Because of this, insurance is less likely to be a reason why people trust less, and race is more of a reason.

The third hypothesis is also about the difference in trust based on education. This question is based on just African Americans because whites trusted more and the white respondents only had masters and bachelors degrees. There were a total of 143 African Americans who had the following types of education: associates degree ($n = 17$), bachelor's degree ($n = 43$), masters degree ($n = 36$), some college ($n = 25$) and some high school ($n = 22$). A one way ANOVA for independent samples found no difference in healthcare trust by level of education. The means for each group are listed on table 1 below.

	Some high school	Some college	Bachelor's Degree	Associates Degree	Masters Degree
Healthcare Trust	6.9 ± 1.7	6.3 ± 1.7	6.0 ± 1.7	6.3 ± 1.8	6.7 ± 1.8

Table 1. Healthcare Trust by Education

The fourth hypothesis predicts a difference in trust based on experiences with discrimination. We examined 143 African Americans, two did not answer the question and 61 people reported experiencing discrimination. An independent t-test found a significant difference by trust based on experiencing discrimination ($t(139)=3.69, p=0.00016$). Those who experienced discrimination ($M=5.8$) trusted less than those who have not experienced discrimination ($M=6.8$).

Healthcare Trust by Racial Discrimination Experiences

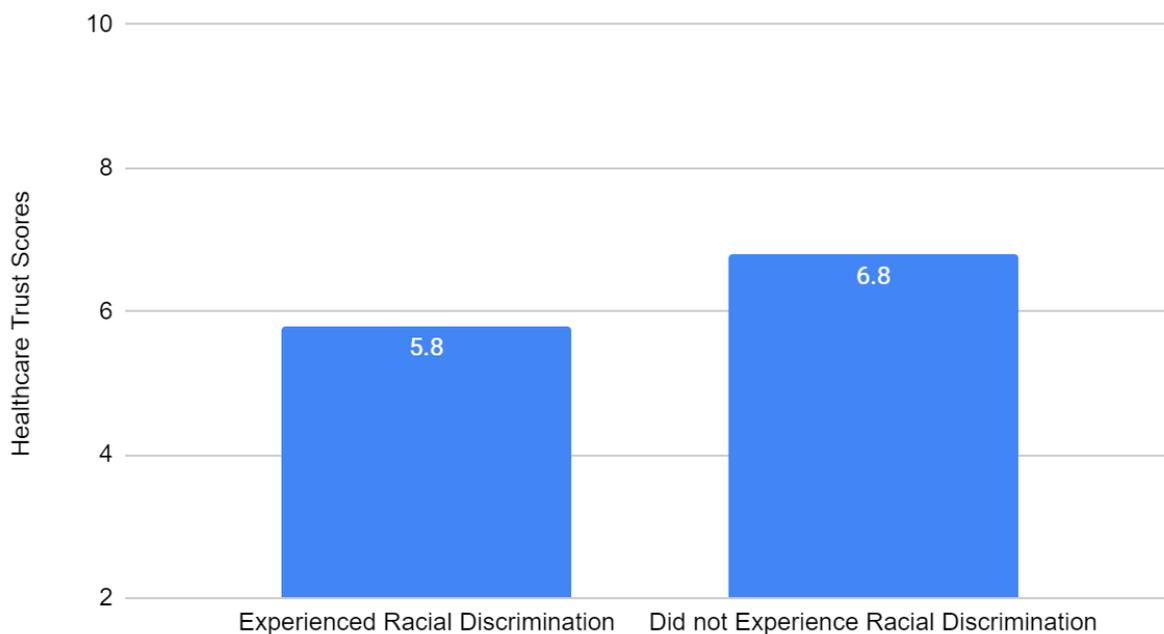


Figure 4. Healthcare Trust by Racial Discrimination Experience

The fifth hypothesis is saying African Americans with racially concordant doctors have more trust than those who don't. We examined 142 African Americans and 20 of them had an African American doctor. 122 African American have a white or other race doctor. An independent t-test did not find a significant difference ($t(140)=0.76, p=0.23$). African Americans with African American doctors trusted more ($M=6.6$) compared to African Americans with other race doctors ($M=6.3$), but the difference was not significant.

The sixth hypothesis is saying that younger individuals will be more likely to prefer a same-race doctor. We examined 160 people and left out 6 people who did not say their age and 2 people preferred a different race doctor and were not included due to the small group size. An

independent t-test did not find a significant difference in age ($t(158) = 0.25, p = 0.40$). People without a preference ($M = 33.4$) were slightly younger than people with the same race preference ($M = 33.9$), but the difference was not significant.

Discussion

The first hypothesis was that women would have less trust than men. This was supported, women with more negative birth experiences trusted the healthcare system less (Figures 1-2). The second hypothesis was that white Americans had more trust than black Americans. This is supported, as we did find a difference (Figure 3). Next, we hypothesized education and insurance mattered. People with private insurance had more trust, but this due to race, and education did predict trust (Table 1), so this was unsupported. Fourth, we predicted experience with discrimination mattered in the healthcare system. We found black participants with experience trusted less (Figure 4), supporting our hypothesis. Fifth, we expected African Americans with race concordant doctors would have more trust, but we found no difference so it was unsupported. Last, we thought younger African Americans would prefer a same race doctor, but we found no difference, making it unsupported.

Due to discrimination, black people preferred same race doctors in our study. This is consistent with other research race concordance (5). Other researchers found 83% of 1,189 surveyed African Americans preferred the same race doctor, with 14% reporting unfair treatment. They experienced unfair treatment in the healthcare system, so they prefer the same race doctors. Discrimination changes people's doctor preferences, trust, as well as attending the doctor and also following directions or advice. We found 43% of our surveyed people experienced discrimination and 77% of African Americans in our study preferred a same race doctor. Therefore, discrimination is a big problem in America in the healthcare system, and African Americans try to address by wanting a same race doctor.

In our study and others, white Americans have more trust in the healthcare system (1). We looked at insurance and education. Other researchers said, African Americans tend to have worse insurance and lower education and therefore less trust (1). However, we found when looking at white and black people, insurance mattered for trust. However, when looking at just African Americans, insurance and education did not matter; African Americans had lower trust than whites. Therefore, in this sample, race mattered the most when looking at trust.

Women in our sample trusted the healthcare system less than men. Women who gave birth and had a positive experience, had more trust, but those with a negative experience trusted less. Childbirth might be important to explaining trust between genders because of their own experiences, or hearing from other mothers. Childbirth might be a big experience for women and how they think about the healthcare system.

Some things I could have done differently is to make my results differently. We surveyed teachers and students from TNA, to get more results and get more people from different places, we could have surveyed other places. We also could have talked more about income. Income is personal and some people do not feel comfortable to speak on how much they are paid. If a few people are comfortable with answering that question, we could have added a few questions about income. We also could have been more specific about discrimination. We asked about if you were discriminated against by gender or race. To be more specific with discrimination we could have asked about what happened specifically, their experience or if they were told or seen any discrimination.

Characteristics and experiences within an individual do affect their trust with the healthcare system. Race is a big factor in trust, insurance and education did not have the same impact. Gender also is important too, due to childbirth and women experiencing that or witnessing childbirth causing an effect of trust by gender. Also, experiencing discrimination with the healthcare system had many African Americans have less trust. To maybe distinguish a few of these problems, healthcare systems could recruit more different race doctors to have patients feel more comfortable. Doctors also need to be told uncomfortable things about trust and know how to improve to have their patients continue to feel comfortable and listen to the advice that they need.

Acknowledgements

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