



Understanding How Components of Black Racial Identity and Racial Realities May Impact Healthcare Utilization: A Randomized Study

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### Abstract

**Purpose:** Studies have suggested that even when minority groups have potential access to healthcare, they may have inadequate utilization (realized access). This study explores the application of a theory from the social psychology and political science literatures concerning how racial centrality and racial realities, specifically amongst Blacks, may influence patients' healthcare utilization preferences.

**Methods:** We created a survey with two (pseudo) randomized, controlled experimental treatments designed to assess whether racialized hospital and physician characteristics elicited a preference from Black or White respondents, as well as questions aimed at understanding participants' different beliefs and levels of knowledge about past and current racial health disparities. The survey was distributed online by Qualtrics to paid Black (n=225) and White (n=75) participants. Data were analyzed using bivariable statistics.

**Results:** Black respondents preferred a hospital with an advertisement featuring Black healthcare workers ( $p<.01$ ), an association that was correlated with higher levels of Black centrality ( $p<.01$ ), beliefs that the Tuskegee Syphilis Experiment could happen today ( $p<.05$ ), and a lack of trust in the healthcare system ( $p<.01$ ). No such association was observed for White respondents. Neither White nor Black respondents showed any significant associations concerning preference for a physician with a racialized name. Blacks respondents were significantly more likely to answer questions concerning the existence of health disparities correctly; however, there was no difference in the number of healthcare-related discriminatory experiences or general trust of healthcare organizations observed between respondents of the two races.

**Conclusions:** Black subjects appeared to prefer health institutions that give the outward appearance of being diverse. This choice was associated with racial group centrality and knowledge of certain racial realities. As more equal access is legislated, the role racial identity plays in affecting utilization patterns should be better understood in order to inform future health care programs and policies.

### Keywords

racial access disparities; racial health disparities; racial identity; healthcare utilization

### Cover Page Footnote

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## **Racial Identity and Healthcare Preferences**

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### **ABSTRACT**

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## INTRODUCTION

There is a wealth of information documenting how access to healthcare, defined as having the ability to utilize healthcare services in a timely fashion in relation to need, affects health outcomes for different groups in the United States. For example, one study found that those lacking access to health insurance are at an increased risk of mortality, while other studies have found that potential access to care is significantly associated with adjusted mortality rates for white adults (but not Black adults) as well as individuals suffering from chronic diseases (Franks, Clancy, & Gold, 1993; McWilliams, Zaslavsky, Meara, & Ayanian, 2004). Similarly, there is a plethora of documentation of general racial health disparities across the lifespan (Arias, 2012; Elster, Jarosik, VanGeest, & Fleming, 2003; Williams & Jackson, 2005; Williams, Neighbors, & Jackson, 2003).

Considering the latter point, more recent research has moved beyond a simple documentation of health disparities, instead beginning to focus on understanding the mechanisms underlying outcome disparities. For example, one subset of research has dealt specifically with elucidating the relation between psychosocial phenomenon and physiological functioning, which is embodied in allostatic load scores as conceptualized by McEwen (McEwen & Stellar, 1993). In using the aforementioned science as a foundation, these researchers have looked at how the biological stress response, induced by membership in disadvantaged social groups, may be leading to health disparities. Another proposed explanation, or mechanism, concerning the cause of racial health disparities is the weathering hypothesis, which suggests that accumulation of the marginalized position of Black realities with regard to social, economic, and political experiences leads to early health deterioration and health gaps between the have and have nots that simply widen with time (Geronimus, Hicken, Keene, & Bound, 2006; Geronimus, 1992).

Research exploring the mechanistic links between social variables and the physiological functioning of the body represents a positive move forward past the simple description of racial health outcome disparities. However, the role that access plays in leading to disproportionately poor health outcomes for some must itself not be overlooked. The next step for this area of research is to similarly move beyond documenting the problem to seeking to understand why access and utilization patterns exist as they do.

This is especially true where racial access disparities are concerned. Even after adjusting for age and sex, Black individuals have been found to be less likely to have health insurance coverage than Whites (83% versus 91%, respectively), and as recently as 2012, over 23% of Black individuals surveyed reported not having health insurance for at least part of the previous year compared to only 15% of White individuals (Centers for Disease Control and Prevention, 2008; Cohen & Martinez, 2012). While this gap is expected to close with the implementation of the Affordable Care Act, there is evidence to suggest significant disparities in utilization rates may remain. It has been shown that even when insurance benefits and access are held constant, non-White individuals, compared to Whites, are less likely to consume the benefits of their health plans, indicating there is a difference between potential and realized access to adequate care for certain subgroups of the population (Andersen, McCutcheon, Aday, Chiu, & Bell, 1983; B. D. Richman, 2007). This would suggest, as it relates to racial health disparities, healthcare utilization is more complicated than simply having or not having insurance coverage. To achieve the goal of reducing healthcare disparities, further exploration of the factors that both promote and inhibit healthcare use for different groups is needed.

### The Reality Model

Extending health insurance coverage without better understanding the complexities of the relationship between utilization of care and race may not lead to the desired reduction in health disparities. Unfortunately, the existing literature is sparse with regard to definitive explanations for differences in utilization patterns. The Richman (2007) study is only somewhat instructive. In explaining the observed lower rate of use of health insurance benefits among insured Blacks compared to Whites, Richman speculated previously identified discriminatory referral practices by physicians might be an important cause of differential utilization (Schulman et al., 1999). But it is also possible racial differences in utilization may be a manifestation of fundamental causes; specifically, it could represent something inherent about those with minority status, or more specifically minority identity, concerning an inability to purposefully use healthcare resources in a given social context (B G Link & Phelan, 1995).

A social identity approach to understand collective racial identity has rarely been used to explore disparities in healthcare. Rather, much of the literature that does apply this lens focuses on correlations between racial identity and health outcomes themselves, providing a myriad of data but few conclusions concerning whether a strong sense of racial identity has health protective effects by way of shared culture and networks or detrimental effects due to susceptibility to physiological manifestations of prejudices (Schnittker & McLeod, 2005). However, in contrast to the health services literature, the political science literature is rife with studies exploring how collective racial identity relates to the use of different aspects of the political system by different groups, specifically Blacks.

One theory, relevant to the current analysis, is the political reality model, which posits that Black political attitudes and lack of activity occurs in part because of the collective racial realities Black individuals confront and internalize. That is, a strong group identity, poor treatment by those with power (Whites), and the perception that Blacks as a group are denied the political power necessary to remedy their disadvantaged situation leads to lower trust and fewer attempts to utilize the political system (Abramson, 1983; Dawson, 1995). This model has been supported by direct testing of the adult population and supports the notion that collective experience and subsequent racial identity may be important for understanding the ways in which members of minority groups utilize the political system even when all have legally-protected access to that system (Abney & Hutcheson, 1981; Gurin, Hatchett, & Jackson, 1989; Howell & Fagan, 1988).

#### Healthcare Utilization

The current disadvantaged situation faced by many Black individuals manifests itself not only as socioeconomic inequality, but also as poorer health outcomes. Furthermore, the healthcare system, again mirroring the political system, is a powerful and overwhelmingly White institution, especially with regard to the employees that staff healthcare organizations (Cooper & Powe, 2004). Considering this, it is reasonable to suggest that the basic principles that form the foundation of the political reality model might be applicable when examining use of the healthcare system. This study first explores whether race is linked with healthcare preferences when White or Black individuals are presented with hospital advertisements and abbreviated physician resumes. It then seeks to discern whether there are associations between the Black participants' preferences, a general awareness of their realities, and their racial group centrality. Based on evidence from the political science literature, it is expected that racial group membership will significantly influence preferences that Black individuals, but not necessarily White individuals, will display for utilizing the healthcare system, and that racial group centrality

and awareness of racial realities will be associated with this preference for Black participants. Note that while White individuals are included in the study for descriptive and discussion purposes, the focus of this study is a preliminary exploration of whether racial group centrality and awareness of racial realities for Black individuals is associated with healthcare preferences that might suggest a new mechanisms for the gap between potential and realized care.

## **METHODS**

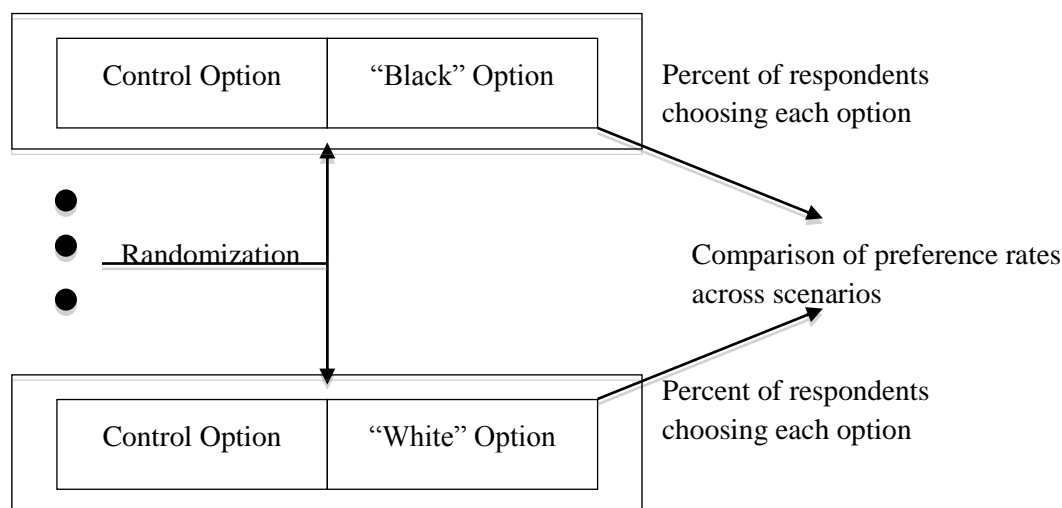
### **Sample and Survey Design**

After receiving Institutional Review Board (IRB) approval, the research team created and distributed a survey to a paid panel (\$6.50 per participant) of individuals procured by a private online-survey group Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)). Instructions to Qualtrics for populating the panel of participants were to find “a sample of Black (n=225) and White (n=75) adults (over the age of 18) with an assortment of sexes, education levels, and incomes.” Qualtrics procures samples utilizing multiple screening steps, first reaching out online via email and social media to create a list of potential survey takers. Before being deemed eligible to participate in the survey, Qualtrics requires prospective survey takers to answer a demographic questionnaire and then another survey verifying all of the provided information (known as the double opt-in method). Following enrollment as a respondent, but before receiving any assignments, each potential survey participant must undergo a profiling process in which additional information (including additional demographic information as well as information concerning work history and other variables) is gathered and continuously compared to already-given responses. Should the potential participant provide contradictory responses at any point in the double opt-in or profiling process, he or she is automatically removed from the list of potential survey participants. As such, a panel obtained online via Qualtrics was sought particularly to ensure a level of reliability (Qualtrics, 2014). Blacks were disproportionately sampled, as the primary aim of this study was to understand how Black racial centrality and awareness of racial realities might impact health preferences.

The survey included two controlled, hypothetical experimental treatments with each participant (see table 1 for a breakdown of sample demographics) being randomly assigned to one of two scenarios for each treatment (see figure 1 and appendix A). The first treatment asked respondents to choose one hospital for which they had a preference based on two advertisements. Each scenario included a control advertisement featuring an MRI machine and text reading “Let Our Technology Work for You!” as well as a short description of some of the highlights of the hospital. The second advertisement in each scenario included the same short hospital description across scenarios, which was created to be similar to the control description, and included a picture of a male and a female healthcare worker and the text “Let Our Staff Work For You!” However, in one scenario the healthcare workers were White, in the other they were Black. Note that while in each scenario one advertisement featured a machine and one featured humans, the analysis protocol involves comparing response rates across scenarios; the percent of respondents that selected either respective advertisement within each scenario was not directly compared to its counterpart and thus machine advertisements were never directly compared with human advertisements (see figure 1). In this way, the experiment avoids the potential confounding factors that may be caused by directly comparing preferences for one advertisement over another.

In the second treatment, respondents were asked to imagine that they were suffering from a heart ailment and then to choose one of two doctors they preferred to see, based only upon the physician's name and brief resume. Each scenario included a control doctor, "Connor Lavins," and a short resume. The second doctor in each scenario included the same short resume across conditions, which was created to be similar to the control description, but the names were racialized as "Alexander Smith" or "Deshawn Smith" to be stereotypically neutral or Black in each respective scenario. Concerning the latter option specifically, the name "DeShawn" has been previously reported in the literature as being prevalent among specifically among Black communities but almost unheard of in White communities (Fryer & Levitt, 2003).

**Figure 1. Schema of experimental treatments\***



\*Note that "Control Option" refers to advertisement featuring an MRI machine (treatment 1) or physician resume from Connor Lavins (treatment 2) while "Black Option" and "White Option" refer to the advertisements featuring Black or White healthcare workers (treatment 1) and the physician resumes featuring a racialized or White name (treatment 2), respectively.

In addition to gathering information regarding respondent preferences for the treatments, each survey also included questions designed to measure trust in the healthcare system, strength of Black centrality (for Black respondents only), beliefs about the Tuskegee Syphilis Experiment, previous discriminatory experiences within the healthcare system, and knowledge of current health disparities.

### Measures

Our survey included four primary components: (1) baseline sample characteristics, (2) preferences for a racialized healthcare system, (3) knowledge about and experiences with the healthcare system, and (4) racial identity. Questions used to generate the measures are explained below.

### Baseline Sample Characteristics

Baseline questions: Questions 1 through 6 in the survey required the respondent to select from a list of potential responses their race, sex, age, education level, household income, and their region of residence. Responses were used to ensure the validity of the randomization procedure.

*Preferences for a Racialized Healthcare System*

Racialized healthcare system components: Racialized healthcare system components were operationalized through two randomized controlled experimental treatments numbered questions 7 and 10 in the survey. These aimed to portray system- and individual-level actors in racialized terms by portraying either hospitals or individual physicians as Black or White. The use of a randomized, controlled design in which analysis was performed comparing responses across two scenarios was intended to reduce bias that might have been introduced had study participants simply been asked their preference for a White or Black depiction of the healthcare system. As illustrated in figure 1, for both experimental treatments (hospital advertisements and physician name), the percent of respondents that preferred each option after random assignment to one of two scenarios was recorded and compared across scenarios.

*Knowledge About and Experiences With the Healthcare System*

Level of trust in the healthcare system: four questions from the previously published Medical Mistrust Index (MMI) were used to measure participants' trust in the healthcare system (Casagrande, Gary, LaVeist, Gaskin, & Cooper, 2007; Hammond, 2010; T. A. LaVeist, Nickerson, & Bowie, 2000; Thomas LaVeist, n.d.). Specifically, four questions were chosen from the a previously validated subsection regarding trust in healthcare organizations (TA LaVeist, Nickerson, Boulware, & Powe, 2001). Numbered 24-27 in the survey, these questions asked participants to rate the following statements on a four-point Likert scale, with 1 being strongly disagree and 4 being strongly agree: 1) Patients have sometimes been deceived or mislead by healthcare organizations, 2) Healthcare organizations often want to know more about your business than they need to know, 3) Healthcare organizations put the patient's health first, and 4) Patients should always follow the advice given to them at healthcare organizations (i.e. doctor's office, etc). Responses to questions 24 and 25 were recoded to reflect an inverted scale. These four measures were combined and the average score across the measures was computed. From that, it was then determined whether each subject was above or below the cohort average, and each subject was coded as either above average (1) or below average (0).

Beliefs about the Tuskegee Syphilis Experiment: Four questions concerning facts and beliefs surrounding the Tuskegee Syphilis Experiment were asked. Questions numbered 20-22 concerned knowledge of factual information and asked participants to select from a list of answers the correct response to the following questions: 1) Who commissioned the Tuskegee Study? 2) In the Tuskegee Study, did researchers give the participants syphilis? and 3) Who were the primary study participants in the Tuskegee Study? Question numbered 23 concerned participants' beliefs about the Tuskegee Syphilis Experiment and asked respondents to select a response to the following question: 1) Do you think it is possible for a study like the Tuskegee Study to occur in the U.S. today? Answers were coded into a binary variable with 1 being correct and 0 being incorrect (1 being yes and 0 being no for question 23), and for purposes of analysis, these four questions were treated separately.

Previous discriminatory experiences with the healthcare system: Four questions concerning the nature of participants' previous discriminatory experiences with the healthcare system were asked. Specifically, questions number 29-32 asked participants to respond to 1) if they had ever been mistreated during a healthcare experience, 2) if any of their family members



had been mistreated during a healthcare experience, 3) the nature, physical or discriminatory, of any personally experienced mistreatment, and 4) the nature, physical or discriminatory, of any mistreatment experienced by family members. Responses to question 1 and 2 were coded dichotomously as yes (1) or no (0) while responses to questions 3 and 4 were coded as physical (1) or discriminatory (0). For purposes of analysis, these four questions were treated separately.

*Knowledge of and belief in current health disparities:* Four questions concerning participants' knowledge of current health disparities as well as one question concerning their beliefs about the existence of those disparities were asked. Specifically, questions numbered, 11, 13, 15, and 17 asked participants to select from a list of answers the correct response to the following questions: 1) What do you think is the percentage of black doctors in the U.S.? 2) Do you think blacks are more or less likely than whites to have Sexually Transmitted Diseases (STD's)? 3) Do you think that blacks have higher or lower death rates due to heart disease than do whites? and 4) Do you think blacks are more or less likely than whites to have health insurance? Answers were coded into a binary variable with 1 being correct and 0 being incorrect. These questions also included an "I do not know" option, which was counted as an incorrect response. The question numbered 19 concerned belief in the existence of racial health disparities and asked respondents to choose yes (1) or no (0) to the following question: 1) Do you believe that major racial health disparities exist in the United States? For purposes of analysis, these questions were treated separately.

#### *Racial Identity*

*Strength of Black centrality:* Eight questions from the previously published and validated Black centrality subsection of the Multidimensional Inventory of Black Identity were used to measure the importance of Black participant's Black identity in the context of his or her whole identity (Cokley & Helm, 2001; Sellers, Rowley, Chavous, Shelton, & Smith, 1997; Walsh, 2001). Numbered 33-40 in the survey, these questions asked participants to rate the following statements on a seven-point Likert scale, with 1 being strongly disagree and 7 strongly agree: 1) overall, being Black has very little to do with how I feel about myself, 2) in general, being Black is an important part of my self-image, accomplishments, and advancements, 3) my destiny is tied to the destiny of other Black people, 4) being Black is unimportant to my sense of what kind of person I am, 5) I have a strong sense of belonging to Black people, 6) I have a strong attachment to other Black people, 7) being Black is an important reflection of who I am, and 8) being Black is not a major factor in my social relationships. Responses to questions 33, 36, and 40 were recoded to reflect an inverted scale. These eight measures were added and the average score across the measures was computed. From that, it was then determined whether each subject was above or below the cohort average, and each subject was coded as either above average (1) or below average (0).

#### Analysis

Survey responses were analyzed using SPSS version 21 (<http://www-01.ibm.com/software/analytics/spss/>). There were no cases with missing data. Univariate analysis of baseline questions yielded descriptive frequencies for the sample demographics. Bivariate analyses (chi-square tests) were used to examine preferences regarding racialized hospital or physician care. Bivariate analyses using chi-square tests were also employed to analyze differences between Black and White participants with regard to discriminatory health experiences, beliefs concerning current health disparities, trust in the healthcare system, and

knowledge and beliefs about current health disparities. All analyses used an alpha level of 0.05 to assess statistical significance.

## RESULTS

As shown in Table 1, in addition to the requested number of Black (n=225) and White (n=75) respondents, the sample obtained via Qualtrics included an equal number of males (n=150) and females (n=150). Forty-one percent of the sample graduated from college or a technical school, while 53% (n=166) earned more than \$35,000 annually. The modal region of residence was the South, accounting for 42% (n=127) of the sample. Twenty-seven percent (n=80) of the sample was under age 35, while 54% (n=163) was aged 45 or older. Note that chi-square tests indicate no significant differences at an alpha level of 0.05 between White and Black participants with regard to age, sex, education, income, or region of residence.

**Table 1. Sample characteristics**

Variable	Category	n	% of Cases
Age	18-24	22	7.3%
	25-34	58	19.3%
	35-44	57	19.0%
	45-54	80	26.7%
	55-64	63	21.0%
	65+	20	6.7%
Sex	Male	150	50.0%
	Female	150	50.0%
Education	Less than High School	7	2.3%
	Graduated High School	59	19.7%
	Attended Some College or Technical School	112	37.3%
	Graduated from College or Technical School	122	40.7%
Race	White	75	25.0%
	Black	225	75.0%
Income	Less than \$15K	44	14.7%
	\$15K - \$24K	41	13.7%
	\$25K - \$34K	49	16.3%
	\$35K - \$49K	52	17.3%
	\$50K or More	114	38.0%
Region of Residence	Northeast	60	20.0%
	Midwest	70	23.3%
	South	127	42.3%
	West	40	13.3%
	Unknown	3	1.0%

In the first experimental treatment, the chi-square tests indicate there was a statistically significant difference in preference for hospitals across the two scenarios based on the advertisement and short description (Table 2). Specifically, 68.49% (n=100) of respondents said they preferred an advertisement featuring Black healthcare workers to a control while 57.14%

(n=88) preferred an advertisement featuring White healthcare workers to a control (p<.05, Table 2). Stratifying results by race show that Black respondents account for the observed trend, as 74.76% (n=77) preferred the hospital with the advertisement featuring Black healthcare workers to a control as opposed to 55.73% (n=68) that preferred a hospital with advertisement featuring White healthcare workers to the same control (p<.01). Concerning the second experimental treatment, no statistically significant trends were observed for either race. That is, neither Black nor White participants showed a statistically significant difference in preference for physicians across the two treatment scenarios.

**Table 2. Percentage of respondents preferring the White or Black option versus a control option for both experimental treatments**

Treatment	Racial Group	Preference (%)		X <sup>2</sup>
		White option (vs control)	Black option (vs. control)	
Hospital Choice	Combined	57.14% [66/154]	68.49% [46/146]	4.13*
	Black	55.73% [54/122]	74.75% [26/103]	8.82**
	White	62.50% [12/32]	53.48% [20/43]	0.61
Physician Choice	Combined	67.10% [50/152]	62.84% [55/148]	0.60
	Black	71.43% [32/112]	69.03% [35/113]	0.16
	White	55.00% [18/40]	42.86% [20/35]	1.10

Note that percentages refer to those choosing the White or Black option, respectively, in each scenario while the bracketed values refer to the number of respondents choosing the control ad in each respective scenario over the total number of respondents randomized to that respective scenario

\*Two-tailed test indicates significance at p<.05

\*\*Two-tailed test indicates significance at p<.01

With regard to the first experimental treatment, strength of Black centrality (p<.01), beliefs concerning the Tuskegee Experiment (p<.05), and trust in the healthcare system (p<.01) were associated with Black respondents' choice of the advertisement featuring Black healthcare professionals. These results are displayed in Table 3. In contrast, there was no statistically significant association between any variables and White respondents' choice of advertisement. Additionally, while questions concerning personal experiences with discrimination in the healthcare system and knowledge of current health disparities were explored, no significant differences were identified for either Black or White subjects.

**Table 3. Percentage of respondents preferring the White or Black option versus a control option, with potential associated variables, for hospital experimental**

Subject	Category	Racial Group	Preference (%)		X <sup>2</sup>
			White option (vs control)	Black option (vs. control)	
<b>Black Centrality</b>	<b>Above Average</b>	Combined	-	-	-
		Black	46.67% [32/60]	70.69% [17/58]	7.01**
		White	-	-	-
	<b>Below Average</b>	Combined	-	-	-
		Black	65.00% [21/60]	80.00% [9/45]	2.84
		White	-	-	-
<b>Trust in the Health System</b>	<b>Above Average</b>	Combined	54.43% [36/79]	59.68% [25/62]	0.39
		Black	51.56% [31/64]	64.44% [16/45]	1.79
		White	66.66% [5/15]	47.05% [9/17]	1.25
	<b>Below Average</b>	Combined	60.00% [30/75]	75.00% [21/84]	4.09
		Black	60.35% [23/58]	82.76% [10/58]	7.16**
		White	58.82% [7/17]	57.69% [11/26]	0.01
<b>Informed Beliefs about the Tuskegee Experiment</b>	<b>Could Happen Today</b>	Combined	51.79% [27/59]	67.86% [18/56]	3.01
		Black	52.94% [24/51]	74.00% [13/50]	4.82*
		White <sup>+</sup>	-	-	-
	<b>Could Not Happen Today</b>	Combined	69.23% [12/39]	75.76% [8/33]	0.38
		Black	65.63% [11/32]	69.57% [7/23]	0.09
		White <sup>+</sup>	-	-	-

Note that bracketed values refer to the number of respondents choosing the control ad in each respective scenario over the total number of respondents randomized to that respective scenario

\*Two-tailed test indicates significance at p<.05

\*\*Two-tailed test indicates significance at p<.01

+Expected cell counts too small for calculations

With regard to the second experimental treatment, no potentially associated variables were found to have any statistically significant relationship to respondents' physician preference. In addition to analysis of the experimental treatments, chi-square tests and indicated that certain beliefs, attitudes, or experiences were more common to either Black or White respondents. Black respondents were significantly more likely to believe that racial health disparities exist (88.44%,

n=199, of Black respondents, 56.00%, n=42, of Whites respondents,  $p<.001$ ), to indicate they were familiar with the Tuskegee Experiment (75.55%, n=170, of Black respondents, 44.00%, n=33, of White respondents,  $p<.001$ ), and to believe something similar could occur today (44.90%, n=101, of Black respondents, 14.70%, n=11, of White respondents,  $p<.05$ ). Black respondents were also more likely to be more knowledgeable about 3 of the 4 health disparities asked about in the survey (Table 4). However, there were no differences found in number of self-reported health-related discriminatory experiences or general trust of healthcare organizations between respondents of each race.

## DISCUSSION

A higher percentage of survey respondents who identified themselves as being Black were significantly more likely to prefer a hospital advertisement featuring Black healthcare workers versus a control advertisement than one featuring White healthcare workers versus the same control advertisement in each respective scenario, while no similar relationship was found for respondents who identified as being White. This finding alone suggests differing institutional social contexts, whether real or perceived, may be preferable to certain minority populations.

Though described in the methods, it is worth reiterating that never was a preference for a control advertisement directly compared to a preference for an experimental advertisement; rather, the percentage of preferences indicated for the white option versus the control option were compared with the percentage of preferences for the Black option versus the same control. While the control advertisements featured machines in each scenario and experimental advertisements featured humans in each scenario, because the control and experimental advertisements were consistent across scenarios, and because response rates were compared across scenarios, risk of a confounding variable is limited.

Additional analysis suggested the relationship observed for Blacks, a preference for a hospital advertisement featuring Black healthcare workers to one versus one featuring White healthcare workers compared to a control advertisement in each respective scenario, could be further characterized as being associated with a number of additional personal and social variables. These included trust in the healthcare system, belief that historically discriminatory health experiments could happen again, and Black centrality. These results suggest that certain racially informed beliefs and attitudes might contribute to certain subsets of a minority group's decisions concerning healthcare preferences or usage, as was expected based on the previously described political science literature connecting racial identity, racial realities, and participation. Though this study seeks to uniquely explore how racial identity may impact healthcare utilization preferences, these findings do mirror the much broader literature that characterizes the factors deemed important for how Black individuals perceive and approach institutions in America. For example, one qualitative synthesis of the literature suggests the distrust towards both medicine and public health institutions in America by African Americans is a product of both the Tuskegee Experiment specifically and also the justified suspicion of American institutions that has evolved over time in the Black community (Gamble, 1997). Another narrative synthesis suggests no one factor currently explains why minorities are less likely to participate in biomedical research, but rather that structural barriers and exclusionary practices that make up reality for Black individuals in America are most likely to be blamed for the low participation rates (McCallum, Arekere, Green, Katz, & Rivers, 2006). Thus, the findings from this first treatment add to the existing literature concerning utilization of research and health

organizations more broadly by further suggesting that the racial realities faced by Black individuals in America contribute to the way in which they would prefer to interact with the healthcare system.

Concerning how racial realities and identity impact the use of health services more specifically, the literature is relatively sparse, hence where this study hopes to serve as a catalyst for hypotheses generation to better understand how these variables may relate to one mechanism behind realizing potential healthcare access. While there are multiple studies that explore how perceived discrimination or trust in the healthcare system may be a cause of decreased healthcare utilization amongst minorities, few tie identity of any sort to utilization (Williams & Mohammed, 2009). The few studies that do exist that comment on how racial identity and perceived racial realities impact healthcare utilization do so in narrowed fields, such as exploring the relationships in those suffering from one specific disease or with regard to how identity impacts only mental health service utilization. For example, one study published in 2007 found that Black Americans with high racial identity (measured using a similar subscale of the Multidimensional Inventory of Black Identity) who experienced discrimination were less likely to utilize any kind of mental health service than those with lower racial identity; in this same study, the racial identities and discriminatory experiences of White Americans were not correlated with utilization (L. S. Richman, Kohn-Wood, & Williams, 2007). While this present study explores the relationship between healthcare advertisement preference, not direct utilization, and Black centrality as well as racial realities, the findings parallel the few other studies that exist that explore the connections between similar variables in more narrowed contexts (Bediako, Lavender, & Yasin, 2007; Benkert, Hollie, Nordstrom, Wickson, & Bins-Emerick, 2009; L. S. Richman et al., 2007). This suggests further work should be done to understand the link between racial identity, healthcare preferences, and the decision to utilize available healthcare.

In contrast to the findings from the first experimental treatment, there was no significant correlation for Blacks or Whites in choice of a physician with or without a racialized name. There are several possible explanations for the observed lack of an association. First, the treatment (altering the name of the physician) may have been too subtle to have elicited any sort of response from participants. Additionally, the seminal study that explored the connection between racialized names and discrimination used multiple names in its design to more fully characterize that relationship, and it is possible that a similar association might have existed in this study had a more robust test, mirroring those that have been published in the aforementioned economics literature, be conducted in the future (Bertrand & Mullainathan, 2003). However, the lack of a significant correlation found for this treatment, compared with that found for the first (hospital) treatment, may provide insight into what factors most strongly influence usage patterns of the healthcare system. For example, Black individuals may be more inclined to go to a hospital they view as employing some personally acceptable number of Black professionals or being led by a Black administrator rather reacting to the race of their potential physician. This would imply that in making decisions to utilize healthcare, Black individuals respond to the overarching Whiteness of the healthcare system and health programs rather than the race of the individual actors with whom they actually interact. This may be an area of exploration for future studies.

Importantly, the results of the second treatment, the fact that racialized name had no effect on patient choice of doctor, does not necessarily indicate that the race of individual

healthcare providers does not matter to patients, nor should it be taken to suggest that efforts to diversify the health workforce are not important for promoting more equitable access to care. Beyond making the system itself more diverse and potentially approachable for all, patients have reported higher levels of satisfaction when they are treated by doctors of their own race (Cooper & Powe, 2004; T. A. LaVeist & Nuru-Jeter, 2002). Building upon that finding, studies have shown that if recruitment and hiring policies are not changed to increase the number of minorities in specific fields, such as pediatrics, the ratio of physician diversity to patient diversity will actually decrease (Stoddard, Back, & Brotherton, 2000). Thus, while the racialized name of a physician may not be directly reflected in patients' preferences for a doctor, it is still important to diversify the healthcare workforce or risk the growth of disparities.

Concerning personal attitudes about and experiences with the healthcare system, Blacks were statistically significantly more likely than Whites to believe racial health disparities exist in the United States, to be aware of the past mistreatment towards Blacks by the health establishment by way of the Tuskegee Experiment, to believe such scenarios could happen again, and to be generally more knowledgeable about current health disparities. These conclusions serve to characterize general Black and White group beliefs, attitudes, and experiences with the healthcare system in the United States. In many ways, these significant differences are not surprising given the historical and cultural variables that characterize each group, but they further describe the realities of these two racial groups with specific regard to healthcare. The existence of these differences in healthcare realities adds credibility to the adaptation of the political reality model, which guided this analysis.

Interestingly, the only question regarding health or healthcare disparities about which Black respondents were not at least borderline significantly more likely to have correct knowledge dealt with prevalence of Sexually Transmitted Infections (STD) by race. There is strong evidence the Black population generally has higher rates of STDs, including Syphilis, Gonorrhea, and Chlamydia, than their White counterparts (Centers for Disease Control and Prevention, 2012b). Even incidence rates for cervical cancer, a Human Papillomavirus-associated disease, are higher for Black women than they are for White women (Centers for Disease Control and Prevention, 2012a). The fact that Black respondents were unaware of these disparities, or possibly did not feel comfortable admitting to having knowledge of them, may have to do with the stigma associated with these types of diseases. In contrast with heart disease and many types of cancer, STD are often negatively stigmatized, and this may affect an individual's willingness to accurately report sexual behaviors or transmission of disease and to seek care (Fortenberry et al., 2002; Smith, Adler, & Tschann, 1999). While not the focus of this study, others are beginning to explore how stigma may be a fundamental cause of health disparities (Hatzenbuehler, Phelan, & Link, 2013; Bruce G Link & Phelan, 2006). Considering the pattern of correct knowledge of health disparities this study found and the current literature, future studies exploring how differing levels of stigma for different diseases among different subset of the population affect realized access to care may be beneficial for understanding how potential access to care is not translated to realized access equally for all groups.

Also noteworthy is the fact that there was no statistically significant difference between Blacks and Whites in the likelihood of having had a discriminatory health experience in the sample. Previous studies have suggested chronic racial discrimination in society is associated with poorer health outcomes (Williams et al., 2003). The aforementioned finding adds to the notion that healthcare factors alone are most likely not driving health disparities. That is, it is not

simply discrimination when an actor needs care that drives overarching health disparities. As such, this would suggest that larger societal factors, whether those are unequal treatment in day-to-day life based on socioeconomic, cultural, racial, or another class, must be addressed if racial health disparities are to be reduced, a prescription that is well recognized in the literature (Carpiano, Link, & Phelan, 2008; B G Link & Phelan, 1995; Phelan, Link, Diez-Roux, Kawachi, & Levin, 2004; Wilkinson, 1997).

**Table 4. Percentage of White and Black respondents answering questions concerning current health disparities correctly**

Category	Racial Group	Answered Correctly (%)	X <sup>2</sup>	Significance
<b>What is the percentage of Black doctors in the US?</b>	Black	34.70	7.997	p<.01**
	White	17.30		
<b>Are Blacks more or less likely to have STDs than Whites are?</b>	Black	19.10	0.83	p=.362
	White	24.00		
<b>Do Blacks have higher or lower mortality rates due to heart disease than do Whites?</b>	Black	64.90	3.1882	p=.074
	White	53.30		
<b>Are Blacks more or less likely than Whites to have health insurance?</b>	Black	68.00	20.283	p<.001***
	White	38.70		

Note n=225 for Black respondents and n=75 for White respondents

One additional interesting finding was that there was no statistically significant difference in trust of the healthcare system between Blacks and Whites. However, trust in healthcare organizations did correlate with hospital advertisement preference for Blacks but not for Whites. This would suggest that Blacks internalize their discriminatory experiences differently, adding credence to the idea that their racial identity uniquely affects their health seeking behaviors. As such, it would indicate that while levels of trust in the healthcare system may not necessarily differ along racial lines, the reactions to distrust might.

Consistent with the political science literature, our results indicate that racial identity and healthcare realities by race differ, and most often affect Black individuals' healthcare utilization preferences. The significant correlation between being Black and hospital preferences suggests that in order to create a system that is approachable for Black patients, efforts must be taken to understand these factors and to move the healthcare system, perceptually as well as in reality, from the context of a predominately White institution to one that is more diverse and therefore more acceptable. Changing Blacks' perception of the healthcare system might be useful to engender increased utilization and satisfaction.

#### Limitations



There were several limitations to this study. Namely, the limited number of participants that were obtained via Qualtrics represents a convenience sample. It is unknown whether results were influenced by some form of selection bias, as all respondents needed to be literate and have access to a computer in order to participate in this study. Additionally, it is not known if, or to what extent, characteristics that would make one likely to opt-in as an online survey taker would introduce a significant response bias in this case. However, research has shown that online samples of this nature are often more representative of the US population than are in-person convenience samples and they have been used to replicate existing scientific findings in other fields (Berinsky, Huber, & Lenz, 2012).

There are also potential limitations to the generalizability of the results. For example, only two racial groups were included in the sample (Black and White participants), and there was no exploration of whether the pattern of findings would extend to all minority groups. Also, certain demographic characteristics of the sample did not reflect the US population; for example, individuals from the South were overrepresented (42.3% of the sample versus 37% of the US population) and individuals from the West were underrepresented (13.3% of the sample versus 23% of the US population). (US Census Bureau, 2011).

Additionally, it should be noted that despite being a randomized controlled experiment designed to limit response biases and control for confounders, this study is largely exploratory. For example, in large part due to limitations with survey length, only questions from one subscale were used from both the MMI and Multidimensional Inventory of Black Identity to measure trust in the healthcare system and Black centrality, respectively, though this practice is not unheard of in related literature (L. S. Richman et al., 2007). Furthermore, the measures analyzed are relative to the cohort; that is, being above or below average in measures of Black centrality and trust in the healthcare system refers to the average level in the cohort, not the general population. As such, and with proper respect towards the aforementioned limitations, while hypotheses may be generated by this study with regard to what factors are associated with healthcare preferences, more robust and narrowly focused studies are necessary to draw definitive conclusions with regard to links between how racial identity and realities more generally may inhibit the conversion of potential healthcare access to realized healthcare access for Black individuals.

Finally, it should be noted that White subjects were included in this study largely for discussion and characterization purposes. It was beyond the scope of this study to do anything other than document whether White participants showed a preference for certain hospital advertisements or physician names and to compare if White and Black participants had differing interpretations of the current and past states of health- and healthcare-related inequalities in the United States. Additional studies with larger samples would be warranted to explore if other variables, including but not limited to White identity, has any effect on healthcare preferences.

Considering these factors, readers should use appropriate caution in interpreting and generalizing the data reported here.

## **CONCLUSION**

Researchers are beginning to move beyond simply documenting the existence of racial health disparities, and the same must be done for health services access and utilization disparities. With the passage of the Affordable Care Act, many are hopeful that unequal access to healthcare services will be reduced. However, it seems ensuring different populations utilize

healthcare services equitably in relation to need is more complicated than widely believed, and perhaps less amenable to legislation alone.

Political and healthcare institutions in America may have different roles in society but are descriptively comprised of similar underlying components. Our study has applied a theory from the political science literature that concerned a component of racial identity, racial reality, and system utilization to characterize and provide potential explanations for the observed difference in the way minority groups approach the healthcare system.

The preferences we observed among Black respondents for certain hospitals and the factors that correlate with subjects' responses must be understood in relation to broader context of the political science theory of group identity and racial realities. Realities of the Black condition lead to unique ways of approaching largely White institutions in America, and policies and programs should be designed keeping in mind what the political system itself has tried during its long battle to extend participation to non-privileged actors. Applying a social identity approach to understand racial healthcare utilization disparities in America may help inform policies and programs that could potentially improve health outcomes via increased realized healthcare access for Blacks and other minority groups.

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## APPENDIX A

Treatment 1 (respondents were randomly assigned to one of two scenarios)

Scenario 1:



Hospital 1 (above left): Honor Roll Hospital by US News and World Report. Ranked in 12 specialties. Over 450 hospital beds, 10 MRI machines, and 15 X-ray Machines.

Hospital 2 (above right): Honor Roll Hospital by US news and World Report. Ranked in 14 specialties. Over 400 hospital beds, 12 MRI Machines, and 15 X-Ray machines.

Scenario 2:



See descriptions from Scenario 1

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Treatment 2 (respondents were randomly assigned to one of two scenarios)

Scenario 1:

Connor Lavins

Resume Highlights:

- Undergraduate School: Princeton University (Summa Cum Laude)
- Medical School: Yale Medical School
- Specialty: Cardiologist (11 Years Experience)
- Other Professional: Over 50 Publications, Outstanding Clinician Award, Member of the American Public Health Association
- Other Personal: Coaches in youth baseball league, marathon runner

Alexander Smith

Resume Highlights:

- Undergraduate School: Harvard University
- Medical School: Harvard Medical School
- Specialty: Interventional Cardiologist (11 Years Experience)
- Other Professional: Hospital Residency Director, Outstanding Clinician Award, Member of the American Heart Association
- Other Personal: Volunteers at the local food bank, coaches the local high school's Science Olympiad team

Scenario 2:

Connor Lavins

See "Connor Lavins" resume from scenario 1

DeShawn Smith

See "Alexander Smith" resume from scenario 1