Beyond Personal Experiences: Examining Mediated Vicarious Experiences as an Antecedent of Medical Mistrust

Lillie D. Williamson

Department of Communication Arts, University of Wisconsin-Madison

Author Note

Lillie D. Williamson https://orcid.org/0000-0001-5735-1416

Disclosure of Related Reports: This article is based on the dissertation completed by Williamson (2019).

Acknowledgement: The author thanks Cabral A. Bigman and two anonymous reviewers for their valuable comments on earlier drafts of this manuscript.

Correspondence concerning this article should be address to Lillie D. Williamson, Department of Communication Arts, University of Wisconsin-Madison, 6050 Vilas Hall, 821 University Ave., Madison, WI, 53706. Email: ldwilliamso2@wisc.edu.

The Version of Record of this manuscript has been published and is available in Health Communication. September 7, 2022.

https://www.tandfonline.com/doi/abs/10.1080/10410236.2020.1868744

Abstract

African Americans consistently report higher levels of medical mistrust than their White counterparts. As a result, medical mistrust is considered to be a contributor to racial health disparities. Despite calls to address medical mistrust, few studies have explicitly examined it as a phenomenon of interest; those that have, tended to focus on personal experiences while neglecting vicarious experiences. The current study a) explicitly tests the effects of two types of news story content on reported levels of medical mistrust within an African American adult sample and b) examines two widely used medical mistrust measures. Participants ($N = 410$) were randomly assigned to view a news story based on a 2 (health care, non-health care) x 2 (racial discrimination, non-racial discrimination) experimental design. Results indicated that individually, both health care content and racial discrimination content increased race-based medical mistrust, but had no effect on general medical mistrust. However, when all four conditions were examined, exposure to health-related racial discrimination stories resulted in higher levels of race-based and general medical mistrust than non-health, non-racial discrimination stories. Findings are discussed in terms of the theoretical and practical implications for health communication scholars.

Keywords: medical mistrust, African Americans, news, vicarious experiences

Beyond Personal Experiences: Examining Mediated Vicarious Experiences as an Antecedent of Medical Mistrust

African Americans[1] consistently report higher levels of medical mistrust than their White counterparts. This distrust in the motives of medical personnel and institutions is associated with decreased likelihood of engagement in several health behaviors including routine health check-ups (Hammond et al., 2010), cancer screenings (Shelton et al., 2010), treatment adherence (Kalichman et al., 2016), and registering as an organ donor (Morgan, 2004). As a result, medical mistrust is considered a contributor to racial health disparities, making this distrust in medical personnel and institutions crucial for health scholars to understand and address. Medical mistrust has long been recognized, but takes on renewed concern in the midst of public health crises, like COVID-19 (Jaiswal et al., 2020), which disproportionately affect African American communities (Center for Disease Control and Prevention, 2020).

Despite calls to address medical mistrust, few studies have explicitly investigated it as a phenomenon of interest. As a result, there is little known about the antecedents of medical mistrust (Benkert et al., 2019). The work that has been done has heavily focused on the Tuskegee Syphilis Study (for discussion, see Jaiswal & Halkitis, 2019) and primarily centered personal experiences, neglecting the role of vicarious experiences. Mediated vicarious experiences, in particular, as suggested by Bandura (2009), have been largely absent from work on medical mistrust. Recent scholarship, such as Williamson, Smith, and Bigman (2019), has begun to highlight the impact of news content on medical mistrust; however, this work examined the

[1] African American is used in this piece to specifically reference this particular group. Black Americans is used in certain places to denote the use in a specific body of literature or story in which Black Americans would include African Americans, as well as other individuals of African descent (i.e., Afro-Caribbean).

framing of a single type of news content, only examined one type of medical mistrust (race-based), and was conducted with a college student sample.

The current study begins to fill these gaps by experimentally testing the effects of health care content and racial discrimination content in news stories on medical mistrust. In doing so, the study moves the literature forward in two important ways. First, it expands the examination of vicarious experiences via mediated communication (i.e., news stories) as an antecedent of medical mistrust within an African American adult sample by specifically testing types of news content. Second, this study investigates the potential differential effects of content on both general and race-based medical mistrust, two widely used measures of medical mistrust. Below, the need to understand medical mistrust antecedents, the importance of mediated vicarious experiences, and the nuances of medical mistrust measures are discussed.

The Need to Understand Medical Mistrust Antecedents Beyond Tuskegee

Medical mistrust—distrust in the motives of medical personnel and organizations (Omodei & McLennan, 2010) — represents a widespread barrier for health communication scholars to address. There has been a great deal of work on medical mistrust (Benkert et al., 2019), much of which has focused on the relationship between medical mistrust and health outcomes. As a result, there is an abundance of knowledge surrounding the various health outcomes influenced by medical mistrust (for a review of health contexts, see Williamson & Bigman, 2018); however, much less is known about what precedes and contributes to medical mistrust. In recognition of this, scholars have recently called for more work on medical mistrust antecedents (Benkert et al., 2019)

While there has been work conducted on antecedents of medical trust or skepticism (e.g., Jensen et al., 2011; Tian & Yoo, 2020), there is little work that examines medical mistrust

specifically. Although similar, trust and mistrust are distinct concepts. Trust refers to the ability to feel vulnerable and know that one's needs will be met (Hall et al., 2001), whereas mistrust refers to perceptions of negative motives on the part of medical personnel and institutions (Thompson et al., 2004). In other words, individuals can believe healthcare providers will not meet their needs without being mistrustful. For example, believing a provider does not have enough experience to correctly diagnosis an issue does not mean an individual believes the provider is working against their best interests. Thus, medical mistrust is, as Jaiswal and Halkitis (2019) define it, "not merely the opposite of trust" and more than "simply the absence of trust" but instead "the belief that the entity that is the object of mistrust is acting against one's best interest or well-being" (p. 80).

When medical mistrust among African Americans is considered, the focus is often on the lingering effects of the Tuskegee Syphilis Study (Tuskegee), in which the US Public Health Service told African American men they were being treated for "bad blood" but instead withheld treatment for syphilis, even after penicillin was a known cure. Incidents of mistreatment and abuse began well before Tuskegee and continued long after (for a review, see Washington, 2006). Although Tuskegee is a well-known, salient example of the earned distrust of medical institutions, the enduring focus on Tuskegee may conceal the other historical and present-day examples of mistreatment and abuse of African American communities (Jaiswal & Halkitis, 2019). Thus, in answering Benkert et al.'s (2019) call for needed work on medical mistrust antecedents, scholars must also look beyond Tuskegee and knowledge of that incident. Instead, Tuskegee should be thought of as a notable example representing broader issues (i.e., negative health care experiences, racial discrimination).

The Role of Mediated Vicarious Experiences

Some scholarship has branched out beyond Tuskegee and explicitly examined other medical mistrust antecedents. Much of this work, however, has predominantly focused on personal experiences. For instance, Hammond (2010) examined, and found evidence for, the relationships between both healthcare experiences and racial discrimination experiences and medical mistrust. Hammond (2010), however, conceptualized these experiences as participants' own personal experiences. Work in social cognitive theory (SCT; Bandura, 2009) suggests that not only personal experiences, but also vicarious experiences influence medical mistrust. SCT asserts that through the actions of others individuals are able to learn about the world, including the consequences of actions, without directly experiencing events.

There has gradually begun to be work producing empirical support for the effects of vicarious experiences. For instance, work conducted by Bogart et al. (2016) suggested that hearing about others' HIV conspiracy beliefs (i.e., medical mistrust) was associated with decreased antiretroviral therapy adherence. While this particular work demonstrates a potential turn toward vicarious experiences, it only acknowledges those that would result from interpersonal communication (i.e., interpersonal vicarious experiences). A recent review of medical mistrust alluded to the role of vicarious experiences by mentioning vicarious interpersonal experiences (e.g., intergenerational transmission of experiences; Benkert et al., 2019). There was, however, no mention of mediated vicarious experiences, defined in the current study as vicarious experiences that occur as a result of mediated communication. As noted by Bandura (2009), media is one way in which these vicarious processes occur; thus, examining mediated vicarious experiences in considerations of medical mistrust is necessary.

Vicarious Experiences via Media

Mediated vicarious experiences serve as a way learn about the world without direct experiential knowledge (Bandura, 2009), including judging risk. Scholars have contended that vicarious experiences result in individuals realizing they themselves are vulnerable to the effects of racism and discrimination (Truong et al., 2016); exposure to news media is one way this might occur. News coverage of racial inequalities often depicts Black disadvantage (Gandy & Li, 2005), which can influence perceptions of inequality (Gandy, 2009) and health risk perceptions (Bigman, 2014). This news coverage may also act as a means of vicariously experiencing the world, affecting perceived likelihood of facing events oneself.

Recently, Williamson, Bigman, and Quick (2019) found that African American participants specifically pointed to news stories as having influenced their organ donation-related medical mistrust beliefs. For these participants, having seen these news stories allowed them to gain knowledge vicariously about what happened when racial/ethnic minorities engaged with the organ donation, and medical, system, thus influencing their medical mistrust beliefs; they believed these news stories were indicative of what would happen to them. A subsequent experimental study conducted by Williamson, Smith, and Bigman (2019) found evidence that news stories depicting racial discrimination experiences influenced medical mistrust, suggesting that mediated vicarious experiences in the form of news stories can, in fact, influence medical mistrust. This study, however, only examined racial discrimination content, which is unlikely to be the only type of news content that influences medical mistrust; racial discrimination may not be the only vicarious experience related to medical mistrust. Thus, there remains a need to understand the types of news content that influences medical mistrust.

News Content

The question then becomes what types of news content might influence medical mistrust. Based on SCT, the realms in which personal experiences influence medical mistrust, should be the areas that vicarious experiences would be expected to influence medical mistrust. In other words, the type of incidents that would influence medical mistrust for individuals if personally experienced, should be the type of incidents that influence medical mistrust when experienced vicariously via depictions in news stories. Previous work suggests that this would occur in the domains of racial discrimination experiences (Hammond, 2010; Williamson, Smith, & Bigman 2019), as well as health care experiences (Hammond, 2010).

Considering the mental representation of medical mistrust provides additional theoretical rationale for expecting depictions of both racial discrimination and negative health care experiences to influence medical mistrust. Medical mistrust is an attitude; as such, part of its mental representation is an attitudinal schema (Pratkanis, 1989). This attitudinal schema is comprised of knowledge about an object (i.e., healthcare providers) and its associated attributes. Given the history of mistreatment of Black patients, it is reasonable to think that there may be a link between health care providers (i.e., the object) and discrimination (i.e., an attribute). This linkage would be activated not only when individuals encounter information about the healthcare system, but also when the associated node is activated. As a result, exposure to racial discrimination content in news stories may prime thoughts of racial discrimination more broadly, including in the health care system, resulting in increased medical mistrust.

H1: Exposure to racial discrimination content in news stories will result in higher levels of medical mistrust than exposure to non-racial discrimination news stories.

The attitudinal schema for medical mistrust is likely to be comprised of a myriad of other attributes for the healthcare system. It may be the case that exposure to healthcare content,

regardless of its attachment to discrimination, may prime associations and result in medical mistrust, particularly if this healthcare content depicts an undesirable encounter with a healthcare provider. Exposure to this type of content may prime other negative attributes associated with healthcare providers. For instance, if individuals believe providers care more about profit than their patients (Jacobs et al., 2006), exposure to content depicting unsatisfactory healthcare experiences may prime attributes, like greed, and result in medical mistrust.

H2: Exposure to health care content in news stories will result in higher levels of medical mistrust than exposure to non-health care news stories.

It is also possible to consider how these two types of message content may interact to influence medical mistrust. Messages that do not contain either of these types of content should produce the lowest reported medical mistrust, whereas messages that contain both types of content should result in the highest levels of medical mistrust. There is, however, no current indication of how other combinations of health care and racial discrimination content in messages may influence medical mistrust. Thus,

H3: Exposure to health care, discrimination news stories will result in higher reported medical mistrust than exposure to all other news story types.

H4: Exposure to non-health care, non-discrimination news stories will result in lower reported medical mistrust than exposure to all other news story types.

RQ1: Does exposure to health care, non-discrimination news stories result in different levels of medical mistrust than exposure to non-health care, racial discrimination news stories?

General Versus Race-Based Medical Mistrust

The current study also presents an opportunity to examine the potential differential impact of news stories on general and race-based medical mistrust. Examining the relationship between news content and both types of medical mistrust may help disentangle the nuances of these types of medical mistrust (e.g., whether exposure influences general mistrust, mistrust that stems from marginalization and social positioning, or both). As documented by Williamson and Bigman (2018), these widely used measures of medical mistrust rely on different referents (general: people should be mistrustful versus race-based: people who belong to my race/ethnicity). In light of historical relationships between Africans Americans and the medical system, asking about whether, "Patients have sometimes been deceived or misled by healthcare providers" (LaVeist et al., 2009, p. 2100) is very different than asking items about whether individuals believe their group is more likely to be misled (e.g., "Healthcare providers sometimes hide information from people of my race/ethnicity;" Thompson et al., 2004, p. 213). The latter directly calls upon African Americans' social positioning. Recent work has suggested these types of medical mistrust can have consequential differences in their relation to other variables (Pellowski et al., 2017); however, most studies only examine one type of medical mistrust (Williamson & Bigman, 2018). Given the lack of work examining differences between general and race-based medical mistrust:

RQ2: Do health care content and racial discrimination content impact both general and race-based medical mistrust?

Method

Participants and Recruitment

Participants ($N = 462$) were recruited through a Qualtrics survey panel in July 2019. All participants were adults over the age of 18 who self-identified as African American. Fifty-two

participants were removed from the data set for providing irrelevant responses to open-ended items (e.g., "Avenger end game because I want a scam webs they all game…") or for streamlining answers (i.e., answering "3" for every Likert-scale item) resulting in a final sample of 410 participants. Participants were primarily women (73.8%) and reported being heterosexual (83.7%). They ranged in age from 18 to 75 with a mean age of 36.04 (*SD* = 15.67). Most participants reported being from the South (59%). Finally, a majority of participants did not hold a bachelor's degree (70.7%) and reported making less than $50,000 (63.7%).

Procedure

Following approval from the Institutional Review Board at the University of Illinois at Urbana-Champaign (Protocol # 19737) participants completed an online experimental survey. Participants were told they were taking part in two short, unrelated surveys: a "news study" and a "health study" to address the concern that letting participants assume exposure and subsequent items were related could be problematic. Without this precaution, individuals exposed to non-health care, racial discrimination news stories would have been exposed to a discrimination news story and then subsequently presented with health items without any explanation or justification.

In the "news study," participants were asked a few questions about their news media habits (e.g., how credible they perceive news stories to be). They were then exposed to a message that corresponded to the condition they were randomized into (e.g., non-health care, racial discrimination). After exposure to the message, participants were asked to engage in a thought-listing exercise about their thoughts while reading the study, as well as asked whether and where they had previously read a similar article (not discussed here). As a precaution, story credibility was also assessed.[2] In the "health study," participants were asked items about their

[2] Story credibility did not vary by condition, $F(3, 406) = 2.46$, $p = .06$.

current health and medical mistrust. As two types of medical mistrust were presented (i.e., general medical mistrust and race-based medical mistrust), the order of presentation for these two measures was counterbalanced. At the end, participants were debriefed and informed of the true relationship between the two "studies."

Stimuli

A 2 (health care, non-health care) x 2 (racial discrimination, non-racial discrimination) design was employed creating four types of news stories: health care, racial discrimination; health care, non-racial discrimination; non-health care, racial discrimination; and non-health care, non-racial discrimination. Two stories were created for each message type. Health care content for this study depicted an inability to access either an oncologist or a therapist (i.e., negative health care experiences). For the non-health care news stories, lack of access to home internet and to ride-sharing services (e.g., Lyft) were used. News stories depicting racial discrimination utilized racialized geographic regions and mentioned the difficulty Black residents had procuring the discussed service. For non-racial discrimination content new stories, the differences were ascribed to geographic region (i.e., residents of small rural towns had difficulty accessing services). These topics were chosen as they could be used for both racial discrimination and issues of region and had appeared in recent news stories (e.g., Krull, 2019).

Messages were created to resemble news stories individuals may encounter in everyday life. Each was presented as a short news report on the findings of a recent study or institutional report; this included a quote from a researcher involved in the study explaining the report and its recommendations. Messages were made as consistent as possible in terms of content and length. Sentiment analysis conducted in ConTEXT (Diesner et al., 2015) revealed that the stories did not

vary in tone. The resulting messages represent probabilistic social comparison frames (Gandy & Li, 2005; Bigman, 2014). Example stimuli are presented in Appendix A.

Measures

Medical Mistrust

General Medical Mistrust. General medical mistrust was assessed using a modified version of the Medical Mistrust Index (MMI; LaVeist et al., 2009). The original index asks participants how much they agree with statements about health-care organizations; the measure was modified to refer to healthcare providers (e.g., "Patients have sometimes been deceived or misled by healthcare providers"). Participants were asked to respond from 1 (strongly disagree) to 5 (strongly agree). The MMI has been found to be a reliable scale among Black populations (e.g., Brandon et al., 2005). For the current study, the items formed a reliable scale ($\alpha = .86$).

Race-Based Medical Mistrust. Race-based medical mistrust was assessed using the Group-Based Medical Mistrust Scale (GBMMS; Thompson et al., 2004). The GBMMS asks participants whether individuals of their race/ethnicity should be distrustful of medical personnel; in other words, the referent group for items is participants' own race/ethnic group. The 12-item scale contains items such as "People of my race/ethnicity should be suspicious of modern medicine." For the current study, as all participants were African American, "people of my race/ethnicity" was replaced with "African Americans." Participants rated their level of agreement from 1 (strongly disagree) to 5 (strongly agree). Previous work has found the scale to be reliable for Black populations (e.g., Greer et al., 2014). Although all items formed a reliable scale in the current study ($\alpha = .88$), analyses indicated removal of reverse coded items; the remaining eight items also formed a reliable scale ($\alpha = .89$).

Demographics

Demographic information on sex, age, socioeconomic status, and sexual orientation were also collected. Scholarship has suggested that variables such as biological sex (Greer et al., 2014), age (Hammond, 2010), and socioeconomic status (Maly et al., 2008) are associated with medical mistrust; thus, these were included as possible covariates.

Analysis

Structural equation modeling procedures were utilized using Mplus Version 8 (Muthén & Muthén, 2017). In all models, both general and race-based medical mistrust were treated as latent variables. Based on the bivariate correlations, general and race-based medical mistrust were entered into the same model; they were not so highly correlated as to suggest multicollinearity ($r = .47$, $p < .001$). A confirmatory factor analysis (CFA) was conducted for the general medical mistrust and race-based medical mistrust variables. After the CFA, a structural model was tested in which health care content and racial discrimination content were dummy coded and entered as exogenous variables in the model. Based on recommendations by Kline (2016), the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean squared residual (SRMR) are reported alongside the chi-square statistic. A CFI greater than .90, a RMSEA below .08, and a SRMR below .09 served as indicators of adequate fit.

Structural equation modeling is not optimally suited to ascertain differences among all conditions (e.g., differences in medical mistrust for those exposed to health care, non-racial discrimination news stories versus those exposed to non-health care, racial discrimination news stories). Thus, ANOVAs were conducted in SPSS Version 25; separate analyses were run for general medical mistrust and race-based medical mistrust. As two outcomes were examined for the purposes of later examining the comparatives effects on outcomes, the p-value was adjusted to provide a conservative estimate; thus, the p-value was set to .025 (i.e., .05/2).

Results

Manipulation Check

A manipulation check was conducted to ensure that participants perceived differences between message conditions. To examine the effects of the health care manipulation, independent samples t-tests were conducted for health care versus non-health care conditions. Participants were asked two questions related to the health content of the article: "The story I read was about health" and "The story I read was about an individual with a health issue." There were significantly higher levels of agreement that the story was about health for those in the health care condition ($M = 4.14$, $SD = 1.05$) than in the non-health care condition ($M = 2.34$, $SD = 1.36$), $t(381.26) = 14.94$, $p < .001$. Similarly, there were higher levels of agreement that the individual had a health issue for those in the health care condition ($M = 3.72$, $SD = 1.21$) than those in the non-health care condition ($M = 2.28$, $SD = 1.31$), $t(407.26) = 11.65$, $p < .001$.

To examine the effects of the racial discrimination manipulation, independent samples t-tests were conducted for racial discrimination versus non-racial discrimination conditions. Participants were asked two questions related to racial discrimination content of the article: "The story I read mentioned racial discrimination" and "The story I read was about an individual who experienced racial discrimination." There were significantly higher levels of agreement that the story mentioned racial discrimination for those in the racial discrimination condition ($M = 3.88$, $SD = 1.22$) than in the non-racial discrimination condition ($M = 2.56$, $SD = 1.27$), $t(410) = 10.75$, $p < .001$. Similarly, there were higher levels of agreement that the individual in the story experienced racial discrimination for those in the racial discrimination condition ($M = 3.72$, $SD = 1.18$) than those in the non-racial discrimination condition ($M = 2.47$, $SD = 1.26$), $t(410) = 10.38$, $p < .001$.

Main Analysis

Structural Equation Model

Confirmatory Factor Analysis. The initial model did not fit the data, $\chi^2(151, N = 410) = 1147.89$, $p < .001$, *CFI* = .72, *RMSEA* = .13 (90% CI: .120, .134), *SRMR* = .10. An examination of item loadings revealed that four items for race-based medical mistrust loaded below a threshold of .40 (Matsunaga, 2010). These items were also the reverse coded items in the scale. Given concerns about reverse coded items (Weems & Onwuegbuzie, 2001) and their loadings (e.g., Zhang, Noor, & Savalei, 2016), these items were removed. The removal of these items bettered fit, but still produced an ill-fitting model, χ^2 (89, $N = 410$) = 337.71, $p < .001$, *CFI* = .91, *RMSEA* = .08 (90% CI: .073, .092), *SRMR* = .05. Correlating error terms for one pair of general medical mistrust items and two pairs of race-based medical mistrust items produced an adequately fitting model, $\chi^2(86, N = 410) = 222.29$, $p < .001$, *CFI* = .95, *RMSEA* = .06 (90% CI: .052, .072), *SRMR* = .04.

Structural Model. H1 and H2 posited that exposure to racial discrimination content (H1) and health care content (H2) would result in higher levels of medical mistrust. Given the nature of the analyses, this would be represented as a positive relationship between content and medical mistrust. Demographic variables were not related to medical mistrust and thus, were not included in models as covariates.[3] This model provided adequate fit, $\chi^2(112, N = 410) = 249.22$, $p < .001$, *CFI* = .95, *RMSEA* = .06 (90% CI: .046, .064), *SRMR* = .04. The unstandardized path coefficients (UPC) and standardized path coefficients (SPC) are presented.

There was no significant relationship between racial discrimination content and general medical mistrust (UPC = .11, SPC = .10, $p = .06$). Nor was there a significant relationship

[3] News credibility, measured using Flanagin and Metzger's (2000) information credibility scale, was also evaluated as a potential covariate. It was ultimately unrelated to medical mistrust and subsequently removed from analyses.

between negative health care content and general medical mistrust (UPC = .09, SPC = .08, p = .15). There was, however, a positive relationship between racial discrimination content and race-based medical mistrust (UPC = .21, SPC = .11, p = .03), as well as between health care content and race-based medical mistrust (UPC = .22, SPC = .12, p = .03). This would suggest that there is no effect of these types of content on general medical mistrust, but there is an effect on race-based medical mistrust. Thus, H1 and H2 were supported for race-based medical mistrust, but not general medical mistrust. The final structural model is shown in Figure 1.

[Figure 1 Here]

Analysis of Variance

H3 posited that health-care related racial discrimination news stories would result in higher reported medical mistrust than all other news story types. H4 posited that news stories that are not about health care or racial discrimination (i.e., non-health care, non-racial discrimination news stories) would result in lower reported medical mistrust than all other message types. Finally, RQ1 asked whether there was a difference in reported medical mistrust between only health care-related (i.e., health care, non-racial discrimination) news stories and only racial discrimination-related (i.e., non-health care, racial discrimination) news stories.

Planned contrasts revealed that there was only a marginal difference in general medical mistrust for those exposed to health care-related, racial discrimination news stories (M = 3.70, SD = .76) in comparison to those who were exposed to non-health care, non-racial discrimination news stories (M = 3.46, SD = .78), $F(1, 406) = 4.99$, p = .03, η^2 = .01. However, for race-based medical mistrust, exposure to health care-related, racial discrimination news stories resulted in higher levels of mistrust (M = 3.00, SD = 1.05) than exposure to non-health care, non-racial discrimination news stories (M = 2.62, SD = .81), $F(1, 406) = 9.05$, p = .003, η^2 = .02. There

were no other significant differences in medical mistrust among conditions. Thus, there was only partial support for H3 and H4. Furthermore, there was no significant difference between reported levels of medical mistrust for those exposed to health care, non-racial discrimination news stories in comparison to those exposed to non-health care, racial discrimination news stories. Full ANOVA results can be found Table 1.

[Table 1 Here]

Post-hoc Analysis

Given the pattern of results found from the SEM and ANOVA analyses, a subsequent post-hoc analysis was conducted. The SEM model tested found significant relationships for exposure to both negative health care content and racial discrimination content for race-based medical mistrust. Based on the ANOVA analyses, it seemed that the health-related, racial discrimination news studies may be driving these differences. As a result, an additional SEM model was run with conditions dummy coded so that each was compared to the non-health, non-racial discrimination condition, allowing for the effects of exposure to health-related discrimination stories versus non-health, non-racial discrimination stories to be examined while accounting for each type of medical mistrust. This model provided good fit, $\chi^2(125, N = 410) = 258.32$, $p < .001$, $CFI = .95$, $RMSEA = .05$ (90% CI: .042, .060), $SRMR = .04$ and revealed significant relationships for both general (UPC = .21, SPC = .15, p = .02) and race-based medical mistrust (UPC = .43, SPC = .20, p = .001).

[Figure 2]

Furthermore, while demographic variables were not associated with medical mistrust when examined as covariates, it still remained possible that these variables could be acting as moderators. To begin to investigate this possibility, age was tested as a moderator. The model

provided good fit, $\chi^2(177, N = 410) = 323.45$, $p < .001$, $CFI = .95$, $RMSEA = .05$ (90% CI: .037, .053), $SRMR = .04$; however, there was no evidence of age moderating these effects; see Table 2 for results. The distribution of data did not allow for other demographic variables to be tested.

[Table 2]

Discussion

Medical mistrust is a recurrent barrier to engagement of likelihood of engaging in health behaviors. To date, the focus on Tuskegee's role in medical mistrust has contributed to a dearth of work considering other factors influencing medical mistrust among African Americans. Additionally, when antecedents of medical mistrust have been considered, the work has largely neglected the possible role of vicarious experiences. The current study utilized an experimental method to examine mediated vicarious experiences by testing the effects of exposure to health care content and racial discrimination content in news stories on two types of medical mistrust.

It was posited that negative health care content and racial discrimination content in news stories would be positively related with medical mistrust. Considered individually, both negative health care content and racial discrimination content in news stories were positively related to race-based medical mistrust, but not general medical mistrust. This suggests that these types of content in news stories result in medical mistrust that centers social positioning (i.e., race-based) but not general mistrust. Such a conclusion, however, may be premature given the pattern of findings for the four individual conditions.

When examining the four individual conditions, health care-related racial discrimination news stories resulted in higher levels of race-based medical mistrust than non-health, non-racial discrimination news stories. There was a marginal difference in general medical mistrust between those exposed to these two types of news stories. Additionally, there was no significant

differences in medical mistrust for those exposed to health care, non-racial discrimination news stories versus those exposed to non-health care, racial discrimination stories. The subsequent model examining the effects of health-care related, racial discrimination stories (in comparison to non-health care, non-racial discrimination news stories) on both types of medical mistrust simultaneously found that exposure to health-care related, racial discrimination stories resulted in higher levels of both general and race-based medical mistrust than non-health care, non-racial discrimination stories. Thus, the effects of exposure to both types of content on race-based medical mistrust may be driven by the effect of exposure to health-related, racial discrimination stories. It is possible that the combination of negative health care content and racial discrimination content approximate perceived racism in health care, thus contributing to medical mistrust (Hammond, 2010). Future work should investigate the role of mediators, like perceived racism, in the impact of news stories exposure on medical mistrust.

While there was evidence of an impact of health care-related racial discrimination news stories, there was no evidence that non-health care, racial discrimination stories influenced medical mistrust. This is consistent with previous work that found no differences in race-based medical mistrust for explicit racial discrimination news stories (Williamson, Smith, & Bigman, 2019). Given the pervasiveness of racial discrimination in the U.S. (Reskin, 2012), African Americans may reasonably assume that the default is racism. This would explain the lack of differences between exposure the explicit racial discrimination frame and control both in the current study and in Williamson, Smith, and Bigman (2019). A closer examination of manipulation check items in the current study revealed that although racial discrimination was not *mentioned* (and participants realized this), they still reported higher agreement that the individual had *experienced* racial discrimination when exposed to the health care, non-racial

discrimination stories as compared to the non-health care, non-racial discrimination news stories. This would suggest that participants assumed racial discrimination was still at play, even when it was not explicitly mentioned. If this is the case, an additional layer may be required to trigger medical mistrust, above and beyond the baseline. This may be the health care context, as seen in the current study, or when it is seen as hiding the racism, which could be an interpretation of the implicit frame used in Williamson, Smith, and Bigman (2019). These two studies appear to begin to outline the conditions under which explicit racial discrimination in news stories increases medical mistrust.

Additionally, there was no effect of health care, non-racial discrimination stories on medical mistrust. Operationalizing health care content as lack of access to services may not prime attributes that are a part of the knowledge structure for medical mistrust. Alternatively, given continued issues surrounding access to health care (United States Department of Health and Human Services, 2020), this manipulation of negative health care experiences content (i.e., lack of access to resources) may seem like the norm and not a novel or egregious enough offense to heighten medical mistrust. Future work should examine other operationalizations of health care content. The possibility that the effect sizes for the impact health care content and racial discrimination content are much smaller than anticipated should also be noted. If this is the case, the current sample size may not have been large enough to detect these differences.

Finally, a research question was also asked regarding differential effects on general and race-based medical mistrust. An initial examination suggested that the particular types of news story content had an impact on race-based medical mistrust, but not general medical mistrust. Further investigation revealed, however, that when accounting for both types of medical mistrust, exposure to health care-related racial discrimination news stories influenced both race-

based and general medical mistrust. Based on the standardized estimates of these relationships, there appears to be slightly larger impact for race-based medical mistrust than general medical mistrust. This is unsurprising as race-based medical mistrust directly calls upon the political and social position of being African American. It remains notable, however, that the effects were present for both general and race-based medical mistrust.

Theoretical Implications

The current investigation builds upon previous work by examining the effect of news stories (i.e., mediated vicarious experiences) on medical mistrust in a sample of African American adults. The findings indicate that investigations into medical mistrust may be missing part of the picture by not accounting for exposure to mediated vicarious racial discrimination and health experiences. As scholars answer recent calls to further examine the antecedents of medical mistrust and use more sophisticated techniques (Benkert et al., 2019), theorizing about medical mistrust must include mediated vicarious experiences. Although previous work has examined discrimination as an antecedent to medical mistrust (e.g., Hammond, 2010; Durant et al., 2011), these studies focused on individuals' own experiences of discrimination. The current study suggests that as communication scholarship is used to more carefully examine medical mistrust, theories, such as social cognitive theory, that are designed to account for vicarious experiences, including through media, may be fruitful avenues for theoretically grounding these studies.

Additionally, as the stories utilized in this study represent probabilistic social comparison frames, specifically disparity frames, the current findings also suggest that theses frames might influence medical mistrust and have implications for communication about health inequalities. Previous work on these frames has examined medical mistrust as a moderator of the effects of these frames (Nicholson et al., 2008), but to my knowledge, no studies have directly examined

the effects of these frames directly on medical mistrust. It will be beneficial for future work to examine this phenomenon in conjunction with other health-risk frames (e.g., impact frames), as well as other potentially associated constructs (e.g., linked fate).

The current work supports the idea that despite being related constructs, there are differences in general and race-based medical mistrust. The bivariate relationships and the structural model indicated that these two types of medical mistrust are, in fact, related. Additionally, the relationship between health care-related discrimination news stories (versus non-health care, non-racial discrimination news stories) and general medical mistrust was revealed when race-based medical mistrust was accounted for within the model. Scholars so far have primarily chosen *either* the general medical mistrust or race-based medical mistrust scale (Williamson & Bigman, 2018). To fully understand the relationship between general medical mistrust and race-based medical mistrust future work must include both measures; this may illuminate how they operate similarly or differently with other constructs of interest. Additionally, as general and race-based medical mistrust appear to be related but not overlapping constructs, it will be beneficial to know whether general medical mistrust is a precursor to race-based medical mistrust or race-based medical mistrust feeds into general medical mistrust. It is also possible that general medical mistrust moderates the relationship between news stories and race-based medical mistrust. Thus, subsequent studies may want to assess general medical mistrust prior to message exposure.

Practical Implications

News stories have the potential to influence medical mistrust, and in turn, impact a wide range of health behaviors. The current study provides evidence that news stories discussing discrimination using social comparison frames influence medical mistrust, particularly in the

context of health care. Some may argue that this is inconsequential as content analyses suggest this type of news story may be infrequent (Gandy & Li, 2005; Nagler et al., 2016). However, given the increased exposure to news via social media (Matsa & Shearer, 2018) and that Black Americans report being exposed to race-related content more often (Anderson & Hitlin, 2016) and are more likely to share news stories showing disparate racial impact (Bigman et al., 2019), exposure to health-related racial discrimination stories is still possible.

Thus, the current investigation serves as a reminder of the importance of understanding the other messages that may be present in the information environment (Randolph & Viswanath, 2004). In promoting behaviors (e.g., routine check-ups, cancer screenings, etc.), health scholars must recognize and be mindful of the effect exposure to these stories (e.g., reports chronicling the difficulty African American women face during childbirth or Virginia's Governor Northam blackface medical school yearbook picture) would have on medical mistrust, and in turn, a variety of health behaviors. More recently, in light of the recent COVID-19 pandemic, we must keep in mind the impact news stories about Black Americans' difficulties seeking care and getting tested for COVID-19 (e.g., Mitropoulos & Moseley, 2020) could have on medical mistrust and willingness to seek care if experiencing symptoms. Moving forward, it may also impact behaviors related to COVID-19 vaccination.

Additionally, the findings of this study speak to the way in which healthcare providers may deal with the role of negative healthcare experiences and racial discrimination experiences by keeping this in mind during interactions with patients. There have been calls for structural competency in medical training and practice, which differs from cultural competency (Metzl & Hansen, 2014). Cultural competency refers to the ability to identify expressions of illness and health across cultures, whereas structural competency advocates for a recognition of the

institutions and social conditions that impact health. Metzl and Hansen (2014) discuss this as thinking about how "such variables as race, class, gender, and ethnicity are shaped both by the interactions of the two persons in a room, but by the larger structural contexts in which their interactions take place" (p. 3). Thus, health-care providers might consider that patients' hesitancy to come in for appointments, or perhaps see a new doctor, could be fueled by current news stories and societal events.

More broadly, the current study, taken with Williamson, Smith, and Bigman (2019), illuminates the need to take care in how medical mistrust is discussed and addressed. Medical mistrust is associated with exposure to individuals' experiences of racial discrimination both in the context of the health care (the current study) and when it is being "hidden" (i.e., mentioned implicitly) in a variety of contexts (Williamson, Smith, & Bigman, 2019). This would point toward medical mistrust being tied to the myriad of inequities, discrimination, and racism that exists in systems in the U.S. Medical mistrust should not be framed as something that needs to be changed within individuals. African Americans' medical mistrust is considered to be a specific type of cultural mistrust (Thompson et al., 2004), which has previously been framed in ways that might be interpreted as being located within the individual (e.g., pertinent to paranoia as a clinical diagnosis; Whaley, 2001). The current study should not be taken to mean that decreasing exposure to these stories or convincing individuals that racial discrimination does not exist within the health care system is the answer. Instead of locating the solution within individuals, the solution should be properly placed on systems. While some individual measures may mitigate medical mistrust and get individuals necessary care, addressing medical mistrust should ultimately involve advocacy that deals with racism and, in turn, begin to decrease the frequency of these types of experiences.

Limitations

The findings of this study must be considered in the context of its limitations. Financial constraints tied to recruiting through Qualtrics limited survey length and the number conditions. Subsequent work should include a no-exposure control and items that would help verify that vicarious processes are taking place. Furthermore, participants were exposed to a single news story. In everyday life, participants are inundated with messages, sometimes within a short period of time (e.g., scrolling through social media). Although steps were taken to ensure the stories looked like those they might have encountered, participants knew they were taking part of a study and were presented with a stand-alone article. Future work should consider testing the impact of these stories in a more ecologically valid presentation of the news stories that would provide a closer approximation of how individuals encounter these news stories in the world. For instance, participants could be presented with a mock news feed with multiple stories as in Bigman et al. (2019). Finally, the current study was unable to fully investigate whether demographic variables played a role in the relationship between news stories and medical mistrust. Subsequent studies should strive to have enough representation and variation in their samples to be able to investigate these nuances. Despite these limitations, the current study provides a window into the impact of these messages.

Conclusion

In addressing medical mistrust, both in the context of the current pandemic, as well as the legacy of health disparities, health scholars must consider the message environment outside of the doctor's office. Furthermore, viewing African Americans' medical mistrust as solely the result of personal experiences is too narrow; mediated vicarious experiences must also be considered. The results of the present study indicate a need to be attuned to the impact of racial discrimination news

stories, particularly those that are health-related, could have on African Americans' medical mistrust. Given our focus on these types of messages, health communication scholars are poised to undertake the work that pushes medical mistrust scholarship beyond Tuskegee and personal experiences to mediated vicarious experiences.

References

Anderson, M. & Hitlin, P. (2016). Social media conversations about race: How social media users see, share and discuss race and the rise of hashtags like #BlackLivesMatter. *Pew Research Center*. http://www.pewinternet.org/wp-content/uploads/sites/9/2016/08/PI_2016.08.15_Race-and-Social-Media_FINAL.pdf

Bandura, A. (2009). Social cognitive theory of mass communication. In J. O. Bryant & M.B. Oliver (Eds.). *Media effects: Advances in theory and research* (3rd ed., pp. 94-124). Routledge.

Benkert, R., Cuevas, A., Thompson, H. S., Dove-Meadows, E., & Knuckles, D. (2019). Ubiquitous yet unclear: A systematic review of medical mistrust. *Behavioral Medicine, 45*(2), 86-101. https://doi.org/10.1080/08964289.2019.1588220

Bigman, C.A. (2014). Social comparison framing in health news and its effect on perceptions of group risk. *Health Communication, 29*(3), 267-280. https://doi.org/10.1080/10410236.2012.745043

Bigman, C.A., Smith, M.A., Williamson, L.D., Planey, A.M., & McNeil Smith, S. (2019). Selective sharing on social media: Examining the effects of disparate racial impact frames on intentions to retransmit news stories among US college students. *New Media & Society, 21*(11-12), 2691-2709. https://doi.org/10.1177/1461444819856574

Bogart, L. M., Wagner, G. J., Green, H. D., Mutchler, M. G., Klein, D. J., McDavitt, B., Lawrence, S.J., & Hilliard, C. L. (2016). Medical mistrust among social network members may contribute to antiretroviral treatment nonadherence in African Americans living with HIV. *Social Science & Medicine, 164*, 133-140. https://doi.org/10.1016/j.socscimed.2016.03.028

Brandon, D. T., Isaac, L. A., & LaVeist, T. A. (2005). The legacy of Tuskegee and trust in medical care: Is Tuskegee responsible for race differences in mistrust of medical care? *Journal of the National Medical Association, 97*(7), 951-956.

Centers for Disease Control and Prevention. (2020). *COVID-19 in racial and ethnic minority groups*. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html

Diesner, J., Aleyasen, A., Chin, C., Mishra, S., Soltani, K., & Tao, L. (2015). *ConTEXT: Network construction from texts*. http://context.ischool.illinois.edu/

Durant, R. W., Legedza, A. T., Marcantonio, E. R., Freeman, M. B., & Landon, B. E. (2011). Different types of distrust in clinical research among whites and African Americans. *Journal of the National Medical Association, 103*(2), 123-130. https://doi.org/10.1016/s0027-9684(15)30261-3

Flanagin, A. J., & Metzger, M. J. (2000). Perceptions of Internet information credibility. *Journalism & Mass Communication Quarterly, 77*(3), 515-540. https://doi.org/10.1177/107769900007700304

Gandy, O.H., Jr. (2009). *Coming to terms with chance: Engaging rational discriminationa nd cumulative disadvantage*. Ashgate.

Gandy, O.H., Jr., & Li, Z. (2005). Framing comparative risk: A preliminary analyis. *Howard Journal of Communication, 16*(2), 71-86. https://doi.org/10.1080/10646170590948956

Greer, T. M., Brondolo, E., & Brown, P. (2014). Systemic racism moderates effects of provider racial biases on adherence to hypertension treatment for African Americans. *Health Psychology, 33*(1), 35-42. https://doi.org/10.1037/a0032777

Hall, M. A., Dugan, E., Zheng, B., & Mishra, A. K. (2001). Trust in physicians and medical institutions: What is it, can it be measured, and does it matter? *Milbank Quarterly, 79*(4), 613-639. https://doi.org/10.1111/1468-0009.00223

Hammond, W. P. (2010). Psychosocial correlates of medical mistrust among African American men. *American Journal of Community Psychology, 45*(1-2), 87-106. https://doi.org/10.1007/s10464-009-9280-6

Hammond, W. P., Matthews, D., & Corbie-Smith, G. (2010). Psychosocial factors associated with routine health examination scheduling and receipt among African American men. *Journal of the National Medical Association, 102*(4), 276-289. https://doi.org/10.1016/s0027-9684(15)30600-3

Jacobs, E. A., Rolle, I., Ferrans, C. E., Whitaker, E. E., & Warnecke, R. B. (2006). Understanding African Americans' views of the trustworthiness of physicians. *Journal of General Internal Medicine, 21*(6), 642-647. https://doi.org/10.1111/j.1525-1497.2006.00485_1.x

Jaiswal, J., & Halkitis, P. N. (2019). Towards a more inclusive and dynamic understanding of medical mistrust informed by science. *Behavioral Medicine, 45*(2), 79-85. https://doi.org/10.1080/08964289.2019.1619511

Jaiswal, J., LoSchiavo, C., & Perlman, D.C. (2020). Disinformation, misinformation and inequality-driven mistrust in the time of COVID-19: Lessons learned from AIDS denialism. *AIDS and Behavior, 24*(10), 2776-2780. https://doi.org/10.1007/s10461-020-02925-y

Jensen, J. D., Carcioppolo, N., King, A. J., Bernat, J. K., Davis, L., Yale, R., & Smith, J. (2011). Including limitations in news coverage of cancer research: Effects of news hedging on

fatalism, medical skepticism, patient trust, and backlash. *Journal of Health Communication, 16*(5), 486-503. https://doi.org/10.1080/10810730.2010.546491

Kalichman, S. C., Eaton, L., Kalichman, M. O., Grebler, T., Merely, C., & Welles, B. (2016). Race-based medical mistrust, medication beliefs and HIV treatment adherence: Test of a mediation model in people living with HIV/AIDS. *Journal of Behavioral Medicine, 39*(6), 1056-1064. https://doi.org/10.1007/s10865-016-9767-1

Kline, R. B. (2016). *Principles and practice of structural equation modeling*. Guilford Press.

Krull, R. (2019). In St. Louis' digital divide, North City suffers from poor internet access. *River Front Times*. https://www.riverfronttimes.com/newsblog/2019/02/11/in-st-louis-digital-divide-north-city-suffers-from-poor-internet-access

LaVeist, T. A., Isaac, L. A., & Williams, K. P. (2009). Mistrust of health care organizations is associated with underutilization of health services. *Health Services Research, 44*(6), 2093-2105. https://doi.org/10.1111/j.1475-6773.2009.01017.x

Maly, R. C., Stein, J. A., Umezawa, Y., Leake, B., & Anglin, M. D. (2008). Racial/ethnic differences in breast cancer outcomes among older patients: Effects of physician communication and patient empowerment. *Health Psychology, 27*(6), 728-736. https://doi.org/10.1037/0278-6133.27.6.728

Matsa, K.E., & Shearer, E. (2018). News use across social media platforms 2018. *Pew Research Center*. https://www.journalism.org/2018/09/10/newsuse-across-social-media-platforms-2018/

Matsunaga, M. (2010). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International Journal of Psychological Research, 3*(1), 97-110. http://doi.org/10.21500/20112084.854

Metzl, J. M., & Hansen, H. (2014). Structural competency: Theorizing a new medical engagement with stigma and inequality. *Social Science & Medicine, 103*, 126-133. https://doi.org/10.1016/j.socscimed.2013.06.032

Mitropoulos, A., & Moseley, M. (2020, April 28). Beloved Brooklyn teacher, 30, dies of coronovirus after she was twice denied a COVID-19 test. *ABC News*. https://abcnews.go.com/Health/beloved-brooklyn-teacher-30-dies-coronavirus-denied-covid/story?id=70376445

Morgan, S. E. (2004). The power of talk: African Americans' communication with family members about organ donation and its impact on the willingness to donate organs. *Journal of Social and Personal Relationships, 21*(1), 112-124. https://doi.org/10.1177/0265407504039845

Muthén, L. K., & Muthén, B. O. (2017). *Mplus* (Version 8). [Computer software]. https://www.statmodel.com/

Nagler, R.H., Bigman, C.A., Ramanadhan, S., Ramamurthi, D., & Viswanath, K. (2016). Prevalence and framing of health disparities in local print news: Implications for multilevel interventions to address cancer inequalities. *Cancer Epidemiology, Biomarkers & Prevention, 25*(4), 603-612. https://doi.org/10.1158/1055-9965.EPI-15-1247

Nicholson, R.A., Kreuter, M.W., Lapka, C., Wellborn, R., Clark, E.M., Sanders-Thompson, V., Jacobsen, H.M., & Casey, C. (2008). Unintended effects of emphasizing disparities in cancer communication to African-Americans. *Cancer Epidemiology, Biomarkers & Prevention, 17*(11), 2946-2953. https://doi.org/10.1158/1055-9965.EPI-08-0101

Omodei, M. M., & McLennan, J. (2000). Conceptualizing and measuring global interpersonal mistrust-trust. *The Journal of Social Psychology, 140*(3), 279-294. https://doi.org/10.1080/00224540009600471

Pellowski, J. A., Price, D. M., Allen, A. M., Eaton, L. A., & Kalichman, S. C. (2017). The differences between medical trust and mistrust and their respective influences on medication beliefs and ART adherence among African-Americans living with HIV. *Psychology & Health*, *32*(9), 1127-1139. https://doi.org/10.1080/08870446.2017.1324969

Pratkanis, A. R. (1989). The cognitive representation of attitudes. In A.R. Pratkanis, S.J. Breckler, & A.G. Greenwald (Eds.), *Attitude structure and function* (pp. 71-98). Psychology Press.

Randolph, W., & Viswanath, K. (2004). Lessons learned from public health mass media campaigns: Marketing health in a crowded media world. *Annual Review of Public Health, 25*(1), 419-437. https://doi.org/10.1146/annurev.publhealth.25.101802.123046

Reskin, B. (2012). The race discrimination system. *Annual Review of Sociology, 38*(1), 17-35. https://doi.org/10.1146/annurev-soc-071811-145508

Shelton, R. C., Winkel, G., Davis, S. N., Roberts, N., Valdimarsdottir, H., Hall, S. J., & Thompson, H. S. (2010). Validation of the group-based medical mistrust scale among urban Black men. *Journal of General Internal Medicine, 25*(6), 549-555. https://doi.org/10.1007/s11606-010-1288-y

Thompson, H. S., Valdimarsdottir, H. B., Winkel, G., Jandorf, L., & Redd, W. (2004). The Group-Based Medical Mistrust Scale: Psychometric properties and association with

breast cancer screening. *Preventive Medicine, 38*(2), 209-218. https://doi.org/10.1016/j.ypmed.2003.09.041

Tian, Y.T., & Yoo, J.H. (2020). Medical drama viewing and medical trust: A moderated mediation approach. *Health Communication, 35*(1), 46-55. https://doi.org/10.1080/10410236.2018.1536959

Truong, K. A., Museus, S. D., & McGuire, K. M. (2016). Vicarious racism: A qualitative analysis of experiences with secondhand racism in graduate education. *International Journal of Qualitative Studies in Education, 29*(2), 224-247. https://doi.org/10.1080/09518398.2015.1023234

United States Department of Health and Human Services (2020). *Access to health services*. https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services/national-snapshot

Washington, H. A. (2006). *Medical apartheid: The dark history of medical experimentation on Black Americans from colonial times to the present*. Doubleday Books.

Weems, G. H., & Onwuegbuzie, A. J. (2001). The impact of midpoint responses and reverse coding on survey data. *Measurement and Evaluation in Counseling and Development, 34*(3), 166-176. https://doi.org/10.1080/07481756.2002.12069033

Whaley, A. (2001). Cultural mistrust: An important psychological construct for diagnosis and testing of African Americans. *Professional Psychology: Research and Practice, 32*(6), 555-562. https://doi.org/10.1037/0735-7028.32.6.555

Williamson, L. D., & Bigman, C. A. (2018). A systematic review of medical mistrust measures. *Patient Education and Counseling, 101*(10), 1786-1794. https://doi.org/10.1016/j.pec.2018.05.007

Williamson, L.D., Bigman, C.A., & Quick, B.L (2019). A qualitative examination of African Americans' organ donation-related medical mistrust beliefs. *Howard Journal of Communications, 30*(5), 430-445. https://doi.org/10.1080/10646175.2018.1512064

Williamson, L.D., Smith, M.A., & Bigman, C.A. (2019). Does discrimination breed mistrust? Examining the role of mediated and non-mediated discrimination experiences in medical mistrust. *Journal of Health Communication, 24*(10), 791-799. https://doi.org/10.1080/10810730.2019.1669742

Zhang, X., Noor, R., & Savalei, V. (2016). Examining the effect of reverse worded items on the factor structure of the need for cognition scale. *PloS One, 11*(6), 1-15. https://doi.org/10.1371/journal.pone.0157795

Table 1

Planned Contrasts Examining Differences in Medical Mistrust by Condition

		General Medical Mistrust			Race-Based Medical Mistrust		
Conditions Compared		**F**	**p**	**η^2**	**F**	**p**	**η^2**
H/D	H/ND	1.46	0.23	0.004	2.53	0.11	0.01
H/D	NH/D	0.87	0.35	0.002	2.00	0.16	0.01
H/D	NH/ND	4.99	0.03	0.01	9.05	0.003	0.02
H/ND	NH/ND	1.03	0.31	0.003	1.99	0.16	0.01
NH/D	NH/ND	1.56	0.21	0.004	2.34	0.13	0.01
H/ND	NH/D	0.06	0.80	0.00	0.02	0.88	0.00

Note. H/D = Health Care, Racial Discrimination, H/ND = Health Care, Non-Racial Discrimination, NH/D = Non-Health Care, Racial Discrimination, NH/ND = Non-Health Care, Non-Racial Discrimination. As these are planned contrasts, df = 1 for all tests.

Table 2

Parameter estimates of moderated model

	General Medical Mistrust					Race Based Medical Mistrust				
	b	**B**	**SE**	**p**	**95% CI**	**b**	**B**	**SE**	**p**	**95% CI**
H/D	0.19	0.14	0.09	0.03	[.02, .36]	0.44	0.2	0.14	0.002	[.17, .71]
H/ND	0.07	0.05	0.09	0.43	[-.11, .25]	0.19	0.09	0.13	0.15	[-.07, .44]
NH/D	0.1	0.07	0.09	0.26	[-.07, .26]	0.2	0.09	0.13	0.14	[-.07, .45]
Age	0.01	0.2	0.004	0.05	[.00, .02]	0.001	0.01	0.01	0.91	[-.01, .01]
H/D x Age	-0.01	-0.07	0.01	0.35	[-.02, .01]	-0.01	-0.07	0.01	0.34	[-.03, .01]
H/ND x Age	0.001	0.01	0.01	0.9	[-.01, .01]	0.004	0.03	0.01	0.62	[-.01, .02]
NH/D x Age	-0.01	-0.11	0.01	0.16	[-.02, .003]	-0.01	-0.09	0.01	0.19	[-.03, .01]

Note. H/D = Health Care, Racial Discrimination, H/ND = Health Care, Non-Racial Discrimination, NH/D = Non-Health Care, Racial Discrimination, NH/ND = Non-Health Care, Non-Racial Discrimination.