Negative consequences of self-presentation on disclosure of health information: A catch-22 for Black patients?

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ABSTRACT

Rationale: Most patients assume that it is adaptive to present oneself in a positive light when interacting with medical professionals. Here in two studies focused on Black patients we ask: might this desire to present oneself well inhibit the disclosure of health-relevant information when patients are concerned about negative and stereotypic evaluations by their health care providers?

Objective: Specifically, we explore three important questions: First, whether self-presentational efforts (e.g., working hard to sound knowledgeable or "smart") are negatively associated with disclosure of health information (e.g., not taking certain medications); Second, whether patient-provider racial congruence (e.g. Black patients interacting with a Black vs. a White doctor) moderates that relationship; and third, more broadly, what factors promote or inhibit disclosure of health information for Black patients in medical interactions.

Methods: These questions were investigated using mixed methodology (survey, experimental, qualitative) studies on CloudResearch and Prolific.

Results: We found a potential catch-22: participants who spend more effort self-presenting tend to be less comfortable disclosing health information to their healthcare providers. Moreover, Study 1 (N = 321) indicated that the negative relationship between self-presentation and disclosure was significant in Black-incongruent (i.e., Black patient and White provider) and White-congruent (i.e., White patient and White provider) medical interactions. Study 2 (N = 361) did not find a significant moderation by race of the provider but instead suggested that the relationship between self-presentation and disclosure was moderated by expectations of unfair treatment. Exploratory qualitative analyses suggested that some Black participants face a dilemma when deciding whether to disclose information to their healthcare providers. They weigh the kind of information they will share, and how sharing some information might lead to embarrassment and judgment.

Conclusion: Mitigating the potentially counteractive effects of self-presentation on disclosure and working to foster contexts that encourage honest disclosure of health information may help to reduce health care inequalities.

1. Introduction

"I’ve also learned as a Black man, and just living in America how appearances will radically affect how people treat you from the start. Therefore … when I go to the Dr’s office I dress up a little bit to help set the tone with the staff and the Dr.” (Study 2 participant)

Going to the doctor’s office is often a charged situation, replete with a variety of concerns. Am I ok? Is this serious? Will they help me? And if you are a Black person in the U.S., where negative stereotypes about your group are pervasive and healthcare providers are most likely to be White (American Association of Colleges of Nursing, 2019; Association of American Medical Colleges, 2019), some additional questions may arise: How will I be treated? Will they respect me? Will I be discriminated against?

In most institutional interactions, it makes sense to try to present oneself in a positive and normatively appropriate light to achieve one’s goals in these interactions. Yet, when one’s group is likely to be seen through the lens of negative stereotypes (Abdou and Fingerhut, 2014; Eberhardt, 2019; Steele, 2010), how to present oneself to achieve these goals may be more complex. In some cases, then, a catch-22 may be present: Conveying a positive view of self to achieve positive outcomes may be counterproductive when one’s group is likely to be seen negatively.
of the self and countering potentially negative stereotypes might mean holding back on disclosing important health-related issues, questions, and concerns.

Here, in two studies, we build on past research suggesting that efforts at positive self-presentation are particularly likely in situations accompanied by a threat of being devalued based on stereotypes about one’s associated racial group (Malat et al., 2006; Sacks, 2018; Shim, 2010). We investigate the hypothesis that when self-presentation concerns are strong, as they might be for Black patients interacting with a White doctor, a fear of being negatively stereotyped may lead to a lack of full disclosure of relevant information about their health. Specifically, we assess whether self-presentation efforts are detrimental to disclosure and if racial congruency between patients and providers moderates that relationship. In addition, we analyze respondents’ own words about when and why they engage in self-presentation and disclosure of health-related information.

1.1. Self-presentation, disclosure, and race in medical interactions

Self-presentation is characterized by people’s alterations of their behaviors to shape others’ impressions of them (Jones and Pittman, 1982). In healthcare contexts, self-presentation is thought to be a particularly adaptive and protective strategy adopted by those worried about being stereotyped and discriminated against (Malat et al., 2006; Sacks, 2018; Shim, 2010). The hope is that through a “positive” self-presentation, a person can circumvent discrimination, receive better care, and develop a good relationship with their healthcare providers (Malat et al., 2006; Sacks, 2018; Shim, 2010). Previous studies reveal, for instance, that Black patients, and those from low socio-economic contexts, attempt to be likable by trying to present themselves as “nice,” “warm,” “intelligent,” “competent,” as well as by curating their physical appearance in their medical interactions (Malat et al., 2006; Sacks, 2018). The use of such strategies is well-justified. Physicians perceive Black patients and those from low socio-economic contexts (SEC) more negatively on dimensions such as intelligence, risk behaviors (e.g., active lifestyle, diet), and adherence to medical regimens than they do White patients and those of high SEC (Van Ryn and Burke, 2000; Van Ryn et al., 2011). They are also less respectful towards, more contentious with, and less likely to provide care and antibiotics to Black patients than to White patients (Breathett et al., 2018; Levinson et al., 2008; Mortensen et al., 2004; Street et al., 2007).

Although self-presentation may seem like a viable strategy to navigate bias and systemic racism in the American healthcare system, it may also have unintended consequences. If patients do not expect positive or respectful treatment, they may distort or fail to disclose some aspects of their health or their lives that may be significant in diagnosing and treating a health problem (Levy et al., 2018; Palmieri and Stern, 2009). While patients might want to present themselves in a positive light, they may also need to be vulnerable and disclose potentially negative information about themselves or their community to give their healthcare providers a full picture of their health. Past work in non-medical interactions has found that patients from historically marginalized contexts work diligently to compensate for any presumed negative stereotypes their interlocutors might have about them (Major et al., 2013; Richeson and Shelton, 2007), and this extra effort may be particularly evident when there is a lack of racial congruence (i.e., same race) between doctor and patient.

Sharing personal health information with healthcare providers equips them with crucial knowledge to accurately diagnose and recommend appropriate treatment (Chipidza et al., 2015; Gulbransen et al., 1997; Hjortdahl, 1992; Stewart et al., 1979). Nondisclosure of relevant health information may lead to, among others, misdiagnosis or incorrect treatment prescription and may thus widen health disparities (Levy et al., 2018). Patients who are comfortable disclosing information to their healthcare providers also report greater satisfaction (Davis et al., 2012). However, despite the importance of disclosure, 61%–81% of patients avoid disclosing at least one type of health information so their doctors would not see them as “stupid” or “difficult” patients (Levy et al., 2018). Patients of color are less likely than White patients to discuss health information with their providers (Siminoff et al., 2006).

While medical interactions are an opportunity for patients to disclose their story and health problems to equip providers with the necessary information for treatment (Chipidza et al., 2015; Gulbransen et al., 1997; Hjortdahl, 1992; Stewart et al., 1979), Black patients may face a dilemma in their medical interactions. On the one hand, a focus on self-presentation at the expense of disclosure may prevent negative evaluations, but it may also lead to less adequate treatment. On the other hand, disclosing health-relevant information may confirm negative stereotypes, which could be met with added discrimination and bias. Interacting with a doctor who will treat them with care and respect regardless of what they disclose may be key to reconciling this dilemma. Expectations of fair treatment (versus discrimination) may then determine whether a Black patient will feel comfortable disclosing. There is some evidence to suggest that interacting with a same-race provider facilitates discussion of health problems, as well as the disclosure of personal problems such as spousal abuse and daily stresses (Alsan et al., 2018; Malat and Hamilton, 2006; Samples et al., 2014).

1.2. Overview of current research

Here, in two studies, we examine whether Black patients’ self-presentation efforts may be detrimental to the disclosure of essential health information in medical interactions. In the first survey study, we focused on the associations among self-presentation, disclosure of health information, and patient-provider racial congruency. In the second study, we experimentally manipulated the race of the healthcare providers and examined whether increased self-presentation is linked with decreased disclosure of health information for Black patients in interracial medical interactions. Finally, in Study 2, to deepen our understanding of the role of race in the doctor’s office, we asked respondents to describe their rationale for self-presentation and disclosure decisions and then coded these responses for conceptually relevant themes.

2. Study 1: exploring relationships among self-presentation, disclosure, and race

2.1. Overview

Study 1 examined whether Black and White patients engage in self-presentation efforts and are comfortable disclosing health-related information that might be potentially stereotype confirming. First, we focused on the relationships between patient-provider racial congruence, self-presentation efforts, and comfort with disclosure. Specifically, we predicted that Black patients would report making more self-presentation efforts than White participants. Second, we explored the relationship between self-presentation and disclosure and whether it differs by racial congruence. We expected that greater self-presentation efforts would relate to less disclosure and that this tension would differ by patient-provider racial congruence. Specifically, we expected a negative association between self-presentation and disclosure, particularly amongst Black participants interacting with White, rather than Black, providers.

2.2. Methods

2.2.1. Participants

We recruited 400 Black and White people living in the US (See final sample size and characteristics in results section). A-priori power analysis was not conducted given the exploratory nature of the study and the lack of prior studies investigating the relationship between self-presentation and disclosure in medical interactions. However, the sensitivity power analysis with 80% power (G*Power, alpha = .05, two-
telled) conducted after participants’ recruitment determined that 321 participants would reliably detect $r \geq 0.14$ (Bartlett, 2021; Faul et al., 2009; Lakens, 2021).

### 2.2.2. Procedure

Black and White participants located in the US were invited to participate in a research survey about health beliefs through the online survey platform, CloudResearch (formerly TurkPrime). CloudResearch provides access to a vetted set of MTurk participants (Litman et al., 2017). After reading the informed consent and agreeing to participate in the study, participants completed a series of questionnaires regarding their self-presentation efforts, disclosure, health status, and demographics. Finally, after completing the questionnaires, participants were debriefed and paid $1.50 for their 5 min (on average) spent participating in the study. The study received institutional review board (IRB) approval.

### 2.3. Measures

#### 2.3.1. Self-presentation

At the time of designing this study, we found no established or validated scales to measure self-presentation efforts in medical interactions, although there was substantive literature and measures on self-presentation or impression management (Leary et al., 2015). Thus, we created (and in some cases adapted) relevant items based on our review of a diverse range of studies (e.g., survey, qualitative, and quantitative work) relevant to self-presentation, bias, stereotypes, and cultural health capital (e.g., Bergsicker et al., 2010; Hagiwara et al., 2013; Jones and Pittman, 1982; Levy et al., 2018; Malat et al., 2006; Sacks, 2018; Shim, 2010). We initially crafted 21 items asking participants how hard people work (1 = do not work hard at all, 5 = work extremely hard) in their medical interactions to self-present in a number of ways (e.g., looking smart, giving a good impression of their family) which were later reduced through piloting ($N = 196$, equal sample of Black and White participants) to 10 items (See Table 1). Exploratory factor analysis on the 10 items with principal axis extraction showed that items loaded on 1 factor (See Table S1 in Supplement for factor loadings) and reliability analysis demonstrated excellent reliability ($\alpha = 0.92$), 95% CI [0.91, 0.94]. All items were averaged to create a summary score with higher scores indicating higher reported self-presentation efforts.

#### 2.3.2. Disclosure

Six items used to assess comfort with disclosure were adapted from Levy et al. (2018). Participants were asked to evaluate how comfortable (1 = very uncomfortable, 5 = extremely comfortable) they have felt disclosing important health-related information to their healthcare practitioners (See Table 1 for items and prompt). Exploratory factor analysis with maximum likelihood showed that the 6 items loaded on 1 factor. The items showed acceptable reliability ($\alpha = 0.77$), 95% CI [0.73, 0.80] but suggested improved reliability ($\alpha = 0.79$) when we dropped one item about not understanding the healthcare provider’s instructions. Thus, the 5 items were averaged to create a composite disclosure score, and higher scores were interpreted as higher disclosure.

#### 2.3.3. Demographics

Participants were asked to report the frequency of visits to their healthcare providers and race of healthcare provider they visit most often. Specifically, one item asked participants, “How often do you go to a primary healthcare provider?” The second item gave participants a common list of racial/ethnic groups in the US and asked them, “What is the race of that healthcare practitioner?” Other demographic questions inquired about participant’s race, gender, and education (i.e., socioeconomic status).

### Table 1

**Self-presentation and disclosure items included in Study 1 and 2.**

<table>
<thead>
<tr>
<th>Disclosure Items</th>
<th>Self-presentation Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Look/sound smart</td>
<td>1. You do not understand their instructions</td>
</tr>
<tr>
<td>2. Wear your best clothes to make them believe that you are well off</td>
<td>2. You disagree with their recommendations</td>
</tr>
<tr>
<td>3. Show that you know the appropriate medical language</td>
<td>3. You do not exercise or did not exercise regularly</td>
</tr>
<tr>
<td>4. To get them to respect you</td>
<td>4. Your unhealthy diet</td>
</tr>
<tr>
<td>5. To get them to like you</td>
<td>5. You take a certain medication (i.e., deliberately do not mention a certain agent)</td>
</tr>
<tr>
<td>6. Give a good impression of yourself</td>
<td>6. You do not take their prescribed medications</td>
</tr>
</tbody>
</table>

**Note.** Self-presentation and disclosure items included in Study 1 and 2. Instructions for Study 2 differed slightly to reflect the experimental manipulation such that participants were asked: a) “as you imagine how your visit with Dr. Johnson will go, how hard do you expect to work” for the self-presentation items, and b) “as you imagine how your visit with Dr. Johnson will go, how would you feel about sharing certain information with Dr. Johnson” for the disclosure items.

### 2.3.4. Analysis plan

All analyses were completed using R version 4.0.2 (R Core Team, 2021) and relevant packages (e.g., Lüdecke et al., 2020; Revelle, 2022; Wickham et al., 2019; Heinzen et al., 2021; Thulin, 2021). Linear regressions, which were bootstrapped (10,000 samples) when parametric assumptions were not met, were used to explore whether self-presentation and disclosure are associated with racial congruency. We used bootstrapping because it makes fewer assumptions about the data distribution and provides more accurate inferences in such situations (Efron and Tibshirani, 1994). Racial congruency is a grouping variable that categorized interactions into the following: Black-congruent (i.e., Black patients with Black providers), Black-incongruent (i.e., Black patients with White providers), White-congruent (i.e., White patients with White providers). Lack of White participants ($n = 3$) reporting seeing Black providers precluded the inclusion of White-incongruent medical interaction into analyses. Correlations were used to analyze the relationship between self-presentation and disclosure. Lastly, to analyze whether the association between self-presentation and disclosure depended on racial congruency, we ran a linear regression with an interaction term for self-presentation and racial congruency. In this linear regression, gender and educational attainment were used as covariates. Black-congruent medical interaction was used as the reference category within the racial congruency grouping.
2.4. Results

After excluding participants who did not report a Black or White healthcare practitioner, the final sample consisted of 321 participants (53% Black, 59% women, 61% reporting 4-year college or more of educational attainment, M age = 40.51 years, SD = 12.97). Means and standard deviations for disclosure and self-presentation by racial congruency and by participant’s race are reported in Table 2. The bootstrapped linear model fitted to test whether self-presentation is associated with racial congruency revealed that participants in Black-incongruent (Black patient/White provider) interactions reported a pattern of greater self-presentation efforts than those in Black-congruent (Black patient/Black provider) interactions, b = 0.37, 95% CI [0.01,0.72], p = 0.048; Std.b = 0.33 95% CI [0.01, 0.64], p = 0.048. Participants in White-congruent (White patient/White health provider) interactions did not report significantly lower self-presentation than those in the Black-congruent interactions, b = −0.13, 95% CI [−0.4, 0.13], p = 0.32; Std.b = −0.12 95% CI [−0.36, 0.12], p = 0.32. The bootstrapped linear model testing whether self-presentation is associated with the race of the participant revealed that White participants reported significantly lower self-presentation efforts than Black participants, b = −0.27, 95% CI [−0.52, −0.02], p = 0.03; Std.b = −0.24 95% CI [−0.46, −0.02], p = 0.03.

The bootstrapped linear model fitted to assess disclosure’s association with racial congruency suggested that participants in Black-incongruent interactions reported significantly less disclosure than those in Black-congruent interactions, b = −0.34, 95% CI [−0.65, −0.04], p = 0.03; Std.b = −0.36 95% CI [−0.69, −0.04], p = 0.03. Participants in White-congruent interactions reported significantly lower disclosure than those in the Black-congruent interactions, b = −0.36, 95% CI [−0.58, −0.14], p = 0.002; Std.b = −0.38 95% CI [−0.62, −0.15], p = 0.002. The bootstrapped linear model assessing the relationship between disclosure and participant race revealed that White participants disclosed significantly less than Black participants, b = −0.26, 95% CI [−0.47, −0.06], p = 0.01; Std.b = −0.28 95% CI [−0.5, −0.06], p = 0.01.

Correlational analyses with Bonferroni corrections for multiple comparisons revealed a negative relationship between self-presentation and disclosure for all (Black and White) patients (r (319) = −0.28, 95% CI [−0.38, −0.18], p < 0.001), which was of similar magnitude for both Black patients (r (167) = −0.29, 95% CI [−0.42, −0.14], p < 0.001) and White patients (r (150) = −0.34, 95% CI [−0.47, −0.19], p < 0.001). Bootstrapped regression analyses examining the interaction between self-presentation and racial congruency on disclosure were significant (See Table 3). As illustrated in Fig. 1, the association between self-presentation and disclosure was significantly negative for Black patients in Black-incongruent and White participants in White-congruent medical interactions. Notably, this was in contrast with the non-significant association between self-presentation and disclosure for Black participants in Black-congruent medical interactions.

Table 2
Study 1: Means and standard deviations of Black and White participants with Black and White provider.

<table>
<thead>
<tr>
<th></th>
<th>Black-congruent (n = 117)</th>
<th>Black-incongruent (n = 52)</th>
<th>White-congruent (n = 149)</th>
<th>Black patients (n = 169)</th>
<th>White patients (n = 169)</th>
<th>All patients (N = 321)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-presentation</td>
<td>2.39b (1.14)</td>
<td>2.76b (1.27)</td>
<td>2.26a (1.02)</td>
<td>2.51a (1.19)</td>
<td>2.24b (1.02)</td>
<td>2.38 (1.12)</td>
</tr>
<tr>
<td>Disclosure</td>
<td>3.34 (0.87)</td>
<td>3.06 (1.03)</td>
<td>2.98 (0.95)</td>
<td>3.24a (0.93)</td>
<td>2.98 (0.94)</td>
<td>3.11 (0.94)</td>
</tr>
</tbody>
</table>

Note. Study 1: Means and standard deviations (M/SD) of Black and White participants with Black and White provider. Means with different subscripts within the same row are significantly different from each other, p < 0.05. Racial congruency denotes same race patient and provider interaction. Black-congruent is used as the reference category. Descriptive statistics for White-incongruent are not presented as only three White participants reported that they had a Black health practitioner.

Table 3
Study 1: Regression results of the associations between self-presentation and racial congruency on disclosure.

<table>
<thead>
<tr>
<th>Predictors of disclosure</th>
<th>Beta [95% CI] p-value</th>
<th>Standardized Beta [95% CI] p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.32*** [3.1,3.53] p &lt; 0.001</td>
<td>0.22 [0.01, 0.44] p &lt; 0.06</td>
</tr>
<tr>
<td>Self-presentation</td>
<td>0.13 [0.09, 0.03] p &lt; 0.01</td>
<td>−0.14 [0.31, 0.03] p &lt; 0.01</td>
</tr>
<tr>
<td>Black-congruent</td>
<td>0.2 [0.49, 0.11] p &lt; 0.001</td>
<td>−0.21 [0.52, 0.11] p &lt; 0.001</td>
</tr>
<tr>
<td>White-congruent</td>
<td>−0.41*** [0.62, −0.19] p &lt; 0.001</td>
<td>−0.43*** [0.66, 0.23] p &lt; 0.001</td>
</tr>
<tr>
<td>Education: Low ses</td>
<td>0.06 [0.03, 0.27] p &lt; 0.05</td>
<td>0.07 [0.04, 0.28] p &lt; 0.05</td>
</tr>
<tr>
<td>Gender: Man</td>
<td>0 [0.0, 0.2] p &lt; 0.05</td>
<td>0 [0.02, 0.21] p &lt; 0.05</td>
</tr>
<tr>
<td>Self-presentation: Black-incongruent</td>
<td>0.29* [0.56, −0.02] p &lt; 0.05</td>
<td>−0.31 [0.59, −0.03] p &lt; 0.05</td>
</tr>
<tr>
<td>Self-presentation: White-congruent</td>
<td>−0.23* [0.44, −0.01] p &lt; 0.05</td>
<td>−0.24* [0.47, 0.01] p &lt; 0.05</td>
</tr>
</tbody>
</table>

Note. Study 1: Regression results of the associations between self-presentation and racial congruency on disclosure. * indicates p < .05, ** indicates p < .01, *** indicates p < .001. Bolded values indicate outcomes significant at p < .05. Self-presentation was standardized, and results bootstrapped (10,000) after checking regression assumptions.

2.5. Interim discussion

In Study 1, we explored the relationship among race of participant, racial congruency, self-presentation, and disclosure. The results suggested that Black patients report making more self-presentation efforts than White patients. Still, Black patients felt more comfortable with disclosure than White patients. Patients in Black-incongruent medical interactions reported more efforts self-presenting than those in Black-congruent or White-congruent medical interactions. As predicted, we found that greater self-presentation efforts were related to less disclosure in Black-incongruent compared to Black-congruent medical interactions. We also found that greater self-presentation efforts were related to less disclosure amongst White patients who report seeing a White primary care provider. This finding is discussed in further detail in the general discussion.

These findings provide preliminary evidence that while self-presentation can be useful for participants in navigating the health care system, there might be an unforeseen negative consequence for their disclosure of important health information in inter racial medical interactions. However, the correlational nature of the study limited us from causally linking provider’s race to the relationship between self-presentation and disclosure. Study 2 sought to overcome this limitation with a focus on Black patients.
Study 2: experimentally investigating whether providers’ race impacts the relationship between self-presentation and disclosure

3.1. Overview

Study 2 focused on Black participants and experimentally manipulated the race of the healthcare provider in a hypothetical medical interaction. Methods, measures, and hypotheses were pre-registered on the Open Science Framework (OSF link). We predicted that the doctor’s race would moderate the negative relationship between self-presentation and disclosure. Specifically, we predicted that self-presentation would be most negatively associated with disclosure when Black patients thought about interacting with a White doctor than with a Black doctor. Given that Black patients might still expect any doctor regardless of their race to discriminate against them (Malat and Hamilton, 2006), we also explored whether expectations of unfair treatment from the doctor would influence the relationship between self-presentation and disclosure. Lastly, we asked participants to describe why they engage (or do not engage) in self-presentation efforts and why they feel comfortable (or do not feel comfortable) disclosing health-related information to their doctors.

3.2. Methods

3.2.1. Participants

A power analysis (G*-Power, alpha = .05, power = 80%) was conducted with Study 1’s effect size of the interaction focusing on Black participants. It determined that we would need 256 Black participants to detect a similar effect (Faul et al., 2009). Thus, we targeted a sample of 400 Black participants on Prolific (See results section for final sample size and characteristics).

3.2.2. Procedure

Black participants located in the US were invited to participate in a study about their health beliefs and experiences through the online survey platform, Prolific. The platform provided access to valid and reliable responses from a diverse set of participants (Peer et al., 2017). After reading the informed consent form and agreeing to participate in the study, participants were randomly assigned to read the profile of a Black (n = 178) or White doctor (n = 183) and asked to imagine this doctor as their new doctor. All the profiles contained the same

Fig. 1. Study 1: The relationship between self-presentation and disclosure for Black patients varies with racial congruency of the medical interactions. Coefficient estimates in the graph are simple slopes coefficients and their 95% CI are included in the brackets.

Fig. 2. Stimuli used in Study 2 to manipulate the doctor’s race of the hypothetical interaction. The vignette of the doctor’s profile was inspired by past work (Sims et al., 2014). Images were pilot tested with Black participants to optimize similarity on a number of other attributes such as attractiveness, competence, warmth, likelihood of being seen as a doctor, and perceived age.
information about education, experience, awards, accreditation, and name (See Fig. 2). The provider’s profile only differed by their photo and race. We used the same photos from the Chicago Face Database (Ma et al., 2015) that were used in a racial disparity study (Lyons-Padilla et al., 2019). We adapted these pictures by photoshopping a White doctor’s coat on them and pilot tested them on Prolifer on dimensions such as attractiveness, competence, warmth, likelihood of being seen as a doctor, etc. The final photos were piloted with Black participants on Prolifer on dimensions such as attractiveness, competence, warmth, likelihood of being seen as a doctor, etc. On average, the two selected pictures were not significantly different on these attributes. After reading the physician’s profile, participants completed all the same questionnaires from Study 1. Additionally, they also completed the experience of discrimination scale (EOD) (Krieger et al., 2005) and items about unfair treatment expectations. They also completed 4 manipulation check questions about the race and qualifications of Dr. Johnson. Participants completed the study in 15 min and were compensated $3. The study received IRB approval from the author’s institution.

3.3. Measures

3.3.1. Self-presentation and disclosure

We used the same measures of self-presentation and disclosure as in Study 1 (See Table 1). Unlike study 1, prompts for these items referred to participants’ self-presentation efforts and disclosure of health information to “Dr. Johnson” (See Table 1). All 6 items of disclosure ($α = 0.83$, 95% CI [0.8, 0.85]) and all 10 items on self-presentation efforts ($α = 0.92$, 95% CI [0.91, 0.94]) showed strong reliability.

3.3.2. Unfair treatment

We developed 6 items to measure participants’ expectations of unfair treatment. The items assessed the extent to which participants agreed (strongly disagree (1) to strongly agree (5)) on a number of items such as whether Dr. Johnson would “discriminate against” them and “judge them negatively” (See Table S2 in the Supplement for factor loadings). The items ($α = 0.9$, 95% CI [0.89, 0.92]) showed great reliability. Items were averaged to create a summary score with higher scores indicating greater expectations of unfair treatment. Expectations of unfair treatment displayed significantly positive correlations with the experience of discrimination scale (EOD) subscales (Krieger et al., 2005), indicating convergent validity (See Table S3 in the Supplement).

3.3.3. Open-ended items

Two items asked participants to explain why they answered the self-presentation and disclosure items the way they did. The self-presentation item asked: “Thinking back to your responses to these questions about how you might or might not work hard to present yourself in a certain way when interacting with Dr. Johnson, why did you answer the way you did?” and the disclosure item asked: “Thinking back to your responses to these questions about how you might or might not be comfortable disclosing certain information to Dr. Johnson, why did you answer the way you did?” These items were included to supplement the close-ended items and gain insights into some aspects of participants’ perceptions of disclosure and self-presentation that would not be captured by their quantitative responses.

3.3.4. Analysis plan

All analyses were run using the same R version and similar packages as in Study 1. See Table 4 for all summary statistics. To test our pre-registered hypothesis that the race of the doctor moderates the association between self-presentation and disclosure, we ran a linear regression model on disclosure of health information with an interaction term for self-presentation and the doctor’s race (i.e., the experimental manipulation). The model also included covariates such as gender and socio-economic status.

**Qualitative Analysis Plan.** Using a hybrid of inductive and deductive coding (Linneberg and Korsgaard, 2019), both open-ended questions were coded for the mention of conceptually relevant general terms such as race, bias, discrimination, and respect. The rest of coding category labels were generated after reading all responses and based on words frequently used by the respondents. The categories were not mutually exclusive, and a response could be coded in more than one category. Responses to the self-presentation question were also coded for mentions of presenting oneself, performing a part, or representing one’s group. Answers to the disclosure question were coded for responses indicating reasons for disclosing or not.

The coding scheme was then applied to one randomly-selected half of the sample ($n = 180$) to calculate inter-rater reliability. Two coders who identify as Black women dichotomously coded each statement given in answer to the questions: 1 for content relevant to a theme that was explicitly mentioned and 0 if no content relevant to the theme was mentioned in the statement ($ACI = 0.52 - 1$, ranging from intermediate to perfect agreement) (Gwet, 2008, 2014). Once acceptable inter-rater reliability was reached, one coder finished coding the full sample for both questions. Any coded theme that occurred in <5% of responses is not included in the table or the discussion, even if conceptually relevant.

See Table 6 for all percentages of coded themes mentioned by ≥ 5% of respondents and the Supplement for a table with all themes. Logistic regressions were run on themes mentioned by ≥ 5% of respondents to determine if they are associated with reported self-presentation efforts, disclosure, and condition assigned in the study. Thus, self-presentation or disclosure was included as a predictor of these themes controlling for condition (i.e., race of the doctor), gender, and socio-economic status. All results were bootstrapped after checking whether they met the relevant statistical assumptions to reduce biased inferences from the regression results (Efron and Tibshirani, 1994).

3.4. Results

We excluded any participant who did not identify as Black in our demographic questions. We also excluded those who were not seeing a White or Black provider, failed all the manipulation check questions, or did not finish the study. After applying these pre-registered exclusionary criteria, the final sample consisted of 361 Black participants (55.46% women, 43% with 4 year-college degrees or more of educational attainment, 28% unemployed, $M$ age = 33.05 years, $SD = 11.93$). 64.69% reported currently seeing Black providers and 35.31% reported currently seeing White providers.

The results highlighted a significant negative main effect of self-presentation on disclosure of health information (See Table 5). However, counter to our prediction, the relationship between self-presentation and disclosure did not significantly differ depending on the race of the doctor (See Table 5).

### 3.5. Exploratory post-hoc analyses

#### 3.5.1. Unfair treatment

Contrary to our expectations, the race of the doctor that participants

<p>| Table 4 |</p>
<table>
<thead>
<tr>
<th>Study 2: Means and standard deviations of participants in Black and White doctor condition.</th>
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<tr>
<td>Variables</td>
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<td>Self-presentation</td>
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<td>Disclosure</td>
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<td>Unfair treatment</td>
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**Note.** Study 2: Means and standard deviations (M(SD)) of Black participants in Black and White doctor condition. Different subscripts in the same row denote significant difference by condition.
3.5.2. Qualitative analysis

In response to our open-ended items, participants wrote, on average, 27.38 \( (SD = 19.27) \) words about self-presentation and 22.08 words \( (SD = 17.03) \) about disclosure.

**Self-presentation.** Nearly a third of respondents mentioned that they would present their “authentic” or real self to the hypothetical doctor and that he “would get them as they are.” Other participants (22%), however, mentioned that they would try to “perform” or “play a part”: to convey that they were “respectable,” “nice,” and/or “competent.” Mentions of presenting oneself authentically were negatively associated with self-presentation, \( b = -0.86, 95\% CI [-1.2, -0.33], p = 0.005, OR = 0.42 \) and not significantly associated with the race of the doctor, \( b = -0.36, 95\% CI [-1.05,0.39], p = 0.33, OR = 0.7 \). There was no difference by self-presentation efforts or by race of the doctor rather than a male.

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### Table 5

<table>
<thead>
<tr>
<th>Study 2: Primary and exploratory regression results of the associations between self-presentation and disclosure.</th>
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<tbody>
<tr>
<td><strong>Predictors of disclosure</strong></td>
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<td>Intercept</td>
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<td>Self-presentation</td>
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### Table 6

Examples and percentage of participants who mentioned selected themes for self-presentation and disclosure.

**Self-presentation themes**

- **Performativity (22%)**: “I feel that there are certain places where people need to come together and play a certain part. I just want to be and appear competent…”
- **I wanna [sic] present myself well to the new Dr. Johnson because I believe first impression count…”
- **Present authentic self (31%)**: “I would be my authentic self. I would not try to impress…”
- **I naturally carry myself in a very respectable class way, so little to no effort is involved in appearing like a put together person.”
- **Race (11%)**: “He is the same race I am and understands moreso[sic] the pressures I face…”
- **I want him t [sic] address me as a successful professional adult so I need to act in a certain way because he would probably already judge me on my race.”
- **Respect (8.4%)**: “I want mutual respect between myself and my physicians.”
- **…you want to be seen in a good light as a respectable but nice patient rather than one that is hard to work with.”
- **Stereotypes/stigma/bias (6.7%)**: “…being African American sort of stigmatizes me to the medical community…”
- **There is so much bias inside of people … If I can get the doctor to see me a certain way, there is abit[sic] chance I can get great healthcare…”
- **Gender and sex (6.1%)**: “because he is white male.”

**Disclosure themes**

- **Know importance of disclosure (33%)**: “It’s important to disclose all information regarding your health especially if serious.”
- **I have familial experience where people lied to their doctor and their lies led to the prescription of medication that almost killed them.”
- **Openness to sharing with doctor (51%)**: “he seems very as a doctor so i want to be open and honest for the best feedback.”
- **The doctor needs to know important information, I must share everything with him… I also do [sic] mind sharing this info.”
- **Depends on kind of information (20%)**: “…if the information refers to me doing good with my health…not if I had to discuss bad habits.”
- **[sic]certain information is a bit sensitive and portrays me in a bad light so I might feel uneasy about readily sharing it.”
- **Embarrassment (14%)**: “[sic]embarrassed.”
- **…would want to disclose enough information to get diagnosed but not get embarrassed.”
- **Judgement (7.8%)**: “just out of fear of judgement. they know what[sic] best so having someone hear that you are not doing what[sic] best is embarrassing.”
- **I also don’t want to be criticized.”
- **Gender and sex (6.4%)**: “…I would be more comfortable disclosing things to a female doctor rather than a male.”
- **Trust (5.8%)**: “Because I really don’t care I don’t trust Dr. Johnson.”
- **…because I trust him.”
- **Depends on how well patients know the doctor (6.1%)**: “…because I don’t know well much about Dr…”
- **Qualifications of doctor (9.4%)**: “…he has been on this field for long that will gain him a [sic] of experience.”
- **…because he’s a doctor.”

**Note.** Examples and percentage of participants who mentioned selected themes for self-presentation and disclosure. The self-presentation item asked: “Thinking back to your responses to these questions about how you might or might not work hard to present yourself in a certain way when interacting with Dr. Johnson, why did you answer the way you did?” and the disclosure item asked: “Thinking back to your responses to these questions about how you might or might not be comfortable disclosing certain information to Dr. Johnson, why did you answer the way you did?”
person in general. In professional settings like drs [sic] appointments and meetings I do feel a little pressure to present myself a certain way so that I can get the best service and care.”

**Disclosure.** Half of the respondents made some reference to the importance of “openness” and “honesty” and “speaking truth” to the doctor and of the need to share information with him. Further, a third of participants gave some acknowledgment of the importance of disclosure for health. These references to disclosure, including openness to sharing, the type of information to be disclosed, and recognition of the importance of disclosure differed neither by the race of the doctor nor by reported comfort with disclosure. However, some respondents mentioned that their disclosure would depend on the kind of information required (20%), on whether they would feel embarrassed by the information they would have to disclose (14%), or if they worried about being criticized or judged (7.8%). For example, one participant stated, “I would be very comfortable if the information refers to me doing good with my health. I would not be as comfortable if I had to discuss bad habits.” Another participant explained that it is “Just out of fear of judgement. They know what’s best so having someone hear that you are not doing what[sic] best is embarrassing”. Mentions of gender and sex (6.4%) were negatively associated with comfort with disclosure $b = -0.56$, 95% CI [-1.01, -0.05], $p = 03$, OR $= 0.57$.

### 3.6. Interim discussion

In summary, Study 2 replicates Study 1’s finding that self-presentation is negatively associated with disclosure. However, manipulating the race of the doctor in a hypothetical medical interaction did not moderate the relationship between self-presentation and disclosure. Instead, we found that expectations of unfair treatment moderated the relationship such that the more participants expected unfair treatment from the doctor, the more negative the relationship was between self-presentation and disclosure. Coding of open-ended responses provided insights into how some Black patients strategically engage in self-presentation and the considerations they make when deciding whether to disclose certain things to healthcare providers.

### 4. General discussion

Taken together, these studies suggest that patients (both Black and White) who work harder to self-present in their medical interactions also report feeling less comfortable disclosing important health information to their medical providers. For example, any patient–Black or White—who works hard to present as “smart” and “knowing the appropriate medical language” might hesitate to disclose that they “do not take their prescribed medications as instructed” or that they “do not understand the doctor’s instructions.” Given that Black patients face additional pressures to present themselves well in the face of societally pervasive stereotypes of their competence and worth (Malat and Hamilton, 2006; Sacks, 2018), this negative relationship is especially concerning. In Study 1, we found that, overall, Black participants reported engaging in greater self-presentation efforts and feeling more comfortable with disclosure than White participants. However, Black patients who reported having a White primary care provider reported making greater self-presentation efforts and were less comfortable disclosing than those who reported having Black medical providers.

In Study 1, White participants who made greater self-presentation efforts also disclosed less to their primary care providers of the same race. Given the scarce representation of active Black doctors in the field (American Association of Colleges of Nursing, 2019; Association of American Medical Colleges, 2019; Xierali and Nivet, 2018), which makes racially incongruent interactions for White patients less likely to occur, we are cautious about making inferences based on these results. Nonetheless, these preliminary findings imply that the influence of racial congruency in the association between self-presentation and disclosure might differ for Black and White patients. Black patients might self-present in racially incongruent interactions to counteract negative stereotyping. White patients may disclose less for related but different reasons, e.g., to dispel social class stereotypes. For instance, many White patients from low SES contexts perceived being treated poorly, during their medical interactions, because of their SES (Arpey et al., 2017). The authors suggested this perception might reduce the disclosure of crucial information to their providers (Arpey et al., 2017). Given a sufficient sample of White patients seeing Black providers, would results from White-incongruent interactions look like the Black-congruent interactions? White patients are less responsive to treatment administered by Black providers (Howe et al., 2022), which might suggest that they self-present and disclose less in race-incongruent medical interactions. Future research should test these associations with White patients seeing Black providers and explore whether different motivations for self-presentation can explain these findings.

The results of this study combined with previous research on self-presentation has important implications for the concept of patient-centered care. Patient-centered care has been advanced as a way for
patients to advocate for themselves and share in the decision-making process in medical interactions (Epstein and Street, 2011; Sivers and McCabe, 2021). However, the results suggest it might be especially difficult for some patients to take full advantage of patient-centered care when they do not understand or disagree with their providers’ recommended treatment (Bergen et al., 2018). Disclosure of relevant health information might be particularly hard for patients if their providers dominate the conversation in their interactions (Hagiwara et al., 2013; Johnson et al., 2004) and do not give them enough opportunity to disclose such information.

Our exploratory analysis in Study 2 suggests that reducing the negative effect of self-presentation efforts on disclosure may require more than just racial congruence between patients and providers. When we held the race of the healthcare provider constant, the association between self-presentation and disclosure was still negative for participants who expect to be treated unfairly. This finding is consistent with past work showing that Black participants who believe they will be discriminated against regardless of the provider’s race do not exhibit same race preferences for healthcare providers (Malat and Hamilton, 2006).

Exploratory qualitative analysis helped illuminate the dilemma some Black patients face when deciding whether to disclose information to their healthcare providers. These results revealed that a few patients do weigh the kind of information they might have to share and how it might lead to judgment from their medical providers and personal embarrassment. Notably, this was irrespective of their acknowledgment of the importance of disclosure for their health. The fact that only a very small proportion of patients directly mention race in their open-ended questions about disclosure is open to interpretation. It could be that participants in this study which experimentally manipulated the race of the doctor did not consider race to be a relevant factor to mention, that other unassessed factors were more relevant, or that the format of the study and the questions asked did not afford discussion about the role of race. Additionally, given the results showing that expectations of unfair treatment moderated disclosure responses, open-ended questions that asked about expectations of unfair treatment and trust might have prompted discussions on the role of race and racism.

An increase in the number of physicians of color (American Association of Colleges of Nursing, 2019; Association of American Medical Colleges, 2019; Xierali and Nivet, 2018) may increase racially congruent interactions. However, while these racially congruent interactions are a promising avenue to decrease the health disparities gap between White and Black Americans (Alsan et al., 2018) mere representation is unlikely to be sufficient. As one Black participant explained, racial congruence will not be sufficient to get them to open-up to a provider of the same race because they are “educated by the same system perpetuating ignorance.” This suggests the consideration of expectations of unfair treatment as another important aspect in decreasing the health disparities gap.

Careful and repeated signaling to patients that they will be treated with care, respect, dignity, and that they will not be judged based on what they disclose could help reduce the negative relationship between self-presentation and disclosure, and in the process contribute to decreasing Black-White health disparities in the U.S. Such signaling that they will be open and responsive to all patients probably needs to occur even before the interaction. A first approach would be for medical school training to facilitate positive interpersonal contact, during medical school, as that has been associated with subsequent decrease in medical students’ biases towards Black people (Oyeade et al., 2020). A second strategy is for providers to demonstrate to prospective patients that they provide care to diverse groups of patients. In one study, patients expected providers who adopted this approach to be less racially biased (Cipollina and Sanchez, 2020). During a patient-doctor interaction, one approach might be the integration of a peer-network where doctors structurally exchange information when making treatment recommendations as that has been found to reduce racial disparities in treatment recommendations (Centola et al., 2021). Future research should continue identifying ways for healthcare providers to make participants more comfortable disclosing information to them before, during, and after medical interactions.

4.1. Limitations

The evidence for the negative relationship between self-presentation and disclosure is correlational and needs to be further experimentally tested in future studies. Future studies using a similar design to Study 2 should use more ecologically valid design to manipulate the race of providers. For example, the award and other credentials included in our doctor’s profile might have led participants to give him more leeway than they would have to an average doctor. The majority of Black participants in the studies report seeing Black providers. However, there are only 5% of active Black physicians and only 6.2% Black registered nurses in the US (American Association of Colleges of Nursing, 2019; Association of American Medical Colleges, 2019). Thus, our sample is showing selection bias and might not be representative of actual rate of racially congruent medical interactions. Thus, relationships and effects in our studies might be more conservative and smaller than effects from a more representative sample. Future research is needed to examine and replicate these findings in similar and other populations such as Latinx and Asian Americans and, importantly, seek ways to increase trust and decrease expectations of unfair treatment in the healthcare system. Another promising area for future research is to investigate whether doctors’ perception of patients changes when patients self-present given that Black men are still associated with threat even when they self-present using professional attire (Alinor and Tinkler, 2021). These projects will help clarify the theoretical framework and how different experiences with racism, self-presentation, and unfair treatment affect patients’ disclosure of health information in racially congruent and incongruent medical interactions.

5. Conclusions

In the studies presented in this article, we found: 1) consistent correlational evidence that the desire to present oneself well might inhibit the disclosure of health-relevant information, 2) mixed evidence about the role of racial congruence as a moderator of this relationship, and 3) initial evidence of participant’s expectations of unfair treatment as a moderator of the negative relationship between self-presentation and disclosure. Despite its limitations, the results of these two studies further our understanding of the perceived trade-off between self-presentation and disclosure for Black and White participants in their medical interactions. Specifically, this work highlights how self-presentation, despite its perceived utility, may have pernicious effects on disclosure. It provides initial evidence for the catch-22 many Black patients face: How to present themselves well to receive better treatment while also disclosing health-relevant information crucial to diagnosis and treatment that might foster negative stereotypes and thus undermine their positive self-presentation.

Credit author statement

All authors—Kenthsgaun Louis, Alia J. Crum, and Hazel R. Markus—were involved in the investigation, methodology, and manuscript writing (original draft and review/editing). The first author, Kenthsghaun Louis was involved in the project administration, validation, formal analysis, and visualization.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2022.115141. Preregistration for Study 2, R code scripts, and datasets of these two studies can be found through this

