

Communicating with providers about racial healthcare disparities: The role of providers' prior beliefs on their receptivity to different narrative frames

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Highlights

- We tested whether narratives could engage providers with healthcare disparities
- Provider Success narratives led to more participation in training than Provider Bias narratives
- Providers' beliefs about disparities affected which narrative they identified with

Abstract

Objective: Evaluate narratives aimed at motivating providers with different pre-existing beliefs to address racial healthcare disparities.

Methods: Survey experiment with 280 providers. Providers were classified as high or low in attributing disparities to providers (HPA versus LPA) and were randomly assigned to a non-narrative control or 1 of 2 narratives: "Provider Success" (provider successfully resolved problem involving Black patient) and "Provider Bias" (Black patient experienced racial bias, which remained unresolved). Participants reactions to narratives (including identification with narrative) and likelihood of participating in disparities-reduction activities were immediately

assessed. Four weeks later, participation in those activities was assessed, including self-reported participation in a disparities-reduction training course (primary outcome).

Results: Participation in training was higher among providers randomized to the Provider Success narrative compared to Provider Bias or Control. LPA participants had higher identification with Provider Success than Provider Bias narratives, whereas among HPA participants, differences in identification between the narratives were not significant.

Conclusions: Provider Success narratives led to greater participation in training than Provider Bias narratives, although providers' pre-existing beliefs influenced the narrative they identified with.

Practice Implications: Provider Success narratives may be more effective at motivating providers to address disparities than Provider Bias narratives, though more research is needed.

Keywords: healthcare disparities; physician-patient relations; racism; Veterans; attitude of health personnel

1. Introduction

Over the past decade, there has been a surge of training activities for healthcare providers aimed at eliminating healthcare disparities [1]. However, there is scant evidence about how to effectively communicate with providers about this topic. This gap is problematic, as communication that contradicts people's preexisting beliefs can lead to resistance [2] and "boomerang effects," in which the communication has the opposite of its intended effects [3]. Communication about racial healthcare disparities is likely to be susceptible to resistance and boomerang effects, since a considerable number of White Americans feel threatened by evidence of racial inequality [4]. The idea that providers may contribute to disparities may contradict their core beliefs, including the beliefs that they treat all patients equally [5], that racial healthcare disparities are unlikely to occur in their own practice or organization [6-9] and that disparities are due to patient behaviors (e.g., patient mistrust), rather than provider behaviors (e.g., bias) [7, 9-12].

In the present study, we drew upon theories of narrative communication and message framing to develop and evaluate messages aimed at motivating providers to address racial healthcare disparities [13]. Message framing research demonstrates that messages are most persuasive when they tap into recipients' predisposing beliefs [14]. An important predisposing belief related to inequality is the tendency to attribute others' misfortunes to internal factors under an individual's control (e.g., irresponsible behaviors) or to external factors not under the individual's control (e.g., racism)[15, 16]. Past research has often treated political ideology or partisanship as a proxy for these beliefs about causal attributions, finding, for instance, that a message focused on the social determinants of type 2 diabetes was more persuasive for Democrats than for Republicans [17] and that a message that identified the role of personal choices in health disparities produced less resistance among Republicans compared to a

messages that emphasized social factors [18]. These findings suggest that messages about healthcare inequalities that emphasize patient behavior compared to other provider-level or societal-level factors will yield different responses depending on whether these causal attributions resonate with the audiences' preexisting beliefs. However, no such message framing studies have tested this expectation using a provider sample, as the present study does.

The second communication approach on which this study is based is narrative communication. Narratives [defined as “a representation of connected events and characters that has an identifiable structure, is bounded in space and time, and contains implicit or explicit messages about the topic being addressed” (Kreuter, 2007 p. 222)], are an effective way to change beliefs and motivate action [19-21]. Although researchers often use narratives as approaches to influence health behaviors,[20] some researchers have examined the potential of narratives to raise awareness of and garner support for policies designed to address social determinants of health and health disparities [13, 15, 18, 22]. These studies suggest the potential of narratives for delivering messages to providers about healthcare inequality. Although there are no studies that use narratives to shift providers' attitudes or behaviors about health inequity, a few studies have effectively deployed narratives as a communication approach to shift providers' attitudes regarding opioid prescribing [23, 24].

A key mechanism underlying narratives' effectiveness is identification in which one “assumes the identity, goals, and perspective of a character” (Cohen, 2001, p. 261). Identification with has been shown to lead to increased receptivity to a character's attitudes and beliefs (De Graaf et al., 2012; Hoeken & Sinkeldam, 2014), and can intensify emotional reactions (Hoeken & Sinkeldam, 2014). Identification is enhanced when characters are considered likable and like oneself (Cohen, 2001; Hoeken et al., 2016; Murphy et al., 2013) and when stories are told from the first-person perspective (De Graaf et al., 2012; Hoeken & Sinkeldam, 2014).

We sought to examine whether using a narrative intervention would improve providers' self-reported engagement with disparities reducing activities. Moreover, we sought to understand if providers' pre-existing beliefs about disparities affected provider responses to these narratives, including their identification with the stories.

2. Methods

This study is part of a sequential mixed method project to develop and test strategies for communicating with providers about healthcare disparities. This study formally tests hypotheses generated from the prior qualitative study (Phase 1), which explored how different narrative frames might be particularly effective for providers with different preexisting beliefs about disparities [25]. In that study, interviews were conducted with providers who had completed a prior survey assessing beliefs about disparities. Participants were stratified by the degree to which they believed providers contributed to healthcare inequality: High Provider Attribution (HPA) participants believed providers contributed to disparities, while Low Provider Attribution (LPA) participants did not. Each participant read and discussed two narratives about race in healthcare, which varied in their framing of the issue. Raters coded transcripts for indicators of message acceptance and message resistance, blinded to providers' classification, and then explored the types of narrative characteristics associated with these indicators, focusing on differences between HPA versus LPA participants. Two "meta-narratives" were identified. In the "Provider Success" meta-narratives, barriers involving a patient of color were resolved through effective communication by the provider/narrator (e.g., expressing empathy toward the patient). These narratives tended to elicit acceptance among all providers, which often took the form of identification with the narrator. In "Provider Bias" meta-narratives, problems faced by the patient of color were more explicitly linked to racism and, crucially, remained unresolved by

the end of the story. These narratives elicited acceptance from HPA participants and resistance from LPA participants.

The present quantitative study (Phase 2) formally tested the hypothesis, derived from Phase 1, that a “Provider Success” narrative, in which interpersonal barriers involving a Black patient were successfully resolved by the provider narrator, would be more effective at engaging all participants, while the “Provider Bias” narrative, in which problems faced by the Black patient were explicitly linked to racism and remained unresolved, would differ in effectiveness based on providers’ causal beliefs. The primary outcome was self-reported participation with an online health disparity training course, assessed by survey four weeks after the intervention as a measure of commitment to reduce disparities. Secondary outcomes included participation in other disparity-reduction activities, assessed 4-weeks post-intervention, and identification with the story and intentions to engage in disparity-reduction activities, assessed directly after the intervention.

2.1. Setting. This study was conducted within the Veterans Health Administration (VHA) of the Department of Veterans Affairs (VA). The VHA is the largest integrated healthcare system in the United States, serving more than 8.9 million Veterans each year [26].

2.2. Study Overview. A randomized survey experiment was fielded March 14, 2016 through June 1, 2016 to 1,934 providers from four VHA facilities, in three regions of the United States: the Northeast, the South and the Southwest. We obtained a list of all clinicians from these facilities that were associated with the following clinics: Anesthesiology, Dentistry, Dermatology, Geriatrics, Medicine, Mental/Behavioral Health, Neurology, Nursing (only nurse practitioners), Optometry, Pharmacy, Primary Care, Rehabilitation, and Surgery. We emailed providers and invited them to participate in a study to develop educational initiatives about healthcare for culturally and ethnically diverse patients. Because of VHA regulations, we were

not able to offer an incentive for participation. We received a waiver of informed consent from the VA Central Institutional Review Board.

Providers first completed a screening question assessing their causal beliefs about disparities (described below) and then were randomly assigned to either a non-narrative control (no message) or 1 of 2 narratives (Provider Success versus Provider Bias). Participants who were assigned to read one of the narratives answered a 4-item measure of identification (described below). All participants were then provided with evidence about racial healthcare disparities in VA, including evidence about how VA providers may contribute to those disparities.

Participants then were given the opportunity to access several resources to address healthcare disparities, through hyperlinked content. These resources included: 1) links to further information about healthcare disparities; 2) links to use the “Knowledge Now” guide, an educational tool developed by the VA's Office of Health Equity to promote discussions on unconscious bias and cultural competence, and 3) links to a 3-minute video on cultural competence, and additional resources on health equity. All participants were asked about their likelihood of using those resources to reduce disparities in the next 4 weeks.

One week after they completed the initial survey, participants received an email, reminding them about the opportunity to utilize the online health disparity training course (the “Knowledge Now” guide) and watch the 3-minute video, using the links provided. Four weeks later participants completed a brief survey to assess whether they participated in the online course (the primary outcome) and whether they participated in other activities related to improving the care of patients of color.

2.3. Screening Question. The screening item stated: “It has been documented that minority patients in the VA, on average, receive lower quality healthcare than White patients. In your opinion, how much does each of the following factors contribute to these racial differences

in healthcare quality: patient behavior, provider behavior, the social and economic conditions in which patients live.” Participants responded on a 7-point scale anchored by 0 = not at all and 6 = a great deal. High provider attribution (HPA) was defined as a score of greater than or equal to three on the question about providers’ contribution to racial healthcare disparities whereas low provider attribution (LPA) was a score of two or lower. This measure and the use of this cut-point to divide the two groups was validated in the Phase 1 qualitative study described above [25] and is presented in Appendix A.

2.4. Narrative content. We tested the effects of two types of narratives that the study team constructed based on narratives used in the previous qualitative study. Both narratives (presented in Appendix B) were based on true stories, told from the perspective of a provider, and involved a Black patient, “Mr. Jones,” a Vietnam veteran who was no longer able to work as a landscaper after he developed complications from diabetes.

In the Provider Success narrative, the narrator describes how Mr. Jones was an “angry, irritable guy” who caused problems for the residents and the nursing staff. The narrator listened to Mr. Jones’s story, including Mr. Jones’s experience of feeling like he was being treated like a “poor Black guy” by the staff, and then relayed that story to the house staff. The narrator closed by describing how the experience was “transformative” for him, the patient, and the house staff.

In the Provider Bias narrative, Mr. Jones also described feeling that he was perceived as a poor Black guy by the staff. The narrator described how Mr. Jones, who had severe vascular disease, was told by the vascular surgeon that he was not a good candidate for surgery and subsequently developed a severe foot infection and ended up with an amputation. The narrator described his anger about Mr. Jones being unfairly denied the surgery, which was compounded by the fact that a White patient with the same presentation, admitted to the same hospital,

received different treatment (arterial bypass surgery) and had a successful outcome. The narrator identifies this unequal treatment as an example of racial disparities.

2.5. Primary outcome measure. The primary outcome was self-reported participation in the online training course (Knowledge Now), as indicated on the follow-up survey, four weeks post-intervention. Participants were asked whether they: 1) looked at the “Knowledge Now” guide, 2) used the guide, and 3) watched the video. For each engagement item, there were four response options, indicating whether participants engaged with the entire resource; engaged with a part of the resource; did not engage with the resource but plan to do so in the future; and did not engage with the resource and do not plan to. Responses to these options were dichotomized into “engaged” (if they engaged with the entire resource or a part of the resource) and “non-engaged” (if they did not engage with the resource but plan to do in so in the future; did not engage with the resource and do not plan to). Participants who were classified as “engaged” for any of the 3 engagement items were classified as “engaged” for the primary outcome. We also examined each of the 3 individual components of the engagement measure.

2.6. Secondary outcome measures. On the follow-up survey, participants were also asked whether they had done any of the following activities in the past month: “I talked with colleagues about ways to address specific healthcare needs of minority patients”; “I worked with a community group to address a local health problem”; “I participated in a quality improvement project at my place of work to increase quality of care for minority patients”; “I participated in a quality improvement project at my place of work to increase quality of care for minority patients.” Responses were assessed on a 5-point Likert scale that ranged from strongly agree to strongly disagree.

Identification was assessed by the following four items on the baseline survey, which were based on the Phase 1 qualitative study: “I found the story believable”; “I identified with the

narrator of the story”; “I respected the narrator of the story, I admired the narrator of the story. Items were assessed on a 5-point scale, anchored by “strongly disagree” (1) and “strongly agree” (5). A composite variable was calculated using the mean score for all 4 items. Cronbach’s alpha was .89

Intentions to engage in disparity-reduction activities was assessed on the baseline survey by the following six responses to the question, “How likely are you to do the following in the next 4 weeks?” “Look at the guide”; Watch one of the videos”; “Check out the resource link”; “Go through the entire guide (including the exercises)”; “Make plans to use this guide at a future team meeting”; “Recommend the guide to someone else”. Responses to survey questions were assessed on a 6-point scale (extremely unlikely, unlikely, neutral, likely, extremely likely, I already did this). A composite variable was calculated using the mean score for all 6 items. Cronbach’s alpha was .93

2.7. Demographic and practice characteristics. Demographic and practice characteristics were assessed on the baseline survey, and included age, gender, racial/ethnic identification, whether one was born in the U.S., attended medical school in the U.S., professional status, self-reported percentage of non-White patients seen; participation in cultural competency training (Yes or No) and hours of cultural competency training

2.8. Statistical methods

For all results, generalized linear mixed model regression analyses was used. For Table 2, the regression model used a binary distribution and the model included the main effects and interaction of treatment group and provider beliefs about disparities. For Table 3, the analysis was conducted in the same fashion; however, since the message acceptance dependent variable was continuous, mean score with assumption of a normal distribution was used.

3. Results

3.1. Participants

A total of 1934 employees were emailed a baseline survey (See Figure 1). Of these, 518 employees agreed to be randomized, which represents 26.8% of those emailed a survey and 31.8% of those with valid email addresses. At baseline, 324 of the 344 participants in the two narrative arms had complete “identification” data. Of the 518 participants randomized, 280 had primary outcome data at follow-up and are the primary focus of these analysis.

Demographic and practice characteristics of providers with primary outcome data, broken down by high versus low provider attribution for healthcare disparities, are presented in Table 1. The sample was 63.4% women and 63.2% White, and included 119 LPA and 161 HPA participants. About 54.7% described having had cultural competency training. Participants were asked to estimate the proportion of their patients that were non-White. The average estimate across the sample was 49.8%. Provider classification as HPA versus LPA (higher or low in attribution of racial disparities to providers) did not differ by demographic or practice-related characteristics, with the exception of provider race and occupation ($p < .10$). HPA participants were more likely to describe themselves as Black or African-born and less likely to describe themselves as Asian and Latino. HPA participants were less likely to be physicians and dentists, and more likely to be psychologists and social workers.

3.2. Primary Outcome

For the primary outcome, self-reported participation in the online training course (Knowledge Now), four weeks post-intervention, we found partial support for our hypothesis that (1) the Provider Success narrative would be more effective at engaging all participants, and (2) the Provider Bias narrative would differ in effectiveness based on provider's causal beliefs (see Table 2). Although neither the interaction between treatment condition and provider belief ($X^2 (2, N = 280) = .74, p = .69$) nor the main effect of provider belief ($X^2 (1, N = 280) = .06, p =$

.80) were significant, there was a main effect of narrative type ($X^2(1, N = 280) = 6.42, p = .05$). Post hoc contrasts revealed that the Provider Success narrative was the most effective, with 73.5% of participants in the Provider Success condition reporting participation, compared with 58.0% of participants in the Provider Bias condition ($p = .03$) and 58.2% of participants in the No-Narrative control condition ($p = .03$).

Examination of the three components that comprised the primary outcome revealed that the effects of treatment condition on participation were driven by differences on whether participants watched the video ($p = .010$); effects on reading or using the guide were not statistically significant (all p 's $> .05$).

3.3. Secondary Outcomes

The effects of provider belief, narrative type and the interaction of the two were not statistically significant for any other self-reported disparity-reduction behaviors assessed 4 weeks post-intervention (all p 's $> .05$), nor on composite measure of intention to engage in or engagement in disparity-reduction behaviors immediately following narrative presentation. (**all p -values $> .05$**).

Identification with the narrative was measured for participants in the two narrative conditions ($N=324$) who completed the baseline survey. We found support for our hypothesis that participants would identify more with the provider success narrative, and that identification with the provider bias narrative would differ based on provider's causal beliefs. There was a significant narrative-type by provider-belief interaction for identification $F(1, 320) = 5.57, p = .0188$, (see Table 3). LPA participants identified less with the Provider Bias than with the Provider Success narrative [$F(1,320)=21.74, p = <.0001$], whereas HPA participants identified similarly with both narratives [$F(1,320)=1.69, p = .19$].

4. Discussion and Conclusion

4.1. Discussion. To our knowledge, this study is the first to use experimental methods to examine providers' responses to communication about racial/ethnic healthcare disparities, including how providers' prior beliefs affect their responses, and the first to examine the effectiveness of narratives as a vehicle for engaging providers on this issue. We hypothesized that the Provider Success narrative would be more effective at engaging all participants, and the Provider Bias narrative would differ in effectiveness based on provider's causal beliefs. We found partial support for this hypothesis for the primary outcome of engagement. Responses to the Provider Bias narrative did not differ based on providers' causal beliefs. Instead, the Provider Success narrative was more effective at engaging all participants than Provider Bias narrative and No-Narrative control. This effect was driven by one of the three components of this measure: whether participants watched the video. Our hypothesis was confirmed for our measure of identification with the narrative. Those who did not believe that providers contributed to disparities (LPA participants) identified less with a narrative in which a Black patient experienced racially biased care (Provider Bias narrative) compared to a narrative in which a Black patient's difficult behaviors were successfully resolved by the provider (Provider Success narrative). By contrast, among participants who believed that providers contributed to disparities (HPA participants) there were no significant differences in identification with the narratives.

4.2. Practice Implications

Our finding, that LPA participants identified less with a Provider Bias narrative than a Provider success narrative underscores the need to carefully consider how messages about racial healthcare disparities are framed, and raises important questions for those involved in communicating about disparities. One question is whether messages should use a Provider Success frame—which was essentially about using patient-centered communication to overcome

barriers associated with the patient's race. This frame fits into the traditional cultural competency paradigm, which teaches providers the communication skills they need to address the patient's culture [31] and the successful outcome may also increase provider's feelings of self-efficacy [32]. An emphasis on communication skills is important as provider communication with non-White patients is of poorer quality than communication with White patients [33, 34].

However, a critique of the Provider Success frame, which has been levied against the cultural competency paradigm, is that it focuses on the behaviors of the patient of color, rather than on systemic biases inherent in healthcare and the larger society [35, 36], and thereby could reinforce an individualistic ideology, dominant in the United States, in which individuals (e.g., patients) are responsible for fixing their own problems [37]. By contrast, the Provider Bias frame is consistent with newer recommendations for cultural competency programs and interventions to address disparities among providers. For instance, in the Tool for Accessing Cultural Competence Training (TACCT), knowledge about system-level and provider-level contributors to disparities, such as institutional racism and provider bias [38] are part of the learning objectives. Understanding how best to communicate about these topics, particularly to learners who may be likely to resist such messages, is an important area for future research.

The fact that the presentation of a single narrative did not influence behavioral intentions and only influenced one of the behaviors examined is consistent with broader health communication literature, which finds that behavior change often requires repeated administration of and exposure to messages [39] and/or concurrent efforts to support such changes, such as public policy or media advocacy [40]. Within healthcare organizations, changes to the broader formal practices and informal norms is likely to be required to engender behavior change, in addition to communication efforts.

4.3. Limitations

While we received some support for our hypotheses, challenges with using complex metanarratives require discussion. We chose to test two narratives that differed along multiple dimensions, which mapped onto the two “meta-narratives” we identified in our previous qualitative work; hence it was not possible to disentangle the specific features in each narrative that drove the study results. One notable difference, for instance, between the narratives is that the Provider Success narrative was patient-centered (describing the negative experiences of the protagonist patient of color but without explicitly describing disparities with other patients) whereas the Provider Bias narrative explicitly identified a healthcare treatment disparity with a White patient. Future studies should test a range of narratives, so different features could be systematically varied. Additionally, the fact that we used only two narratives limits the scope of conclusions we can draw from these data. Ideally, multiple narratives to capture a single construct could be tested, to ensure that extraneous features of narratives do not determine the results.

It is also possible that our relatively low response rate could have resulted in a sample in which providers who participated were more knowledgeable about disparities compared to providers who did not participate. Additionally, participants in this study were all VHA providers. While racial disparities have been documented in many areas of VHA care and continue to persist, the VHA has invested in a wide range of efforts to eliminate them, and have met with some success [28-30]; hence, VHA provider responses may not generalize to providers outside the VHA. Finally, some of our behavioral outcomes, such as working with a community group to address a local health problem or participating in a quality improvement program, might not have been the appropriate or realistic, given that the follow-up period was only 4 weeks.

4.4. Conclusion

Provider Success narratives were more engaging than Provider Bias narratives, although providers' pre-existing beliefs about the causes of racial and ethnic healthcare disparities affected their identification with narratives that varied in their framing of the topic. This study provides a foundation for developing effective approaches for communicating with providers about racial and ethnic healthcare disparities.

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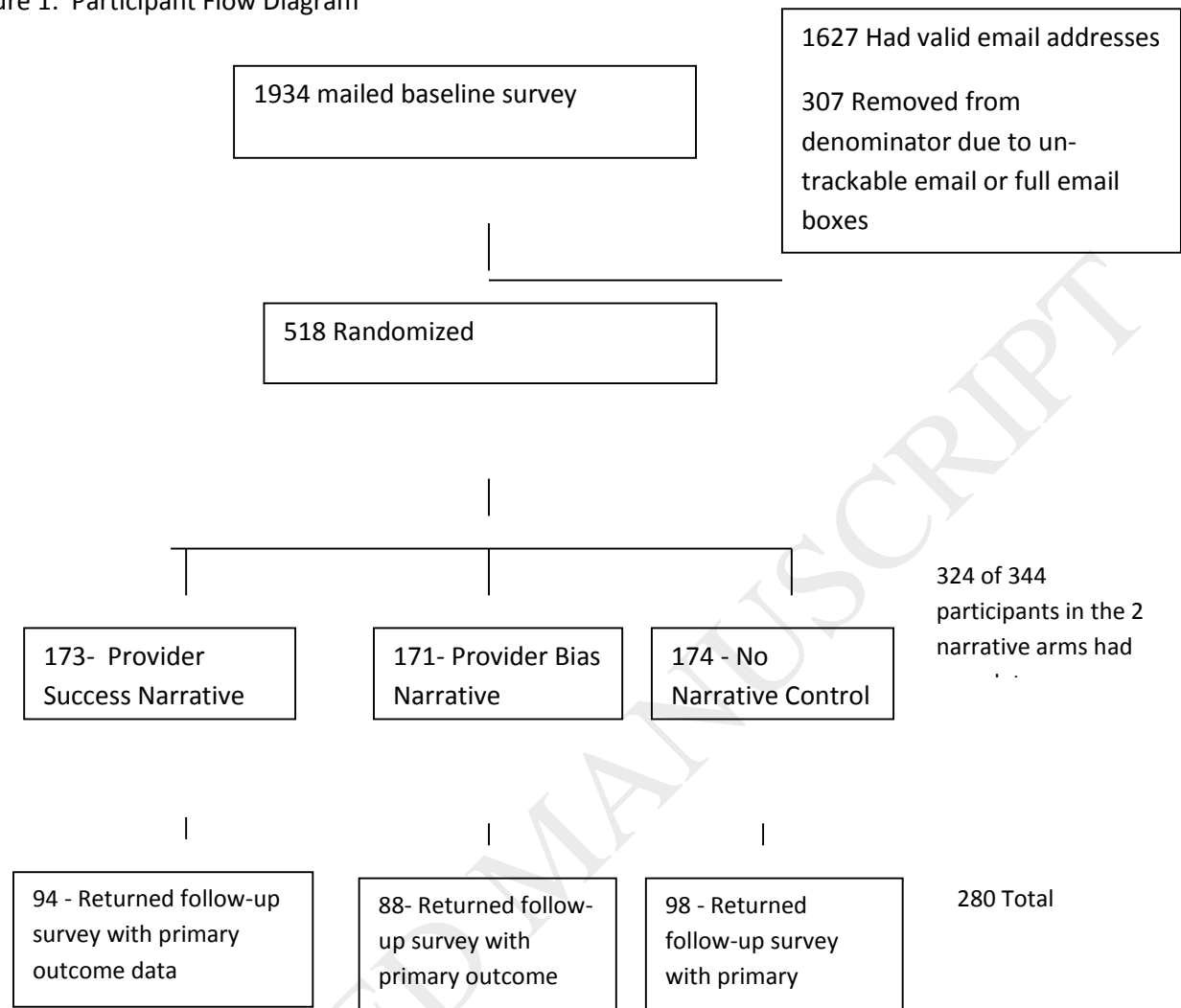
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Figure 1. Participant Flow Diagram



Appendix A.

Validation of the screening question among survey participants (N = 240)

Procedures: Data for this validation were collected from January to December 2014, via a survey conducted at two large Midwestern VA Medical Centers and one VA Medical Center in the Southern region of the U.S. Physicians, nurse practitioners, and physician assistants working in VA primary care and specialty clinics were eligible to participate. We obtained a list of all physicians, nurse practitioners and physician assistants from the three facilities from the VA intranet (N=637). We initially recruited participants through email. Given low response rates, we changed our recruitment approach to include in-person recruitment, in which the investigator at each site provided information about the study at staff meetings and invited providers to complete the survey, on paper or online. 134 participants completed the survey online and 139 completed a paper survey. The response rate for one of the sites was 59%. The response rates for the other two sites were lower (31% and 27%) because we were not able to track the surveys that were not deliverable. All surveys were self-administered and took 10-15 minutes to complete.

The survey included the screening item to assess providers' perceptions of the causes of racial healthcare disparities, modeled after previous work[41]: "It has been documented that minority patients in the VA, on average, receive lower quality healthcare than white patients. In your opinion, how much does each of the following factors contribute to these racial differences in healthcare quality: patient behavior, provider behavior, or the social and economic conditions in which patients live." Endorsement of each factor was measured on a 7-point scale (0=not at all, 6=a great deal). We also included validation items, which assessed providers' beliefs about

the extent to to identify how specific patient, provider, and organizational factors such as providers' biases, and patients' health behaviors contribute to differences in healthcare for minority patients, using the same 7-point scale as well as other items assessing providers' beliefs about healthcare inequality.

High provider attribution (HPA) was defined as a score of greater than or equal to three on the question about providers' contribution to racial healthcare disparities whereas low provider attribution (LPA) was a score of two or lower. Quantitative analyses demonstrated the validity of this screening question and the use of this particular cut-point to divide the two groups. Specifically, HPA participants were more likely than LPA participants to endorse specific provider-level and system-level factors as contributing to healthcare disparities including: difference in provision of specialty referrals ($p < .0001$), provider workforce diversity ($p < .0001$), provider attitudes and beliefs about minorities ($p < .0001$), lack of time/resources to address social issues ($p < .0001$), patient social/economic circumstances ($p < .0001$), differences in prescribing medication ($p < .0001$), poor provider communication ($p < .0001$), and provider biases in decision-making ($p < .0001$). HPA participants were also more likely to endorse the statements: minority patients receive lower quality health care than white patients ($p < .0001$) and the VA healthcare system treats people unfairly based on race/ethnicity ($p < .0001$), although endorsement of this latter question was low among both groups. Classification as high versus low was not significantly associated with having had cultural competency training related to healthcare disparities although those classified as high were more likely to find their cultural competency training to be helpful.

Classification was not significantly associated with gender, age, being U.S. born, or current professional status, percentage of patients who are non-white, or provider race/ethnicity. However, thirty-nine percent of whites were classified as low, whereas 0% of blacks, 29% of

Hispanics, 36% of Asians were classified as low. The two providers who identified as American Indian also were classified as low.

Appendix B. Narratives

Provider Success Narrative

The residents and myself, and to some degree the nursing staff, really had trouble getting along with Mr. Jones. He was seen as an angry, irritable guy who was continually looking for opportunities to catch the team doing the wrong thing. I'm sure that all of us did not like to go over to his room because of this attitude and, although I don't think we talked about it explicitly. I think that he made some assumptions about that. I think that race was an issue for him. It was part of his anger.

So, when I came on the service Mr. Jones had a diabetes foot ulcer that was not healing well and some other medical problems that were keeping him in the hospital. The residents said "this guy is really a lot of trouble. He's driving us crazy because when we go in there he beats us up verbally and really is mean to us." And so he became the person that they least wanted to see. He was the last one they saw on rounds, they spent the least amount of time with him because it was a harsh environment for people to be in and they were stuck. They didn't know how to deal with it. I don't know for sure, but I have to guess that their reluctance to spend time with him could have affected the type of care he received.

I had some encounters with him and he didn't cut me any slack either. I think he was particularly rough on the younger people but he was rough on me too and so I decided to lean into it a little bit with a curious stance, and so on a weekend after I was done with rounding, I set aside some time to sit and talk with him and hear his story. It was a fascinating story. Even though I have been working in an inner city practice for the past 20 years, his story was transformative for me.

Mr. Jones was a combat veteran in Vietnam. He had some PTSD, he even had some injuries but he was very productive for the next twenty years of his life. He was able to work on

a landscaping crew and was seen to have leadership qualities and he was clearly a very intelligent guy. He worked his way up through this landscape company, they sent him off to school to get some special training and he was leading crews and doing landscape design and then had his own business. He was successful in many ways – he raised a family and at one time supervised thirty people. Then he started to get sick with his diabetes and the diabetes gave him coronary artery disease. He got peripheral vascular disease; he had neuropathy and he just became physically disabled and was in tremendous pain. Things rotted on him over some time period to the point where he lost all of those things and he was in many ways understandably bitter about his misfortunes and carried a lot of this anger. He was bitter about how people treated him, that they had made assumptions about him, that he was a poor Black guy. He felt that people didn't get him and didn't know him and he was just really indignant about the fact that people didn't respect his position so the only way he could kind of control things would be to use his intelligence and his bullying to control the situation and release some of his anger. And so anybody in the medical field was kind of a target for his anger and he told me that he felt like he was being treated like a poor Black guy in so many words - and part of his resentment was also a lifelong feeling of being a minority and having to work extra hard to get what he had. And now he was sliding back in his status.

The fact that I just listened and listened and wanted to hear about him was really transformative for our relationship and it softened my heart tremendously and so I went back and relayed the story to the house staff. It's interesting how he responded to us being interested in him as a human being rather than interested in his leg. This experience made me realize how important it is for all of us, as clinicians, to address issues of race in the work we do.

Provider Bias Narrative

Even though I have been working in an inner city practice for the past 20 years and know first-hand the struggles my patients experience in their daily lives, I still get angry when I think about what happened to that a patient of mine, Mr. Jones. Mr. Jones was an African American man who was a combat veteran in Vietnam. He had PTSD and a few injuries, and he could be irritable but he had been steadily employed. He was able to work on a landscaping crew and was seen to have leadership qualities and he was clearly a very intelligent guy. He worked his way up through this landscape company, they sent him off to school to get some special training and he was leading crews and doing landscape design and then had his own business. He was successful in many ways – he raised a family and at one time supervised thirty people. Yet as he got older, he started to develop complications from diabetes. He had peripheral vascular disease and neuropathy and over time he became physically disabled and was no longer able to work.

Things got worse when Mr. Jones developed a painful wound on his foot. He ended up being hospitalized with an infected foot ulcer. He was treated with antibiotics and was seen by a wound care nurse, but he was never evaluated by a vascular surgeon. He was in a lot of pain while he was in the hospital, but the doctors were so reluctant to give him pain medications that he finally stopped asking for them and was sent home without anything to treat his pain.

Mr. Jones suffered for several weeks before coming to see me. He angrily recounted how the doctors in the hospital patronized him as someone who didn't take care of himself. He was bitter about how the people in the hospital treated him, that they had made assumptions about him, that he was a poor Black guy and a drug seeker. After examining Mr. Jones I ordered peripheral arterial studies, which showed severe vascular disease in the foot with the ulcer. I referred him to a vascular surgeon who told him he was not a good candidate for surgery. A few months later, Mr. Jones developed a severe foot infection and ended up with an amputation.

What compounded the anger I felt was that I had a white patient, about the same age as Mr. Jones, who was admitted to the same hospital with the same presentation. However, this white patient was managed very differently. He was given adequate pain medication and had arterial studies done in the hospital, which as in the case of Mr. Jones, revealed severe vascular disease. A surgical consult was ordered right away, and my patient soon received arterial bypass surgery. His wound healed and now he is able to walk a mile a day without pain.

When I contrast the experience of Mr. Jones to that of my white patient, I am disheartened. Racial stereotypes and racial discrimination have no place in medicine. This experience made me realize how important it is for all of us, as clinicians, to address issues of race and disparities in the work we do.

TABLE 1: Comparison of LPA vs HPA participants with primary outcome data

Variable N (%) Unless Indicated	Total N=280	LPA N=119	HPA N=161	P-Value
Gender, N(%)				
M	100 (36.6)	46 (39.7)	54 (34.4)	0.37 ^a
F	173 (63.4)	70 (60.3)	103 (65.6)	
Missing	7	3	4	
Age				
Mean	50.01	50.12	49.92	0.88 ^b
Std Dev	10.58	10.66	10.56	
Race				
White	172 (63.2)	75 (64.7)	97 (62.2)	0.05 ^a
Black	30 (11.0)	6 (5.2)	24 (15.4)	
African-born Black	7 (2.6)	2 (1.7)	5 (3.2)	
Asian	45 (16.5)	21 (18.1)	24 (15.4)	
Latino	12 (4.4)	7 (6.0)	5 (3.2)	
NA	1 (0.4)	1 (0.9)	0 (0)	
Other	5 (1.8)	4 (3.5)	1 (0.6)	
Missing	8	3	5	
Born in the U.S.				
No	71 (26.0)	35 (30.2)	36 (22.9)	0.18 ^a
Yes	202 (74.0)	81 (69.8)	121 (77.1)	
Missing	7	3	4	
Occupation				
Nurse Practitioner	44 (16.1)	22 (19.0)	22 (14.0)	0.08 ^a
Physician	125 (45.8)	56 (48.3)	69 (44.0)	
Physician Assistant	19 (7.0)	8 (6.9)	11 (7.0)	
Psychologist	35 (12.8)	7 (6.0)	28 (17.8)	
Social Worker	14 (5.1)	5 (4.3)	9 (5.7)	
PharmD	3 (1.1)	1 (0.9)	2 (1.3)	
Dentist	9 (3.3)	7 (6.0)	2 (1.3)	
Physical Therapist	1 (0.4)	0 (0)	1 (0.6)	

Variable N (%) Unless Indicated	Total N=280	LPA N=119	HPA N=161	P-Value
Other	23 (8.4)	10 (8.6)	13 (8.3)	
Missing	7	3	4	
Percentage of non-White patients				
Mean (Standard Deviation)	49.8	49.7	50.8	0.98 ^b
Std Dev	20.6	20.1	21.1	
Had cultural competency training				
No	122 (45.4)	58 (50)	64 (41.8)	0.18 ^a
Yes	147 (54.7)	58 (50)	89 (58.2)	
Missing	11	3	8	
Hours of cultural competency training				
Mean	12.07	11.80	12.25	0.93 ^b
Std Dev	27.57	28.90	26.86	

^a Pearson's Chi-Square

^b Two Sample T test

Table 2. Effects of treatment condition on engagement

Variable	Provider Success N = 94	Provider Bias N = 88	No-Narrative Control N = 98	Main effect	Provider Success vs. Provider Bias	Provider Success vs. Control	Provider Bias vs. Control
	% (95% CI)			p-values			
Primary Outcome (Any engagement)	73.5 (63.5, 81.5)	58.0 (47.4, 67.9)	58.2 (48.2, 67.6)	0.05	.03	.03	.98
Components of primary outcome							
Read guide	46.7 (36.7, 56.9)	39.7 (29.9, 50.3)	43.0 (34.4, 53.8)	.64	.343	.70	.57
Used guide	12.6 (7.19, 21.1)	12.37 (6.93, 21.1)	10.2 (5.54, 17.9)	.85	.97	.60	.63
Watched video	67.1 (56.9, 75.9)	50.1 (39.7, 60.4)	45.9 (36.3, 55.9)	.01	.02	.004	.58
Secondary outcomes							
Talked with colleagues	42.8 (33.1, 53.2)	44.9 (34.8, 55.5)	48.9 (39.1, 58.7)	.70	.77	.41	.60
Worked with community group	15.1 (9.11, 24.0)	18.3 (11.5, 27.9)	14.3 (8.63, 22.8)	.74	.56	.87	.46
Participated in quality improvement project	12.0 (6.75, 20.5)	13.8 (7.99, 22.8)	10.2 (5.54, 17.9)	.75	.72	.69	.45

Table 3: Identification with narrative

Variable	Total N=324	LPA – Provider Success N=64	LPA_Provider Bias N=72	HPA – Provider Success N=100	HPA_Provider Bias N=88
Identification Mean (SD)	3.96 (.78)	4.09 (.58)	3.44 (.78)	4.24 (.65)	3.97 (.83)

Note: As described in Figure 1, 324 of 344 participants in the 2 narrative arms had complete “identification” data.