Doctor Interaction: Is there discriminatory treatment at play?

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Research Report by Kennedy Skipper and Jade Meekin

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Abstract

While research on healthcare disparities exist, specifically about racial disparities and pain, no studies have explored how these implicit biases impact young adults and their social interactions with their doctors. This study explored how race, age, and gender impacts the way that their medical professionals interact with their patients. A survey was sent out to many students of Purdue University where they answered various questions regarding their doctor visits. African American participants reported feeling as though their medical doctors were unwilling to pursue more extensive or serious treatment when compared to the responses of Caucasians, Asians, and other ethnicities. A larger percentage of African Americans, when compared to other races, also felt as though their symptoms were ignored by their medical doctors.

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Introduction

Disparities within healthcare in the United States have fueled a conversation about whether the race of a patient has an impact on how well their medical professionals listen to them about their pain and therefore treat their complaints and concerns.

In previous research, the correlation between race and the way that medical professionals chose to treat said pain was explored through many studies which utilized the Race Attitude Implicit Test (IAT), sample cases, also known as case vignettes, and survey methods in some combination to determine if implicit biases cross over into the way that a medical doctor treats their patient. A study conducted by scholars Sabin and Greenwald utilized three different IAT tests, known as the Race IAT, the Race-Medical IAT, and the Race-Medical Compliance IAT, to measure implicit biases in the various ways that a medical professional may think of their patient while treating them (Sabin & Greenwald, 2011). They then utilized these tests to determine if there was an implicit bias when medical doctors were given four sample cases for the treatment of a urinary tract infection (UTI), attention deficit disorder (ADHD), asthma, and the overall pain of a black or white patient. The study conducted by Sabin and Greenwald found that while there were "no significant associations between implicit attitudes and stereotypes about race and any of the treatment recommendation options for UTI, ADHD, and asthma", medical professionals that held implicit bias favoring white people were less likely to prescribe a narcotic for a black patient with pain than a white patient. This occurred as a result of some medical doctors having implicit biases that black patients are less compliant than white patients (Sabin & Greenwald, 2011).

The negative assumption that black patients are less compliant than their white counterparts unintentionally impacts the way that black patients are treated and therefore deprives them of the necessary care that they need and deserve from their medical doctors. Scholars Hoffman and others also determined that implicit biases held by medical professionals have an impact on the way that they treat their patients. Hoffman's study explored the question of whether or not "racial bias is related to false beliefs about biological differences between blacks and whites" such as incorrect assumptions that black people do not feel as much pain when compared to their white counterparts, or that white people are more fragile in-regards-to their bone structure (Hoffman et al, 2016). Hoffman found through thorough research that because of implicit biases black patients "were significantly less likely than white patients to receive analgesics for extremity fractures in the emergency room, [only 57% of African American patients compared to 74% of Caucasians], despite having similar self-reports of pain" (Hoffman et al, 2016). These biases, while not explicit in presentation, have a clear and significant impact on the way that some medical professionals choose to treat their patients.

Through previous research, the connection between the race of a patient and the way that their medical professionals interact with them when in a clinical setting has been explored as well. In a study conducted by Tanya Strivers and Asifa Majid, the scholars researched the question of whether or not components such as race, socioeconomic status, and education level has an impact on whether or not the doctor directs questions to the parent or the child. Strivers and Majid found that "if the parent is black, then the odds that the child will be selected to answer the question decrease by 78%, in contrast to cases where the parent is white" (2007). Strivers and Majid attributed this decrease in question asking to either medical doctors believing that black children are less competent when compared to

their white counterparts or because of preconceived notions that the medical doctors may have in-regards-to black family dynamics (2007).

Similar findings were concluded within a study conducted by Lisa Cooper and others in which the scholars gathered information from videotaped clinical visits with patients then collected information on the clinician's implicit bias by administering two implicit association tests on racial attitudes and compliance. The scholars researched to examine how implicit bias held by medical doctors about race impacts how they interact and communicate with their patients and how said patients rate their care as a result. The compliance IAT measured the correlation between race and what the ideal compliant patient is, associating words such as "willing, reliable, and helpful" with a compliant patient and words such as "reluctant, apathetic, and lax" to a noncompliant patient (Cooper, 2012). In order to measure what kind of communication was occurring Cooper measured the length of the visits, how patient based the conversations were, the verbal dominance of the clinician, and how fast the clinician spoke to their patient (2012). It was concluded that the higher the implicit bias level is, the less patient centered the conversation is, the lower confidence the patient has of their medical doctor, and the less likely they are to trust their doctor, when compared to their white patient counterparts (Cooper, 2012).

Our research is important because it delves into the experiences that college students have had with their medical professionals. Previous research has touched on the experiences of children as well as adults, but none have studied those ages in between. Our research will show whether or not these implicit biases extend to the opinions and views of the young adult population. We hypothesize that African Americans, women, and youth will most likely have a more negative experience with their medical professionals than Caucasians, men, and those of the older generations.

Methods

To develop our data, we created a survey centered around asking about interactions with medical professionals. The survey began with asking about the participant's age, gender, and race. This was in order to distinguish our participants into different groups for analysis. We needed to separate our data due to our research question comparing the experiences of different groups of people from various backgrounds. We then asked about when our participants last visited the doctor's office or interacted with a physician in a professional environment. This was meant to distinguish the time period that our data refers to. For example, if most of our information that gave negative reviews towards doctors came from people who had not been to the doctor in 10 years, we would be able to make certain assumptions about an improvement in care over time. We then used sliders to ask about the professionalism and kindness of the doctors. We asked both questions to see if two different ways of phrasing effectively the same question would yield two different results. We also chose sliders because we thought it would be more interesting for our participants to answer and gave a simple range from "very professional" or "very kind" to "very unprofessional" or "very unkind". We also asked a few more direct questions such as "have you ever felt a doctor has ignored your symptoms or complaints?" with a yes or no answer. We chose to have these questions because they corresponded directly to our research question while some of the other questions tried to look at the topic from a different point of view or reword it. Lastly, we added several free-response questions asking if they could give an example as to why they answered the way that they did. This was so that we could separate those who believed that

they had an unfavorable experience in a way that was due to their gender, race, or age, and those who believed that they had an unfavorable experience due to a different, unrelated reason. However, our free-response questions yielded no results.

To distribute our survey, we used the Qualtrics survey program. We sent out the link in several of the classes we were in. Since we are both freshman and therefore have access to mainly freshman classes, our results are likely to be skewed for the age category. Additionally, due to a shorter period in which the survey could be answered, we also received fewer data points than we had originally wanted. We obtained 29 results. 27 were female and 2 were male. Additionally, 14 were Caucasian, 9 were African American, 4 were Asians, and 2 responded as 'other' for their ethnicity.

Results

All data received from our participants was self-identified. We also included an 'other' section in both gender and race, although we chose not to include the 'other' option for gender within graphs and our discussion after receiving no responses that identified a participant as such.

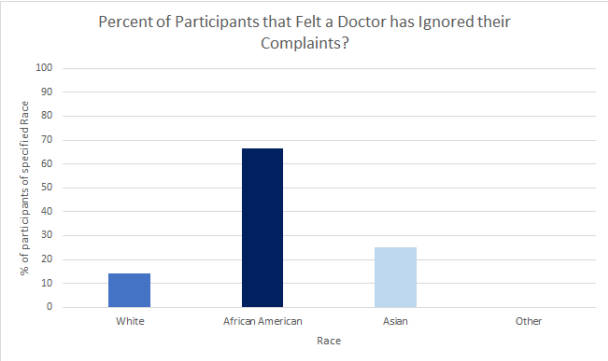
We divided our results by gender and race, taking the answers to each question in either contexts.

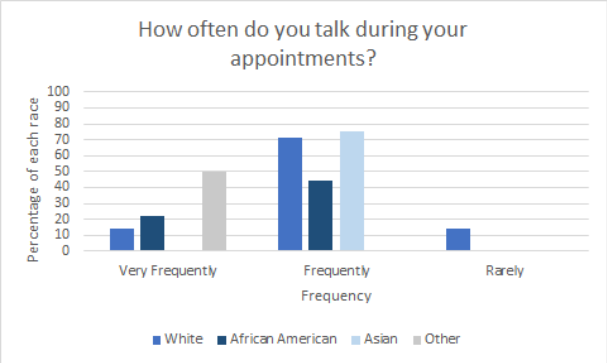
Firstly, we compared the responses of our female participants to those of our male participants. Our survey resulted in a larger number of females and 17-year-old to 19-year-old participants. When asked, 8 out of 27 of the females that took the survey said that they have felt a doctor ignored their symptoms or complaints while 1 out of 2 male participants said that they have felt ignored. 17 out of 27 of our female participants felt they frequently spoke during appointments, and 11 said they feel as though their doctors listen a great deal. Our male participants both said that they spoke occasionally during appointments and felt that doctors did listen to their complaints. Lastly, male participants were split evenly between feeling that their doctors had been unwilling to recommend more treatment while over 80% of our female participants did not feel as if their doctors had ever been reluctant in such a way.

Secondly, we compared the data from a race point of view. A larger amount of African American survey takers believed that they had been ignored than other races, with 6 out of 9 answering yes while only 2 out of 12 of our white participants and 1 out of 4 of our Asian participants gave the same answer. Our results conversely showed that all of our African American participants felt that they spoke "very frequently", "frequently", or "occasionally" and that their doctor listened "a great deal", "a lot", or a moderate amount. Meanwhile, 2 of our white participants and one of our Asian participants felt that they spoke "rarely" or "almost never" and one white participant felt that their doctor only listened to the "a little". Lastly, one Caucasian participant said that they felt their doctor has failed to pursue more extensive treatment while almost half of our African American participants felt as though their doctors had been unwilling to encourage them to seek further help. All Asian participants answered that their doctors had not resisted more serious treatment.

All participants were within the age range of 17 to 22, with the greatest number of participants,19 out of 19, being 18 years of age. Due to this lack of variation, we decided to disregard the age portion of our data.

Discussion





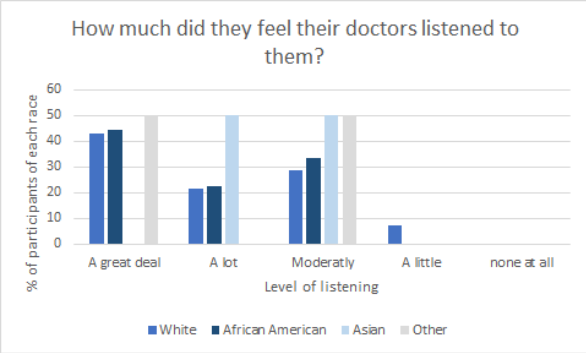
Because of limitations in our survey pool concerning age and gender which resulted heavily swayed results, we have chosen to only focus on differences in interactions based on race. We were not able to receive enough responses from a vast amount of ages or from enough males to make our results pool diverse, so we chose to disregard these variables.

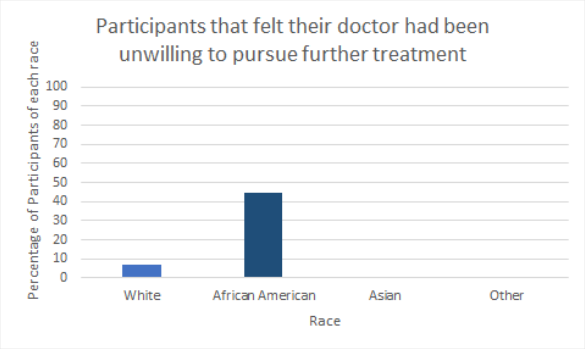
In-regards-to our first table discussing whether the participant has felt as though their symptoms have been ignored, it was concluded that a much larger percentage of African Americans in comparison to other races that felt as though their complaints were ignored. These results may stem from an implicit bias that is "related to false beliefs about biological differences between blacks and whites" (Hoffman et al, 2016). Biased beliefs, such as the thought that blacks can handle more pain than Caucasians, can lead to disparities in the treatment and care of patients of color. Additionally, our results show that, in general, African Americans would prefer a more active response from medical professionals while Caucasian, Asian, and other races are relatively happy with the reaction that their doctors are giving during appointments.

In the second and third table regarding the social interactions that take place during the visit, it was concluded that about the same amount of African American and Caucasian participants felt as though they spoke frequently and were listened to a great deal during their visit. This was slightly different than what we expected, as we figured that African Americans would most likely talk less and feel as though they are listened to less as a result of the implicit biases held against them, found through previous research. These results could stem from the fact that different people may advocate for themselves more than others. Additionally, there could be a dissimilarity in what different races see as talking often based on distinctions in their culture or prior interactions. Lastly, it is also possible that the doctors that interacted with our participants had been trained to ask certain questions at certain times during an appointment and were able to use this planned behavior to counteract any subconscious bias they may otherwise have had.

In the fourth table, discussing if the participant's doctor has ever been unwilling to pursue more serious or extensive treatment, it was concluded that almost half of the African American partakers felt as though their doctor was unwilling to pursue more extensive treatments, while less than 10% of the Caucasian partakers felt this way. These results may stem from the fact that some doctors perceive African Americans as less compliant when compared to their Caucasian counterparts. Additionally, there

could be a higher belief from the African American participants that their doctors would be more unwilling to help them.





A key aspect of our research was that we looked at interactions from how the patients felt. This means that we did not look at what actually occurred, but the patient's take away and how that changed from person to person. In some way, our take on the question of discrimination in the workplace could be seen as a limitation. For example, a man and a woman might have been treated the same by a doctor, but due to cultural expectations and personal differences, the man could have perceived the interaction as highly disrespectful while the women believed it to be a normal amount of professionalism. However, because we gathered our data from the patients themselves, the differences in perspective become the point of our research. Our research can determine how differences in gender and race impacts how the participant feels about the interaction, whereas most previous research has been concerning what the literal interactions are in the offices and what they might mean. Our focus on the participant's perception of the interaction is important as these perceptions shape how the participant feels about their medical doctors. If a patient has a negative perception about an interaction with their doctor, they are more likely to not trust them and therefore will not receive the medical care they need. We were able to determine that African Americans feel as though they are ignored more than Caucasian patients. We also observed that Asian participants felt they talked more than Caucasians. Our research was far more focused on emotional responses than physical occurrences.

Perception is an important angle because, no matter how noble the action may be, how it is viewed by the recipient is how the action will be defined. We must acknowledge that the medical professionals may be acting fully professionally and without bias, but their patients are viewing these interactions differently and from their own point of view. The doctors need to be conscious of such points of view and attempt to alter their actions accordingly.

Some true limitations that we have considered but could not overcome resulted from our survey pool. Due to a smaller number of participants, we had a much larger percentage of females than males as well as a larger amount of Caucasian. Additionally, our age group was significantly narrower than we had originally wanted, taking away our ability to discuss the differences based on age. Lastly, all our participants are attendance of Purdue University, a Midwest college. While there are students from many different parts of the country and even the world, the pool is still far more condensed than it could have been.

Conclusion

This study revealed that African American participants more often feel as though their symptoms are ignored and that their medical doctors refuse to suggest more extensive treatment when it may be necessary. We have linked the perceptions of these types of actions to implicit biases held by the medical doctor as well as differences in cultures, lifestyles, knowledge, and backgrounds. We found no obvious distinction between Asian and Caucasian participants. Results were inconclusive in regard to gender and age as the participant pool varied little in those components. We recommend that medical professionals be conscious in the way that they treat and interact with their patients to decrease disparities in the treatment of their patients as a whole.

References

Cooper, Lisa A., et al. “The Associations of Clinicians’ Implicit Attitudes About Race With Medical Visit Communication and Patient Ratings of Interpersonal Care.” *American Journal of Public Health*, vol. 102, no. 5, 2012, pp. 979–987., doi:10.2105/ajph.2011.300558.

Hoffman, Kelly M., et al. “Racial Bias in Pain Assessment and Treatment Recommendations, and False Beliefs about Biological Differences between Blacks and Whites.” *Proceedings of the National Academy of Sciences*, vol. 113, no. 16, 2016, pp. 4296–4301., doi:10.1073/pnas.1516047113.

Sabin, Janice A., and Anthony G. Greenwald. “The Influence of Implicit Bias on Treatment Recommendations for 4 Common Pediatric Conditions: Pain, Urinary Tract Infection, Attention Deficit Hyperactivity Disorder, and Asthma.” *American Journal of Public Health*, vol. 102, no. 5, 2012, pp. 988–995., doi:10.2105/ajph.2011.300621.

Stivers, Tanya, and Asifa Majid. “Questioning Children: Interactional Evidence of Implicit Bias in Medical Interviews.” *Social Psychology Quarterly*, vol. 70, no. 4, 2007, pp. 424–441., doi:10.1177/019027250707000410.

Appendix A

		Gender			
		Female	Male	Other	Total
Have you ever felt a doctor has ignored your symptoms or complaints?	Yes	8	1	0	9
	No	19	1	0	20
	Total	27	2	0	29

		Race						
		White	African American	American Indian	Asian	Pacific Islander	Other	Total
Have you ever felt a doctor has ignored your symptoms or complaints?	Yes	2	6	0	1	0	0	9
	No	12	3	0	3	0	2	20
	Total	14	9	0	4	0	2	29

		Gender			
		Female	Male	Other	Total
How often do you talk during your appointments?	Very Frequently	5	0	0	5
	Frequently	17	0	0	17
	occasssionally	2	2	0	4
	Rarely	2	0	0	2
	Almost never	1	0	0	1
	Total	27	2	0	29

		Race						
		White	African American	American Indian	Asian	Pacific Islander	Other	Total
How often do you talk during your appointments?	Very Frequently	2	2	0	0	0	1	5
	Frequently	10	4	0	3	0	0	17
	occasssionally	0	3	0	0	0	1	4
	Rarely	2	0	0	0	0	0	2
	Almost never	0	0	0	1	0	0	1
	Total	14	9	0	4	0	2	29

		Race						
		White	African American	American Indian	Asian	Pacific Islander	Other	Total
Has your doctor ever been unwilling to pursue more serious or ectensive treatment?	Yes	1	4	0	0	0	0	5
	No	13	5	0	4	0	2	24
	Total	14	9	0	4	0	2	29

Age	
	Number of participants
<17	0
17	1
18	19
19	8
20	0
21	0
22	1
23	0
>23	0
Total	29

		Gender			
		Female	Male	Other	Total
How much do you feel your doctor listens to you?	A great deal	11	0	0	11
	A lot	6	1	0	7
	Moderatly	9	1	0	10
	A little	1	0	0	1
	none at all	0	0	0	0
	Total	27	2	0	29

		Race						
		White	African American	American Indian	Asian	Pacific Islander	Other	Total
How much do you feel your doctor listens to you?	A great deal	6	4	0	0	0	1	11
	A lot	3	2	0	2	0	0	7
	Moderatly	4	3	0	2	0	1	10
	A little	1	0	0	0	0	0	1
	none at all	0	0	0	0	0	0	0
	Total	14	9	0	4	0	2	29

		Gender			
		Female	Male	Other	Total
Has your doctor ever been unwilling to pursue more serious or ectensive treatment?	Yes	4	1	0	5
	No	23	1	0	24
	Total	27	2	0	29