The Gender Diagnosis Gap: The Role of Implicit Bias on the Misdiagnosis of Young Women's Health Concerns

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Abstract

The objective of this study is to explore the relationship between implicit gender bias in medical professionals and misdiagnosis in young female-identified patients. The study examines the ways in which the age and gender of the patient can impact the accuracy and timeliness of the diagnoses young women receive. Furthermore, it analyzes how experiences with misdiagnosis alter patients' perceptions of doctors. The findings of this study are based upon the survey responses of 21 young women, ages 19-25 years old.

Introduction

Women seeking medical care are often told that their concerns are misguided. Heart disease, gynecological cancer, and other medical conditions are dismissed as mental health problems–such as anxiety and stress disorders–far too often (Chiaramonte and Friend 2006:256; Markovic, Manderson, and Quinn 2004:388). Perceptions of women as emotional and fragile may cloud doctors' judgments as they make their evaluations, leaving women without the medical attention they may desperately need. The objective of this study is to examine the relationship between implicit gender biases within doctors and the misdiagnosis of young women. In addition, it aims to gain insight into the ways in which misdiagnosis alters the degree of trust women have in their doctors. Through an analysis of women's perceptions and experiences of misdiagnosis, I explore how doctors' implicit gender bias impacts the accuracy and timeliness of the diagnoses women receive.

This study joins an ongoing conversation within the field of Feminist Studies on gender inequality within health care on a phenomenon referred to as the gender health gap (Basu 2007). Previous research on the topic of misdiagnosis and gender has yet to fully examine the intersection of gender and age across the lifespan, focusing only on how the intersection of ageism and sexism impact elderly women (Henderson 1997). The degree to which young women experience this phenomenon has been understudied and is unknown as a result. This study attempts to answer the following questions: What is the relationship between implicit gender bias in doctors and the misdiagnosis of young women's medical issues? How do experiences with misdiagnosis continue to shape women's perceptions of medical professionals? In this study, misdiagnosis is defined as the incorrect diagnosis of an illness. Delayed diagnosis–defined as a case in which an illness was not diagnosed accurately within a reasonable amount of time–is included as well. I measured the impact of doctors' implicit biases on diagnosis through perceptions of doctors' comments (i.e., dismissal of concerns, condescending remarks, etc.) and assessed the degree to which my participants feel that their trust in doctors has been altered. Using my findings from a survey of 21 women, I will first bring these experiences to light and later discuss their significance.

Literature Review

Implicit Gender Bias

Gender roles, expectations, and stereotypes are taught from a young age and continue to impact one's thoughts and behaviors over their lifespan (Drake, Primeaux, and Thomas 2018:1). Gender Studies scholars Samantha Bates et al. (2019:296) contend

that gendered assumptions and processes mold the unconscious mind in ways that produce implicit gender biases. Implicit gender bias is defined as "unintentional and automatic mental associations based on gender deriving from norms, traditions, values, culture, policies, institutions, interactions, images, and/or experiences" (Bates at al. 2019:298).

No one is fully immune to implicit gender bias, as even those who are consciously opposed to misogyny can unknowingly perpetuate gender inequality (Bates at al. 2019:298). According to medical scholars Elizabeth Chapman et al. (2013), doctors often unknowingly reinforce disparities within healthcare as a result of implicit bias. Subsequently, they argue that the training doctors receive may even increase this bias, as it stresses group level information such as population risk factors that serve to reinforce stereotypes (Chapman et al. 2013:2). Furthermore, Chapman et al. (2013:2) contend that a physician's belief in their own objectivity, as a result of the scientific nature of their occupation, may actually increase bias in their decision making.

The Fallacy of Emotionality

In 2018, a team of psychologists conducted a study on implicit gender stereotypes using a test called the Implicit Relational Assessment, which revealed stereotype-consistent attitudes within their participants (Drake, Primeaux, and Thomas 2018:1). They reported that both male and female participants expressed perceptions of men as logical and women as emotional (Drake, Primeaux, and Thomas 2018:16). The stereotype of women as emotional has harmful implications, particularly in terms of women's medical care. Doctors of all genders are not immune from the biases that such labels create. As a result, implicit gender bias negatively impacts the accuracy of women's diagnoses (Henderson 1997:112).

According to public health scholar Jessica W. Henderson, "…physicians are more likely to perceive women's maladies than men's as the result of emotionality" (1997:112). For example, a study on medical students' and residents' gender biases in the diagnosis of coronary heart disease found that women's symptoms were misinterpreted more often when they expressed feelings of stress as compared to that of men. Thus, a greater emphasis is placed upon women's psychological symptoms (Chiaramonte and Friend 2006:256). This often causes physicians to overlook the possibility of heart disease in women, such as the possibility of heart disease (Chiaramonte and Friend 2006:256). Notably, this phenomenon exists along a clear gender line. According to the same study, when men present stress symptoms, their stress is perceived as additional information rather than the entire diagnosis itself (Chiaramonte and Friend 2006:264). Evidently, greater weight is placed upon women's stress and psychological symptoms, contributing greatly to their misdiagnoses.

Previous studies have revealed that advanced age can increase the likelihood of misdiagnosis for women. In a case study conducted by Henderson (1997:108), an elderly female patient reported that her doctor was dismissive of her leukemia symptoms and instead "attributed them to stress and told her not to worry so much since she 'wasn't 30 years old anymore.'" The psychologization of her symptoms suggests implicit gender bias. Furthermore, the dismissive and patronizing nature of his remarks pertaining to her age contain ageist sentiments. In these ways, the doctor's implicit biases towards elderly women seem to have shaped the diagnostic process and drastically impacted the accuracy of the given diagnosis. Elderly women face an additional risk of misdiagnosis due to dominant assumptions regarding their advanced age. Thus, the patient's age plays a critical role in the diagnostic processes.

It is documented that perceptions of elderly women as particularly vulnerable to mental disorders shape their diagnoses (Henderson 1997:110). However, little is known about the role age plays in the misdiagnosis of young women. Psychology scholars Thomas Nicolaj Iversen et al. (2002:4) have found that there are significant similarities in how ageism is directed towards young and old people. They argue that this is due to of the inferior positions both groups occupy within larger societal power structures (Iversen et al. 2002:4). As a population, young people are rarely taken seriously by older and more experienced authority figures. This places young women in a particularly dangerous position, as they are not only labeled as overly emotional and irrational because they are female, but also they are perceived as being naive and ignorant because of their age. Therefore, this study attempts to discover whether the intersection of age and gender impacts the likelihood of misdiagnosis for young women.

Medical Racism

Racism, as well as and overlapping with misogyny, has long plagued the American health care system and continues to do so through the present. In an article in Ethnicity and Disease, G. King (1996) explains the ways in which racism is perpetuated within medicine: Institutional or systemic patterns of racism are legitimated and promulgated through accepted standards, criteria, and organizational processes within the medical health complex that have the effect of discriminating against the minority group.

The care that women of color receive is shaped by implicit racial biases within their doctors. Public health scholars Lisa A. Cooper et al. (2012:980) argue that doctors demonstrate an implicit preference for white patients. It is important to note, however, that the level of implicit bias a physician demonstrates does vary according to their own race and gender (Chapman et al. 2013:2). Most often, physicians who are people of color exhibit pro-white bias than their White counterparts (Chapman et al. 2013:2). Female physicians also tend to display less racial bias than male doctors (Chapman et al. 2013:2). Racial bias can shape patient's preferences for doctors. According to medical scholars Kimberly L. Reynolds et al. (2015), it is not uncommon for white patients to request white doctors, however the American Medical Association still does not have policies or procedures in place to instruct doctors on how to handle these instances of racism when they arise.

Women of color are particularly vulnerable to the effects of prejudice within health care, as they are subject to both racial and gender prejudice. Legal scholar and civil rights advocate Kimberlé Crenshaw (1991) coined the term "intersectionality" to describe the ways in which these seemingly separate social systems interlock and create varying degrees of both privilege and oppression. Crenshaw (1991) argues that "because of their intersectional identity as both women and of color within discourses that are shaped to respond to one or the other, women of color are marginalized within both." In this way, women of color are placed at significant disadvantage when seeking medical care.

Racial and gender bias within health care has particularly dangerous outcomes for black women. At present, it is estimated that black women in the United States are three to four times more likely to die during or after childbirth than white women (Roeder 2019). As history and medical scholars Deirdre Cooper Owens and Sharla M. Fett (2019) point out, self-reports of painful symptoms are often ignored or minimized by their doctors. In fact, many black mothers are even blamed for illness during pregnancy (Owens & Fett 2019). Factors such as weight, advanced age, dietary choices, and lack of prenatal care are the reasons for their increased likelihood of dying (Owens & Fett 2019). Owens and Fett (2019) argue that doctors, nurses, and the hospitals they run should instead be identified as the culprits in the deaths of black mothers.

Legal and medical scholar Susan M. Wolf (1996) argues that doctors' dilemmas regarding their patients cannot be purely objective and take place within the context of systemic power relations. Furthermore, Wolf (1996:117) contends that this "political" side of the doctor-patient relationship is made more evident when the patient is a woman of color. Doctors' implicit biases are evident in the form of negative nonverbal behaviors– even by those who explicitly promote racial equality (Cooper et al. 2012:983). Patients are often aware of these cues and their inferior treatment (Cooper et al. 2012:983). In this way, the relationship between patients and their doctors is adversely altered by the identity of the patient.

The Doctor-Patient Relationship

The American Medical Association has issued the following statement to describe the nature of the doctor-patient relationship under its Code of Medical Ethics: "The relationship between a patient and a physician is based on trust, which gives rise to physicians' ethical responsibility to place patients' welfare above the physician's own self-interest" (American Medical Association "Code of Medical Ethics"). Thus, the relationship between doctors and patients should ideally exist upon a foundation of mutual trust and respect.

However, this can easily be broken when patients feel that their doctors have not taken their concerns seriously. Public health scholars Markovic et al. (2004:376) report that women who have experienced a dismissal of symptoms and/or misdiagnosis often lose confidence in clinical services. Markovic et al. (2004:376) argue that their overall faith in doctors also takes a significant downturn. It seems likely that this decline in faith and trust in doctors must negatively impact their interactions with healthcare professionals going forward. This begs the question of how distrust in doctors after misdiagnosis can shape one's health outcomes. Furthermore, what does this mean for those who experience misdiagnosis at a young age? Will all of their future healthcare experiences be impacted by a distrust in doctors developed at an early age?

On the other hand, some women place blame on themselves, rather than their doctors (Henderson 1997:112). When doctors are dismissive of women's symptoms, some question the validity of their concerns (Markovic et al. 2004:389). This outlook is shaped by age and generational values that place men in positions of authority over women. The majority of elderly women today grew up during a period of vast gender inequality and were raised to believe that women are weaker and less competent than men (Henderson 1997:109). Thus, they are more likely to view the evaluations of their male physicians as indisputable and instead, doubt themselves (Henderson 1997:108). The impact of this internalized misogyny upon younger women who were raised in an arguably more equal society remains unknown.

Methods

The initial plan for data collection was to conduct three focus groups of women who have personally experienced delayed diagnosis or misdiagnosis. Unfortunately, due to the COVID-19 outbreak, conducting focus groups was no longer a feasible option (see Appendix A for a list of the questions asked). Instead, I created a digital survey and posted it on various social media platforms, including the University of California Santa Barbara student Facebook pages, as well as my personal Facebook, Instagram, and Reddit accounts. It was important to me that my research remained qualitative, even though I now had to turn to using surveys. According to feminist scholar Sharlene Nagy Hesse-Biber (2014:303), qualitative feminist research provides respondents with the freedom to answer research questions in the way that make the most sense to them and to include the information that they feel is most important. I opted for a free response format so that participants would have control over the narrative of their stories, including their demographics (i.e., race, class, gender identity, etc.). I received 21 viable responses from young women, ranging from 19-25 years old.

One of the largest downsides to survey research was that I was unable to establish the community I had hoped to build through my focus groups. The identities of my participants had to be kept confidential and the surveys were completed on an individual basis, so my participants were deprived of the opportunity to learn from each other's experiences. In place of this, I will share my completed study with all of my participants. Given such unprecedented circumstances, this method was successful. However, I still highly recommend that future research on this subject include focus groups for building a sense of community

Results

Participant Demographics

I gathered a convenience sample of 23 survey respondents. Of these, only 21 were viable, as 2 participants did not meet the age criteria (18-25 years old) of the study. The participants ranged from 19 to 24 years old and all identified as female. When asked to describe their racial identity, 11 responded White, 3 responded Hispanic, 1 responded Asian-American, and 6 responded Mixed Race (White and Hispanic, Pakistani and European, White and African-American, Mexican and Indigenous, and Asian Pacific Islander and White). When asked to describe their class identity, 4 responded lower class, 2 responded lower-middle class, 10 responded middle class, 3 responded upper-middle class, and 2 responded upper class.

Responses

The survey began by asking participants to share the story of their experience with misdiagnosis/delayed diagnosis. The respondents reported that they were misdiagnosed between the ages of 3 and 21 years old, with a median age of 19 years old. When asked how long it took for them to receive an accurate diagnosis, 9 responded less than one year, 3 responded between 1 and 3 years, 2 responded between 4 and 7 years, 1 responded 18 years, and 2 responded with an unspecified number of years. Participants reported being diagnosed both by male and female doctors.

Respondents were asked whether or not they had ever felt talked down to by a health care provider: 81% replied "yes" and 19% replied "no" to this question (see Appendix B for a chart of responses). One respondent replied, "She was condescending in tone and suggested to me, a 19 year old, that I settle down with a nice man to relieve some of my stress." Another reported, "I feel like they think that because I'm younger, I have not experienced actual problems." The next question asked participants if they had felt that their identity (i.e., gender, race, class, age, etc.) played a role in how they were treated by health care providers: 85% replied "yes", 0% replied "no", 15% were "not sure". In regard to the identity categories that they felt had an impact on their treatment, respondents cited gender most often (56%), then age (26%), followed by race (11%), and lastly class (7%). One respondent replied, "Since I'm Mexican and obviously brown, I am able to pick up that they automatically assume I'm poor and uneducated… I feel that I have to prove to doctors/nurses that I'm competent." Another respondent wrote, ". . .the stereotype that women are really emotional made most of the health care providers believe that depression was why I was upset. Additionally, I think that because I'm an Asian woman, a lot of them didn't really believe that I was struggling with ADHD."

To gauge the degree to which misdiagnosis/delayed diagnosis impacts the doctor-patient relationship, the survey asked whether or not their experiences had changed the way they felt about the doctor(s) involved. To this question, 90% replied yes and 10% replied no. One respondent replied, "I never saw the three doctors who misdiagnosed me again. I did not trust them. Medical professionals need to listen to their patients instead of putting their own biases and opinions onto them. I simply lost respect for all of them." Another wrote, "No, I actually saw multiple doctors, I really do think that what I have is hard to diagnose." This respondent still has yet to receive an accurate diagnosis for her health concerns. A third respondent explained, "It made me realize how much

doctors are still human… and how much their implicit biases affect their work, even if they don't want to, they still subconsciously affect how they treat patients." Next, respondents were asked if their experiences had changed the way they viewed all doctors and/or their future interactions with them: 70% responded "yes" and 30% responded "no." One respondent wrote, "Yes, I am skeptical that male doctors will take me seriously." Another stated, "No, once I found a doctor that took me seriously I was able to get the help I need. It takes a long time, but there are good doctors out there. It can be incredibly discouraging to keep looking though." In explaining how her experience with delayed diagnosis has changed her interactions with doctors, one respondent wrote, "I am now straight up and feel the need to over-emphasize my symptoms in order to grab their attention." Another replied, "I am reluctant to go to doctors, often out of fear of judgement." In this way, misdiagnosis and/or delayed diagnosis appears to change how patients interact with doctors going forward

Discussion

This study examined the effects of implicit gender bias in doctors on misdiagnosis in young women. Several findings indicate that patients' identity–with age and gender as prominent factors–impact the diagnostic process and have negative effects in terms of the accuracy and timeliness of the diagnoses they receive. The majority of participants stated that they felt their identity had influenced their treatment by a health care professional. This finding is consistent with those of previous studies, indicating that quality of care is impacted by identity categories such as gender and age (Henderson 1997:110). Gender and age were also the two factors most commonly mentioned by participants. However, it is likely that they were mentioned more frequently than race because the majority of the participants were White and had most likely benefited from the effects of white privilege in the doctor's office (Chapman et al. 2013:2). Overall, most participants expressed feeling that being a young woman had negatively impacted their interactions with doctors and had prevented them from receiving an accurate diagnosis–either initially or at all. Thus, seems possible that implicit biases within doctors can increase the likelihood that a young woman will either receive a delayed diagnosis or misdiagnosis.

In addition, this study explored the effects of experiences with misdiagnosis and delayed diagnosis on women's views of the doctor-patient relationship. The majority of participants stated that after living through misdiagnosis and/or delayed diagnosis, their opinion of both their specific doctor and all doctors had changed for the worse. This was also consistent with the findings of other scholars, who found that bias not only impacts care, but also lowers patient positive affect (Cooper et al. 2012:979). Further, many described changed attitudes and behaviors when seeking the help of doctors afterward. The rationale behind doing so appeared to be grounded in a decreased belief that doctors would take their health concerns seriously. As such, the results of this study suggest a negative relationship between experiencing misdiagnosis and/or delayed diagnosis and the level of trust one has in doctors afterward.

Limitations

This study had several limitations that should be kept in mind when interpreting the results. First, it includes responses from only a relatively small number of participants. In addition, participants were gathered using convenience sampling. As a result, the sample I used was not representative of the broader population. Thus, it leaves out several identity categories, such as the sexuality, ability, and citizenship status of the patient. To better understand the complexities of young age and implicit bias within doctor-patient relationships, a more diverse sample is necessary. Furthermore, collecting responses using a survey format may have limited participants' responses (e.g., difficulty conveying meaning, unanswered questions, lack of discussion, etc.). Future studies may consider using focus groups, a larger sample size, and/or random sampling to improve the quality and quantity of responses

Significance and Conclusion

The results of this study expand on the current literature on the gender health gap to further demonstrate the effects of doctors' implicit biases on the accuracy and timeliness of young women's diagnoses. An inaccurate and/or late diagnosis can have severe repercussions in terms of a patient's physical and mental health outcomes at the time and in the future. In this way, preconceived notions surrounding youth and womanhood can negatively impact young women's health care as well as their quality of life. My analysis also suggests that experiences with misdiagnosis and delayed diagnosis can alter patients' trust in doctors. Thus, this phenomenon may have long-term effects that can harm patients further later on. Doctors' implicit biases delay and/or prevent treatment, injure doctor-patient relationships, and can harm women for years. Yet, difficulty in receiving an accurate diagnosis is just one of the ways in which gender bias negatively impacts women's health care. It is my hope that this and future larger studies like it will encourage intervention in the form of health care reform policies that will account for doctors' implicit biases–in addtion to explicit ones.

Acknowledgements

1. What is your name? Again, this will be kept confidential.

2. What is your email address or the best way to contact you?

3. Please share the story that led you to the diagnosis you have now. How long did it take?

How did you feel?

4. How old are you? How old were you at the time of your experience with delayed or

misdiagnosis?

5. How do you classify your racial identity?

6. How would you describe your socioeconomic status?

7. How would you describe your sexual identity?

8. How would you describe your gender identity?

9. What are some of the main challenges you experienced when talking to doctors and

health care providers?

10. Did you ever feel talked down to by a health care provider? Please begin by writing "yes"

or "no" and then elaborate.

11. Did you feel that your identity (gender, sexuality, race, class, age, etc.) played a role in

how you were treated by health care providers? Please begin by writing "yes" or "no"

and then elaborate.

12. Were there any particular comments that your doctor made that stood out to you? Did

these reference your identity directly or indirectly? How did you feel? Please begin by

writing "yes" or "no" and then elaborate.

13. Did your experience with delayed or misdiagnosis change the way you felt about your

doctor? Please begin by writing "yes" or "no" and then elaborate.

14. Did your experience with delayed or misdiagnosis change the way you viewed all

doctors? Did this impact your future interactions with doctors? Please begin by writing

"yes" or "no" and then elaborate.

15. Did you question the validity of your symptoms as a result of either your doctor's

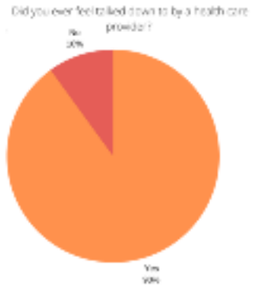
comments or the diagnostic process in general? Please begin by writing "yes" or "no" and

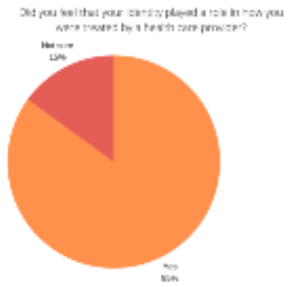
then elaborate.

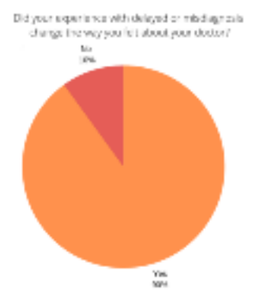
16. If you could offer advice to other women/girls about how to advocate for themselves in

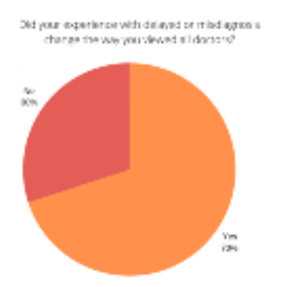
the doctor's office, what would you say?

Appendix B. Survey Results









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