

Dr. Tessnim Ahmad:

Welcome to The Spark, medical education for curious minds. We present the people and stories behind medical advances at UCSF, from medical students, to physicians and faculty in the school of medicine. Through The Spark, we share the innovations that are helping bring more equitable and better care to our communities. I'm Tessnim Ahmad, a student in the school of medicine. In this episode, we'll discuss gender in medicine. For much of medicine's history as a profession, being a female doctor was a crime. Tales abound of women disguising themselves as men in order to practice medicine. Margaret Anne Bulkley was a military surgeon who rose to the British army's second highest medical office in the mid eighteenth hundreds. The catch, Bulkley lived as a man, James Barry, which only became known after Bulkley's death in 1865.

While women gained the right to study and practice medicine in the late 19th and early 20th centuries, by 1965, less than 10% of medical school graduates were women. That changed dramatically in the 1970s with the passage of the equal rights amendment and Title IX. These laws grant equal legal rights to women and prohibit sex-based discrimination in education. Today, more women than men are enrolled in medical school, but have we reached equity? And how do other identities such as race intersect with gender? There's clearly much more to this story.

Dr. Urmimala Sarkar is a Professor of Medicine at UCSF. She is Associate Director of the Center for Vulnerable Populations and primary care physician at the Zuckerberg San Francisco General Hospital. She leads the lab, the Sarkar lab, which has committed to health equity innovation for low income and diverse populations. Dr. Sarkar directs various fellowships career acceleration programs and curricula. She is a self-made expert on gender equity and medicine, and has delivered highly engaging lectures to medical students and other audiences. It's important to note that we're in the midst of the COVID-19 pandemic. Shelter in place orders are in effect here and across most of the country. While California has kept ahead of the curve, this is not true for other parts of the country and the world, which are facing enormous death tolls and chilling ethical decisions. Dr. Sarkar, why are we talking about gender issues during a global pandemic?

Dr. Urmimala Sarkar:

I'm really honored to be able to talk with you about gender equity in medicine and I'm really glad that you decided to move forward with this podcast in the midst of our global pandemic. Today, you and I are going to be focusing on gender disparities among physicians, but thinking more broadly, 80% of the overall healthcare workforce worldwide is female. And the leadership is disproportionately male.

Dr. Tessnim Ahmad:

Does gender parity in medical school admissions tell the whole story of gender in medicine?

Dr. Urmimala Sarkar:

No, it absolutely does not tell the whole story because we've had gender parity in medical school admission for many years. Since 2003, 50% of medical school classes have been female. And despite that, as all of that time has elapsed, we're not seeing commensurate promotion, advancement, and leadership for women in medicine. Only 20% of full professors are women. Only 15% of department chairs are women and only 16% of medical school deans are women. So this is showing us that gender parity in medical school admission is really only the first step into getting an equitable workforce.

Dr. Tessnim Ahmad:

Historically, despite being excluded from medicine, women have had strong roles in the allied health professions, nursing and midwifery, for example, were seen as acceptable extensions of women's traditional social roles of caring and nurturing. Today, we see that in some specialties, perhaps reflecting these stereotypes, women comprise a majority. Dr. Sarkar, can you talk about some of the gender disparities by medical specialty?

Dr. Urmimala Sarkar:

There are gender imbalances in specialties that are deeply concerning because those have been very durable over time. So the specialties of obstetrics and gynecology and pediatrics are predominantly female. I believe psychiatry also has now brought to a female predominance, but the surgical and procedural specialties are extremely male dominated even in 2020. And this is especially troubling to me because a lot of reimbursement and income tracks with these specialty differences. So that you're seeing lower paying specialties having a female predominance, and higher paying specialties, having a male predominance.

Dr. Tessnim Ahmad:

Lack of equal representation in leadership positions and a fundamental devaluing of women's economic worth are only the tip of the gender inequity iceberg in medicine. Gender discrimination also exists in more subtle insidious forms. In this context, implicit biases or attitudes or stereotypes about women that affect our thinking preferences and actions. They may be positive or negative, but are activated without a person's intent or conscious cognition. These biases develop over a person's lifetime and are shaped by direct and indirect messaging and the surrounding society and culture. Microaggressions or implicit biases in action as Dr. Laneshia Hill, who we'll talk to later defines them. For example, many patients, particularly those of older generations, unconsciously associate being a physician with the male sex, most commonly a white male. This is the implicit bias. Patients being treated by a female or nonwhite physician may unconsciously questioned the physician's role.

In some cases, looking to any white male in the room, even a first year medical student to answer their questions. They may repetitively refer to the physician as a nurse, mistake them for a janitor, call them by their first name or question and refuse their medical advice. These are examples of microaggressions. Research has shown them to be pervasive and ubiquitous in healthcare and other settings. To be clear, there's nothing wrong with being a nurse or janitor and many people harboring such biases don't intend to be biased or invoke harm with their words and actions. We all have biases, including large residency admissions committees and medical student physician evaluators. Dr. Sarkar, you were principal investigator on an interesting project on implicit bias with Dr. Alexandra Rojek. Dr. Rojek is now a first year medicine resident at the University of Chicago, but was a fourth year medical student here when she worked on this research. Can you tell us about this study?

Dr. Urmimala Sarkar:

The study started because as a member of the admissions committee for the internal medicine residency, I read a lot of letters for graduating medical students who are applying for internal medicine at UCSF. And I noticed that the evaluations, a lot of the women were cheerful, lovely, and eager, and a lot of the men were insightful and brilliant and scientific. And I started to realize that I could infer the person's gender by looking at the words that were being used and that the men were being described in a way that made it much easier to picture them as [inaudible 00:07:18] than the women. And so when Alexandra and I started talking about potential research projects, she said, if I had a large enough dataset, we could actually quantify the differences in words between male and female applicants.

And we did that with the help of Dr. Lucy and Dr. Hauer, who are our medical education leaders here at UCSF. And they participated with us. And also with one of our hospitalists, Dr. [inaudible 00:07:47] on getting all of the medical student evaluations from a couple of different medical schools, former UCSF resident, and fellow Dr. Rebekah Gardner who's a faculty member at Brown University was also on the study. And we looked and we found that there were differences in the words that were used for men and women, and the words that were used for underrepresented students versus non underrepresented students when we looked across all of their required third year rotation. And this is extremely troubling because if people are doing the same work, they should be evaluated in the same way. And the same work should be used in consideration of their clinical skill. There are a number of other examples I can give you, many have heard that women, when they're [inaudible 00:08:32] speakers are often introduced by their first name instead of their title.

We also have heard Donald Trump do that in his briefing where he introduces Dr. Fauci as Dr. Fauci and Dr. Birx as Deborah. And this is an example of minimizing women's expertise. There was a recent study that was done across the five major neuroscience journals and it looked at whether high impact papers were equally likely to be cited if they were led by women or led by men, senior author by women or senior author by men. And they found that [inaudible 00:09:07] all men are disproportionately less likely to cite women's science even if it is of sufficient impact that it would be expected or predicted to be cited. So men are not citing women. And of course citations are one marker of scientific prominence. Everybody goes around in science with a number attached to them called their H index. And that is based on how often they're cited.

So if women are cited less by all male teams, which is what this study showed, then that pushes down their H index and deflates their scientific prominence in their field. This is a problem. Another way this has come up is around social media, right? Twitter is a way that's really democratizing science in many ways, because it allows scientists to put their work out there. However, men disproportionately, only follow men on Twitter and also disproportionately like and retweet male Twitter accounts. So there was a study recently done after scientific meeting, which showed that women at the meeting tweeted just this much, but they did not get the same level of engagement for their scientific contributions on social media, compared to men. They didn't pick up as many followers, they didn't get as many mentions. And this was because men were not retweeting them.

The last area in which this is really important is actually the other way for evaluations. So I described how evaluations of students are biased by gender and race, ethnicity. Evaluations of professors are also biased by gender and race, ethnicity. And student evaluations are very important for academic positions. Women get described differently and they get worse ratings. There was even a randomized study where students were told agender for their instructor, who they only interacted with online. And when they were told that the instructor was female, that person was given worse marks. In actuality, people who PA with a woman in real life had better exam scores, but the exam scores and the evaluations did not correlate. This is all by way of saying there is a depth of implicit bias that is extremely pervasive. It is not confined to older men, it is happening even in people who are students today who are judging women differently based on cultural conditioning that's long standing.

Dr. Tessnim Ahmad:

In addition to biased physician evaluations of students and bias student evaluations of physicians, patient perceptions of physicians are also biased. Good male physicians are thought to be smart and competent. While good female doctors are described as warm, tender, and caring. Again, there's nothing wrong with traits of warmth and tenderness, but medical training is grueling with steep learning curves and long hours and in our culture, emotion and logic are described as antithetical. For women, getting patients to call you doctor and respect your advice is a daily unnecessary struggle. Dr. Sarkar, the

professional ramifications of gender bias for women are enormous, as you've described. Can you talk about the personal or psychological impacts of these inequities?

Dr. Urmimala Sarkar:

This definitely affects women's wellbeing in the workplace. And particularly because it does come from all directions, it comes from peers, it comes from students and it also comes from patients and families quite a lot of the time. There's a lot of data that demonstrates that the patients' families treat women physicians differently than male physicians, and there's significant incidents of even sexual harassment from patients and families to women physicians and being treated dismissively from all stakeholders can be a significant source of burnout. And many people who've written about the epidemic of burnout amongst physicians have cited the higher rates of burnout among women. And it's thought to be partly due to these adverse working conditions that range from lower pay to less respect more broadly.

Dr. Tessnim Ahmad:

Up to this point, we've talked about gender largely in isolation. In reality, a person's experience in the world is defined by their multiple frequently intersecting identities. Dr. LaMisha Hill is director of the multicultural resource center at UCSF. She holds a doctorate in counseling psychology and provides direct clinical services to students. Dr. Hill also engages an outreach with campus partners and program development to better support students navigating the complexities of the university setting. Dr. Hill, can you define intersectionality for those who may be unfamiliar with this construct, particularly as it pertains to gender and race?

Dr. LaMisha Hill:

Intersectionality is oftentimes I think assumed to be having two or more identities just because of the context clues in the word, right that we are both [inaudible 00:14:02]. And while that's true, the thought leader behind intersectionality, Dr. Kimberlé Crenshaw really developed the framework and the term to refer to two or more marginalized identities. So when two or more marginalized identities come together to form a unique and new experience. And one of the things that you had asked me about was at the intersections of race and gender, right? And so depending on the context, and especially in the context that we're talking about medicine and academic medicine, being female is still considered to be a marginalized identity in certain spaces. And then also the intersections of different underrepresented populations, whether it's based on race, ability, status, documentation, status language, if English isn't your first language and the list goes on and on and on

Dr. Tessnim Ahmad:

Dr. Hill, in your experience counseling students, what kinds of intersectional challenges have you observed?

Dr. LaMisha Hill:

That's a good question. I would say that for many, the challenges are going to be unique to what they're coming in with. I think that at UCSF in particular, we have a wonderful prospect program, which is one of the true pipeline programs in the health sciences really supporting our emerging learners to really [inaudible 00:15:15] so that they can be competitive when they do apply to the different graduate professional schools in the health sciences. And so oftentimes I think whatever identity is most at the core for an individual is really something to be considered. And so while there is definitely this piece of intersectionality, I would offer that perhaps depending on an individual's background, even though they

might identify as a woman and as an underrepresented learner, but perhaps something else about their identity is just more urgent or most at the forefront.

So I think it's going to vary person to person, but oftentimes I think that what is most prominent in medicine and in academic medicine are really at the lines of ethnicity and race. So being from historically underrepresented communities, whether that's the Latin X community, African American communities, Native American and Pacific Islander communities, there are certain identities within the Asian diaspora that are considered underrepresented. However, when it comes to medicine and the health sciences broadly, when they, they being the powers to be and whoever sort of generates things like the census, when they put all those identities together that encompass both East Asian, South Asian and the full diaspora of Asia, it's really difficult to kind of tease that out. So oftentimes people of Asian descent are not considered underrepresented in medicine, although they might be from a very specific indigenous or community that is [inaudible 00:16:40].

I also want to just acknowledge first-generation to college is also times of these identity when it comes to that leap into the health sciences and where students oftentimes feel the most disconnected, because they're trying to navigate and experience that many people in their families can not connect to or understand. And also holding other traditional roles and responsibilities in their families. There are many students at the undergraduate level and graduate level that are supporting their families financially and contributing in some capacity. And I think it all culminates in phenomenon that we refer to as imposter syndrome. But I would say with respect to intersectionality around identity, the better term is actually stereotype threat. And so stereotype threat being that when and ask them if your identity is marginalized in such a way that you are at risk for demonstrating these stereotypes.

So for some students that really just looks like showing up and not knowing that I was supposed to wear a certain thing or that I was supposed to do this work ahead of time, not knowing that I was supposed to reach out and consult and how it creates a heightened sense of anxiety. And then another thing that is often used is the hidden curriculum of medicine, many students that have been oriented to medicine in graduate medical education are really showing up knowing what it already feels like to go on rotations. What it feels like to move about in clinical spaces and many students it's their first time. And just that level of anxiety puts them in a position mentally, emotionally, that takes up so much cognitive energy. You may not see it on the surface, but it's something that they often tend to really struggle with interpersonally.

Dr. Tessnim Ahmad:

As opposed to racism and discrimination, which are relatively concrete and easy to spot, implicit biases and microaggressions are by definition, subtle. Recipients may question their visceral reactions to these comments and wonder if they have reason to be offended, or if they're being over-sensitive. People who've committed a microaggression are often unaware they've done so. Dr. Hill, how would you describe experiences of microaggressions to a person who may not understand their impact?

Dr. LaMisha Hill:

These experiences are not one offs, people that hold marginalized and underrepresented identities experience these interactions somewhat regularly and routinely. And the challenge for the person on the other end is to recognize that even if I was trying to build a relationship or compliment somebody or connect with them, if it comes across in such a way that it doesn't make them feel that way, then that can be a microaggression. And that we have to hold that and apologize and recognize that it's not something to be minimized or dismissed.

Dr. Tessnim Ahmad:

As a trainee who identifies as a nonwhite woman, I've witnessed and experienced a fair share of bias and microaggressions. One time during rounds, a patient, my junior resident said, "Oh, I'm fine, doc, but I could really use a massage, nurse." He pointed at me. I remember trying hard to look unfazed and even laughed while subconsciously shaking my head no. I felt offended personally and for nurses. I was part of an all male team that week. A bro-ey mini culture had developed and I did not want to be the over-sensitive female bringing the team down. After a short, awkward silence, no one said anything. Dr. Hill, what is an appropriate response to a microaggression? And what challenges are posed when the person committing the microaggression is a patient?

Dr. LaMisha Hill:

So I'm going to back it up one step, because one of the best practices is for those team environments, whether it's the attending physician or the resident in charge, to actually set up that team with an understanding that, hey, if something were to happen, how do we want to handle that as a group and have that conversation on the front end? It's not to preempt and say that there's going to be a number of different microaggressions or challenging experiences, but it does set the stage to say, hey, there's a door and there's an outlet, or there's a process, or there's a system and there's someone to support. And then in the event that something is said, whether it's by a patient, a team member, or even a person in charge, one of the challenges that we're then dealing with in these clinical team structures is power differentials in hierarchy.

And there was a lot of hierarchy in the culture of medicine, but [inaudible 00:20:57] such that maybe it is not actually safe for somebody who's in a less privileged position, whether that's because of the professional status that they hold or because of the identities that they hold, that maybe it doesn't feel safe for them to get feedback. There hopefully are places where people can consult about those things, right? Whether it's with the deans or somebody else, to be able to process that interaction and to figure it out. Because if that microaggression is coming from the attending surgeon or it's coming from the resident in charge, is it likely that we're going to feel alone? We are able to give that person feedback, that might be best coming from somebody who is parallel in that positionality, who might be able to deliver that on your behalf. One of the challenges in medicine, particularly because of, I think the ethics of the discipline that also intersects with a business mentality, that the customer is always right. And I think that it has perpetuated a lot of biases.

Dr. Tessnim Ahmad:

While reaching out to mentors to advocate on your behalf can be important, Dr. Hill also says responding to microaggressions and having difficult conversations in general is something we need to practice. She recommends framing your concerns as a question or curiosity, for example, are you aware that term can be considered offensive, also gaining an awareness of how your body reacts to difficult dialogue can help.

Dr. LaMisha Hill:

For many individuals addressing conflict is so entangled in the nervous system in such a way that it's really, really, difficult. When your throat clenches up, it's not because you are, that you are solely afraid and incapable and unable. But when you come to that place where your throat tightens up, if we don't unpack what's happening there and practice in other spaces, and the other ways to relax our bodies or to identify a time and space to come back to that conversation or that dialogue, we're never going to untangle that in our nervous system. Some people get really frustrated by the fact that they are



cheerful, right. And being cheerful is also perceived to be as a weakness in many different social and professional spaces. So oftentimes people will shut down so that they do not emote. The last thing that I would want to just acknowledge, particularly if people who consider themselves to be either mentors or in a position of opportunity, is to also recognize micro affirmations. Who gets pushed into positions of power, who gets elevated along their way, and how does their confidence build, and who is left behind in that process?

And so I think that it is for our community members of mentors and faculty mentors to really think about how do I identify a student who is not just the standout student traditionally, who raises their hand and speaks up and does all these things? They're going to get everything that they need, right? In many ways. How do I identify the student who may not seem to be confident? How do I elevate them? How do I lift up their voice? How do I support them? We're going to change the line of who we see in positions of power. We need to challenge the ways in which we are defining what a leader looks like and cultivating new versions of leadership along the way.

Dr. Tessnim Ahmad:

Dr. Hill's advice on micro affirmations bears out in the research literature. Pride, self-confidence, charisma, and even narcissism are attributes we associate with leaders and leadership potential. Men and white men in particular are more likely to possess these qualities. The problem is that these characteristics don't actually predict great leadership. In objective assessments, women have actually outperformed men as leaders, but they're less likely to be identified as such. If we want our leaders to represent us, we need to change our ideas of what a leader looks like. And that means challenging centuries of bias and discrimination.

We hope you've enjoyed this segment. While we've explored gender in medicine from the physician perspective, bias from physicians toward patients is another important issue. It's responsible for serious health disparities, including undertreatment of pain in African-American patients. The medical system itself is also inherently biased. Drugs were developed and tested using the prototypical white male body and surgical equipment were designed for male hands. Finally, we've talked about gender in binary terms, but it's important to appreciate the unique experiences of people who identify as trans and gender nonconforming.

This episode was recorded during shelter in place using Zoom, please forgive audio glitches and other noises. Thanks to our guests, Dr. Sarkar and Dr. Hill for sharing their expertise and insights. Thank you for listening and stay well.