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Women Having their Say: Experiences of Hierarchical Microaggressions

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Abstract
This full research paper draws attention to challenges faced by women of color in their academic journeys in STEM. Within the stories shared by minoritized women, many were recently exploited during their time as doctoral students, research scientists, postdoctoral scholars, and as early career faculty within STEM fields in academia. Many of these incidents could be characterized as hierarchical microaggressions. Listening to their stories we can consider the extent to which individual bad actors were responsible for these harms, versus exploring the system-level conditions and cultures that enable these situations. This work encourages faculty to lean into the power, positionality, and agency they possess to work toward creating a culture and environment that is respectful, rejects exploitation, exposes 'hidden truths', fosters collaboration rather than competition, and advocates for others.

Introduction

While conducting interviews associated with a larger study, the stories shared by many of the women scholars in STEM fields were very troubling. In deference to their courage in sharing their experiences and in some cases facing re-traumatization, it is important to amplify their voices. Like other researchers, we felt a "stewardship responsibility … that respects… the stories the participants entrusted to us" [1, p. 1].

The negative experiences of women in academia have been extensively documented. The 2018 National Academies report on sexual harassment noted, "women are often bullied or harassed out of career pathways in [science, engineering, and medical fields]" [2, p. 2]. This included "verbal and nonverbal behaviors that convey hostility, objectification, exclusion, or second-class status" [2, p. 2]. One of the five factors creating conditions where sexual harassment was likely to occur included a strongly hierarchical power structure. Hierarchy in academia can take a variety of forms. The most common is positional hierarchy, where deans are over department chairs, who are over full tenured professors, over associate professors, over assistant professors. Ranks outside the tenure track (instructors, research faculty) are often lower than tenure-track ranks. Faculty ranks are over doctoral students. Beyond strictly positional hierarchy, individuals who excel at research are often respected above those who excel at teaching and/or service roles. There are also gender, race, and social class hierarchies (e.g., men over women, White over people of color, wealthy over poor) [3], [4]. Unfortunately, cultural issues like hierarchy are slow to change.

Ahlam Lee did an extensive literature review of "hierarchical microaggression" in higher education; among 187 articles about microaggressions and bullying, 115 were classified as examples of hierarchical microaggressions (HM) [5]. Significantly, the work found that "individuals who hold inferior or lower-ranked positions in colleges or universities often are victims of hierarchical microaggression; further, regardless of demographic characteristics, anyone can be either a victim or a perpetrator, while stakeholders from socially marginalised backgrounds tend to be victimised, regardless of their position" [5, pg. 321]. There were many different themes that fit under the umbrella of hierarchical microaggressions including:

insult/surprise at smartness, devaluing research ideas or work, taking credit for others' work, providing unclear, subjective, or differential tenure and promotion guidelines. These ideas might not normally be characterized as microaggressions. It appeared that only 8 of the studies of HM reviewed by Lee [5] had a focus that explicitly included STEM disciplines (2 STEM, 1 Computer Science, 1 Physical Science, 1 Natural Science, 1 hard science, 1 Engineering, 1 Engineering Education); none of these 8 studies related to the behaviors of upper level administrators / tenured faculty toward pre-tenured faculty or adjunct / non-tenure track faculty (most of those studies were characterized as any discipline). Thus, a study with an explicit focus on STEM and these groups would add to the literature. In addition, the term microaggressions is more commonly thought of as harassing, insulting, disrespecting, or ignoring. Drawing attention to additional areas of microaggressions is important.

The cumulative effects of experiencing microaggressions can be anything but small. Freeman and Stewart [6] importantly focus on the harms caused by microaggressions. Payton et al. [7] note that microaggressions can have macro impacts, including negatively impacting promotion to full professor. There are also documented impacts of microaggressions on mental health, well-being, self-esteem, and even physical health [8].

Theoretical Frameworks

Critical Race Theory (CRT) [9], [10] was the framework being used for the larger ADVANCE SPACES project within which the current research is situated. CRT recognizes that bias extends beyond individual actions and is embedded in systems and policies. Thus, the hierarchy in academic systems might perpetuate bias. Other CRT tenets that are relevant in this research include intersectionality (multiple characteristics and identities are important, including gender and race), challenging the notions of objectivity and meritocracy (which are particularly prevalent in STEM disciplines), and the centrality of lived experiences. CRT is aligned with sharing counterstories which illuminate personal experiences of racism and bias [11]. Counterstories was selected as the methodology for this research in order to give a voice to the individuals who are multiply marginalized in STEM fields in academia (e.g., people of color, women, low-income upbringing), rejecting deficit models and cultural assimilation [9].

The second relevant theoretical framework is hierarchical microaggressions [5],[12]. In this research paper the counterstories shared by the research participants are explored through the lens of hierarchical microaggressions. The stories of these experiences and their cumulative effects on women of color in STEM will raise awareness of this important issue.

Research Question

This paper explores the question: What are the recent experiences of women of color as related to hierarchical microaggressions as they navigate STEM fields in academia as graduate students, researchers, and non-tenured faculty?

Methods

A larger study funded by the NSF ADVANCE program (ADVANCE SPACES [13]) is exploring

ways to support women faculty of color and those conducting community engaged research (CER) [14]. Within the context of that larger, on-going study, narrative interviews were conducted between August 2023 to March 2024 with 13 women holding STEM doctoral degrees (University of Colorado Boulder IRB Protocol 23-0344). The recruitment process for interview participants included finding contacts via websites, authors of STEM papers that included community engaged research, personal contacts through the large group of ADVANCE grant PIs, senior personnel, the advisory board, and snowball sampling. The first author of the paper emailed individuals using the IRB-approved recruitment language and attaching the consent form.

The narrative interviews were designed to elicit counterstories from the participants. Interviews were conducted by the first author over Zoom, recorded, and lasted between 60 and 90 minutes. The first author had their camera on during the interview, while the participants could opt to have their camera on or off. The interview began by confirming consent verbally. The rough transcripts generated by Zoom were exported into MS Word files and edited for accuracy. Open processes were initially used to explore the interviews for themes. This paper elected to focus on the ideas of hierarchy and structural issues that were shared by non-tenured individuals among the interview pool. Thus, deductive analysis was applied using the types of hierarchical microaggressions identified in [5] and [12].

Composite demographics of the group are provided to ensure the highest level of anonymity and protection for the participants, who were brave and vulnerable in sharing the stories of their experiences. The participants included individuals who identified as Black, Chicana, Latina, Mexican Indigenous, Southeast Asian, Asian (international), and White. Income levels during their upbringing varied. Some were parents. The disciplines represented by the participants spanned Civil Engineering, Environmental Engineering, Industrial Engineering, Biology, Environmental Science, and Public Health. Most conducted community engaged research, with motives for graduate education that included helping people through their work. The academic contexts for their graduate education and early career experiences spanned public and private institutions across the U.S.; R1, R2, and Master's Carnegie classifications; Predominantly White Institutions, Historically Black Colleges & Universities (HBCUs) and Hispanic Serving Institutions (HSIs).

The stories from five women that will be highlighted in this paper reflect the recent past and current issues they were experiencing. These stories were shared by women holding a PhD degree in a STEM field. These individuals were currently post-doctoral researchers, assistant professors, and untenured associate professors, as well as working outside of academia. The stories shared also described when these women were working as doctoral students, post-doctoral scholars, and teaching faculty / instructors (non-tenure track). Given the potential that situations might have improved since the 1990s and early 2000s, the decision was made to exclude the interviews with tenured professors in the pool who were no longer 'early in their careers' and perhaps less likely to currently be experiencing positional hierarchical microaggressions.

The quotes in the results section are presented as clean verbatim, which were lightly edited to remove hesitations and fillers. Some statements have been removed to focus on issues most

relevant to HM and retain the flow of the stories, indicated by ellipses (i.e., ….). The highest level of care has been taken with deidentification to remove the names of individuals, institutions, and states, as well as STEM field. Aligned with traditions in counterstories and narrative, longer portions of the interviews are provided. This respects the time and care of the participants in sharing their stories and minimizes what might be perceived as the bias of the author in selecting short excerpts that could be taken out of context. We humbly acknowledge that some individuals became very emotional during the interviews, experiencing re-traumatization in their commitment to honestly share their experience. To honor this sacrifice, we believe that it is important to broadly share their stories, in their own words.

Positionality and Limitations. The positionality of the first author and interviewer impacts the research [15]. I am a white woman and tenured full professor in a STEM field that is in the same discipline as a few of the interviewees. This positionality may have limited who elected to participate in the interviews and the information they shared. Interviewees could have chosen to avoid sharing particularly painful or traumatizing experiences. Interviewees were balancing trust and honesty in electing which stories to share. It is also important to acknowledge the dynamic nature of memory, where the interviewees were reconstructing events from the past through the lens of their current beliefs, emotions, and context [16].

Results

The stories of the participants revealed an array of troubling conditions that they had encountered. These experiences were often shared simply in response to the opening interview prompt “Tell me a little about your journey in higher education through STEM”. Stories described working in a large lab that functioned as a pyramid scheme, graduate students treated as slaves, and being exploited in non-tenure track roles. More than one described discovering various “hidden truths” and “known secrets” on their journeys. The types of hierarchical microaggressions found in the 5 interviews are summarized in Table 1, with a letter assigned to each interviewee. In-depth stories from each of these interviewees are shared below. Each story represents one of the five participants. The author bolded some words in the off-set quotes to draw attention to particular phrases.

Table 1. Types of hierarchical microaggressions [5],[12] described in the 5 interviews

Type of Hierarchical Microaggression	Position(s) when experienced	Interviewees
Devalue research ideas or work (deprofessionalization)	Assistant Prof	D, E
Disproportionate amount of service work (deprofessionalization)	Adjunct, Assistant Prof	C, D
Provide unclear, subjective, differential hiring / promotion guidance	Adjunct, Lecturer, Assistant Prof	C, E
Take credit for others work	Adjunct	C, E
Control, interrupt, micromanage	Assistant Prof	C
Ignore / exclude	Lecturer, Assistant Prof	C, D
Insult / disrespect	Research center dir, Assistant Prof	B, D, E
Treat differently based on position	Research center dir, Adjunct	B, C, D
Insult / surprise at smartness	PhD student, Lecturer, Assistant Prof	A, C, E
Misrecognition of others / invisibility	Postdoc, Assistant Prof	B, D
Hazing / bullying	PhD student; Assistant Prof	A, D, E
Results of HM: Fatigue and trauma	*PhD student, Postdoc, Assistant Prof*	*A, B, D, E*

A: Hard work and success during PhD made others competitive

One woman (Interviewee A) came into her doctoral studies with a high level of skills from previous work experience during her Master's degree, which was in a different STEM discipline at a different institution. Finances were tight, and she had to learn to negotiate the particular rules and norms of her new institution and laboratory. She was successful in part due to her self-confidence to seek help outside of the narrow confines of her doctoral advisor and department.

> My main adviser really supported me and has supported other minority women throughout their careers, which was beneficial. However, there were other [scientists] that worked in the lab that weren't really supportive. …. I was working in a pretty large lab where it's kind of like, for a lack of better words, **like a pyramid scheme**. You know you have the main advisor, and then you have other PhDs [post docs] working under that. And then those PhDs help mentor [students] in the lab.... But the main advisor was helpful. The people in between there were a mix between non helpful and helpful.
>
> One of the main things I think that helped me was going outside of my lab for funding. [I was under] a lot of financial strain… They told me that my pay was really controlled by the department, they couldn't pay me any more. …. Additionally, no one explained how finances were being dispersed to students where students get paid less during the year and then can get paid more in the summer. …. So I didn't know to ask, you know, before I went in…. It was this like… "**known secret**" I guess …. It wasn't that I was lied to. It was just like both parties thought it was understood, you know, but it was never explained. So it's kinda understanding those **hidden truths**, really, to academia that minority people, I strongly believe, aren't privy to.
>
> …. I kinda didn't just rely on the romanticization of my advisor [that's] gonna be the catch all and fully supporting me … emotionally, academically, and financially. So I went out to seek other funding and have secondary and tertiary advisors. And that was definitely through my independence or independent nature and gumption to do so. I found other outside scholarships to help me out [and found] other individuals who were minority identifying people, both professors and people within my department.
>
> I definitely thought about [becoming a faculty member] a lot while I was in the bubble of academia. You know, I like research. I published 3 papers this year, and I'm not actively in academia.
>
> For me one of the biggest things about my departure from academia was the **competition** between my colleagues and my mentors. That really turned me off in a way, 'cause I didn't find that… community with my colleagues. Because I was also publishing a lot, traveling a lot, doing a lot of research. And instead of being supported in that way -- and when I mean colleagues, it's literally people in my department -- I was slammed for it. And it put **a target on my back**. In academia right now there's a **lot of hazing** that goes on with new recruits on like 'Well, can you do this? Can you do that?' And I was definitely hazed. In no way by my advisor, but by the direct [postdoc] supervisor…. My advisor didn't know about what was going on. I didn't really tell him either.

As a specific example of the competitive culture in the lab, Interviewee A described her direct supervisor (a post doc) pitting her against a senior PhD student in the lab by assigning her to give a poster on a project at a professional conference, even though it was the main project of the senior student. Interviewee A had only been working on the project briefly for pay the summer before she formally started the PhD program. It was like he expected her to fail.

> But little did he know that I have an episodic memory. So when we ran through, I got the gist of the project. I came back with a poster. And I'm very visual, so I color coded it. …. That was my training for my masters…. And so when we went to the conference, we had a poster session. It was also kind of like a competition where they would place you first, second, and third. You'd win money. And then, lo and behold, I won first place [with my poster]. Like the new person in the lab. And that put a huge target on my back, like ginormous. And that supervisor, although, like my advisor, was really proud of me. But the supervisor was kind of that **fake proud and saw me as competition even though they already had their PhD**. That was kinda like the first big red flag for me in academia. And that's just a story for you to understand the contextualities. That [dynamic] kind of continued throughout, because this person was also a minority Hispanic person, but in their country they would be considered white.
>
> And so, yeah, that just continued throughout that first year which pushed me to find [other funding]. And then my PhD [experience] got better. I didn't have a target on my back necessarily with that person, because I wasn't working directly with them. But I did then start having a target on my back by my other colleagues in my department. Because of the work, 'cause I was quote unquote, **doing too much**. Publishing too much. With no actual recognition of how I wasn't sleeping, wasn't eating.… that first year was so **traumatic** in a sense that I just pushed myself to get out…. Also I didn't have weekends. You know I did stuff on the weekends, but I still was in lab in the morning…. [It] really burdened some on me physically and mentally…. I think it really blends into kind of that **insecurity aspect** of it. Of them. Obviously, I went to a lot of therapy regarding this stuff. But that led into that clash. Because I was just doing my own thing, and I believe if you don't complain, then you can conserve that energy to just keep moving forward. …. I just think that because I made it look easy, it really bothered a lot of people.

Her experience shows the competition and jealousy that can occur in academia. This included a much more senior person feeling competitive against a student. Other people weren't recognizing how much she was sacrificing personally in order to be professionally outstanding. This competition instead of support was not appealing to her. Her story also shows that people should not assume that minoritized groups will share an affinity or lift each other up just because they share an identity trait. She didn't want her whole life to be solely work, and worried that she would not be able to maintain a work-life balance in academia. She was happy, successful, and continuing her community engaged scholarship outside of academia working with governmental groups.

B: Researcher on a long journey with little respect

One scholar (Interviewee B) was motivated to become a scientist to help her community and reject the history of her community being 'studied' by researchers but not respected enough to be told the results or actually helped. Her journey had not been easy.

> I went into the most poverty-stricken school system in [DEID LOCATION]. .... So I began, I didn't have that many opportunities. … But what really pushed me was when I was in high school and I realized that **scientists were studying us**. And basically … there were a lot of environmental justice activists that were coming out and shouting that we were dying. …. And then the University of [DEID] came to my high school to recruit for a study of the health impacts of these chemicals. …. But they never came back and told us what the results were at all. That fueled me. …. I would one day face those researchers that did that study in my hometown and then they were gonna have to answer [to me].
>
> …when I landed in higher education at the Ivory Tower **I wasn't ready** …. So I had to work triple, quadruple more than a lot of my peers. …. I realized that my passion, my drive, was not enough. I realized I had entered a corporate system just like any other. And I realized in corporate systems you have **hierarchies**. And that hierarchy is real. This hierarchy has been developed by the people that are in power, right? **And I realized that it was meant to keep people like me out**. ….
>
> Standing here with my doctoral degree, I realize that the institution is the institution. It will never change for me. For example, we will never solve environmental justice issues through academia. Never. We will never solve poverty through academia. Never. We're an institution. We're a corporation that requires money from the Government in order to keep our system going. Without that money, without us saying that we need to solve more problems and not figuring them out. That's part of our game. The reality of it is that we, as academicians, are spinning our wheels in a system that is not going to solve our issues. ….
>
> Because if I tell you, oh, yeah, get more minority women in there. That's not solving the problem. … [Many] women [in academia] have gone to private schools… [and] don't come from poverty. …. They say, get more women of color in there. Get more money for them. Pull more women. No. Because guess what, **I've struggled and I've suffered in there**. And I don't want more women of color to be put in there if they're gonna go through my journey at all, because it tells me that institution **is not ready for us**. …..
>
> [If you persist there] are the unwritten rules of academia that basically beat you into being who you're supposed to be. … [Academia] is like the Ku Klux Klan. … That's how I felt. …. **They have a hierarchy**. …. And then they had all these rules. …. **It's very culty**. … it's made for classes that are not in poverty…. Even right now it's so frustrating for me as a young investigator. …. I'm to the point, straight, direct. I don't play games. …. And that's a difference between their culture and my culture.
>
> … basically, **I have not gotten respect**. [As a post doc] I don't even have an office… they gave me a cubicle. …. I started working for the University in 2001. I did badass work [with communities]. That area was really tough to work [in], and I was an embedded researcher. Awesome research I did… I basically built the [DEID] research core. … I've never gotten

> respect. They have never given me promotions. …. Dr. [DEID], a white male, gave me the best raise I have ever gotten in my life. After that my [next] director promised me all these raises and never gave them to me. **I actually got downgraded**. Dr. [DEID] had me in this badass office [and] when the white female director took over our center [she] downgraded me. I got into a cubicle. Even my salary went down. … I worked for the [DEID] research program for 15 years. I did my best work. And they let me go… She was done with me. She basically squeezed everything [out of me].… I came in with my own project and they didn't care about that. …. I'm still dealing with politics like that. ….
>
> I don't think I'm ever gonna get that [respect] here. …. I'm realizing my family was right…. They were seeing me, and they were like, 'Is it worth it?' And I tell them all the stuff, and my family's like … 'that doesn't sound healthy. It sounds like a domestic violence situation, …. sounds like they beat you guys [and then you] come coming crawling back for more.' My family doesn't have an academic degree or whatever, and that's how they best see it …. [They say] that doesn't sound right. You got your degree. You have a doctoral [degree] for them to treat you like that. …. My family …. is making more money than I am here. ….
>
> And that's how I know that the system hasn't appreciated me because I look at my family right now in [DEID LOCATION] and they're doing way better than I am. And **I'm scared**. I'm actually realizing this might not be the place for me and I might need to leave. My mentor [DEID] a white guy told me, 'you know what happens. There's this thing in academia that I call floaters. And floaters are basically people that are really good. And they do this work, and they're being sent from one grant to the other, to the other, to the other…. I don't want that to happen to you. …this place is about who likes you and your peers. And if you can't get in line, then it's not gonna work out.' And he goes, 'And what I don't want for you is that you go into these academic positions and you're gonna have to wait 5 years to see if they like you. And then you come out and you have nothing, 'cause that could be it.'

This very strong woman was committed to a career in science to help impoverished communities. She had been highly successful in her science but felt that her institution did not respect her. Her extra burdens and struggles coming from a low-income background were invisible. One of her advocates was a white male, while a white woman was someone who used her. Despite obstacles and low pay she was persisting, but able to see how academia was not set up to truly support students and scholars from low income backgrounds. Academia preferenced business goals and the money-making side of science over altruistic contributions to bettering society and working toward social justice. She felt like she was still learning unwritten rules in order to play the games of the academic hierarchy.

C: Seven year journey to assistant professor

Many of the women of color wanted to stay near their family and their local community. This geographic limitation seemed to provide a greater opportunity for exploitation, with fewer choices of institutions and advisors. The faculty members knew about the women's desire not to relocate. There were also double-standards, as some were told they could not be hired due to 'academic nepotism' but a number of other people in the program had been hired despite this same issue.

One woman (Interviewee C) shared her story of a long journey after earning her PhD to get a tenure-track Assistant Professor position. This included about 7 years in academia going through a number of different roles that started as an adjunct temporary position. She was highly successful in winning grants, but because of her position at the institution she was not able to be the principal investigator (PI). And once the grant arrived the PI took the funding and cut her out, even though she wrote the majority of the proposal. She eventually moved to a lecturer position but was assigned a very high teaching load including a course with many small lab sections, embedded ABET outcomes, and heavy grading. This heavy assignment was treated the same as others teaching a lecture class to 8 students. So teaching loads were unequally assigned. Some of her story in her own words follows:

> So it's been, it's been bumpy. … I was a single mom for most of the time when I did my PhD…. When I finished my PhD I wanted to continue in academia, but I couldn't because the job offer that I got was outside of the State. And then, just for personal reasons, I couldn't relocate. So I took a job in consulting. …. After about 4 years, I had the opportunity to get a position at [DEID] University. A lot of the older faculty started retiring and they needed people to start teaching…. They continued to hire in the tenure track, [but] I was hired as an adjunct. So for about 2 years, I had an adjunct faculty position. I was teaching. **I was doing a lot of service**. But I asked if it was okay for me to do research. And they said I could. So I started writing grants. But the feedback that I got from funding agencies is that if I didn't really have a full-time position, because adjunct is not considered a permanent position, I literally was told, if your institution is not supporting you, why would I? [So] I started working with other faculty. I was a co-PI and they were the PIs. They were the PI and with the intention that I was supposed to get a student from it. So it was fine. I was gonna get publications. It was gonna help me move forward. The first proposal that I wrote …. We got it. Yeah. But then, as soon as the money came, the PI disconnected me. He started meeting with the rest of the group. He was not really involving me ….. He decided that he was gonna give the money to one of his students, he said, oh, maybe you could be like a co-adviser. But then that never happened. So yeah. And he just kept taking roles from the proposal. To this date I'm not sure who actually did them, because I was the one with the skill set to perform them. And I think he was under the impression that because I was an adjunct faculty that I was almost like a postdoctoral working for him to some degree, and he was expecting me to train his students to do the job. But I had no role, as in they were not my students and I had a very high teaching load. …. This is when the pandemic happened as well. Single mom, pandemic. I'm pretty much locked at home now. So I said, look, I can provide support online as much as I can…. So I think he was not very happy with that setup. So it didn't work out.
>
> But at least after I got that proposal in that group, they switched my position. I was able to get them to switch my position to a lecturer position and that was a more permanent position and increased [salary. About twice as much.] So that was significant and that also allowed me to start writing grants as a PI so I submitted another grant with me as a PI. That was the first Federal grant I submitted, and I got it. It was really good. So with that I was able to recruit students and start actually getting papers. Which was really difficult, because between the high teaching loads and then I didn't get any support or startups, so it was really difficult to be able to do research if you didn't have any equipment or facilities. And so I was kind of working with what other people had…. kind of depending on the schedule of other PI's labs so that my students can actually use a space to do the work.

I continued to submit proposals. And I've actually been successful at getting funding. I have a second student that just started. I feel like I always ended up just writing the proposals and doing everything because I wasn't the one with the lab space. I just have the skills. …. So I'm the one writing …. and I'm doing the lab work. It's just that it's not in my space.

But they continued to hire people as assistant professors. More positions came open. They kept hiring people, and what I was told is because I did my PhD here they didn't like that inbreeding and [hiring] people that graduated here. But the reality is that they do it often…. And then last year fall one of the faculty moved to another university and they decided that they were going to open a position to replace him. And my background kind of aligned with his line of research. So I just straight told them, I'm applying. [He said] I don't know that they're gonna hire you. ….

So I applied and again very mixed things. So on the search committee there was one particular person, that first person that kind of bumped me out of the proposal was part of it. And don't ask me why, I don't know why, I have no issues with anyone, but he insisted that I shouldn't be hired as an assistant professor. So because it has to be a scoring system since he put me at the bottom, I didn't make it to be one of the top 3 to get invited to campus. So they invited other people to campus, but after the head of the school saw … who was coming, like most of them had just graduated from their PhD. Or were just starting their post doc. He decided that … he couldn't not give me the opportunity. So he asked for the Department to actually vote …. because I had more experience. I had teaching experience. I was coming with funding already, and [graduate] students which none of the ones that they selected had. So they gave the department the opportunity to vote. And I think I had out of the 16 people, maybe 2 people said no, so they approved for me to move forward with an interview. They interviewed me. So I just got my offer like a month ago. I just switched to an assistant professor position and I was able to get a startup.

I'm super excited that I was finally able to get to this point. But **it was really difficult**. It's like, I don't know why, it was constantly almost like expected that **I needed to prove myself**. …. So what would it take? And I'm very blunt. I ask very direct questions, like, what would it take to go from this adjunct position to a permanent position which I want so that I can do better research. [They said] all you need is to bring funding. …. don't worry about publications. You just bring money. So I started writing proposals and started to get money. It's like, Okay, I have money. But [then they said] your publications are not there yet. So there was always something else that came [up]. ….

I tried to talk to the Dean several times [but] my appointments will continuously get cancelled. And so it was very difficult…. I [was] concerned about everything. We have a new [University] President. We're gonna have a new Dean. …. A lecturer is not supposed to have 4 ongoing research grants, right? So I didn't know what was gonna happen with my position, or if they're not gonna allow me to do research again. So I insisted in talking to her…. She said, Yeah, you should have never been put in the position where you're doing this level of research and not have the support to do the research that you're doing. …. And I should have fixed this earlier.

Her story shows how people kept changing the "rules". Providing unclear promotion guidelines is a type of hierarchical microaggression [5]. And it was only through her own persistence that she was able to escape a cycle of exploitation where others took credit for her work.

> The head of the school. I feel like he has a habit of promising things, like he's just trying to get me off like, Yeah, yeah, I will do this. But not really following up. And I'm really good at following up. You said you're gonna do something for me. So yeah, he told someone, 'Oh, yeah, she can be a little pushy.'

It is not uncommon that women are characterized as pushy for behavior that would be considered normal in men. She felt that she was treated differently than others but that it was getting better.

> In my first interactions with [the head] if he didn't like what I was saying or I started asking…. He would shush me in conversations… I don't think he should talk like that even to students. I thought he was **dismissive and disrespectful** in the way that he would refer to me… As I started bringing money to the university and publishing papers, and all the faculty were talking [positively] about their work with me, then his tone started changing. But **it was a lot of proving… over and over again**.

Her story showed multiple examples where people interrupted her and seemed to doubt her smartness as forms of microaggressions that she endured. Her experience also included individuals who were content to use her without treating her fairly. But through her own excellence and persistence she finally landed the tenure-track position that she had earned.

D: Bad first tenure-track job

A woman (Interviewee D) thrived as a program manager after earning her Master's degree, went on to earn her PhD, and then got a tenure track position. But she moved institutions after a few years due to the conditions she encountered. Multiple factors influenced her decision including the hierarchical nature of the program, historical sexual harassment, and a misfit between her goals to help make real positive impacts via community engaged research versus pursue academic prestige. Her story is shared below.

> When I finished my master's degree, my mentor at the time… I helped him write a grant that was eventually funded, and they needed a program manager for it. And so he was like, 'Do you wanna come manage this program? But you have to move [to a new state].' And I was like, Yeah … I need a job. And I like doing this. And I like working with you. So I did that. I went to [DEID] University to be what they call an academic specialist. So that is non tenure track faculty. And I managed that program for 4 years. Within the first year I realized that **academia is very hierarchical**. Because I was non-tenure track and I only had a Master's degree, even though I was doing research, even though I was writing manuscripts that were as good or better than some of the faculty there, because I didn't have the doctorate they just **didn't respect me**. The nice thing about working at [DEID] University was they had an employee tuition benefit. So I was able to work full time there and get my PhD part time, more or less for free ….

The above paragraph describes positional hierarchy, where despite her success leading a research center and publishing research, she was not respected. Her story continues:

> And then I really love teaching. I feel very passionate about the community work that I do. There are not that many Southeast Asian American women in Academia. By Southeast Asia, I mean Vietnam, Thailand, Cambodia, Philippines. We're very underrepresented as well. …. A lot of institutions … don't segregate the data, and they lump together Asians and Asian Americans. But Asian faculty, who are international, who are largely more from affluent countries like Asia, Korea, Japan, or even South Asia and India are highly over represented in academia and therefore they say, like all Asian and Asian Americans, are over represented in academia, which is not the case at all. ….

The paragraph above speaks to the notion of misrecognition and invisibility, which is one of the forms of "structural disadvantage" within hierarchical microaggressive intersectionalities described by Young and Anderson [12]. Her story continues:

> And so **I was doing a lot of mentoring** and I liked research. And government, which I had done briefly before, was too slow of a pace for me.
>
> So … that's how I ended up at my first tenure track position at [DEID2] University, which I stayed there for 3 years, and then got the heck out. …. I had a horrible time [there]. They really ground me down. **I still have a lot of trauma**… feel like PTSD from it…. And a lot of red flags that I felt were present even when I was at the interview were there. During my interview, even people on the faculty were like why. One person in particular was like, "**why are you even interviewing here, you don't fit in this department**." And you know, at the time I'd interviewed at multiple places and got multiple offers. But I made the best decision with the information I had presented to me at the time, and [DEID2] University is obviously **very prestigious**.… I came in with the mindset that Okay, I'm here. This is my first tenure track position. I must earn tenure here, and I'm going to stay and work 35 years here, and retire, and then I'll die. Just because so many of my other colleagues in that department have been there for like 35 or 40 years, you know.
>
> I came to the department during a very **toxic time**. [Faculty in the department] knew about him sexually harassing employees and other grad students since he was an assistant professor, but they promoted him. But it should have also been a red flag for me that, like 30-something years worth of abuse, like nobody in the department wanted to talk about it, not even in faculty meetings, even after they had an external legal team come and interview everybody. I read through the 200 page report [and] they still just don't wanna talk about anything. …. They think very highly of themselves, and they are very research productive. But **the motto is very much like eat the young**.
>
> … as time went on, I mean, it was just a horrible toxic work environment for a number of reasons. There were a lot of things - favoritism in the department, **a lot of discrimination**. There were a lot of issues. …one winter I was like, why did I do this to myself … at this job that I hate. I really don't need to be here. And I started thinking about what my core values are as a researcher. I don't care about being the most cited by my colleagues because I'm an applied researcher. I want practitioners to read my work and use my work. And I don't care about being the most prestigious or well known. I care about making an impact with the community, and when I was non tenure track at [DEID] University, yes, people respected me less, but I got way more done and got way more reach with the community then. And at

> [DEID2] University it was **all this B.S. bureaucracy, and virtue signaling** and stopping me from doing my work and **being told multiple times by my colleagues I don't do real research**.

The above paragraphs illustrate the hierarchical microaggressions of devaluing research ideas or work, excluding (e.g., favoritism, not talking about historical sexual harassment), and unspecified discrimination. Not surprisingly the combination of factors led this woman to leave her institution to find a more supportive environment.

> So eventually I very much secretly interviewed at other places. And I didn't resign until I had a job offer, and I talked to my therapist about my plan of action on how to resign gracefully, just because my department had **retaliated** against other people who had resigned by freezing their grant accounts, refusing to transfer their grants to new institutions, and things of that nature so…. people who know me personally and are close to me I will speak to you. But on the most part, [my STEM field] is such a small community. As much as I wanted to burn bridges and blow them up on academic twitter on the way out, be like a F*** you guys, F*** all of this, I really couldn't for the for the sake of my career. I will say I met some of the best people I've ever met in my life there, and some of the worst people of my life there.

The final paragraph gives a sense of why some of these highly negative stories don't get out. Most academic fields become very narrow and there is fear that powerful members in those fields would sabotage a career through direct power like peer review of grants and manuscripts, and also through their larger research networks (senior faculty have often trained multiple generations of later scholars in the field).

Her story continues and shares additional concerns, including the treatment she has observed of others:

> … **I can serve as a role model for first gen students, for underrepresented students, for low income students**. And I think that I add definitely a different perspective and voice to my departments and my schools, **which they actually, I found out, don't actually like**.

> … on the scale of like minority oppression, I would say I experience the lesser end. **I get microaggressions all the time about like how young I look, my age, being a woman**, right? You know my last institution kind of used me as **their DEI show**, because I was the first woman and minority on the tenure track in a decade, **but not really supporting my research and just giving me a ton of service and a ton of curriculum development**. But at the same time, I have a lot of friends, female friends who are women in [STEM] who are blond and blue eyed, and **they're taken a lot less seriously** and undermined a lot more than I am as an Asian American woman, just because of these inherent, implicit biases people have.

This story highlights the different types of visible intersectional demographics that might attract various forms of microaggressions. People have stereotypes and make assumptions that are detrimental in many different ways.

She also shared an interesting story about her mentors, risks of being perceived as riding on the coat tails of research collaborators, and bullies.

> I'm in a heavily male dominated field. So **my mentors have actually always largely been white men**. …. [Unfortunately] Because I am a younger woman, because I am a woman of color, the perception is always that you're **riding on the coattails** of some senior male. Right? So that's why for 3 years I broke off and I really developed my own very distinct research trajectory. … I really earned this job on my own merits, I interviewed for multiple departments, I went through the whole shebang….
>
> …. As much as I've always wanted a woman mentor, like a senior woman mentor, or a mentor who's a person of color, **my biggest academic bullies have always been older women, more senior women.** I had them at [two previous universities]. I hope I don't have any here. But it's kind of just, what is this? They're all self-proclaimed feminists, but they all put the younger women through a **hazing** process. And I find that when I get bullied by male faculty, which does happen, they're more direct about it. They're kind of like 'you suck' or they try to undermine you or they talk over you. But with women bullies it's like this slow burn psychological games that's so hard to document. And then they gaslight you and you feel like you're going insane. ….
>
> My mentor now… he's sat on a lot of promotion and tenure committees. He's like this is very much the case where we will see senior women... If you look at 2 scholars going up for promotion and tenure, both equally accomplished, both with the same mentor. People won't say anything about the man, but they'll try to say that the woman was riding on coattails, or they got favors, or they slept with so and so, and he said the harshest comments always come from more senior women towards junior women….
>
> Most of my mentors have been white men. It's only until 2 years ago that I got an amazing senior female mentor. ….. She's very dedicated to it. You can feel this comes from her heart, and it's not like she's checking a box that makes her look good or anything like that. So she's been an incredible asset.

Regardless of demographics, anyone can be a good mentor. Anyone can be an individual bad actor. It is unclear if senior women were previously subjected to bullying and hazing themselves and are now replicating that behavior. Or if they feel competitive in some way. But the story raises many troubling issues.

E: Microaggressions and other daily indignities

In discussing her struggles in academia which included tenure-track positions at two different universities following prestigious degrees and post-doctoral training, the following story was shared (Interviewee E).

> The problem is that I also happen to be a brown woman. **The brown woman cannot be the best one.** And that is the problem that there are places where they would never accept that the best person is not a white man or the white woman. Or the brown man. Or the black man. But that it will be the black woman. Or the brown woman. Or the indigenous woman! The bottom of the barrel in their eyes. And that is the biggest problem, because in some cases those <u>are</u> the best ones. And I consider myself the best one, however pompous it may be. But after my experience [in academia] with so many people, mostly men, with a lot less talent, with a lot

less education, a lot less strength, and a lot more privilege produced less than me.

It is like so many cuts. It is like constantly people hurting you, people throwing rocks. *[emotion in voice; tearing up]* People putting a nuclear bomb in your way, it is just endless. And it goes from little to the incredible criminal behavior. So it is endless.

So this case is an easy one. Somebody telling you that you are wearing a cocktail dress. … and the intention was to make me feel like I am a floozy, I am an unprofessional person. He [full professor] will never say that to somebody like you or [name] because you're white women and he doesn't feel empowered to say those kind of things. And I personally think I dress better than these people. Yeah. So my sense of style became a target. Why? Because he has an image of a Latina. He probably thinks we all are chattel…. So he has stereotypes. But he doesn't say these things in front of other people. He said it in private because he wanted to cut me. … that is just one example. Those kind of things happened regularly.

I [am] supposed to be professional. I want to represent my people properly. … no matter how poor we are, we are well kept. That is different when you have a set of standards from our community that you have to uphold. At the same time that you tried to uphold all those certain standards, and they take you down for trying to keep your own integrity, your authenticity. And try to turn it into a target and hurt you for it. **It is painful to go there**. …. It's very tiring.

[Interviewer: People have used this term micro aggression,…]

It's not micro, and it's not unconscious. I think it is deliberate. Because you know that it's only down to some people and not to others. You become aware of it. And you know it really is a targeted thing. It's not just by mistake. … It is well targeted. They do it only in certain circumstances when they know they can get away with it.

The interviewee discussed how she had felt after being targeted with so-called microaggressions. She did not believe it was unconscious bias. People were conscious enough to change their behavior in front of other people. And these examples were small compared to the other examples of academic misconduct that she shared (senior faculty demanding to be added as an author on her paper; faculty counting her community engaged research that had been published in respected refereed journals as only service).

The interviewee had taken the time to process the treatment that she had received and was not deterred from her path to do research that improved the lives of people in marginalized communities.

There's more energy to stay in the positive and being able to do something positive. …. because there's too many other people still bickering over meaningless stuff and creating harms still. So, how do we get more people wanting to protect the communities? That's what I'm thinking. ….

To me **my power is that I know who I am**. I think I'm qualified. I have done good work and I can continue to [do this work]. … I don't have to be like everybody else. I don't have to conform. … you have your own power and it is significant should you choose to exercise it. … I'm not feeling sad anymore. I'm not crying anymore. This is me. This is the space I've

> chosen for myself and it is **an empowered space**. It is a positive space, compassionate, loving. They're not going to take me out of that space no matter how many times they tell me I'm this or that. … I am finding and building coalitions with people who have the right intentions…. Working together we can really effect good change. I do believe that. …. I'm not alone. That is such an empowering space.

Going through obstacles and challenges she had developed a strong understanding of these issues and was prepared to tackle them to make improvements. She did not feel that she was a victim or disempowered, quite the opposite.

Discussion

The results revealed an array of troubling conditions. Stories described working in a large lab that functioned as a pyramid scheme and being exploited in non-tenure track roles. Many of the women had gone through a variety of different non-tenure track academic roles, including leading research centers. They gained skills on these journeys but often endured less respect and lower pay in these roles. Women aren't helpless victims in the face of these hierarchical microaggressions. Others are researching effective strategies to resist disempowerment [17].

The research provides narrative details behind the types of hierarchical microaggressions characterized by Lee [5]. The experiences related to hierarchies of position, gender, race, and class. Lee's [5] hierarchical microaggression themes were found in different relationships within these stories, with targets including research staff / program managers (Interviewees B and D), doctoral students (Interviewee A), postdocs (Interviewee B), adjunct and non-tenure track faculty (Interviewee C), and assistant professors (Interviewees D and E). This included devaluing community engaged research (Interviewees D and E), taking credit for others' work (Interviewee C), interrupting (Interviewee C), providing unclear promotion guidance (Interviewee C), insulting (Interviewee E), disrespect (Interviewees B, D, E), treating differently based on position (Interviewees B, C, D), and surprise at smartness (Interviewees A and E).

Lee's [5] conceptual model of hierarchical microaggressions represents the conditions found in this research, including the structural fame (based on position type & institutional policies) interacting with the political frame (because of limited resources & perpetrators' positional power). There seemed to be fewer instances of the human resources frame (perhaps Interviewee A's doctoral student experience) or symbolic frame (perhaps the prestige goal at Interviewee D's institution). The hierarchical microaggressions caused toxic workplace cultures resulting in stress and mental health issues (Interviewees A, B, D), low job satisfaction (Interviewees B, D), leaving the institution (Interviewee D), and leaving academia (Interviewee A).

Many of the situations seemed to relate to power and 'perverse incentives and hypercompetition' in academia [18]. Edwards and Roy [18] identified conditions such as the shift to operating universities on a business model (described by Interviewee B), the increased use of quantitative performance metrics (e.g., number of publications, citation counts) that preference quantity over quality, and the hypercompetitive funding environments as negative forces in academia. These pressures are passed from senior faculty to others and pose "systemic risks to scientific integrity" [18, p. 55]. In the stories shared in this research, this competitive climate seemed to spur some researchers to be jealous of the success of others (Interviewee A) and essentially steal research

funding (Interviewee C).

The women described discovering various “hidden truths” and “known secrets” about what happens at a university on their journey. If a university is operating on a business model, they are trying to squeeze the most productivity from each person at the lowest cost. This leads to underfunding doctoral students [Interviewee A] or keeping faculty in iterant and lower paying non-tenure track positions [Interviewee B and C]. It is certainly possible that others such as majority men and White women might face some of same positional hierarchical microaggressions and other conditions; but this question is beyond the scope of the current research.

Implications

Individuals on the path to potentially becoming faculty should carefully weigh the potential benefits and sacrifices associated with this goal. There are positions in academia that are worth considering beyond the tenure-track, including teaching faculty, research faculty, and other roles. Institutional contexts vary widely in their support of women of color and community engaged research, including localized culture at the department level. It is worth talking with women of color at the institution from inside and outside of the department, including those in non-tenure track positions and staff. Try to talk with individuals representing multiple facets of your identity, which may include socioeconomic class, being a parent, international status, and dis/ability. Also talk with people at an array of institutions. This will give you ideas of questions to ask that may uncover “hidden truths”. Be on guard against exploitation. If the goal is to help communities while maintaining a work-life balance and being respected, government positions and non-profits are an alternative career path to consider.

The results of this work call for faculty to lean into the power, positionality, and agency they possess to work toward creating a culture and environment that is respectful, rejects exploitation, exposes ‘hidden truths’, fosters collaboration rather than competition, and advocates for others. Those who honestly want to broaden participation in academia must truly shoulder work and be accomplices in working for change. We must educate ourselves about types of microaggressions. We can mentor undergraduate and graduate students, post-doctoral scholars, instructors, and junior faculty. If we serve on search committees and evaluation committees for promotion and tenure we can actively resist bias. We can be on the lookout for inequitable teaching and service assignments. We have power in our roles as peer reviewers for grants and manuscripts. It will take everyone who is part of the system to work to change it. These changes are critical to realize the vision of higher education and academia as forces for good and positive change in the world.

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