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Dressing the Part: Gender Differences in Residents' Experiences of Feedback in Internal Medicine

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Abstract

Purpose

Multiple studies demonstrate the assessment of residents differs by gender, yet little is known about how these differences are experienced by women and men. The authors sought to understand whether the experience of being assessed and receiving feedback differs between men and women internal medicine (IM) residents and how women respond to these experiences.

Method

A constructivist grounded theory approach to data collection and interpretation was used. The authors invited all IM residents in postgraduate years 1–3 at the University of Toronto to participate in semistructured focus groups (August–October 2019). Twenty-two residents participated (8 men, 14 women). Focus groups were divided by gender and training level.

Results

The authors found a profound difference in experiences of receiving feedback between men and women residents. The themes of challenges to power and authority, tactics to re-establish power and authority, conflicting feedback from attendings, and ways of moving forward all diverged between men and women residents. Women repeatedly brought up feedback outside of official assessment moments and relied on symbols, such as a white coat, stethoscope, and demure clothing, to "dress the part" of a physician. Women also encountered conflicting feedback from supervisors regarding confidence and assertiveness (e.g., sometimes told to be more assertive, other times to be less), often resulting in self-censorship; similar feedback was rarely noted by men.

Conclusions

Gendered differences in the experiences of being assessed and receiving feedback are not always reflected in standard measures. Gender and medicine can be considered performative, and these findings demonstrate women IM residents integrate multiple forms of feedback to create the persona of the woman physician. The authors believe this research contributes a unique vantage point to the experience of women residents interpreting explicit and implicit feedback in IM and highlights the socialization that occurs to become a woman physician.

Gender equity in residency training has garnered recent attention, with multiple studies demonstrating that women trainees are systematically disadvantaged and underrated on workplace-based assessments.[1–9] However, these findings are not consistent across specialties or programs, as some studies report finding no such differences.[10,11] With the shift to competency-based medical education, there is a renewed focus on gender bias. Bias may be amplified when there are increased opportunities for direct observation, feedback, and evaluation, such as in the context of entrustable professional activities, which are real-life, workplace activities that a resident is entrusted to perform once they are have attained an adequate level of competency.[12] In addition to any differences on formal assessments, women and men residents may also experience the processes of being observed and receiving feedback differently, yet this has not been adequately explored.

Gender bias refers to culturally established gender roles and beliefs that impact perceptions and actions, with or without conscious intent.[13] We use the term gender, and not sex, as sex refers to biologic differences in humans, whereas gender refers to socially constructed roles that encompass behaviors, expressions, and identities. Gender influences conceptions of self and interactions between people, and affects power and resources within a society.[14,15] Gender theory examines what is considered as masculine, feminine, or queer behavior within a particular cultural context, community, or field of study.[16] In medical training and practice, gender bias can be as overt as misogynistic comments or as subtle as differing expectations of men and women residents, patient referral patterns, compensation, and opportunities for career advancement.[5,17–20] In this article, we use the terms women and men as compared to female and male as we are referring to participants' gender presentation, not their sex at birth. Some of the articles we cite use male-female terminology, in which case we honor the original text.

There is a growing body of literature addressing gender bias in medical education. Recent studies across numerous specialties report notable discrepancies in evaluations of men and women residents by both physician staff and allied health professionals.[1,2,4,8–11,21,22] In multiple studies, women are underrated when formally evaluated.[1,9] Assessment comments for women show greater inconsistency and assessors value different attributes for women as compared to men.[2,21] Men tend to receive more agentic, or "action-oriented," feedback, whereas women are praised for their communal skills and communication.[2,23,24] One recent study examining implementation of competency-based medical education with medical students found that comments on personal attributes appear more frequently in evaluations of women, and comments reflecting competency-related behaviors appear more frequently in evaluations of men.[25] Women are more likely to receive negative or incongruous feedback when they assume traditionally male roles.[2,9,26]

Recent studies have considered the role of gender in evaluations in emergency medicine, obstetrics and gynecology, or surgical specialties; however, similar studies in IM are dated or focused on subspecialty (not core) training. [1,2,4,8–11] This is important, as everyone who filters to IM subspecialties must do core IM training, therefore, a large proportion of the physician workforce is potentially affected. Additionally, these studies lack an in-depth exploration of how assessments and feedback moments are experienced and how women respond to them during their training. Therefore, it is imperative to explore residents' *experiences* of these interactions, as focusing only on the outcomes of assessment may obscure important differences in experiences of assessment.

In many of the recent studies mentioned above, feedback and assessment are considered together, almost interchangeably, as this is how they are generally perceived by trainees.[27,28] With that in mind, the purpose of our research was to explore whether the experience of being

assessed and receiving feedback differs between men and women IM residents. Moreover, we sought to explore how women respond to these experiences, as experiences and responses to differential treatment may inform the approaches taken to mentoring women trainees and may provide future opportunities for faculty development.

Method

We used a constructivist grounded theory approach to data collection and interpretation, as such an approach is particularly well-suited to exploring social phenomena for which a more in-depth, nuanced understanding is warranted.[29,30] Constructivist grounded theory is a method often employed in the context of exploratory research of social processes grounded in qualitative data. Fundamentally, it is an iterative process requiring theoretical sampling and data analysis via a method of constant comparison, with the ultimate goal of knowledge construction.[30]

Setting and sample

All IM residents in postgraduate years (PGYs) 1–3 at the University of Toronto (n = 180) were invited through email announcements and academic half-days to participate in focus groups between August and October 2019. The study was described as investigating residents' lived experience of being assessed and receiving feedback through the lens of gender. Twenty-two residents participated (8 men, 14 women). No residents were turned away. Of note, at the time the study was conducted, the University of Toronto Department of Medicine had 881 full-time faculty, of whom 362 (41%) were women and the IM residency program had 210 PGYs 1–3 residents, of whom 114 (54%) were women.

Data collection

We conducted 6 focus groups of between 3 and 8 women or men (and one individual interview due to timing constraints) to explore gendered experiences of residents receiving feedback and evaluations. We grouped participants by training level and gender, with junior (i.e., PGY 1)

residents and senior (i.e., PGYs 2–3) residents as well as women and men in separate groups, and interviewed residents until theoretical sufficiency was reached, as determined by breadth and depth of data to facilitate deep comprehension, and no new themes were introduced (see below). We chose focus groups over interviews to encourage participants to discuss and build on each others' experiences. M.B. conducted the women's focus groups, and J.R. conducted the men's focus groups. A semistructured interview guide (see Appendix 1) was used; this guide was developed prior to the initial interviews based on literature related to gender and assessment, then amended and revised iteratively via discussion of codes and themes (see below). Interviews were audiorecorded and transcribed verbatim. NVivo software, version 12 (QSR International, Doncaster, Victoria, Australia) was used to facilitate coding, create memos, and organize data analysis.

Data analysis

Data collection and interpretation occurred iteratively and simultaneously.[29,30] M.B. analyzed the data using line-by-line coding, beginning with the first focus group. M.B., J.R., and S.G. met repeatedly to discuss the initial codes and categorize them into themes, using a constant comparative approach, with each subsequent transcript adding to our coding framework. We resolved tensions and discrepancies by consensus. Ultimately, we developed a conceptual framework to understand the nuances of being assessed from a gendered perspective in IM. We then triangulated our findings with known literature, including gender theory,[29–33] to address our question as to whether men and women IM residents perceive differences in their experiences of being assessed and receiving feedback.

Reflexivity

Two authors (S.G. and J.R.) have advanced training in education and have extensive cumulative experience conducting qualitative research studies. We are positioned at various points in our

career trajectories, offering unique perspectives: M.B. is a senior resident in IM who majored in gender studies, J.R. is a junior faculty member in IM, and S.G. is an experienced clinician-scientist who practices clinically in IM. We have all participated in giving and receiving formal and informal feedback and have each shared our own experiences and kept memos recording our reactions to each transcript to ensure that we were open to all new ideas and themes.

All study procedures were approved by the University of Toronto Research Ethics Board.

Results

We found a profound difference in experiences of receiving feedback between men and women residents. The themes of challenges to power and authority, tactics to re-establish power and authority, conflicting feedback from attendings, and ways of moving forward all diverged between men and women residents. Although our interview guide was focused on feedback and assessment, and explicitly asked about entrustable professional activities, our women participants made it clear that their actions and behaviors were constantly observed by many others who were not officially evaluating them (staff from other health professions, ward clerks, colleagues, patients, etc.). As such, they repeatedly brought up examples of gender-based experiences that fell outside of official assessment moments. To our participants, even these moments were interpreted as feedback, so we included them in our analysis.

Women's authority and power challenged

> I don't think my medical ... my capability to practice as a physician has ever been questioned because of my gender, no. (Man [M], focus group [FG] 6)
>
> I call myself "Doctor first name" usually, 'cause I want them to know that I'm a doctor but I also like to be more casual with my patients. But I've had a couple of staff say they don't like that. And they've both been male staff saying that as a female physician you need to be quite authoritative. And one of them actually

> used the phrase, "Don't you dare ever call yourself that ever again. You have to say you're 'Doctor last name.'" […] The rest of the conversation was him trying to frame it as though "I'm looking out for you, you wanna make sure that you're appropriately respected." But I also felt very patronized. (Woman [W], FG 4)

The topic of questioning of women's authority and power was raised repeatedly by our participants. It took various shapes, but examples included expectations that women would perform clerical tasks (e.g., making appointments and faxing forms) and recurrent episodes of women being mistaken as a nurse by nurses, patients, and medical colleagues:

> Anytime I've very kindly ever asked for someone to help me with faxing something or anything along those lines, it's always like, "You can do it yourself," […] and then I'm there trying to figure it out myself and my male colleagues would be like, "I've never faxed in my life, […] I've never had to do that." (W, FG 4)

Women residents reported that their decision-making was questioned more often and more aggressively than that of their men counterparts. One resident noted, "I've had some really not nice interactions with young female nurses, and they never would speak to my male colleagues that way, questioning my decisions." (W, FG 1) Although this was not formal feedback, it was still interpreted as feedback and woven into the resident's understanding of their situation. In the same vein, a woman resident reiterated, "In general, I think there's more deference shown to male residents." (W, FG 4)

Beyond facing questions of their capacity from coworkers, women IM residents were also challenged by their patients, despite indicating their role and position. In one of many similar examples, one woman told a story of spending time caring for a sick patient, only to hear later, as feedback from staff, that the patient complained "a doctor never saw him today." (FG 1) Such

experiences or questioning were not reserved solely for younger women trainees. Residents witnessed their more practiced women mentors undergo similar treatment, leading one participant to note that, "even being older and more experienced doesn't save you from that attitude." (W, FG 2)

Facing doubts from others about their legitimacy as a physician and witnessing their supervisors being questioned in similar ways has the potential to engrain a message of not belonging and increase self-doubt among women residents. On the contrary, both men and women noted that men residents were frequently addressed by patients as though they held a level higher than their actual level when they were with women staff or senior residents, highlighting that men residents are not doubted in comparable ways.

Re-establishing power and authority

> I had a patient who [...] told me that they did not trust the medical opinion of their provider, because their physician, who's a global expert working at a coronary care center, wore high heels and a dress. (M, FG 6)

Women residents expressed various methods of attempting to regain power and authority when it had been stripped from them. In the women's PGY 1 focus groups, participants commented extensively on clothing and appearance in the workplace. Specifically, they explained that early in residency, they wore "fun" clothing, such as skirts or bright colors, and would occasionally wear their long hair down. Only 3 months into training, they already described changes in their clothing choices to purposely establish their role as a physician based on implicit and explicit feedback received from their attendings and others. They no longer wore skirts, oftentimes wore blazers, tied up curly or long hair, and stopped wearing bright colors. These women expressed a wistful sentiment that they no longer wore fun clothing in exchange for being taken seriously.

Throughout the conversations, there were undertones of needing to "dress the part" of a physician, particularly because women residents received feedback that they were not assumed to be the physician by patients, families, medical colleagues, and allied health professionals. Donning a stethoscope was a strong symbol, as was the practice of wearing a white coat starting in PGY 2. As one PGY 1 explained, "I always have [my stethoscope] around my neck. Even if I know I don't need it for the entire day, you better believe that thing's around my neck." (W, FG 1)

Women residents commented that women's professional clothing is less functional than that of their men counterparts: there are fewer pockets and movement is restricted when required to perform the daily duties of a physician. Despite this, when women tried to wear more functional clothing, they received negative feedback from attendings that they were unprofessional:

> Participant 1: [A male staff] said to me, "I don't understand why people think it's appropriate to wear leggings on call. You would never wear that in any other professional setting …." And it is obviously targeted towards female residents because most male residents don't wear leggings.
>
> Participant 2: This, I'm just laughing right now, because I find it ridiculous […] in what professional situation would you wear scrubs? (W, FG 4)

In another incident, one resident recalled that as a medical student she thought she performed extremely well at a bedside teaching session, only to have her attending pull her aside and tell her, "Your shirt is too low, and I could see your breasts." She noted her response to this experience was to "almost entirely wear turtlenecks to work since then, like no ambiguity." (W, FG 4) This shows that some attendings are more focused on the clothing of women trainees than on their medical skills, and that women respond to these comments by changing their dress and outward appearances. Of the men interviewed, only one reported having his clothing commented

on; in his estimation, he tends to dress "a bit more loudly" than other men and was told that it was "inappropriate" for a clinical setting. (M, FG 6)

Another tactic that women used to re-establish power was through modification of their communication style, in particular, when expressing outward anger or frustration. For example, one resident noted, "I find if I get frustrated or upset, then people would assume I'm a higher-up level than what I am." (W, FG 2) Junior women described "prepping" before making calls to other specialties, purposely deepening their voices when contacting other services, with one participant commenting, "It depends on the specialty, like plastic surgery, orthopedics, for sure. I have a different tone." (W, FG 2) Another resident noted that this type of stance did not come naturally to her: "I think it takes practice." (W, FG 2)

In addition to mental preparation, a component of physical preparation was required. "Attitude" and "strength" were displayed through purposeful modifications of body language to appear more masculine:

> … it sounds so bad but the subtle things in body language, in your voice to make yourself [sound] more like a man essentially. So, like standing up and having your shoulders squared back […] so that I could be taken more seriously because I was more masculine, and […] those are the ways that I try to ask for more authority and be more respected. (W, FG 1)

Despite how women practice asserting themselves, there continue to be different expectations—and likely repercussions—for women residents who do not follow traditional societal sanctions of femininity. This was felt as early as several months into their training. For example, one PGY 1 resident commented, "I certainly do think that that expectation to be super cheery and nice and always apologetic can certainly impact [women …]. There are just different social sanctions for women being assertive." (W, FG 1). This was also seen in participants' impressions that "women

are expected to apologize and say, 'I'm sorry,' and have this excellent demeanor, and they can be criticized more harshly when they are not like that." (W, FG 1) In this same focus group, another resident reported that she was told by an attending that she "apologized too much" because she was a woman.

As illustrated above, given pressures to dress or act certain ways, women residents strategically employed clothing, appearance, and attitude to re-establish authority after experiencing both explicit and implicit reprimands and feedback. Lastly, other women trainees weighed the risks and benefits of speaking up in situations where their beliefs may conflict with those of their attendings, sometimes opting for an attitude of knowing acceptance to maintain their independence and decision-making skills.

Conflicting feedback from attendings

Women IM residents received conflicting feedback from supervisors regarding caring, confidence, and assertiveness. This challenge was mentioned throughout our interviews, with women reporting being told they were not assertive enough, while other times they received feedback that they were too assertive. This contradictory feedback often resulted in self-censorship to avoid falling squarely on one side or the other. One senior resident elaborated, "I am repeatedly told by attendings to care less, to not be as quiet, and to be more confident, and I'd be pretty surprised if I had male colleagues that got that type of feedback." (W, FG 4)

Men rarely reported receiving similar feedback. We specifically asked men if they thought their gender impacted the feedback they received, and some thought it did not, while others thought it impacted them favorably. One participant noted

> I would call myself a confident person. I think a lot of my male colleagues are confident people. I think all the participants here I would call confident people,

but I can't imagine myself or any of them getting told that they are too confident. (M, FG 6)

They did notice that their women colleagues may be treated differently and were aware that there might be different standards—and repercussions—based on gender:

> I'm sure our female colleagues have gotten negative feedback for being too brash or abrasive or loud whereas male colleagues may have been given positive feedback for advocating or defending x, y, and z in the same position. (M, FG 6)

Our women participants expressed a common frustration that their presumed "lack of confidence" might instead be advocacy or leadership displayed in a different way. One of the women explained that with their attendings:

> I don't really feel the need to make [them] know that I know [something], it's just not me, but I think that that goes in the face of how our medical education environment is, and so it can be perceived as a lack of confidence. (W, FG 4)

Her style of leadership was different than that traditionally accepted in medicine. A junior resident had a similar experience, however, this time couched in feedback from an attending, "The feedback I got from him was to be more confident and I remember just being like, 'If I were any more confident today, it would have been unsafe.'" (W, FG 1) This resident recognized her own limitations, but this was not praised for this awareness, rather it was seen as a form of self-doubt or timidness.

A third resident described an attending who said she "really needed to work on committing to a plan and that [she] wasn't confident enough in verbalizing [her] plan." She then returned to the case, realizing that she described the specific dose and plan that they ultimately implemented. She noted

> I was just confused by the feedback because I felt like he almost commented more on the way I was articulating myself or the way I delivered the plan as opposed to the actual plan itself. (W, FG 2)

One man did say he had occasionally been told to "be more confident in [his] plan or differential." (M, FG 5) But otherwise such comments seemed to be primarily directed toward women residents, as no other men echoed similar sentiments, despite prompting.

Paths forward

> I'm just gonna ask if anyone else has felt difficulty reconciling wanting to be taken seriously as a woman but also not having to do it in a way that's being more like a man. Because I think there are flaws with that, right? (W, FG 1)

Perhaps in response to the negative explicit and implicit feedback resulting in the devaluation of qualities stereotypically categorized as feminine, many of the women took the opportunity to reframe their qualities and skillsets as positive assets:

> It's a double-edged sword. A lot of the qualities that we have that make us considered sometimes weaker or too emotional as women are some of the best ones that allow us to build greater rapport and more of an emotional connection with our patients, and sit down with them and if they're crying, you can touch them without feeling like there's gonna be a lot of ... lawsuits. [joking, laughter] (W, FG 1)

Women called on their emotionality and empathy to connect with patients. While they felt these skillsets were not always commented on positively by their superiors, they were appreciated by their patients. One woman explained that "[women] probably have better relationships [with patients] if we allow them to call us by our first names and we're people, not authority figures, and men are just authority figures." (W, FG 4) The relative flattening of hierarchy that these

qualities afforded to women residents subsequently allowed them to connect with patients on a more personal level, making it more likely that their patients would share important information with them.

Our men participants realized that their women colleagues were sometimes "disrespected or not treated as equals" (M, FG 5), yet also recognized that their privilege prevented them from seeing these differences. As one man put it, "It just doesn't happen to me." He went on to say, "I just kind of wish … I wonder what I could do to maybe help them" (M, FG 5), thus verbalizing the desire to be an ally, while being unsure of how to act as an ally.

In contrast to devaluation of the "female role" in medicine, mentorship by women played a pivotal role in the validity and growth of women residents. They described interactions with women mentors and saw benefits from these interactions in a number of areas ranging from outward-facing things, such as picking a medical specialty, to personal things, such as discussing the sacrifices made as a single mother in medicine. One resident said her women mentors are "super neurotic and anal" but she "adores them" because:

> …they're powerful women who have excellent clinical acumen, who have excellent bedside manner, but above all are just badass internists and as such they're perceived as crazy. And I'm like, "Screw you all. I'm gonna be them one day." (W, FG 1)

Indeed, this was reinforced by feedback from women mentors, who recognized "male colleagues may not […] have to speak as loud or preface their name with the term doctor as frequently to […] have patients recognize them as a physician." (W, FG 4) Explicit acknowledgement of the residents as women and tips for how to navigate that space from more experienced women physicians were both appreciated and important. These women physicians were thus demonstrating possible future paths for their residents.

Discussion

Our research demonstrates that men and women IM residents perceive profound differences in their experiences of being assessed and receiving feedback. In response to these experiences, women changed their appearance and behaviors, struggling to strike a balance between their role as physicians and their role as women. These differences are not always reflected in quantitative measures;[10] given the pervasiveness of entrenched gender beliefs, Klein et al. postulated that failure to detect a difference in outcomes may reflect a failure to capture gender bias, rather than confirmation that there is no bias.[5] Our findings are, therefore, important because the subversive nature of gender roles and expectations has the potential to heavily influence career development, confidence, mobility, and leadership opportunities, but may not show up in standard measures.[1,2,4–6,18,19,21–23,34,35]

Throughout our interviews, multiple intertwining themes of gender, power, authority, and leadership came to the surface when residents discussed receiving formal and informal feedback. To some, these may be considered microaggressions. As described by Poorsattar et al.,

> Microaggressions are subtle verbal, behavioral, or environmental snubs, slights, and insults directed at individuals or groups based on their social characteristics (e.g., race, class, sexuality, gender)—whether intentional or unintentional—that implicitly communicate and/or engender a hostile, derogatory, or negative sentiment.[36]

One common example is that of misidentification of women trainees as non-physicians, as reported recently by Berwick et al., which can potentially "[provoke] gender-polarized psychological and behavioral responses that have potentially important professional ramifications."[37] However, we are reluctant to classify our participants' experiences as such, as the term microaggression was never used by the participants and was not a basis of our focus

group guide. Rather, to our participants, even moments that were not part of official assessments were interpreted as feedback on their performance, influencing subsequent actions.

Learned gender norms within IM are layered atop cultural gender norms in a way that ties to gender theory as outlined by Judith Butler. PGY 1 residents appear to undergo an unofficial initiation period when they learn how to perform in the ways that are expected of them based on early explicit and implicit feedback. This is further strengthened by seeing women more advanced in their training act in a similar fashion and being treated in comparable ways by allied health professionals. Gender theory as outlined by Butler and others in the 1980s–1990s proposes that gender is performative.[32,33] Butler argues that gender is not innate and is not tied to our physical bodies, but rather is a performance constructed and realized by our daily actions. In this way, gender is created and perpetuated by those enacting and enforcing it. Butler explains

> We act and walk and speak and talk [in a way] that consolidate[s] an impression of being a man or being a woman … we act as if that being of a man or that being of a woman is actually an internal reality or simply something that is true about us. Actually, it is a phenomenon that is being produced all the time and reproduced all the time.[33]

Medicine too can be considered performative; in becoming a physician, we engage in certain actions (e.g., standing at the foot of the bed, performing a physical exam), employ various symbols (e.g., white coat, stethoscope), learn a distinct language (i.e., medical lingo), and label ourselves differently (e.g., Dr. instead of Mr. or Ms./Mrs.) to signal our "physician-ness."[38] The concepts of performative gender and physician-ness overlap to create the concept of performing being a woman physician.

These overlapping performative roles inherently conflict to a degree in that the physician role is historically seen as a role for men, while women residents are socialized up to this point as

women. Our women participants often received feedback when these roles clashed. As Dayal et al. demonstrated in their study of emergency medicine residents, senior residents are expected to act in roles of leadership and display agentic traits, such as assertiveness and independence, stereotypically identified as male characteristics.[1,2] In our study, women residents indicated using attitude, anger, frustration, and strength, which are more agentic qualities, to re-establish power and authority. Similarly, Kolehmainen et al. described the experience of women and men IM residents when leading code blues.[26] Both men and women described ideal code leaders as someone "[with] an authoritative presence; [with] a deep, loud voice; [who] use[s] clear, direct communication; and [who] appear[s] calm." They also noted the helpfulness of symbols, like a white coat and stethoscope, to indicate their authority. Similarly, our women residents described deepening their voices, stopping wearing fun or colorful clothing, donning a white coat, and ensuring they carried their stethoscopes. These tactics were used to gain respect and to enforce their physician-ness in a space where it was not necessarily recognized and where they had previously received implicit or explicit feedback about not fulfilling the expected role.

Despite what seems to be an inner conflict between being both relatable with patients and establishing the authority of being a physician, women residents want to be recognized as leaders. Since that is not easily acquired through merit alone,[26] symbols become more significant. When worn by women IM residents, the white coat holds several meanings—authority, seniority, organization, control. It physically marks residents as being the leader. Residents employ the non-democratization of the white coat—something noted as problematic over the last decade or so—as a symbol of power.[39–41] Yet, taking power—via the symbolism of a white coat or displaying agentic characteristics—does not come without risk for women in a space defined by and for men. As Klein et al. explain, women who display agentic traits incur a penalty for violating gender norms, as suggested by role incongruity theory and often termed the

likeability penalty.[17] Our women IM residents certainly experienced this in the feedback and resistance they received from multiple sources. Similarly, many of our women residents expressed a tension and discomfort in their existing role as women and relatively new physician role. In this sense, women residents struggle to balance what we have constructed as opposing binaries—agentic versus communal, competent versus warm, male versus female—to succeed in the medical workspace by integrating the feedback they receive to create the persona of the woman physician.

There are several limitations to this study. It was conducted at a single university within its IM program, which may limit the transferability of our findings to other settings with different cultures or attitudes toward physicians and/or gender. Also, since residents were recruited with the explanation that the study was examining feedback as it relates to gender, there could be a component of selection bias for those who chose to participate. Lastly, we did not explore the intersectional components of race, sexual orientation, gender identity, class, and other factors that affect resident treatment and experience.

Our findings present opportunities for potential interventions and further research. For example, women in our study underscored the importance of finding ways in medicine to value traditionally feminine qualities. This can be explicitly taught in the curriculum and reinforced to men and women trainees on the wards, backed by evidence that suggests that patients may have better outcomes when cared for by women internists.[42] We also need to provide clear paths to increase formal and informal mentorship by women, for men to engage with allyship, and to recognize the impactful role that the feedback and support of a supervisor—man or woman—can have on trainees. Addressing these topics may all provide future opportunities for faculty development. This research was conducted prior to the COVID-19 pandemic, and it would be fascinating to examine the effect the pandemic has had on gendered feedback to and treatment of

IM residents (e.g., the effect of standardization of clothing, such as scrubs, on residents' experiences of feedback).

We believe this research contributes a unique vantage point to the experience of women residents interpreting explicit and implicit feedback in IM and highlights the socialization and indoctrination that occurs to become a woman physician. There was a sense of acceptance and inevitability embedded in participants' descriptions of their encounters, potentially leading to further perpetuation of gendered assumptions. Ultimately, this research further illustrates that gender bias is not solely measured in Likert scales or end-of-rotation assessments. Rather, it is insidious and has a dynamic interplay with expected gender roles within various cultures. Medical education must, therefore, consider gender equity to be a dynamic target, requiring long-term commitment, not something that can be achieved with one-time interventions.

References

1. Dayal A, O'Connor DM, Qadri U, Arora VM. Comparison of male vs female resident milestone evaluations by faculty during emergency medicine residency training. JAMA Intern Med. 2017;177(5):651-657.
2. Mueller AS, Jenkins T, Osborne M, Dayal A, O'Connor DM, Arora VM. Gender differences in attending physicians' feedback for residents in an emergency medical residency program: A qualitative analysis. J Grad Med Educ. 2017;9:577-585.
3. Krause ML, Elrashidi MY, Halvorsen AJ, McDonald FS, Oxentenko AS. Impact of pregnancy and gender on internal medicine resident evaluations: A retrospective cohort study. J Gen Intern Med. 2017;32(6):648-653.
4. Thackeray EW, Halvorsen AJ, Ficalora RD, Engstler GJ, McDonald FS, Oxentenko AS. The effects of gender and age on evaluation of trainees and faculty in gastroenterology. Am J Gastroenterol. 2012;107(11):1610-1614.
5. Klein R, Julian KA, Snyder ED, et al. Gender bias in resident assessment in graduate medical education: Review of the literature. J Gen Intern Med. 2019;34(5):712-719.
6. Lyons MD, Martinchek MK, Lyons PG, Boike JR, McConville JF, Farnan JM. Gender differences and themes in peer nominations for chief resident: A qualitative analysis. J Gen Intern Med. 2019;34(12):2733-2734.
7. Sulistio MS, Khera A, Squiers K, et al. Effects of gender in resident evaluations and certifying examination pass rates. BMC Med Educ. 2019;19(1):10.
8. Brienza RS, Huot S, Holmboe ES. Influence of gender on the evaluation of internal medicine residents. J Women's Heal. 2004;13(1):77-83.
9. Galvin SL, Parlier AB, Martino E, Scott KR, Buys E. Gender bias in nurse evaluations of residents in obstetrics and gynecology. Obstet Gynecol. 2015;126(Suppl 4):7S-12S.

10. Santen SA, Yamazaki K, Holmboe ES, Yarris LM, Hamstra SJ. Comparison of male and female resident milestone assessments during emergency medicine residency training: A national study. Acad Med. 2020;95:263-268.
11. Spring J, Abrahams C, Ginsburg S, Piquette D, Kiss A, Mehta S. The impact of gender on clinical evaluation of trainees in the intensive care unit. In: American Thoracic Society International Conference Meetings Abstracts American Thoracic Society International Conference Meetings Abstracts. New York, NY: American Thoracic Society; 2019:A4165-A4165.
12. Favreau MA, Tewksbury L, Lupi C, Cutrer WB, Jokela JA, Yarris LM. Constructing a shared mental model for faculty development for the Core Entrustable Professional Activities for Entering Residency. Acad Med. 2017;92(6):759-764.
13. Risberg G, Johansson EE, Hamberg K. A theoretical model for analysing gender bias in medicine. Int J Equity Health. 2009;8:1-8.
14. Canadian Institutes of Health Research. What is gender? What is sex? https://cihr-irsc.gc.ca/e/48642.html. Accessed September 28, 2021.
15. Office of Research on Women's Health. Sex & gender. https://orwh.od.nih.gov/sex-gender. Accessed September 28, 2021.
16. Jule A. Gender Theory. In: Michalos AC, ed. Encyclopedia of Quality of Life and Well-Being Research. Dordrecht, Netherlands: Springer Netherlands; 2014:2464-2466.
17. Klein R, Ufere NN, Rao SR, et al. Association of gender with learner assessment in graduate medical education. JAMA Netw Open. 2020;3(7):e2010888.

18. Jena AB, Olenski AR, Blumenthal DM. Sex differences in physician salary in US public medical schools. JAMA Intern Med. 2016;176(9):1294-1304.
19. Wehner MR, Nead KT, Linos K, Linos E. Plenty of moustaches but not enough women: Cross sectional study of medical leaders. BMJ. 2015;351:h6311.
20. Sarsons H. Interpreting signals in the labor market: Evidence from medical referrals [working paper]. Cambridge, MA: Harvard University; 2017.
21. Loeppky C, Babenko O, Ross S. Examining gender bias in the feedback shared with family medicine residents. Educ Prim Care. 2017;28(6):319-324.
22. Holmboe ES, Huot SJ, Brienza RS, Hawkins RE. The association of faculty and residents' gender on faculty evaluations of internal medicine residents in 16 residencies. Acad Med. 2009;84(3):381-384.
23. Madera JM, Hebl MR, Martin RC. Gender and letters of recommendation for academia: agentic and communal differences. J Appl Psychol. 2009;94(6):1591-1599.
24. Axelson RD, Solow CM, Ferguson KJ, Cohen MB. Assessing implicit gender bias in medical student performance evaluations. Eval Heal Prof. 2010;33(3):365-385.
25. Rojek AE, Khanna R, Yim JWL, et al. Differences in narrative language in evaluations of medical students by gender and under-represented minority status. J Gen Intern Med. 2019;34(5):684-691.
26. Kolehmainen C, Brennan M, Filut A, Isaac C, Carnes M. Afraid of being "Witchy with a 'B'": A qualitative study of how gender influences residents' experiences leading cardiopulmonary resuscitation. Acad Med. 2014;89(9):1276-1281.
27. Watling CJ, Ginsburg S. Assessment, feedback and the alchemy of learning. Med Educ. 2019;53(1):76-85.
28. Schut S, Driessen E, Van Tartwijk J, Van Der Vleuten C, Heeneman S. Stakes in the eye

of the beholder: an international study of learners' perceptions within programmatic assessment. Med Educ. 2018;52:654-663.

29. Charmaz K. Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis. London, UK: SAGE Publications; 2006.
30. Watling CJ, Lingard L. Grounded theory in medical education research: AMEE Guide No. 70. Med Teach. 2012;34(10):850-861.
31. Carli LL. Gender and social influence. J Soc Issues. 2001;57(4):725-741.
32. Butler J. Performative acts and gender constitution: An essay in phenomenology and feminist theory. Theatr J. 1988;40(4):519-531.
33. YouTube. Judith Butler: Your Behavior Creates Your Gender. https://www.youtube.com/watch?v=Bo7o2LYATDc. Accessed September 28, 2021.
34. Surawicz CM. Women in leadership: Why so few and what to do about it. J Am Coll Radiol. 2016;13(12):1433-1437.
35. Edmunds LD, Ovseiko P V., Shepperd S, et al. Why do women choose or reject careers in academic medicine? A narrative review of empirical evidence. Lancet. 2016;388(10062):2948-2958.
36. Poorsattar SP, Blake CM, Manuel SP. Addressing microaggressions in academic medicine. Acad Med. 2021;96:927.
37. Berwick S, Calev H, Matthews A, et al. Frequency and effects of gender-based professional misidentification of resident physicians. Acad Med. 2021;96:869-875.
38. Jowsey T, Petersen L, Mysko C, et al. Performativity, identity formation and professionalism: Ethnographic research to explore student experiences of clinical simulation training. PLoS One. 2020;15(7):e0236085.
39. Petrilli CM, Saint S, Jennings JJ, et al. Understanding patient preference for physician

attire: a cross-sectional observational study of 10 academic medical centres in the USA. BMJ Open. 2018;8:21239.

40. Landry M, Dornelles AC, Hayek G, Deichmann RE. Patient preferences for doctor attire: The white coat's place in the medical profession. Ochsner J. 2013;13(3):334-342.

41. Anvik T. Doctors in a white coat-what do patients think and what do doctors do? 3739 patients, 137 general practitioners, and 150 staff members give their answers. Scand J Prim Health Care. 1990;8(2):91-94.

42. Parks AL, Redberg RF. Women in medicine and patient outcomes: Equal rights for better work? JAMA Intern Med. 2017;177(2):161.

Appendix 1

Semistructured Interview Guide Exploring Resident's Lived Experience of Being Assessed and Receiving Feedback Through the Lens of Gender, University of Toronto, August–October 2019

1. What do you think is the purpose of entrustable professional activities (EPAs)?

2. Tell me about the feedback you receive during EPA assessments.
    - What specifically is commented on? (Can be content area, CanMEDS role, other.)
    - Does feedback tend to be positive, constructive, or a mix of both?
    - When and how do you receive the feedback? Is it open, on the ward, or somewhere else?

3. Tell me about other types of feedback you receive during rotations.
    - When is it occurring? For example, only at the end? Throughout? Specific times?
    - How is it the same or different from feedback around specific EPAs?

4. Do you feel your gender has any effect on the feedback you receive? If so, how?
    - Prompt (if necessary) to think about type of feedback (content), whether it's more positive or constructive, and where it occurs.
    - Please ask what is commented on specifically. For example, do you ever get comments on your clothing? Do you ever get comments on your "bedside manner" or personality?

5. As a woman/man, is feedback different if it comes from supervisors that are the same gender versus the opposite gender? If so, how?

6. In the hospital/on the wards, do you feel you are treated differently from members of the opposite gender? If so, how? Can you recall an example?
    - What are your interactions like with nursing staff? In what ways do they differ/are they similar to those of your women colleagues?
7. Do you feel like people ever question your authority? If so, whom (patients, nurses, attendings, co-residents, etc.)?
    - Can you give specific examples?
    - How does this make you feel? How have you responded to the comments/actions?
    - What do you do to reestablish authority, if required?
    - To what degree do you think your gender plays a role?
8. Have any of you ever been mistaken for the following, and if so, how did it make you feel?
        - A medical student
        - A fellow
        - An attending
        - A nurse
        - A porter
        - Other