Gender Stereotypes

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Bias at the Table: Trapped Between a Sticky Floor and a Glass Ceiling

Dr. Gadhi is considering applying for the open division head of cardiology position at her institution. She reads the job description:

The ideal candidate for our position is a strong leader with an innovative approach to challenges. This individual should be able to take strategic risks and be confident thriving in a competitive, world-class environment.

While Dr. Gadhi launched an independent research career 15 years ago, published many high-quality papers, and chaired multiple professional committees, she decides to wait to apply. She feels she does not currently meet the qualifications for the position. Perhaps if she undergoes more formal leadership training or gets the prestigious grant she is applying for, she will

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be ready to apply for division head. She volunteers to serve on the search committee instead and is surprised to see that the candidate eventually selected is a man who has less leadership experience and fewer accomplishments than she has. She also discovers that his current salary is substantially higher than hers. Seven years later, Dr. Gadhi decides to retire early, feeling that her career has plateaued and finding her work no longer fulfilling.

The United States of America ranks 49th among all nations in gender parity, mainly due to limited female participation in political and leadership roles according to the 2017 Global Gender Gap Report [1]. While for the past 12 years women have comprised approximately 50% of matriculating medical students, only 24% [2] of full professors, 14% of chairs, and 16% of deans are women [3]. This could be written off as an expected lag in leadership achievement since women only reached equal representations as physicians a decade ago. However, specialties such as obstetrics and gynecology and pediatrics that reached gender parity in residency in the mid-1980s and are now *predominantly* female still lag significantly behind, with women comprising only 30% of major leadership positions while comprising 70–80% of residents [4, 5]. Clearly, there are other forces at work preventing women from attaining leadership positions. Inability to fulfill career aspirations is associated with burnout and physician turnover while attaining meaning in work is protective [6–8].

Women are just as likely as men to have aspirations for leadership positions and to self-assess as having leadership ability [9, 10]. Women and men are also equally effective as leaders and may be more likely than men to demonstrate transformational rather than transactional leadership [11]. There is robust evidence in the business realm that increasing the number of women in leadership positions can improve operational performance, advance innovation, promote group performance, and increase recruiting ability [12–14]. So, if it isn't time lag, decreased interest, or lesser ability to take on leadership, why are women in medicine not attaining leadership roles? Women face subtle and overt biases based on gender stereotypes that delay or impede their ability to achieve professional goals such as a desired leadership position [15, 16]. Failure to attain a desired leadership position or achieve other

career aspirations can contribute to burnout and premature attrition from academic medicine or from medical practice completely [6, 17]. In a study from Japan, an organizational climate that scored highly in terms of gender equity had no difference in burnout scores between male and female physicians; however, organizational climates that scored at or below the mean on gender equity had significantly higher rates of burnout in female than male physicians [18]. In a longitudinal study of faculty from a large public university in the United States, a positive department climate was associated with greater academic productivity over time for male and female faculty [19].

Women are less likely than men to be asked to take on a leadership role regardless of their rank [9]. This may stem from an ongoing "think manager-think male phenomenon" first described by Virginia Schein in 1970 [20, 21]. Beliefs about traits and behaviors of men and women are widely shared and derive from long-term exposure to social messages that reinforce gender stereotypes. Simply knowing these stereotypes – even when disavowed – creates implicit (and sometimes explicit) expectations about how men and women *should* and *should not* behave. When men or women behave in ways that violate these expectations, they may experience "backlash" or social disincentives and negative reactions [22]. Women are ascribed communal attributes – helpful, kind, gentle, and nurturing. Men are ascribed agentic attributes – strong, independent, self-confident, decisive, and ambitious. However, many of the qualities we use to describe leaders are also traits attributed to men [23, 24]. If women adhere to female gender expectations and behave communally, they risk being seen as lacking the skills expected of a leader. Conversely, if a woman leads with the agentic behaviors expected of a leader, she may experience backlash from both men and women for acting in competition with expected gender norms [25]. Fortunately, a transformational leadership style combines both agentic and communal behaviors and is the most effective type of leadership [11].

In the scenario above, Dr. Gadhi is considering applying for a leadership position. Upon reading the job description, she encounters language ascribing the position with agentic traits. She

doesn't identify as a "risk-taker" despite having developed an independent area of research. She doesn't identify as a "strong" leader despite having served as chair on multiple professional committees. It is worth emphasizing that even had Dr. Gadhi applied for the position, the men and women serving on the committee are also influenced by the gendered wording which can unintentionally prime male gender stereotypes and activate their own implicit biases. Filtered through stereotyped assumptions they may be less likely to choose her for the position than a male applicant for similar reasons [26, 27]. The job description could have been worded without agentic terms such as the following:

Candidates for our position must have demonstrated leadership experience; for example, served in leadership roles in professional and national organizations; collaboratively built research, education, and/or clinical program; and supported the career development of a diverse cadre of people including women and ethnic/racial minorities.

This job description removes unnecessary and abstract descriptors such as "world-class" and gendered terms such as "strong", "risk," and "competitive" [28, 29]. It is also more specific in how one could demonstrate leadership. Using more communal terms such as "serve", "collaborate," and "supported" is more likely to draw female candidates [30] and hopefully those that practice transformational leadership. Using research by Gaucher, Friesen, and Kay on gendered terms and job applications [27] online tools have been developed to help those writing job descriptions to review the language they use for gendered terms. One example is the website "gender-decoder.katmatfield.com." Pasting the first job description above yields a "strongly masculine-coded" job ad whereas the revised job description yields a "neutral" job ad. Tools like this have not yet to our knowledge been validated to lead to increased gender diversity in leadership or decrease burnout rates among female physicians but they may be used by both sides of the hiring table to reflect on how implicit bias may be impacting their decisions.

The wording of a job description with male gendered descriptors for high-status or leadership positions is really only an external manifestation of implicit gender bias, and selection of

gender neutral and less abstract descriptors is certainly not the final solution to gender equality in leadership. Research shows that evaluators require greater proof of competence in terms of more scholarly work and awards from women than they do from men [15]. Sadly this applies to more than just the hiring process but also in promotion, career mentorship, and grant approval and renewal [31, 32]. However, it is possible to reduce and even overcome implicit bias in evaluation in addition to removing abstract agentic descriptors. Women are evaluated lower (and more stereotypically female) when they make up less than 25% of the applicant pool than when they make up 33% of the applicant pool so ensuring that at least 33% of candidates for a position are female may help reduce gender bias in evaluation [33]. Informing evaluators of research showing that women are equally competent leaders can be effective as can asking evaluators to acknowledge and reflect on their susceptibility to bias [33, 34]. Finally, institutional leaders need to reflect on the current structure of leadership in medicine, especially academic medicine. If women continue to feel marginalized, isolated, and invisible [35], academic medicine will miss out on their vital contributions. The academic hierarchy itself impairs upward mobility of potentially transformational leaders, especially women with women of color being most disadvantaged [36–38]. Valuing a collaborative and transparent approach to leadership may help increase the number of effective, transformational leaders throughout academic medicine, enable more women to achieve leadership positions, and simultaneously help address systemic burnout [39, 40].

This section has discussed how gender biases based on stereotypes conspire to prevent women from obtaining leadership positions, securing resources, and having a voice to effect change. The result can be unfulfilled career aspirations, burnout, and a disproportionate loss of women from the workforce. Since women may be more likely than men to practice collaborative and transformational leadership, achieving gender parity in leadership positions benefits more than individual women [41, 42] and may be vital to the innovation and success of our health organizations.

Bias at the Bedside: "Lady Doctors" Face Gendered Expectations with Staff and Patients

Dr. Padilla is running late again. Her last encounter went over by 20 min, as her young female patient needed cervical cancer screening and disclosed a history of remote sexual assault. Her next patient, Mr. Brown, is an elderly man with many comorbidities including severe depression and anxiety; he has frequently told her he prefers "lady doctors" because he finds they listen better and don't rush him out. Dr. Padilla does her best to be empathetic and listen to her patients' concerns, but this is causing her to spend many hours after clinic working on clinic notes and managing her electronic in-basket to the point she is not spending as much time with her family as she would like. She is struggling to find joy in her work and is strongly considering cutting back her clinic time, knowing this will mean shuffling some of her more complex patients who prefer to see a female physician to her male colleagues.

Panel Composition

Dr. Padilla is experiencing a situation not uncommon to many female primary care providers. Female physicians, especially those in primary care, are more likely to see patients with mental health diagnoses and complex psychosocial problems [43]. A review of 26 studies conducted in mostly primary care settings concluded that both male and female patients talk more often and are more likely to bring up psychosocial issues during visits with female physicians [44]. This added complexity increased the encounter duration by 10% compared to encounters with male physicians. The resulting increased time pressure and emotional burden for female physicians may impact female physician satisfaction and increase risk for burnout [45]. Some practices have begun altering compensation practices to account for this variation so that panel size and compensation is adjusted based on patient gender as well as age [46].

Gender Bias and Satisfaction Surveys

Medical schools are dedicating more time to instructing students on patient-centered techniques of communication, both verbal and nonverbal. Students learn to ask open-ended questions, to make eye contact, and to use appropriate and empathetic touch. What is not taught is how gender affects a patient's expectations in their interactions with physicians.

Female physicians are more likely than male physicians to engage in patient-centered communication techniques such as: partnership building with patients, positive nonverbal communication, and open-ended questions [44]. In one large observational study, female physicians conducted more preventive screening and had better patient outcomes in terms of hospital mortality and readmission rates [47]. Despite this, most studies report no difference in patient satisfaction scores between male and female physicians [48]. This may be because patients attribute the patient-centered behaviors of their female physicians to their gender rather than to their professional competence, in line with stereotyped assumptions that women are warmer and more relationship -oriented than men. One study found that while both male and female medical students who behaved in a patient-centered manner were perceived as more compassionate, patient-centeredness was perceived as an aspect of competence only for male students [49]. Patients may interpret good communication skills differently in female and male physicians due to different expectations created by gender stereotypes. Good communication skills may be expected in female physicians simply because they are women, while in male physicians, good communication skills are equated with a competence that must be learned. In this study with medical students, the gender difference was moderated by informing patients that patient-centeredness is a dimension of physician competence [49].

Gender bias in patient satisfaction surveys has been demonstrated among practicing physicians and is most apparent when a female patient is seen by a female doctor [48, 50]. Extrapolating from the study in medical students, it is possible that this gender

bias may be overcome by educating patients both during the clinic visit and on patient satisfaction surveys that patient-centeredness is a dimension of physician competence. Because gender is a diffuse status cue whereby men are imbued with higher status than women, [51] women benefit far more than men from external conferral of status. Thus, posting pictures with information about the training and accomplishments of the female physicians in a clinic might enhance patients' perception of their competence [25]. The Affordable Care Act of 2010 includes patient satisfaction as a factor in payments to healthcare organizations. If those organizations tie physician reimbursement to patient satisfaction, it is important to understand how female physicians can get "credit" for their patient-centeredness. Data on patient satisfaction and physician reimbursement should also be closely examined because linking salary to a process that is systematically biased against women in institutions that receive federal funding could be in violation of Title VII and VI of the Civil Rights Act of 1964 [52].

As described previously, because the gender stereotype of women includes communal behaviors like "nurturing" and "compassionate," patients expect these gender congruent behaviors from their female physicians. If female physicians do not exhibit these behaviors, they may be more harshly penalized in patient satisfactions scores than similarly behaving male physicians. For example, in an experimental study female patients were more likely to be satisfied with their visit if their female physician was "caring" and were less satisfied if the female physician was not "caring" whereas patient satisfaction was not affected by whether a male physician was "caring" [53]. Patients were also more likely to describe a female physician as "dominating" for modeling the same behaviors as a male physician such as speaking more often, asking questions, speaking loudly, or frowning [54]. Additionally, patients were more likely to describe a female physician as "dominating" for behaviors such as multitasking or looking at the electronic medical record during the patient encounter than they were for male physicians doing the same behaviors [54]. This is supported by Ridgeway who discusses that since there is a cultural conception that female gender is associated with lower status and decreased competence in male-

typed work, women who assert authority in traditionally male-dominated contexts violate expectations about their presumed status and encounter social backlash impairing their likability and potentially their influence [55]. However, women can mitigate this backlash by combining assertive behaviors with positive social "softeners" such as smiling and leaning forward [55, 56]. Many health organizations are attempting to intervene on burnout by implementing electronic health record efficiency training to help physicians use their time during clinic visits more efficiently and to finish documentation during the clinic visit rather than during "pajama time" in the evenings. This research suggests that female physicians who attempt to use their time efficiently during the encounter by multitasking or looking at the electronic medical record may be more likely to be penalized in patient satisfaction scores than male physicians for exhibiting assertive behaviors that violate their status expectations.

This is an excellent example of how interventions aimed at improving physician burnout must take gender expectations into account to ensure they do not heighten burnout or widen compensation disparities.

Gender Bias, Occupational Segregation, and Stereotype Threat

Historically, nurses were expected to defer to the authority of the physician. Recognizing the significant patient safety implications in this approach, the nursing and physician professions have worked to flatten this medical hierarchy with a goal of improving care [57]. Positive and effective communication practices are associated with higher-quality care and research is being performed to understand how gender may play a role in communication practices between nurses and physicians [58].

Until Title IX in 1972 allowed women access to medical education, both fields were inversely gender segregated with considerable power differential. The relationship between physician and nurse was historically structured as a continuation of social male-female gender roles where female nurses provided the

emotional and nurturing care to the patient while following orders provided by the predominantly male physicians [59]. While the number of female physicians has increased over the past few decades to nearly 50%, the percentage of female nurses has remained relatively unchanged at 90% [60]. It is notable that the movement for interprofessional practice and efforts to flatten the medical hierarchy have occurred in parallel to the increasing numbers of female physicians entering the workforce [59, 61]; however, issues of gender and status within nurse-physician interactions are complex.

While we do not know of studies at this time that look specifically at the impact on burnout, multiple studies have looked at how this gender segregation may impact work satisfaction and interpersonal work relationships, which are drivers of burnout [62]. For example, a study of female nurses' perceptions in nurse-physician interactions found that compared to male physicians there was a higher expectation for female physicians to carry out tasks, decreased likelihood to help female physicians, and increased likelihood to resent female physicians for behaviors (such as failure to dispose of sharps). However, this study also showed that female nurses felt more comfortable approaching female physicians regarding safety concerns for patients [63].

Another qualitative study of female nurses and physicians in the United States reiterated that nurses felt female physicians were less likely to ask for assistance and more likely to do tasks on their own. Nurses frequently reported resenting when female residents displayed authority or felt dismissed by the resident. However, most nurses reported that their relationships with female physicians were more positive than their relationships with male physicians [64]. In a study of internal medicine residents, both male and female residents noted that female residents needed to pay more attention to the "tone" in which they communicated with nurses and 30% of female residents and no male resident ranked gender as the number one barrier to effecting patient care [65].

Survey and interview-based studies in the United States and Norway of female physicians interacting with nursing staff reveal that female physicians describe feeling more pressure than their

male colleagues to be friendly and egalitarian and to make social overtures when communicating with nursing staff [59, 66]. Additionally, female physicians feel less supported than their male colleagues and more likely to have their medical decision-making questioned [59, 66].

These studies suggest that nurses are more comfortable communicating with female physicians and potentially more hostile when female physicians display authority [59, 64]. This is supported in experimental studies showing that women are less liked and judged less suitable as an employer if they are successful in male sex-typed jobs, however they can overcome these negative perceptions by emphasizing their communal traits such as valuing employee concerns, relationship-building, or even just disclosing that they have children [67].

Occupational segregation may be contributing to burnout in women in more ways than through decreased support or strained work relationships between physicians and staff, however. Occupational segregation may also feed into gendered beliefs about performance. Stereotype threat is the concept that repeated encounters with a negative stereotype can erode confidence, impair performance, and lead to disengagement.

Many aspects of the health care environment would be predicted to cause stereotype threat in female physicians including: the existence of sexism and harassment, social backlash in voicing opinions or disagreeing, and occupational segregation [68]. In a study where raters were asked to describe attributes that would be necessary for success in a particular occupation, raters were more likely to cite communal traits including nurturing, gentleness, and kindness if the occupation had more than 75% women but if the occupation had more than 75% men, raters were more likely to cite agentic traits including aggression, dominance, and competitiveness [69]. This suggests that women working in a primarily male field may be exposed to, and possess within themselves, predetermined beliefs that they may lack what is necessary for success. Occupational segregation is rampant in healthcare. Nurses, social workers, physical therapists, and occupational therapists are all much more likely to be female than male. This reinforces the concept that women are expected to be in subordinate

positions while men are expected to be leaders. Anecdotally, most female physicians have at least one story where a patient or staff member has mistaken them for the nurse and the male medical student for the attending physician.

However, it may be possible to counteract the effects of stereotype threat with strategies including: promoting awareness about stereotype threat, clearly differentiating roles (e.g., I have noted great reduction in identity mistakes since our institution introduced ID badges that clearly display "Physician" in large font), targeting at least 50% of invited speakers to be female, displaying pictures and publicly recognizing successful female physicians, prioritizing building leadership efficacy in female physicians, and striving to increase women in leadership positions [68].

One could argue that occupational segregation and stereotype threat should be transient problems in medicine as more women continue to enter the field such that they are no longer minorities in their institution. However, the increasing number of female physicians appears to be more concentrated in a few discrete fields and gender segregation is still very evident within medical specialties. As an example, the percentage of women entering specialties such as pediatrics and obstetrics and gynecology (63% and 57% in 2017, respectively) has increased more rapidly than in specialties such as urology or orthopedics (8.7% and 6.6% in 2017, respectively) [70]. Over 40% of female physicians are in primary care specialties including family medicine, pediatrics, and internal medicine while only 20% of male physicians are in these specialties; the remaining 80% of men are more evenly divided among all the various specialties [70]. While the rate of burnout is very high across all medical specialties, specialty choice has been identified as a risk factor for burnout [71]. Specialties with more direct patient care, such as family medicine, internal medicine, and emergency medicine, are associated with higher risk of burnout [71].

There are many possible reasons as to why and how occupational segregation is occurring within medicine specialties. Women are more likely to identify time for family, long-term

patient relationships, and a desire to provide a needed service as reasons to choose a specialty and are less likely to choose a specialty based on financial considerations than men [72]. Perhaps some women choose to enter specialties more associated with these values. It is often suggested that women may avoid specialties associated with unpredictable schedules or that are heavily procedural; however, obstetrics and gynecology is a surgical specialty infamous for its unpredictable schedule and it is second only to pediatrics in terms of highest percentage of women. Conversely, diagnostic radiology is associated with a more predictable lifestyle; however, women only made up 25.6% of diagnostic radiologists in 2017 [70].

Another possibility is that women are subtly being directed into specific specialties that implicitly align with gender expectations. Heilman has demonstrated that just the knowledge that a women is successful at male sex-typed work increased negative perceptions of her compared to her male colleagues and made her less desirable as a boss. Interestingly, if the women was successful at female or gender neutral sex-typed work, there was not an increase in negative perceptions [73]. So perhaps, female medical students are choosing specialties that align with stereotyped assumptions that they will be communal and relational and where they would suffer less social backlash than by choosing and succeeding in more male-dominated higher -salaried technical specialties. Additionally, by entering specialties with a higher female presence, women would be decreasing their exposure to stereotype threat. These would be interesting areas of future research.

Some specialties, such as endocrinology, are seeing the composition of male to female change not as much attributable to an increase in female physicians as due to a decrease in the number of men entering that specialty [74]. Pelley et al. point out that as an occupation becomes female predominant, salary decreases across the occupation for all genders. This jeopardizes the entire field as it becomes less desirable for both male and female physicians as well as decreasing career satisfaction, which is a risk factor for burnout [75].

Dispelling gendered stereotypes such as men are more associated with procedures or "intensive" specialties while women are associated with more nurturing specialties such as primary care or obstetrics has to begin early in medical school. Female medical students are more likely to take on leadership roles in small groups after a statement describing the importance of these roles under "safe" conditions [68]. Potentially increasing female medical students' exposure to procedures in a safe environment such as a simulation center may also have an effect.

In summary, patients and staff may have different expectations and perceptions in their interactions with female physicians as compared to male physicians. These gender biases may be reflected in workload, patient relationships as measured by patient satisfaction scores, and support at work all of which may drive burnout in female physicians. Additionally, occupational gender segregation and stereotype threat may impact female physicians in terms of salary, career satisfaction, and specialty choice. Educating patients and staff about gender bias by including informational statements on patient satisfaction surveys, training modules, and wall postings may be a step in mitigating its effect, but definitive research in this area is lacking. Interventions that improve transparency and accountability in salary calculations have been successful in achieving gender pay equity in other fields, but may not be applicable across medical specialties or subspecialties [76]. Stereotype threat for female physicians, which may be triggered when performing in male-stereotyped domains such as leadership or highly technical fields, can be decreased by increasing awareness of this phenomenon. This needs to be in conjunction with ubiquitous affirmations that research confirms gender (or race) has no influence on the ability to perform any relevant role within science or medicine. Other actions might include exposure throughout medical training and practice to multiple diverse physicians across the gender spectrum in the belief that "if you see it, you can be it," leadership programs that include research on gender stereotypes and how to mitigate their influence, training faculty to avoid giving feedback that reinforces gender stereotypes, and addressing hiring and promotional practices as discussed in the first section "Bias at the Table."

Bias at Home: Parental Leave Is Leaving Both Men and Women Behind

Dr. Liu and his wife had twin girls 1 year ago. Unfortunately, due to complications during pregnancy, his daughters had required extensive medical care and frequent doctor's appointments. While his institution had only offered 1 week of paid paternity leave, he had been able to extend his time with accrued sick leave and vacation. The head of his division was initially supportive and even shared her struggles balancing family with work. When he had requested more unpaid time off through the Family Medical Leave Act (FMLA) to provide support for his daughters' ongoing healthcare needs, his division head agreed; however, she also suggested he consider looking for a more flexible position given the change in his life circumstances. Two of Dr. Liu's female colleagues had taken extended time for maternity leave and one had used it to care for her elderly father. Rather than Dr. Liu taking time off as originally intended, his wife, who was a pediatrician in private practice in the community, decided to switch to part time and Dr. Liu continued full time as a physician-scientist in his department.

In 1993, the United States passed the Family Medical Leave Act with the intent of helping employees balance the demands of the workplace with the needs of their family while minimizing discrimination on basis of gender and promoting equality for men and women. FMLA allows 12 weeks of unpaid job protection, making it one of the least generous policies among industrialized nations [77]. The United States is also one of the only countries that does not allocate maternity or parental leave through a national policy [77]. As an example, in Australia women receive 12 months of paid leave while fathers and partners receive 2 weeks. Switzerland does not have any statutory paternity leave while mothers can receive 14 weeks of paid leave. While these policies are well-intended to promote breastfeeding and to provide financial support to women after childbearing, they also reinforce traditional gender roles of women as primary caregivers and stigmatize women as inadequate mothers if they choose to return to work sooner. Multiple studies have demonstrated the importance of including partners in parental leave

policies both for the benefit of families and to promote gender parity in the workforce including higher female employment and less gender stereotyping at work [78–80]. Additionally, studies have shown paid parental leave leads to better outcomes for children which has led the American Academy of Pediatrics to support policies for paid parental leave [81–83]. Interestingly, while physician organizations have come out in favor of policies for paid parental leave, many hospitals and academic institutions do not offer these policies to their faculty and residents. A study that reviewed leave policies among 12 US medical schools found schools offered a mean of 8.6 weeks of paid support with a range of 6–16 weeks. Additionally some schools extended this benefit only to "primary caregivers" or failed to include fathers or partners in their policy [78].

Even when leave policies include fathers and partners, the frequency at which fathers and partners actually take leave worldwide can be as low as 2% [80, 84]. In Japan, men and partners are given 30 weeks of paid paternity leave, one of the most generous policies in the world; however, only 3% of men request leave [85]. Men are just as likely as women to report family-work conflict and to report increased personal satisfaction with family-friendly policies such as avoiding late-night meetings [86]. So it seems unlikely that men are not using leave policies purely out of personal preference. An experimental study in Japan demonstrated that while men reported a strong desire to use paternity leave, they overestimated the strength of negative attitudes of others toward the use of paternity leave and so were less willing to use paternity for fear of social backlash and professional repercussions [85]. Another experimental study in the United States demonstrated that men who asked for family leave were perceived as poor workers and were less likely to receive recommendations for leadership roles, promotions, or high-profile projects. They were also more likely to be perceived as weak, emotional, and insecure and were more likely to be penalized with salary reductions and decreased responsibilities or to be encouraged to go work for a different organization. This study also showed that black male workers were more penalized than white male workers and that female employers were more likely to perceive male workers who

asked for leave as poor workers than did male employers [86]. One conclusion from this study is that while women are more likely to use FMLA policies, they may be more likely to judge men negatively for doing so. When women participate in the stigmatization against men using family leave, the burden of care needs ironically may fall more heavily on women and further reinforces the stereotype of women as caregivers. This then increases work-life conflict and decreases partner support, both of which are risk factors for burnout [71, 87]. A survey of female physicians in Massachusetts found that women who worked full-time reported better career satisfaction than those that worked part-time and there was no difference in satisfaction with family life between the two groups. More importantly however, this study showed that women who worked their preferred number of hours, be it part time or full time, reported better job role quality, schedule fit, life satisfaction, marital role quality, and lower rates of burnout. Therefore, imposing part-time work on women who do not want may also be harmful [88].

While part-time employment may be detrimental to female physicians' academic career advancement [88], the negative perceptions associated with men asking for family leave do not appear to extend to women. Another experimental study confirmed that men who took family leave received lower performance evaluations compared to those who did not, but found no difference in performance evaluations of women who asked for family leave compared to women who did not. This implicit bias occurred despite all participants explicitly endorsing egalitarian role attitudes [89].

Paid parental leave policies that offer benefits based on a ratio of the individual's earnings rather than a flat allowance may also increase utilization of leave by men [77]. Policies that pay at least 50% of previous earnings have higher utilization by men than policies that pay a lower percentage or a flat allowance [77]. This may be due to the persistent gender gap in earnings seen worldwide. Men often earn more than their partners, resulting in a greater loss of income if men use family leave than if women do [90]. California's enactment of a paid parental leave policy that offered a 55% wage replacement rate increased the utilization of

leave by fathers 46% while only increasing leave take by mothers by 13% [79]. Several countries have enacted maternity time maximums and paternity time minimums or "use it or lose it" policies [90]. This has increased the utilization of paternity leave in several countries. Germany implemented a 2-month paternity minimum where if it was not used it could not be transferred to the mother and saw an increase in fathers using parental leave from 4% to 34% subsequently [80].

In this section, we have discussed how gender stereotypes associating men with the role of "breadwinner" and women with the role of "caregiver" may be discouraging men from participating in caregiving roles by decreasing their utilization of family leave policies for fear of negative professional and social consequences. Perceived as contrary to male gender stereotypes, men who take leave may be perceived as weak, "unmanly," and poor workers. As in the case of Dr. Liu, this stigma prevents men from being more involved in caregiving and forces women to take on the majority of caregiving responsibilities to the detriment of their career advancement [80, 91, 92]. These practices exacerbate gender pay gaps and reinforce a male leadership bias by affirming that high-status members of the organization do not take family leave. This situation illustrates how social norms transcend policies even when the policies are well intended or appear to be equitable. It is imperative for the benefit of all workers and their families to reduce the stigma against men taking advantage of flexible leave policies. To do this, male and female leaders must encourage all individuals on their team – but particularly men – to access leave policies when appropriate, vocally support any man who chooses to do so, and ensure that this action incurs no professional penalties. Normalize male paternity leave with such actions as openly displaying pictures of male physicians on leave with their kids; stating in positive terms in meetings who is on, planning to take, or returning from paternity leave; and using some of the strategies to combat microaggressions in response to statements that question the commitment, "manhood," or competence of men who access flexible leave policies [93]. Improve financial benefits so that families can afford to use leave policies and ensure leave policies do not differentiate based on gender, recognizing that families should have the choice regarding caregiving roles.

Bias and Burnout: Putting It Together

This chapter has discussed how gender stereotypes lead to pervasive biases that disadvantage female (and sometimes male) physicians throughout their careers and contribute to multiple drivers of burnout. Because the stereotypes that give rise to gender bias are deeply embedded in the culture of medicine, only a systems approach will be successful in attaining goals of well-being, professional fulfillment, and equitable access to resources for female physicians. Interventions at individual and institutional levels are required for cultural change. For individual physicians, patients, and administrators, training must go beyond increasing awareness of how gender stereotypes influence evaluation of oneself and others, decision-making, and interpersonal interactions. These limited approaches can backfire and increase bias [94, 95]. Effective interventions arm motivated individuals with evidence-based strategies that can be practiced [96]. Since gendered expectations can have unintended and unwanted consequences, interventions aimed at addressing burnout may risk increasing burnout of female physicians. The effects of any intervention must be evaluated on both male and female physicians separately. Finally, all members of the medical community need to recognize that gender bias imposes constraints on individuals across the gender spectrum and that when physicians are able to achieve their full potential every member of a healthcare organization benefits, including patients.

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