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# Are You Really the Doctor? Physician Experiences with Gendered Microaggressions from Patients

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## Abstract

**Background:** In contrast to physician implicit bias toward patients, bias and microaggressions from patients toward physicians have received comparatively less attention.

**Materials and Methods:** We captured physician experiences of gendered microaggressions from patients by conducting a mixed-methods survey-based study of physicians at a single academic health care institution in May 2019. A quantitative portion assessed the frequency of gendered microaggressions (microaggression experiences [ME] score) and the association with measures of perceived impacts (job satisfaction, burnout, perceived career impacts, behavioral modifications). A one-tailed Wilcoxon rank sum test compared distributional frequencies of microaggressions by gender, and by gender and race. Chi-square tests measured the associations between gendered microaggressions and perceived impacts. Welch two-sample *t*-tests assessed differences in ME scores by rank and specialty. Linear regression assessed the association of ME scores and job satisfaction/burnout. A qualitative portion solicited anecdotal experiences, analyzed by inductive thematic analysis.

**Results:** There were 297 completed surveys (response rate 27%). Female physicians experienced a significantly higher frequency of gendered microaggressions ( $p < 0.001$ ) compared with male physicians. Microaggressions were significantly associated with job satisfaction (chi-square 6.83,  $p = 0.009$ ), burnout (chi-square 8.76,  $p = 0.003$ ), perceived career impacts (chi-square 18.67,  $p < 0.001$ ), and behavioral modifications (chi-square 19.96,  $p < 0.001$ ). Trainees experienced more microaggressions ( $p = 0.009$ ) and burnout ( $p = 0.009$ ) than faculty. Higher ME scores predicted statistically significant increases in burnout ( $p < 0.0001$ ) and reduced job satisfaction ( $p = 0.02$ ). Twelve microaggressions themes emerged from the qualitative responses, including role questioning and assumption of inexperience. The frequency of microaggressions did not vary significantly by race; however, qualitative responses described race as a factor.

**Conclusions:** Physicians experience gendered microaggressions from patients, which may influence job satisfaction, burnout, career perceptions, and behavior. Future research may explore the multidirectionality of microaggressions and tools for responding at the individual and institutional level.

**Keywords:** microaggressions, bias, discrimination, gender, burnout, physician

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## Introduction

WHILE OVERT GENDER discrimination may be diminishing with time, more subtle forms persist in the form of implicit bias and microaggressions.<sup>1,2</sup> Implicit gender bias is defined as attitudes or stereotypes about women or members of other marginalized gender groups that may affect one's beliefs and actions in an unconscious manner.<sup>3-5</sup> Gendered microaggressions, a manifestation of implicit bias,<sup>6</sup> are subtle, seemingly benign statements or actions that convey sexism.<sup>1,7</sup> Microaggressions (whether related to gender or another aspect of identity such as race or sexual orientation) are common and often unintentional.<sup>8-10</sup> Gender-specific examples include: assuming a woman belongs to a stereotypically female role (*i.e.*, secretary or nurse), misattributing career advancement to an advantage due to gender rather than qualifications, an overemphasis or attention to physical appearance, or neglecting to acknowledge a woman's ideas in a group setting.<sup>1,11</sup>

Given their often subtle and ambiguous nature, microaggressions may seem comparatively less harmful than overt discrimination. The primary difference between implicit and overt discrimination is the level of conscious awareness of the bias. Overt discrimination reflects deliberate and intentional discriminatory acts, for example, hate speech, racial slurs, and overt sexual harassment (as sexual harassment may also be implicit). Despite their implicit or unconscious nature, microaggressions can affect the physical and mental health of their recipients. Reasons for this impact include their chronic and cumulative nature, pervasiveness in many aspects of a recipient's life (education, work, social situations), and the fact that they may be subtle or ambiguous (unlike overt acts), which can foster doubt and uncertainty.<sup>1,12</sup>

Racial microaggressions and their impacts are more well studied than those of gendered microaggressions. Studies of African Americans college students found that racial microaggressions were felt to be more harmful than ordinary stressful life events<sup>13</sup> and result in self-doubt, frustration, exhaustion, and isolation.<sup>14</sup> Additionally, exposure to ambiguous racial prejudice was associated with greater decrements in cognitive functioning (on cognitive testing) compared with exposure to blatant prejudice.<sup>15</sup> Microaggression experiences (ME) have also been associated with self-reported depression and trauma in Latino subjects,<sup>16</sup> and both overt and subtle gender discrimination have been cited as contributors to depression in women.<sup>2</sup> Notably, rigorous empirical evidence of microaggressions is limited by reliance on self-report measures, correlational data, and not accounting for individual or personality differences in perceptions of microaggressions.<sup>17</sup>

The health care environment is not immune from implicit bias and microaggressions.<sup>6,18</sup> Correlational evidence suggests that health care provider bias can influence diagnostic and treatment decisions.<sup>4</sup> However, the converse phenomenon of bias and microaggressions from patients toward physicians has received little attention, perhaps due to the relative power dynamic between patient and physician. A qualitative study utilizing video depictions of gendered microaggressions demonstrated that women physicians were more likely than male physicians to recognize ME such as underestimation of abilities.<sup>19</sup> Notably, this study did not specifically examine microaggressions from patients. Wo-

men physicians have been shown to receive lower patient satisfaction ratings even in settings of objectively better performance,<sup>20-22</sup> which may be a reflection of gender bias. Editorials describe anecdotes of ME, some of which involve patients; for instance, failing to identify a woman physician in her professional role<sup>23-25</sup> or referring to a woman as a nurse despite her introduction as a physician.<sup>26-28</sup> Trainee experiences with microaggressions have been studied qualitatively, but were not solely focused on patient-generated microaggressions.<sup>24,29</sup>

Of note, the microaggressions literature has primarily addressed singular identities, such as race/ethnicity or gender, often as a binary construct.<sup>10</sup> Intersectionality theory<sup>30</sup> proposes that the intersection of multiple identities may serve as targets of discrimination, thereby influencing experiences and perceptions of microaggressions. The simultaneous experience of racism and sexism may be more detrimental than the additive impact of these two factors.<sup>31</sup> ME of sexual and gender minority individuals are increasingly being studied.<sup>32</sup> The study of intersectionality and microaggressions is a developing area of research, and recent quantitative<sup>33</sup> and qualitative<sup>10</sup> explorations have provided support for its importance.

To the best of our knowledge, prior explorations of microaggressions in health care have not specifically assessed gendered microaggressions from patients toward physicians. While racial and gendered microaggressions experienced by physicians carry negative impacts,<sup>25,26,34</sup> their specific associations with job satisfaction, burnout, and perceived impacts on career and behavior have not been explored. In this study, we captured the frequency and nature of physician experiences of gendered microaggressions from patients. We also probed their associations with job satisfaction, burnout, perceived impacts on career (including impressions of performance and patient satisfaction), and behavioral modifications in response to microaggressions. We hypothesized that (1) female physicians experience gendered microaggressions more frequently than male physicians, (2) non-Caucasian female and male physicians experience microaggressions more frequently than Caucasian female and male physicians, respectively, and (3) microaggressions are associated with job satisfaction, burnout, perceived career impacts, and behavioral modifications.

Importantly, the authors would like to acknowledge the distinction between sex and gender according to currently accepted definitions from the American Psychological Association (APA) guidelines on sexual orientation and gender diversity.<sup>35</sup> Sex is a biological construct with contributors including chromosomes, gonads, reproductive organs, and external genitalia. Gender is a social construct encompassing attitudes, feelings, and behavior associated with biological sex. As outlined in detail in the Materials and Methods section, the survey elicited participant gender with multiple choice options of male, female, non-gender binary, prefer to self-describe as \_\_\_\_, and prefer not to disclose. Participants were therefore able to self-identify outside the gender binary. Sex assigned at birth was not assessed; therefore, a clear distinction between biological sex and gender identity or expression could not be distinguished. Therefore, throughout this article, the terms male/female and men/women are used interchangeably and assumed to refer to cis or non-transgender individuals; data applicable to non-gender binary individuals are presented when available.

## Materials and Methods

### Study design

In this institutional review board-approved study, we surveyed physicians at a single academic health care institution, Stanford Health Care, and the affiliated Lucille Packard Children's Hospital. We asked residency program coordinators from all departments listed on the Stanford Graduate Medical Education website in May 2019 to distribute a study recruitment email to all residents, fellows, and faculty on their departmental email lists. A second email request was sent if the coordinator did not respond to confirm participation. This method of recruitment was selected due to institutional policy restricting the direct distribution of surveys by researchers. For response rate calculations, we estimated the number of physicians reached by the recruitment emails (eligible participants) using counts provided by the residency coordinators (or their departmental websites) for those who had confirmed survey distribution. The recruitment emails contained a Qualtrics (Qualtrics, Provo, UT, USA) survey link and consent form, including a list of hospital and university resources for reporting discrimination and harassment. Respondents completed the ~15-minute survey during the 3-week recruitment period. Participation was voluntary, and each respondent received a \$10 Amazon gift card.

### Measures

A mixed-methods 32-item survey (Supplementary Information S1) was developed by the authors S.R.A. and T.R.A., with modifications from authors V.B., C.K., and S.G. The quantitative portion assessed the frequency and perceived impact of gendered microaggressions from patients and/or their families (hereafter referred to as "patients") toward physicians using close-ended survey items. A qualitative portion solicited anecdotes of gendered microaggressions using open-ended questions.

The survey was developed based on prior microaggressions studies and validated measures of the outcomes studied, adapted for the patient-physician dynamic. It was not pilot tested or validated in its entirety, although components were derived from validated measures where noted. The details of the six survey components, including their derivation and scoring, are presented in Table 1 and the Supplementary Information.

In summary, Component 1a (Gendered Microaggression Experiences—quantitative) contained 16 items divided into 4 themes (Theme 1: Sexual Objectification, Theme 2: Use of Sexist Language, Theme 3: Assumptions of Inferiority, Theme 4: Assumptions of Traditional Gender Roles). These items were derived from published microaggressions scales and microaggressions themes, with minor adaptations to maintain relevancy to the patient-physician dynamic (derivation and references in the Supplementary Information).

As described in detail in Table 1, overall ME scores and theme subscores were calculated from Component 1a responses. Component 1b (Gendered Microaggression Experiences—qualitative) consisted of an optional free response item soliciting anecdotes of gendered microaggressions. Components 2–5 addressed self-reported experiences of gendered microaggressions impact. Component 2 addressed job satisfaction (derived from the Hackman and Oldham Job Satisfaction

Scale<sup>36</sup>) and Component 3 addressed burnout (abbreviated Maslach Burnout Inventory<sup>37</sup>), both quantitative. Component 4 (Perceived Impact of Microaggressions) quantitatively assessed respondents' perceived impact of microaggressions on various career dimensions: patient confidence, patient satisfaction, job performance, career satisfaction, and burnout.

Component 5 (Behavioral Modifications in Response to Microaggressions) contained a single item soliciting the ways that microaggressions from patients may influence physician behavior; respondents could select one or more options describing their behavioral modifications (changes to physical appearance, verbal communication, nonverbal communication, time preparing for patient encounter, empathy toward patients, provision of competent care, or "not applicable"). An optional free response text box was included in this component for respondents to describe or elaborate on behavioral modifications (qualitative). Finally, Component 6 (Training and Responding to Microaggressions) addressed physician training on patient microaggressions and discrimination, and comfort responding to microaggressions (quantitative). We also obtained respondent characteristics, including specialty, gender (male, female, non-gender binary, prefer to self-describe as \_\_\_\_, and prefer not to disclose), age, race/ethnicity, first language, and training level or rank (Table 2).

### Quantitative analysis

We applied descriptive statistics for the frequencies and distributions of ME (Component 1a). A one-tailed Wilcoxon rank sum test compared distributional frequencies of microaggressions by gender, and by gender and race. We selected a one-tailed test to determine if ME scores were greater for females than for males. We applied chi-square tests to measure the association between gendered microaggressions and Components 2–5 (job satisfaction, burnout, perceived career impacts, and behavioral modifications). We examined whether there were differences in mean ME scores, job satisfaction, burnout, and perceived career impacts by rank (trainee vs. faculty) or specialty (medical vs. surgical) using the Welch two-sample *t*-test. Finally, to further assess the relationship between microaggressions and job satisfaction/burnout, we used linear regression with job satisfaction and burnout as the outcomes and ME score as the main predictor, controlling for gender. We used statistical software R version 3.5.1 (R Foundation for Statistical Computing, Vienna, Austria), with an alpha level of 0.05.

### Qualitative analysis

Four study team members (S.R.A., T.R.A., S.F., and C.K.) used inductive thematic analysis to analyze all the open-ended responses to the survey, the majority of which derived from Component 1b (Gendered Microaggression Experiences) and the minority from Component 5 (Behavioral Modifications in Response to Microaggressions). Each coder developed a preliminary codebook through immersion and crystallization,<sup>38</sup> a commonly used method of qualitative analysis whereby researchers immerse themselves in the data through concentrated review of responses and then pause to reflect and note themes that are apparent from the review (*i.e.*, thoughts that "crystallize"), documenting a preliminary list of codes that is then individually refined through repeated cycles of immersion and crystallization until all study material has been reviewed. All team members then met and shared preliminary

TABLE 1. SURVEY COMPONENTS AND SCORING

<i>Component</i>	<i>Validated measures</i>	<i>Description</i>	<i>Item scoring</i>
1a: Gendered Microaggression Experiences Quantitative (16 items)	Adapted from various measures (Supplementary Information)	Frequencies of microaggression experiences in 4 themes: Sexual Objectification (3 items); Use of Sexist Language (3); Assumptions of Inferiority (7); Assumptions of Traditional Gender Roles (3)	7-point Likert: every day (scored as 6), a few times a week (5), once a week (4), a few times a month (3), once a month or less (2), a few times a year or less (1), and never (0) Scores calculated as means to generate an overall ME score and theme subscores McDonald's omega calculated for reliability N/A (responses qualitatively analyzed)
1b: Gendered Microaggression Experiences Qualitative (1)	N/A	Optional free response item soliciting anecdotes of gendered microaggressions	
2: Assessment of Job Satisfaction Quantitative (3)	Abbreviated Hackman and Oldham Job Satisfaction Scale <sup>36</sup>	Agreement with statements describing job satisfaction	5-point Likert: strongly agree (scored as +2), agree (+1), neither agree nor disagree (0), disagree (-1), and strongly disagree (-2) Responses dichotomized, with a value of 1 for agree and strongly agree (higher job satisfaction) and a value of 0 for neutral, disagree, and strongly disagree (lower job satisfaction)
3: Assessment of Burnout Quantitative (2)	Abbreviated Maslach Burnout Inventory <sup>37,65</sup>	Frequencies of burnout experiences within two domains: emotional exhaustion ("I feel burned out from my work") and depersonalization ("I have become more callous toward people since I took this job")	7-point Likert: scored as in component 1a Responses dichotomized, with a value of 1 for a score of 2-6 (frequent burnout) and a value of 0 for a score of 0-1 (infrequent burnout)
4: Perceived Impact of Microaggressions Quantitative (6)	N/A	Perceived impact of microaggressions including: patient confidence and satisfaction; job performance; career satisfaction; and burnout	5 point Likert: scored as in component 3 Responses dichotomized, with a value of 1 for agree and strongly agree (greater impact) and a value of 0 for neutral, disagree, and strongly disagree (less impact)
5: Behavioral Modifications in Response to Microaggressions Quantitative and qualitative (1)	N/A	Single item with option to check $\geq 1$ selection from list of behavioral modifications (appearance, communication, preparation, empathy, ability to provide competent care) or "not applicable"	Affirmative response to any selection (other than NA) used as a single indicator for behavioral modifications (free response comments qualitatively analyzed)
6: Training and Responding to Microaggressions Quantitative (3)	N/A	Physician training on and comfort responding to microaggressions and discrimination	Percentage of respondents marking agree or strongly agree and disagree or strongly disagree

ME, microaggression experiences; NA, not applicable.

TABLE 2. RESPONDENT CHARACTERISTICS

	Total	Female	Male	Other <sup>a</sup>
Specialty, <i>n</i> (%)				
Anesthesia	68 (22.9)	44 (23.7)	22 (21.0)	2 (33.3)
Neurology	48 (16.2)	34 (18.3)	14 (13.3)	—
Surgery (General and Subspecialty)	38 (12.8)	18 (9.7)	20 (19.0)	—
Medicine (Internal and Family)	35 (11.8)	22 (11.8)	11 (10.5)	2 (33.3)
Psychiatry	30 (10.1)	23 (12.4)	7 (6.7)	—
Emergency Medicine	25 (8.4)	9 (4.8)	15 (14.3)	1 (16.7)
Other <sup>b</sup>	22 (7.4)	13 (7.0)	8 (7.6)	1 (16.7)
Ophthalmology	16 (5.4)	8 (4.3)	8 (7.6)	—
Pediatrics	15 (5.1)	15 (8.1)	0 (0.0)	—
Age (years), <i>n</i> (%)				
26–30	90 (30.3)	57 (30.6)	32 (30.5)	1 (16.7)
31–35	101 (34.0)	63 (33.9)	36 (34.3)	2 (33.3)
36–40	51 (17.2)	33 (17.7)	16 (15.2)	2 (33.3)
41–50	30 (10.1)	18 (9.7)	11 (10.5)	1 (16.7)
51–60	20 (6.7)	12 (6.5)	8 (7.6)	—
61+	5 (1.7)	3 (1.6)	2 (1.9)	—
Race/ethnic background, <i>n</i> (%)				
Caucasian	140 (47.1)	91 (48.9)	48 (45.7)	1 (16.7)
Asian	84 (28.3)	54 (29.0)	30 (28.6)	—
Latinx	17 (5.7)	10 (5.4)	7 (6.7)	—
Two or more ethnicities	13 (4.4)	10 (5.4)	2 (1.9)	1 (16.7)
Prefer not to disclose	11 (3.7)	3 (1.6)	4 (3.8)	4 (66.7)
Southeast Asian	10 (3.4)	5 (2.7)	5 (4.8)	—
Other <sup>c</sup>	9 (3.0)	7 (3.8)	2 (1.9)	—
African American	7 (2.4)	3 (1.6)	4 (3.8)	—
Arab/Middle Eastern	6 (2.0)	3 (1.6)	3 (2.9)	—
First language, <i>n</i> (%)				
English	263 (88.6)	162 (87.1)	96 (91.4)	5 (83.3)
Non-English	34 (11.4)	24 (12.9)	9 (8.6)	1 (16.7)
Level of training/rank, <i>n</i> (%)				
Resident or fellow	182 (61.3)	107 (57.5)	72 (68.6)	3 (50.0)
Instructor or Assistant Professor	65 (21.9)	48 (25.8)	15 (14.3)	2 (33.3)
Associate Professor	31 (10.4)	25 (13.4)	6 (5.7)	—
Professor	19 <sup>a</sup> (6.4)	6 (3.2)	12 (11.4)	1 (16.7)
Total	297	186	105	6

<sup>a</sup>Includes non-gender binary, prefer not to disclose gender, prefer to self-describe gender as \_\_\_.

<sup>b</sup>Contains the combination of specialties with less than five respondents in each group (obstetrics and gynecology, physical medicine and rehabilitation, pathology, radiology, dermatology, and “other” specialty option).

<sup>c</sup>Contains the combination of race/ethnicity groups with less than five respondents in each (African, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, prefer to self-describe as \_\_\_).

codebooks, working together to discuss and refine the codebook into a unified list of 12 codes representing themes from the open-ended answers. Using the final codebook, team members formally coded all 103 responses, discussing and resolving discrepancies by consensus as needed.

Excerpts of open-ended responses could be assigned to multiple codes as appropriate. Individual coders could raise questions with the group when code assignments were non-straightforward, and S.R.A. reviewed coding across the four team members when complete to identify and resolve meaningful discrepancies via group discussion. However, no substantive discrepancies were identified at this phase.

## Results

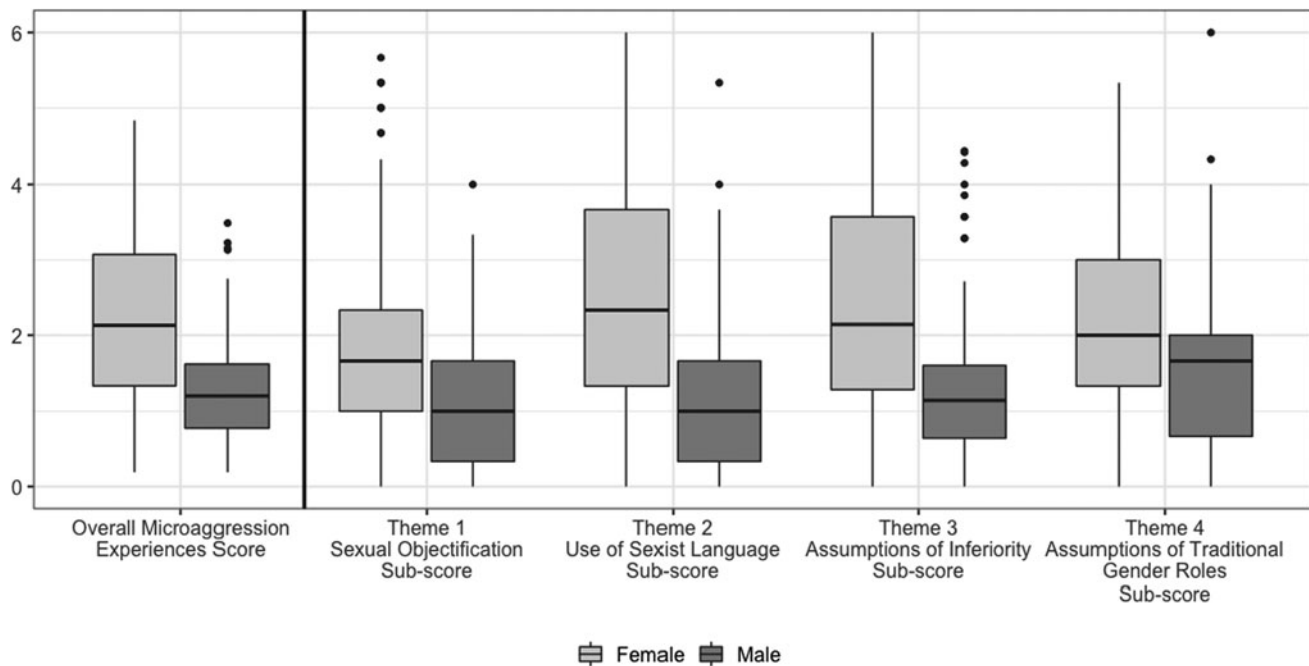
### Respondent characteristics

A total of 325 physicians participated (of which 297 surveys were completed) for a response rate of 26.9%. Most respon-

dents identified as female ( $n=186$ , 63%) and were between age 26 and 40 ( $n=242$ , 82%). The most common race/ethnicity was Caucasian ( $n=140$ , 47%), followed by Asian ( $n=84$ , 28%); Table 2 demonstrates the breakdown of other race/ethnicity identifications. More than half of the respondents ( $n=182$ , 61%) were trainees (residents and fellows). The respondent characteristics are further summarized in Table 2.

### Gendered microaggression experiences (Component 1)

McDonald's omega (superior to Cronbach's alpha as it takes into account the strength of association between items and item-specific measurement errors<sup>39</sup>) demonstrated high reliability for items in Component 1a overall (omega 0.95) and within the themes of this component (Theme 1: 0.83, Theme 2: 0.83, Theme 3: 0.95, and Theme 4: 0.8). Female physicians had significantly higher ME scores overall (effect size  $r=0.42$ ,  $p<0.001$ ) and within Theme 3 (Assumptions of



**FIG. 1.** Women had significantly higher overall ( $p < 0.001$ ) and Theme 3 ( $p = 0.02$ ) microaggression experiences scores compared with men.

Inferiority; effect size  $r = 0.39$ ,  $p = 0.02$ ) compared with male physicians (Fig. 1). The distribution of responses by gender for each item within Theme 3 is shown in Figure 2. On average, 54.8% of female physicians experienced microaggressions once or more per month. The frequency of gendered microaggressions did not vary significantly by race; however, we observed borderline significance within Theme 3 (effect size  $r = 0.159$ ,  $p = 0.05$ ) for non-Caucasian males, who experienced a higher frequency of microaggressions than Caucasian males.

When grouped into trainees (residents and fellows;  $n = 182$ , 61%) or faculty (clinical instructors, adjunct faculty, all ranks of professor;  $n = 115$ , 39%), we found that trainees had higher mean overall ME scores (trainee mean = 2.08 compared with faculty mean = 1.71,  $p = 0.009$ ), indicating that trainees were more likely to experience microaggressions. This appeared to be driven by the ‘Assumptions of Inferiority’ theme (trainee mean = 2.25, faculty mean = 1.70,  $p = 0.001$ ); the other themes did not have significant differences between groups.

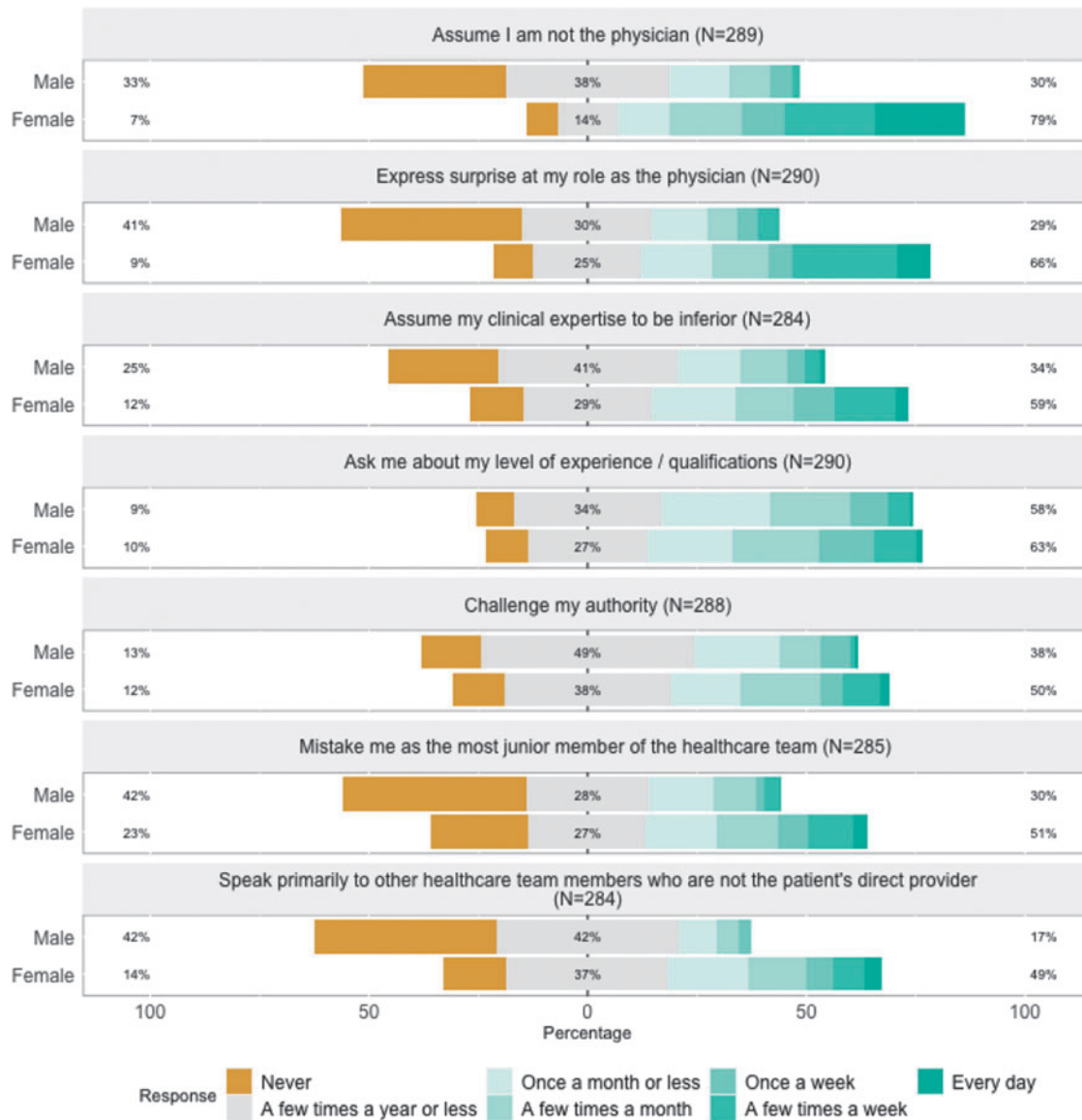
We similarly grouped respondents into medical (emergency medicine, internal medicine, family medicine, pediatrics, neurology, ophthalmology, psychiatry, pathology, and physical medicine/rehabilitation;  $n = 191$ , 64%) versus surgical (anesthesia and any surgical specialties;  $n = 106$ , 36%) specialties, as women are underrepresented in the surgical specialties. There was not a significant difference in the mean overall ME scores between these groups; however, respondents in the medical specialties did have higher mean scores in the ‘Sexual Objectification’ theme (mean = 1.73 compared with 1.44 for surgical specialty,  $p = 0.040$ ).

A total of 88 respondents submitted 103 qualitative responses describing experiences of microaggressions, the majority of which were responses to Component 1b (Gendered Microaggression Experiences) and the minority from

Component 5 (Behavioral Modifications in Response to Microaggressions). Most respondents providing qualitative comments were female ( $n = 69$ , 78%), and approximately half were non-Caucasian ( $n = 45$ , 51%). We identified 12 qualitative microaggression themes:

1. Role questioning, disrespect of title, or use of non-professional terms
2. Lack of trust and challenges to physician expertise
3. Assumption of inexperience or younger age
4. Racially and/or gender discriminatory comments, intersectional discrimination
5. Comments on physician appearance
6. Altered physician behavior or appearance due to microaggressions
7. Interprofessional microaggressions from colleagues and nurses
8. Sexual harassment and unsafe work environment
9. Institutional and career impacts
10. Comparison to male physician experience
11. Effect of practice environment on microaggressions
12. Perception of nonharmful microaggressions

The majority of the comments fit within the themes of ‘Role questioning’ (1) and ‘Assumption of inexperience’ (3). Many respondents described role questioning by patients, including “Are you even a doctor?” or described the use of unprofessional terms by patients, such as “this lady” or “honey.” One woman remarked “I get misidentified as a nurse so often that it impairs my ability to do my job ... I always introduce myself as doctor ... and it still happens constantly.” Others described more pronounced role questioning when in the presence of male staff; for example, a woman attending noted “I have seen patients and other providers assume the male medical student is the attending.” Another woman wrote “When I present a patient with a male



**FIG. 2.** The Likert plot of responses by gender and survey item within Component 1a, Theme 3, Assumptions of Inferiority. A greater percentage of women endorsed frequent microaggressions and a greater percentage of men reported infrequent microaggressions in this theme.

attending, patients call me his nurse or assistant.” Female attendings also described assumptions of inexperience, writing “immediately upon meeting me [the patient] questioned my experience ... It was so clearly in response to the fact that I was a young woman that my male fellow was shocked.”

While the quantitative results did not indicate that non-Caucasian males and females had significantly more ME, both genders mentioned race as a contributing factor. An African American man described being mistaken for “transport team or kitchen staff” and an African American woman described that “a parent ... requested a white male physician for his daughter.” Others wrote, “I feel microaggressions for gender, race, and uniquely the intersection of being a Black woman” and “I have been dealing with microaggressions all my life as a Black Latina woman in academia.” Some respondents noted that microaggressions occurred less frequently as they aged. Many also described interprofessional microaggressions.

Finally, while not a primary focus of the study, many respondents reported influences of age, rank, specialty, non-English accent, and clinical environment. An effect of age and rank was noted, “When I appeared younger my color and gender both affected how I was viewed by some patients. With age and grey hair that is less common.” Another senior professor wrote that “I am now a 60 year old woman and I would have answered [these questions] differently 20 years ago when microaggressions happened every day and severely compromised my work satisfaction.”

With regard to specialty, one faculty member wrote that she left a surgical field due to microaggressions, although from a senior colleague. Another wrote, “While working in OB, male partners frequently challenged my authority and expertise” and “a frequent microaggression is that I am too good at communicating to be an anesthesiologist.” In reference to non-English accent, a Latinx female resident wrote

about a behavior change in response to microaggressions as “work on my accent so it’s not so obvious English is my second language.” A Caucasian male resident wrote “I also have a foreign accent and work to make it sound more American at work.” The most common respondent observation regarding an effect of the clinical environment was that microaggressions occurred more often in the Veterans Affairs (VA) hospital/clinic system. In contrast, others mentioned that the children’s hospital environment is unique with “a more favorable culture ... [with] few microaggressions.”

*Experiences of gendered microaggressions impact (Components 2–5)*

Frequent (once or more per month) experiences of gendered microaggressions were associated with job satisfaction (chi-square 6.83, Cramer’s V 0.168,  $p=0.009$ ) and burnout (on the abbreviated Maslach Burnout Inventory) (chi-square 8.76, Cramer’s V 0.186,  $p=0.003$ ). Frequent experiences were associated with a greater perceived impact of microaggressions on one’s career (chi-square 18.67, Cramer’s V 0.263,  $p<0.001$ ) (Fig. 3). As shown in Figure 3, women were more likely than men to report that microaggressions negatively impact their performance, reduce career satisfaction, and contribute to burnout. More women reported having to work harder than peers for patients to think of them as competent and to gain patient confidence. Finally, more women reported that gender negatively impacts patient satisfaction ratings. Higher frequencies of ME were also associated with behavioral modifications (chi-square 19.96, Cramer’s V 0.27,  $p<0.001$ ), with 84% of females and 52% of males reporting that they had modified their behavior in response to microaggressions.

We further determined that higher ME scores predicted statistically significant increases in burnout scores ( $p<0.0001$ ) and reduced job satisfaction scores ( $p=0.02$ ). There were no statistically significant differences in job satisfaction, burnout, or perceived career impacts between the medical versus surgical specialty groups. By rank, however, the trainee mean burnout score was significantly higher (trainee mean 0.80 compared with 0.69 for faculty,  $p=0.009$ ). Otherwise, there were no statistically significant differences for job satisfaction or perceived career impacts by rank.

Qualitative comments captured experiences of microaggressions impact paralleling the quantitative findings. A woman at the professor level remarked that “microaggressions are an under-studied very important cause of burnout.” Another woman noted, “I do not feel empowered to point out a microaggression to a patient and explain why it is wrong or offensive.” Some expressed concern about patient satisfaction reviews, “those biases impact patient reviews and Press Ganey scores, which are used as one factor in determining compensation.”

With regard to behavioral changes, women reported adopting firmer handshakes and deepening their voices. One woman noted that she has modified her “already professional wardrobe to avoid sexualization by patients.” An Asian man described that microaggressions “influenced how I steered my patient visits—very structured, where I controlled the direction of conversation.” Another woman described spending “more time in the patient visit than my male colleagues, perhaps as a result of [recent] microaggressive behavior.” A non-Caucasian man wrote about his response to racial microaggressions: “I often reassess those patients less frequently.”

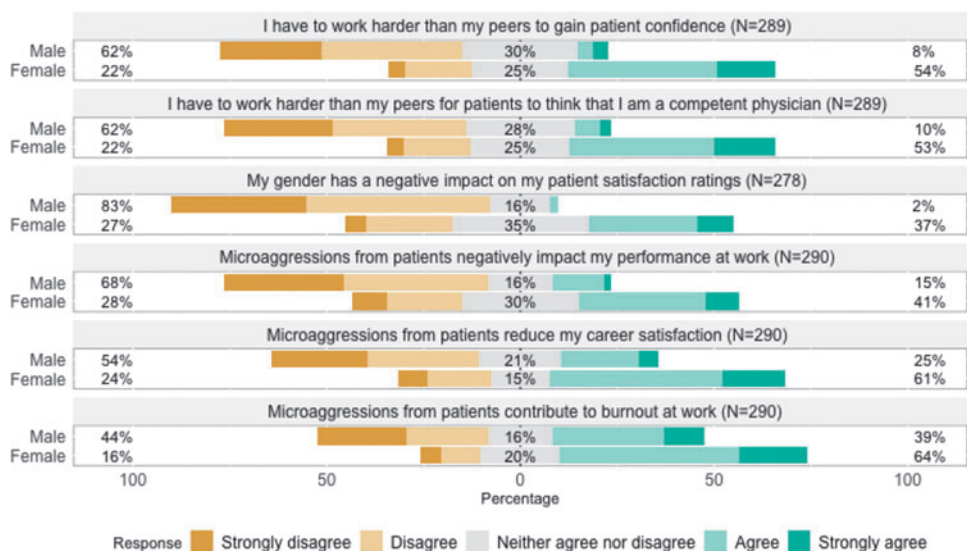
*Training and responding to microaggressions (Component 6)*

Among the respondents, 47 (16%) reported receiving workplace training for dealing with microaggressions from patients and 51 (17%) reported receiving training for dealing with patient–physician discrimination issues within the past year. Overall, 139 (47%) were comfortable in their ability to respond to patient microaggressions. Comments covered a spectrum ranging from not desiring additional training to asking for resources: “I’m already overwhelmed by various training requirements” versus a desire for “resources” and “more uniform education” on how to manage microaggressions. Some wrote “I do not know how to respond.”

**Discussion**

In this study of nearly 300 physicians, we determined that women experienced a significantly higher frequency of

**FIG. 3.** The Likert plot of responses by gender and survey item for Component 4, Perceived Impact of Microaggressions. A greater percentage of women answered that they agreed or strongly agreed to the perceived impacts of microaggressions described.





gendered microaggressions from patients than men. Non-Caucasian men and women did not have a statistically higher frequency of experiences than their Caucasian counterparts.

Qualitatively, however, non-Caucasian men reported examples of racial microaggressions and women described a perception of heightened vulnerability to gendered microaggressions due to race. A majority of qualitative comments fit within the themes of ‘Role questioning’ and ‘Assumption of inexperience.’

We identified strong associations between microaggressions and self-reported experiences of their impact on job satisfaction and burnout. Women also perceived a greater impact of microaggressions on their career compared with men, for example, perceiving they must work harder to gain patient confidence. ME were also associated with behavioral changes, with women more likely than men to report changing their behavior or appearance to combat microaggressions.

Trainees reported more frequent microaggressions and burnout than faculty, reflecting a contribution from age and career status. This parallels two qualitative themes identified, ‘Lack of trust and challenges to physician expertise’ (as more senior physicians may be more trusted and perceived as having greater expertise) and ‘Assumption of inexperience or younger age’ (more common in younger physicians in training). There were no significant differences found between medical versus surgical specialty groups, contrary to expectations given the underrepresentation of women in many surgical specialties.

Microaggressions, under the larger umbrella of discrimination, are pervasive and may be based on gender or other factors such as race or ethnicity. Many investigations have addressed racial microaggressions, guided by a seminal article by Sue et al.<sup>9</sup> in 2007 that defined and thematically categorized racial microaggressions. This conceptual framework facilitated a burgeoning of research on racial microaggressions and a foundation for emerging research on gendered microaggressions, including in health care. In Periyakoil et al.’s study, women physicians reported gendered microaggressions more frequently than men and within themes similar to those identified in our study, including underestimations of abilities and sexually inappropriate comments. In that study, male physicians were less likely to identify microaggressions in videos depicting such behavior, suggesting that a lack of direct experience with microaggressions reduces their recognition.<sup>19</sup> Our study contributes further to the literature, indicating that women physicians at all ranks experience higher levels of microaggressions from patients compared with men.<sup>23–29</sup>

Although physicians are admittedly in positions of power relative to patients, our study suggests that physicians are not exempt from the negative effects of microaggressions. Contra-power microaggressions occur when a person of lesser power in a relationship harasses an individual of greater power; this status differential can negatively affect the patient–physician dynamic.<sup>6</sup> Furthermore, the physician workforce is becoming more diverse, and, as such, physicians introduce their own intersectional backgrounds and vulnerabilities to the patient–physician interaction.<sup>40</sup> Physician experiences with discrimination, including microaggressions, may carry negative consequences for physical and mental health and increase burnout.<sup>25,26,34</sup> Women faculty experiencing discrimination report lower career satisfaction

and professional confidence,<sup>41</sup> and this discrimination may derive from patients or supervisors.<sup>42</sup> Indeed, women and minorities are particularly susceptible to imposter syndrome, feelings of self-doubt, and fears of being exposed as intellectual frauds.<sup>40</sup> In our study, we identified an association between ME and job satisfaction and burnout. Furthermore, more frequent ME predicted higher burnout and lower job satisfaction. Additionally, more women perceived that microaggressions impacted important aspects of their career as well as behavior.

Importantly, the intersectional effect of race and gender produces unique experiences of bias and microaggressions,<sup>31</sup> for example, with women of color experiencing “double jeopardy” from both racial and gendered remarks.<sup>43,44</sup> In her publication on intersectionality in medicine, Dr. Golden—an African American woman—wrote that it was difficult for her to understand whether her experiences with microaggressions (being mistaken as “the TV lady” or other nonphysician support staff) were due to race or gender.<sup>43</sup> Similarly, data from the National Academies suggest that women of color are more likely to feel unsafe in an academic environment, compared with men of color and Caucasian men and women.<sup>44</sup> In a study of microaggressions in medical students, however, Caucasian and non-Caucasian women reported similar frequencies of microaggressions, which were higher than those reported by men.<sup>24</sup> In our study, many respondents qualitatively noted the impact of intersectionality. The quantitative portion of our study did not identify an intersectional effect, perhaps as a consequence of the small non-Caucasian sample size and the lack of specific questions designed to assess racial or intersectional microaggressions in the survey.

While our study focused on gendered microaggressions from patients to physicians, microaggressions in the health care setting are multidirectional. In fact, qualitative descriptions of interprofessional microaggressions emerged without prompting. Additionally, implicit bias in physicians is common<sup>45</sup> and is correlated with lower quality patient care,<sup>4</sup> lower patient trust,<sup>46–49</sup> and inferior communication.<sup>50</sup> Bias also influences medical decision-making, which perpetuates health care disparities.<sup>50–52</sup> Importantly, the degree of implicit bias toward patients varies by physician race and gender, with women and non-Caucasian physicians demonstrating less pro-Caucasian bias,<sup>45</sup> underscoring the importance of workforce diversity in medicine.<sup>50,53,54</sup>

Still, a majority of the current physician workforce is represented by Caucasian men,<sup>55</sup> and overt and implicit bias may be contributory. Harassment and discrimination play roles in the attrition of women and minority academic faculty, both within<sup>56,57</sup> and outside medicine.<sup>58</sup> The medical pipeline is also affected by these factors, with the specialty choices<sup>59,60</sup> and professional development<sup>29</sup> of medical students influenced by exposure to gender discrimination. Women residents exhibit a greater decrease in interest in academic medicine than men, in part due to perceptions of unequal treatment by supervisors based on both race and gender.<sup>61</sup>

Furthermore, patient biases may contribute to assessments of physicians via Press-Ganey scores (an important tool that influences physician compensation and promotion),<sup>20–22</sup> which can, in turn, lead to gender and racial inequity in medicine.<sup>20</sup> Our study revealed concerns over the influence of microaggressions and bias on Press-Ganey scores. While

diversifying the physician workforce is important for mitigating bias and microaggressions (and may improve patient care<sup>53</sup>), bias and microaggressions may contribute to challenges in recruiting and retaining diverse faculty. Thus, understanding and addressing microaggressions in the workplace should be considered an integral component of institutional equity and diversity efforts. Finally, a more nuanced understanding of microaggressions may contribute insights into addressing sensitive interactions between patients and physicians.

The vast majority of respondents reported that they had not received training on microaggressions or patient–physician discrimination issues in the preceding year, and 54% reported a lack of comfort in responding to microaggressions from patients. Qualitatively, respondents endorsed fears that directly addressing microaggressions from patients would lead to patient dissatisfaction and lower Press-Ganey scores. In addition, some respondents reported that correcting a patient who mistakes a physician for a nurse may appear to reflect disrespect for non-physician staff. While some participants requested resources on the topic, others lamented the burden of existing training requirements. As the trainees surveyed in our study experienced microaggressions more frequently, this underscores the need for educating trainees on responding to microaggressions during training.

Various strategies have been proposed to appropriately respond to microaggressions.<sup>6,25,27,62</sup> As an example, Carnes et al. implemented a gender bias habit-changing intervention for faculty of medicine, science, and engineering at a single institution, which produced improved gender equity behaviors and departmental climate. In a practical sense, professionally responding to microaggressions from a patient during a patient encounter is difficult and may not be appropriate for all clinical scenarios. Addressing microaggressions may be interpreted as inconsistent with a patient-centered focus of clinical care. In their article entitled “The Discriminatory Patient and Family,” Whitgob et al. concisely provided examples of physician responses and strategies for both trainees and faculty.<sup>27</sup> It should be mentioned that explicit discrimination or harassment may be easier to identify and address, compared with implicit bias that may be subtle and less visible, even for recipients. This adds an additional challenge to responding to microaggressions.

This study has several limitations. First, inherent selection bias exists, as the survey was advertised by email as a study on microaggressions, which may have favored respondents with significant experiences and a non-uniform distribution of responses by each specialty. We speculate that this may have contributed to the relatively lower responses from pediatrics ( $n = 15$ , 5%) and OB/GYN (0 responses), which are majority female specialties within which fewer female-directed gendered microaggressions may occur. This is supported by the qualitative responses describing differences by specialty and clinical environment. Second, the survey response rate of 26.9% is relatively low, but consistent with expected response rates for web-based surveys, which are estimated to be  $\sim 30\%$ .<sup>63</sup> In addition, use of a third party (residency coordinators) to distribute the survey may have limited our ability to encourage recruitment and may have influenced the distribution of respondents from each specialty.

The sample size was relatively small, given subdivisions by gender and race/ethnicity, but captured a breadth of

physician specialties and ranks at the institution. Recent comparable microaggression studies have used various non-systematic sampling methods, such as chain referral sampling<sup>19</sup> or the selection of individuals from a single specialty.<sup>27</sup> While the entire survey was not validated, outcomes of job satisfaction and burnout used validated measures, and the ME items (Component 1a) were derived using validated measures and demonstrated high internal consistency. Future research may further refine and validate this instrument. In addition, as no validated instruments are available to specifically assess the impact of microaggressions on job satisfaction and burnout, we could only determine that an association exists (by chi square testing) but could not identify the direction of the association. However, additional analysis with linear regression did demonstrate that microaggressions predicted an increase in burnout and a decrease in job satisfaction. The qualitative comments also corroborated a direction of association, with women reporting that microaggressions reduce their career satisfaction and performance, and contribute to burnout.

As with prior research on microaggressions, we relied on self-report measures to assess microaggressions and their perceived impacts, and our cross-sectional design precludes claims of causation or clear directionality. For instance, burnout and job satisfaction may influence or modify one’s perceptions and response to microaggressions, and in turn, microaggressions may influence perception of burnout and job satisfaction. The generalizability of the study may also be limited to urban, academic medical centers in areas with diverse patient and physician populations. Therefore, improved generalizability would be achieved with a multi-institution study. Finally, this analysis had multiple hypotheses and was not adjusted for multiple comparisons. However, such adjustment is generally less necessary for exploratory hypothesis testing, such as in our study assessing ME scores between rank/specialty groups.<sup>64</sup>

## Conclusions

Our study captures the frequency, nature, perceived impact, and rich narratives of microaggressions experienced by physicians from patients. We determined that physicians experience gendered microaggressions from patients, which may influence job satisfaction, burnout, career perceptions, and behavior. Future research may explore the multidirectionality of microaggressions in health care, the effect of multiple and potentially intersecting identities, and best practices for addressing and mitigating microaggressions.

## Authors’ Contributions

S.R.A.: conceptualization, data curation, investigation, methodology, writing—original draft, review and editing. T.R.A.: data curation, methodology, writing—original draft, review and editing. V.B.: formal analysis, methodology, writing—review and editing. S.F.: formal analysis, data curation, methodology, writing—review and editing. C.K.: supervision, writing—review and editing. S.G.: supervision, writing—review and editing, funding acquisition.

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No competing financial interests exist.

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### Supplementary Material

Supplementary Information S1

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