



Taking Our Own Temperature: Using a Residency Climate Survey to Support Minority Voices

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BACKGROUND AND OBJECTIVES: Recruitment of underrepresented minorities (URM) in medicine has risen to the forefront as a strategy to address health inequities, but the experiences of URM residents within their own programs are poorly understood. We describe the development and implementation of a diversity, equity, and inclusion (DEI) climate survey at our residency program, the results of which have informed our DEI efforts.

METHODS: A resident-faculty work group collaboratively developed an 81-item questionnaire, informed by other institutional climate surveys. We administered the survey annually from 2018 through 2021 to all residents and faculty at our large academic family medicine residency program. The anonymous survey covered six key areas: general climate, climate for specific group, personal experience with discrimination and harassment, recruitment, burnout, and curriculum.

RESULTS: Average response rates were 84% and 50% for residents and faculty, respectively. Survey results show low satisfaction with resident and faculty diversity; higher rates of burnout for respondents who self-identify as URM, persons of color (POC), and/or LGBTQ; and racial and gender differences in experiences of workplace discrimination and sexual harassment.

CONCLUSIONS: Instituting an annual internal climate survey at our residency has provided invaluable information regarding the perspectives and experiences of our residents and faculty that has informed our DEI initiatives. We envision that our survey will inform continual improvement and serve as a model for similar introspection leading to meaningful action at other programs.

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developing and instituting a climate survey in our residency program to assess resident and faculty experiences and improve inclusivity, and provides a summary of findings and resulting DEI initiatives.

Methods

Survey Development

The University of Colorado Family Medicine Residency is a large opposed academic program with university, urban-underserved, and rural tracks. In 2017, faculty and residents established a working group committed to promoting social justice. The group developed a climate survey that was first administered in 2018, drawing on similar surveys from other institutions.¹²⁻¹⁵ Based on feedback, the survey was substantially revised in 2019, with only minor subsequent changes. Because the survey was administered for internal quality improvement purposes, the Colorado Multiple Institutional Review Board determined it did not require review.

Questionnaire

The 2019-2021 survey included 81 questions across six areas: general climate, climate for specific groups, discrimination experiences,

As the medical community grapples with the effects of structural racism on health outcomes, recruitment of underrepresented minorities (URM) has become a prominent strategy to combat inequity.¹⁻³ However, upon starting residency, URM physicians continue to face barriers throughout training.⁴⁻⁶ Research shows that many medical trainees experience harassment

or discrimination, with women and URMs experiencing more discrimination than their peers.⁷⁻⁹ Existing surveys assessing resident experience generally do not address diversity, equity, or inclusion (DEI), and little data exists on experiences of diverse residents and faculty within their own programs.¹⁰ Inclusion, in particular, is often overlooked.¹¹ This report describes our experiences

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recruitment, burnout, and curriculum.

Demographic questions included residency position, race, gender, and sexual orientation. General climate questions asked about the program’s supportiveness and responsiveness. In the “climate for specific groups” section, respondents were asked if residents and faculty are “treated with the same level of respect and given the same opportunities” as others based on gender identity, race, religion, sexual orientation, disability status, and family status. The “experiences” section asked whether respondents felt “unsupported, disrespected, or discriminated against” due to gender or race, and/or if they had experienced sexual harassment. “Recruitment” assessed satisfaction with program diversity and

recruitment efforts. We assessed burnout with a validated single-item question.¹⁶ Curriculum questions are not presented here due to their specificity to our program.

Most questions used a 5-point agree/disagree Likert scale. Each section included a free-response space.

Analysis

We aggregated and analyzed results from 2019-2021.^{17,18} We calculated and compared descriptive statistics by race and gender using χ^2 tests.

Results

Each year, all residents (mean n=39) and faculty (mean n=67) were invited to participate. Mean pooled response rates were 84% and 50% for residents and faculty, respectively (Table 1).

General Climate

Most respondents agreed the climate is supportive and the residency values diversity. This result did not vary substantially between respondents or over time.

Climate for Specific Groups and Experiences With Discrimination and Harassment

Women were more likely to ever experience discrimination due to gender, most commonly outside of the residency (women: 62%, n=84; men: 6%, n=3; $P<.001$; Figure 1).

People of color (POC) and URM respondents were less likely to agree that “residents who are racial minorities are treated with the same level of respect and given the same opportunities as White people in this residency,” (POC/URM: 79% agree, n=34;

Table 1: Demographic Profile of Survey Respondents

	2019		2020		2021	
	Residents	Faculty	Residents	Faculty	Residents	Faculty
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Race/Ethnicity						
White	27 (71)	17 (77)	19 (63)	25 (83)	21 (72)	28 (80)
Underrepresented minority ^a	1 (3)	1 (5)	2 (7)	3 (10)	2 (7)	5 (14)
Person of color ^a	9 (24)	2 (9)	7 (23)	2 (7)	5 (17)	2 (6)
Race/ethnicity not otherwise listed	1 (3)	2 (9)	2 (7)	0 (0)	1 (3)	0 (0)
Gender Identity						
Man	7 (18)	6 (29)	7 (23)	10 (33)	7 (24)	11 (31)
Woman	30 (49)	15 (71)	22 (73)	20 (67)	21 (72)	25 (69)
Transgender man ^b	1 (3)	0 (0)	1 (3)	0 (0)	1 (3)	0 (0)
Transgender woman	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Sexual Orientation						
Heterosexual	32 (86)	20 (100)	23 (82)	27 (93)	21 (72)	33 (92)
Lesbian, gay, bisexual, asexual, or sexual orientation not listed ^c	5 (14)	0 (0)	5 (18)	2 (7)	8 (28)	3 (8)
Total	38	22	30	30	29	36

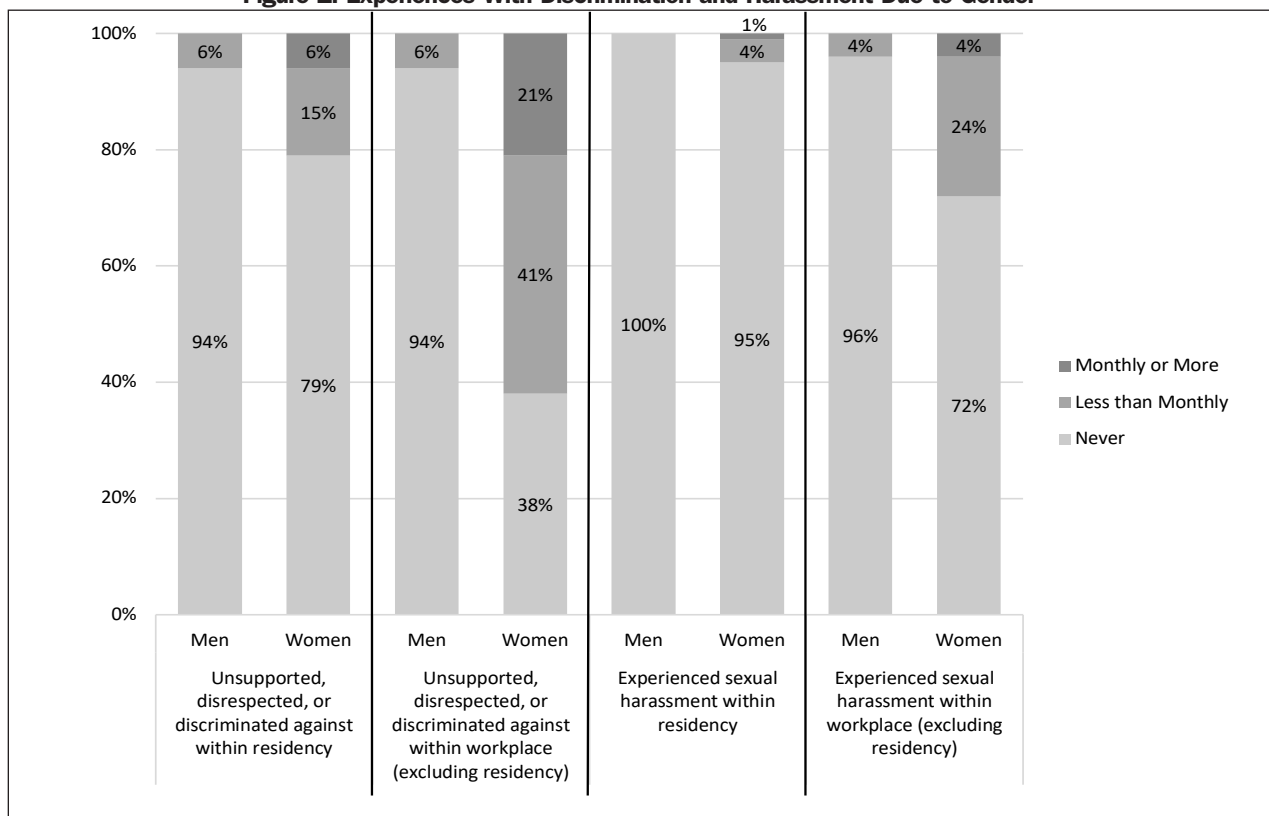
^a For race/ethnicity, participants could self-identify from “White non-Hispanic,” “underrepresented minority (URM; Black or African American, Hispanic or Latino, or Native American or Alaskan Native),” “person of color (POC),” and/or “race not otherwise listed.” Due to sample size and for anonymity purposes, URM and POC responses were combined for data analysis when comparing to White respondents.

^b Transgender men and men were combined for data analysis.

^c Asked separately on survey, combined for data analysis.

Note: The survey population was largely consistent each year. Approximately one-third of the resident population was different, representing graduating residents and new interns. The faculty population was largely unchanged.

Figure 1: Experiences With Discrimination and Harassment Due to Gender



White: 93% agree, $n=117$; $P=.02$). Regarding personal experiences with disrespect and discrimination, racial differences were most pronounced for instances that occurred outside the residency but within the workplace, with 52% of POC/URM respondents reporting this ($n=23$; Figure 2).

In 2021, when a question was added to clarify who perpetrated discrimination and/or harassment outside of the residency, the most common responses were “patients,” “patient family members,” and “off-service attendings.”

Recruitment

Respondents agreed that the program is making a genuine effort to recruit URM residents (92%, $n=179$) and residents of “other diverse identities (LGBTQ, socioeconomically diverse, etc)” (85%, $n=163$). Satisfaction regarding recruitment of URM faculty was lower but increased from 39% in 2019 ($n=24$) to 53% in 2021 ($n=34$).

Only 20% of respondents were satisfied with the number of URM residents ($n=38$), and 10% were satisfied with the number of URM faculty ($n=19$).

Burnout

While 44% of respondents overall reported burnout ($n=85$), POC/URM respondents reported higher rates than White respondents (POC/URM: 61%, $n=27$; White: 37%, $n=50$; $P<.01$). Sixty-five percent of LGBTQ respondents reported burnout ($n=15$) compared to 40% ($n=63$) of heterosexual/cisgender respondents ($P=.02$). Women (44%, $n=59$) and men (41%, $n=21$) reported similar rates ($P=.75$, Figure 3).

Discussion

The climate survey provided us with invaluable data regarding resident and faculty experiences. Significant findings include higher burnout rates for URM/POC and LGBTQ respondents, low satisfaction with program diversity, and significant

racial and gender differences with discrimination and harassment. These findings reflect existing literature on disparate experiences of URM and women trainees.⁴⁻⁷ We have used these results to affect significant changes in our DEI efforts (Table 2). Further research should explore burnout amongst URM/POC and LGBTQ residents and investigate interventions to reduce discrimination and harassment, particularly perpetrated by patients.¹⁹

Limitations of this analysis include evaluation of a single residency, which lessens generalizability, lack of survey validation, and the unmeasured impacts of the COVID-19 pandemic, which profoundly affected residency experiences. The large number of women respondents and lower number of URM, POC, and LGBTQ respondents, while reflective of our program’s demographics, also likely impacted findings. Additionally, DEI interventions implemented during the 3 survey years likely affected findings, and we hope

Figure 2: Experiences With Discrimination Due to Race

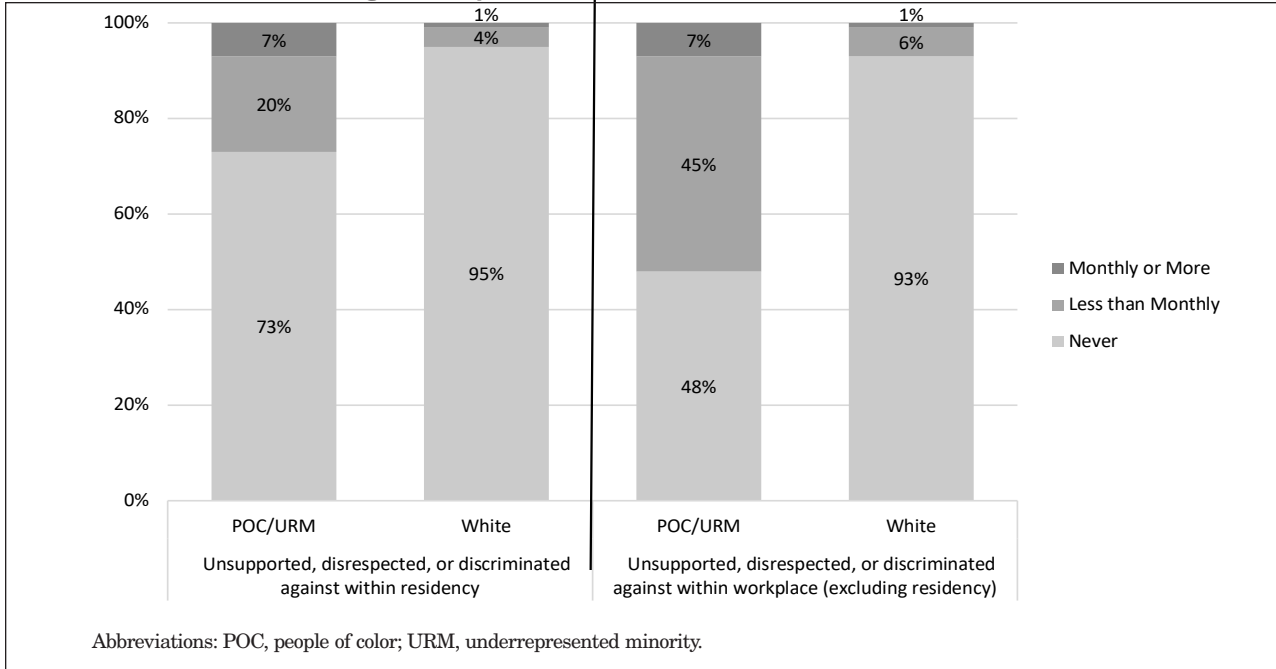
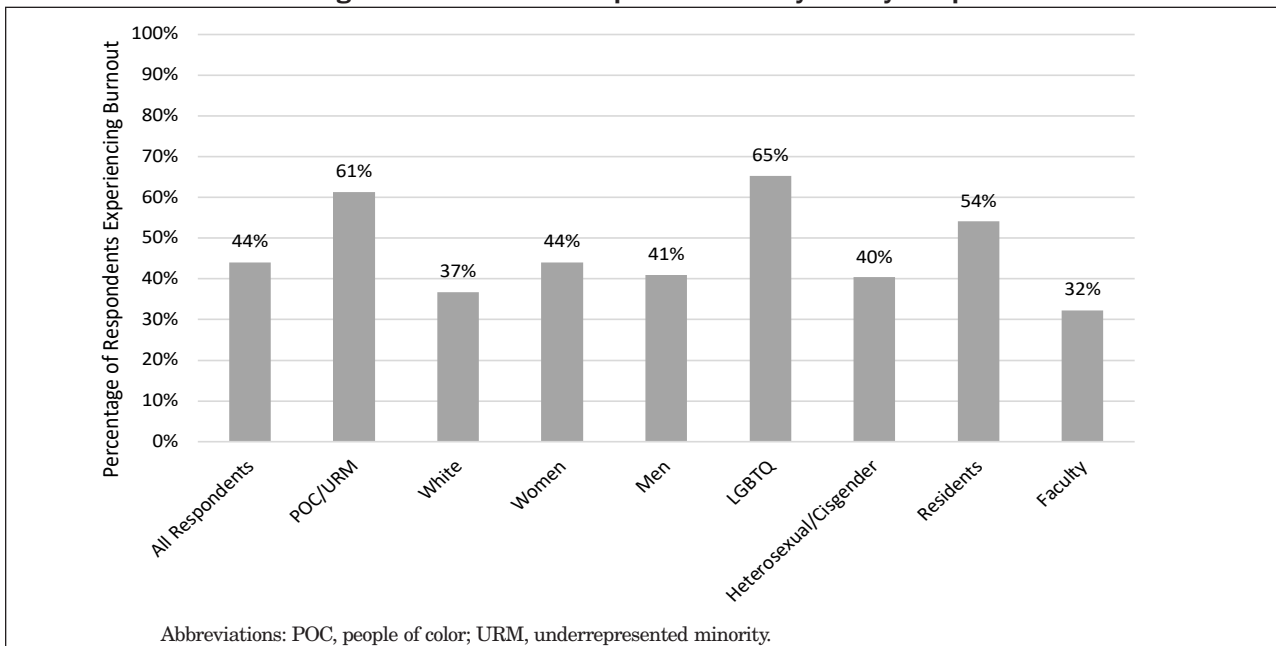


Figure 3: 2019-2021 Self-reported Burnout by Identity Group



the survey will help us assess the efficacy of these interventions.

Nevertheless, this continuous self-assessment has been instrumental in identifying areas of concern and enacting meaningful change within our residency. Furthermore, conducting the survey demonstrates a culture of open inquiry and dialogue around DEI issues that can improve

resident/faculty experience and promote inclusivity. It is critical that the medical community not only recruit a diverse workforce, but also use self-examination to create a truly inclusive environment for all. The pursuit of social justice at our program began by gathering information through the climate survey, but it cannot end there. By supporting

minority voices, we envision informing continual improvements and inspiring similar introspection and meaningful action at other programs.

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Table 2: DEI Interventions Instituted Over 2019-2021 in the Residency Program

Racial equity	<ul style="list-style-type: none"> • Race affinity caucusing groups bimonthly: provide space for residents of color to share their experiences in a safe environment and examine internalized oppression, and for White residents to examine internalized superiority and learn how to be anti-racist (2019-present) • Faculty training on supporting and mentoring URM and POC residents (2019) • Vice Chair for Diversity, Equity, and Inclusion position created within Department of Family Medicine (2020) • “Upstander” training to prepare residents and faculty to intervene when witnessing discrimination and/or harassment, and to support colleagues who have experienced this (2020-2021) • Faculty lecture series and half-day retreat to improve knowledge and skills for teaching and facilitating conversations about racism and health equity (2020-present)
Gender equity	<ul style="list-style-type: none"> • Updated institutional policies for reporting discrimination and harassment to delineate options for whom to report to and how concerns can be escalated (2019) • Clinic policy for dealing with discrimination and harassment from patients which outlines reporting options, scripting for boundary setting with patients, the process for termination of care, and expectations for debriefing; also applies to racial equity above (2020) • Faculty training on bias in feedback and letters of recommendation (2020)
Recruitment	<ul style="list-style-type: none"> • Revised recruitment process for both residents and faculty: implicit bias training for reviewers and interviewers, holistic review, standardized interviews, second-look event for URM candidates (2019) • Increased transparency regarding recruitment process (2019-2020)
Burnout	<ul style="list-style-type: none"> • Changed didactics schedule to allow for weekly unstructured wellness time (2020) • Formal training and support for debriefing critical events (2020) • Faculty-resident social dinners hosted by faculty to promote greater program cohesion (2020-present)

Abbreviations: DEI, diversity, equity, and inclusion; URM, underrepresented minority.

PRESENTATIONS: This study was presented at the STFM Annual Meeting (virtual), August, 24-27, 2020.

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