

Incidence and Group Comparisons of Harassment Based on Gender, LGBTQ+ Identity, and Race at an Academic Medical Center

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Abstract

Background: A key recommendation from the landmark National Academies report called for research examining experiences of underrepresented and/or vulnerable groups, including people of color and sexual- and gender-minority people. We examine the prevalence of gender policing harassment (GPH), heterosexist harassment (HH), and racialized sexual harassment (RSH), by gender, LGBTQ+, race, and department grouping, which has not been previously examined in academic medicine.

Materials and Methods: All faculty ($n = 2723$), fellows, residents, and first through third year medical students ($n = 1822$) at the University of Michigan Medical School (UMMS) who had been working at the organization for at least 1 year were invited to complete a 20-minute online survey. We assessed harassment within the past year, perpetrated by insiders (*i.e.*, staff, students, and faculty) and from patients and patients' families.

Results: A total of 705 faculty (25.9% of the targeted sample) and 583 trainees (32.0% of the targeted sample) were in the analytic sample. Women were significantly more likely to experience GPH from both sources than men, and LGBTQ+ individuals were more likely to face HH from both sources than cisgender heterosexual participants. Underrepresented minorities, Asian/Asian American, and female participants had higher rates of RSH perpetrated by insiders. There were significant department-group differences across harassment types.

Conclusions: Less-studied forms of harassment are common within academic medicine and are perpetrated from various sources. Identity-based harassment should be investigated further to gain a comprehensive understanding of its impact within academic medicine.

Clinical Trial Registration Number not applicable.

Keywords: sexual harassment, academic medicine, gender harassment, heterosexist harassment, racialized sexual harassment, workplace

Introduction

ISSUES OF HARASSMENT within academic medicine, particularly sexual harassment, have received increasing attention in media and research.^{1,2} Within the past few years, emerging studies and a report from the National Academies of Sciences, Engineering and Medicine (NASEM) have started to illuminate the pervasiveness of sexual harassment

within medicine.³⁻⁶ Many features, including the hierarchical structure, a traditionally male dominated workforce, and a culture tolerant of misbehaviors, make academic medicine susceptible to pervasive sexual harassment and other similar forms of harassment based on gender, race, and sexual orientation.⁷⁻⁹ These forms of harassment often share common structures of oppression rooted within hierarchies of privilege and power and often occur together.^{10,11} Despite their shared

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underpinnings, there is no comprehensive research to date examining the prevalence of a broader range of identity-based harassment in academic medicine. This study addresses a key recommendation of the NASEM report by empirically examining experiences of underrepresented and/or vulnerable groups, including people of color and sexual- and gender-minority people.

A recent study examined the incidence and impact of sexual harassment in an academic medical center using the Sexual Experiences Questionnaire (SEQ),¹² long considered the gold standard in sexual harassment measurement. The authors found that the most prevalent form was gender harassment, or behaviors that convey hostility, objectification, or second-class status about individuals of a gender, with strikingly high rates among women and men faculty.¹³ Considering this finding, it is critical to examine other variants of gender harassment that fit within the broader domain of sexual harassment, but are not measured within the most common version of the SEQ. Specifically, gender policing harassment (GPH), a form of gender harassment characterized by negative treatment for deviating from one's traditional gender role,^{14,15} deserves study. Evidence suggests that GPH may be damaging. For instance, one study of lesbian, gay, bisexual, and queer employees within higher education found that increased experiences of GPH were associated with greater job disengagement, exhaustion, and stress.¹⁶ To date, the prevalence of GPH has not been studied within academic medicine.

A related yet distinct form of identity-based harassment is heterosexist harassment (HH). Rooted in the notion that heterosexuality is the norm within workplaces, HH targets individuals who deviate from the norm by being gay, lesbian, or bisexual (or being perceived as such).¹⁰ While HH is also lacking empirical investigation in medicine, a limited body of research has documented a culture of homophobia.¹⁷ In addition, there is a unique form of harassment targeted toward people of color that has not been captured in the context of medicine previously. While some research has documented sexual harassment and racial harassment in medicine,¹⁷⁻¹⁹ racialized sexual harassment (RSH) occurs at the intersection of racial and gender identities; this harassment cannot be captured by measuring sexual and racial harassment individually.²⁰⁻²² For example, Black women may encounter inappropriate comments about their "fine Black ass" or Asian men may face derision about being "wimpy." Although scholars have called for increasing attention toward RSH in medicine, it has not been empirically measured.²³

Taken together, in the current study we systematically examined the prevalence of GPH, HH, and RSH in a large sample of faculty, fellows, residents, and medical students at a large academic medical center using validated, behaviorally based measures. These measures assess harassment that is targeted specifically at the respondent (*e.g.*, being addressed with a sexist or vulgar term) or witnessed by the respondent in the ambient environment (*e.g.*, seeing sexual images or graffiti at work that insults women in general, but has no specific target). Both targeted and ambient harassment can create a hostile work environment and violate the Title VII of the Civil Rights Act of 1964.^{3,24} Importantly, we assess these forms of harassment as perpetrated by "institutional insiders" (staff, students, and faculty), in addition to harassment perpetrated by patients and patients' families. Finally, we examine whether

there are gender, LGBTQ+, racial, or departmental differences in these various forms of harassment, as research suggests that marginalized groups are vulnerable to being harassed based on multiple dimensions.^{10,25}

Materials and Methods

The current study was determined to be exempt by the University of Michigan IRB. In June 2018, we emailed all faculty, fellows, residents, and first through third year medical students at the University of Michigan Medical School (UMMS) who had been working at the organization for at least 1 year. UMMS was selected because it is similar to other large academic institutions in rates of harassment.¹³ Furthermore, because UMMS is a large academic medical institution, we were able to conduct a large-scale examination of harassment and collect responses from historically marginalized and underrepresented groups in medicine (*e.g.*, LGBTQ+), whose small numbers would otherwise prohibit us from making group comparisons.

We invited participants to complete an online survey, lasting about 20 minutes, about "experiences with civility and respect in our institution." To avoid demand characteristics, our recruitment materials avoided terms such as "sexual harassment," which are known to distort results.³ Subsequent reminder emails were sent every week for 3 weeks to participants who had not yet completed the survey. All trainees (*i.e.*, medical students, residents, and fellows) were provided compensation for considering participation (a \$5 Starbucks gift card, not conditional on response); faculty received no compensation.

Measures

The overall survey, containing 174 items, was developed using best practices in questionnaire design and implementation. All measures included were previously validated, and many had minor adaptations to reflect the academic environment or the unique identities of the participants (see measures below). The overall survey was pilot-tested among a group of academic medical faculty from multiple institutions (see Vargas et al.¹³). The measures of GPH, HH, and RSH were all previously validated in previous studies and have been shown to significantly predict outcomes in theoretically expected ways. With regards to reliability, previous studies have also demonstrated good scale reliability for GPH,¹⁴ HH,¹⁰ and RSH.^{20,26}

Gender policing harassment. We assessed participants' experiences of GPH from institutional insiders using four items, following the stem "Thinking about UNWANTED behaviors SINCE JUNE 2017, how often have Michigan Medicine staff, students, or faculty...." The first three items were adapted from the gender harassment measure from Konik and Cortina.¹⁰ The last item was adapted from the "not man enough" harassment measure by Berdahl and Moore.²⁷ The descriptors included in the first three items were modified, depending on the participant's self-reported gender identity. For example, the first question asked "Questioned your [femininity/manhood/femininity or manhood]?", for (1) women, (2) men, and (3) trans or nonconforming participants, respectively. The same set of four questions was asked to assess GPH from patients/families.

All questions were asked on a five-point scale: 0=Never, 1=Once or Twice, 2=Sometimes, 3=Often, 4=Many Times. We computed a dichotomous variable, indicating if participants experienced at least one form of GPH from institutional insiders (1=at least one experience of GPH; 0=did not experience any GPH). We also computed a second dichotomous variable indicating if participants experienced at least one form of GPH from patients/families.

Heterosexist harassment. We measured participants' experiences of HH from institutional insiders using three items adapted from the HH measure.¹⁰ The same three items were used to later assess HH perpetrated from patients/families. Following the same stem as the GPH measure, one sample item includes, "Called you or someone else 'dyke', 'faggot', or some similar slur in your presence?" For all three items for both insider HH and patient/family HH, participants responded on the same scale as for GPH. We computed a dichotomous variable indicating if participants experienced at least one form of HH from institutional insiders (1 = at least one experience of HH; 0=did not experience any HH). We computed a second dichotomous variable indicating if participants experienced at least one form of HH from patients/families.

Racialized sexual harassment. We measured participants' experiences of RSH from institutional insiders using four items adapted from Buchanan.²⁶ Following the same question stem, one sample item includes, "Made comments about your body and other people's bodies that emphasized gender AND race (for example, comments about Black women's 'Black ass')." As previously stated, RSH is distinct from simply racial harassment or sexual harassment alone and uniquely occurs at the intersection of both. To emphasize this point, we included "AND" in all caps for each RSH scale item. The same set of four questions was asked to assess RSH from patients/families. All questions were asked on the same response scale as for the previous measures. We computed a dichotomous variable, indicating if participants experienced at least one form of RSH from institutional insiders (1=at least one experience of RSH; 0=did not experience any RSH). We computed a second dichotomous variable indicating if participants experienced at least one form of RSH from patients/families.

Cisgender identity (gender). Participants were asked to indicate which gender category best described their identity. For analyses, we created a binary cisgender identity variable (1=cisgender woman and 0=cisgender man).

LGBTQ+ identity (LGBTQ+). Participants were asked to identify which sexual orientation and gender category best described their identity. We created an LGBTQ+ identity variable by grouping together individuals who either identified as sexual minorities (*e.g.*, lesbian, gay, bisexual, pansexual, queer, asexual) or described their gender identity as trans or gender nonconforming or indicated another gender identity (1=LGBTQ+: 0=cisgender heterosexual).

Racial/ethnic identity categorical variable (race). Participants were asked to indicate which racial/ethnic category best described their identity. To create large enough groups

for meaningful analysis, we created a more concise racial identity variable with four categories as follows: (1) White, (2) Underrepresented Minority, that is, Black/African American, Hispanic/Latinx, and Native American/American Indian, (3) Asian/Asian American/Pacific Islander, and (4) Middle Eastern. In doing so, we followed recommended analytic strategies and grouped racial/ethnic categories where theoretically applicable.²⁸⁻³¹ Written-in responses were recoded into the appropriate group for participants who selected multiracial/multiethnic or indicated that their identity was not listed (*e.g.*, we recoded responses such as "Irish" or "European American" as "White.>"). Eleven participants with no written responses or incomplete responses were not included in race analyses.

Analytic approach

Our analytic sample only included participants who passed the two attention-check questions and excluded those who returned largely blank surveys (skipping $\geq 90\%$ of items). We conducted chi-square analyses, to examine possible differences in GPH, HH, and RSH by gender, LGBTQ+, and race. We also conducted chi-square analyses to assess whether the rates differed as a function of department group (basic science; internal medicine and related subspecialties [medical]; care of women, children, or families; surgical; or hospital based). Only faculty, fellows, and residents were asked to indicate the nature of their primary department. Medical students were not included in department group analyses. For all chi-square analyses, we used Fisher's exact test in instances in which the expected sample sizes are smaller than expected.³² All analyses were run in IBM SPSS (V.26).

Results

Demographics

A total of 705 faculty (25.9% of the targeted sample; $n=2723$) and a total of 583 trainees (32.0% of the targeted sample; $n=1822$) were in the analytic sample. Most of the sample was White (72.2%). Following White as the most frequent racial group, 15.3% was Asian/Asian American/Pacific Islander. Slightly over half of participants (52.0%) identified as cisgender women. Faculty, fellows, and residents were asked to indicate the nature of their primary department, and 353 (33.4%) were in medical specialties, 249 (23.6%) in specialties focused on the care of women, children, or families, 217 (20.5%) were in hospital-based departments, 166 (15.7%) in surgical departments, and 71 (6.7%) worked in basic science departments. Comparisons of respondents to the target population have been reported elsewhere.¹³ A total of 1106 participants interacted directly with patients. See Table 1 for complete demographic information, Table 2 for all harassment survey items, and Table 3 for prevalence rates. See figures for all gender analyses (Fig. 1), LGBTQ+ analyses (Fig. 2), and race analyses by insiders (Fig. 3) and patients/families (Fig. 4).

Gender policing harassment

GPH from Insiders. Among cisgender-identified respondents, we found that 59% of women and 27% of men experienced at least one form of GPH perpetrated by insiders, a significant difference ($p<0.001$). Specifically, cisgender

TABLE 1. DEMOGRAPHICS OF 1288 RESPONDENTS TO A SURVEY CONDUCTED AT AN ACADEMIC MEDICAL CENTER

Demographic variables	n (%)
Gender	
Cisgender women	660 (52.0)
Cisgender men	610 (48.0)
Race/ethnicity	
White	915 (73.2)
Underrepresented Minority ^a	82 (6.6)
Asian/Asian American/Pacific Islander	217 (17.4)
Middle Eastern	36 (2.9)
Socioeconomic status (when growing up)	
Very poor, not enough to get by	8 (.6)
Barely had enough to get by	59 (4.6)
Had enough to get by, but no extras	363 (28.3)
Had more than enough to get by	492 (38.4)
Well off	341 (26.6)
Very wealthy	18 (1.4)
LGBTQ+ Identity	
LGBTQ+ ^b	55 (4.4)
Cisgender heterosexual	1195 (95.6)
Age (years)	M (39.38) SD (12.72)
First generation status	
Yes	233 (18.1)
No	1051 (81.9)
Interact with patients	
Yes	1106 (86.1)
No	179 (13.9)

^aThe Underrepresented Minority category includes Black/African American, Hispanic/Latinx, and Native American/American Indian.

^bThe LGBTQ+ category includes individuals that either identified as sexual minorities (e.g., lesbian, gay, bisexual, pansexual, queer, asexual) or described their gender identity as trans or gender nonconforming or listed another gender identity.

women had 3.90 (95% confidence interval [CI]: 3.07–4.96) times greater odds of experiencing GPH from insiders than cisgender men. There was no significant difference in GPH by LGBTQ+ identity ($p=0.23$) or significant differences by race ($p=0.84$). There were no statistically significant differences in reports of GPH by department group ($p=0.20$).

GPH from patients/families. There was a statistically significant difference in reported experiences of GPH from patients/families between cisgender women (28%) and men (7%; $p<0.001$). Specifically, cisgender women had 5.24 (95% CI: 3.54–7.77) times greater odds of experiencing GPH from patients/families than cisgender men. There was no significant difference in GPH by LGBTQ+ identity ($p=0.94$). There was a significant difference ($p=0.02$) by race. As observed in the adjusted residuals, the effect was largely driven by a disproportionately high rate among White individuals (21%; adjusted residual = 3.1), in addition to disproportionately low rates among Asian individuals (13%; adjusted residual = -2.2). There were no statistically significant differences in reports of GPH by department group ($p=0.43$).

Heterosexist harassment

HH from insiders. There was a significant difference in HH from insiders by cisgender identity (women = 26%,

TABLE 2. HARASSMENT ITEMS USED IN SURVEY OF FACULTY, FELLOWS, RESIDENTS, AND MEDICAL STUDENTS AT AN ACADEMIC MEDICAL CENTER

GPH items
1. Questioned your [femininity, masculinity, femininity or manhood]?
2. Treated you negatively because you were not [“feminine”, “masculine” “feminine or masculine”] enough?
3. Criticized you for not acting [“like a woman should”, “like a real man”, “like a woman should or like a real man”]?
4. Made you feel like you were not tough enough (for example, assertive, strong, or ambitious enough)?
HH items
1. Told offensive jokes or remarks about lesbian women, gay men, or bisexual people (for example, “fag” jokes)?
2. Made offensive remarks to you about your sexual orientation?
3. Called you or someone else “dyke”, “faggot”, or some similar slur in your presence?
RSH items
1. Said things to insult you or other people based on gender AND race (for example, White women are dumb, Black women are angry, Asian men are wimpy, etc.)?
2. Told jokes or stories that described you or other people negatively based on gender AND race?
3. Displayed pictures, memes, or cartoons that portrayed you or other people negatively based on gender AND race?
4. Made comments about your body and other people’s bodies that emphasized gender AND race (for example, comments about Black women’s “Black ass”)?

All items were presented to assess GPH, HH, and RSH from institutional insiders (i.e., students, staff, or faculty). All items were also presented to participants who worked with patients to assess harassment perpetrated by patients/families. The question wording of [femininity/manhood/femininity or manhood]? was presented to individuals who identify as (1) women, (2) men, and (3) trans or nonconforming participants, respectively.

GPH, gender policing harassment; HH, heterosexist harassment; RSH, racialized sexual harassment.

men = 21%; $p=0.046$). Specifically, cisgender women had 1.31 (95% CI: 1.01–1.71) times greater odds of experiencing HH from insiders than cisgender men. There was a statistically significant difference in reported experiences of HH by LGBTQ+ identity (LGBTQ+ = 48%; Cis het = 22%; $p<0.001$). LGBTQ+ participants had 3.24 (95% CI: 1.86–5.62) times greater odds of experiencing HH from insiders than cisgender heterosexual participants. There was no significant difference by race ($p=0.91$). There was a significant difference by department group ($p=0.02$). As observed in the adjusted residuals, the effect is largely driven by a disproportionately high rate of HH within the hospital-based departments (29%; adjusted residual = 2.5), in addition to disproportionately low rates in the medical specialties (19%; adjusted residual = -2.0).

HH from patients/families. There was no statistically significant difference in HH from patients/families by cisgender identity ($p=0.79$). There was a statistically significant difference in reported experiences of HH by LGBTQ+ identity

TABLE 3. PREVALENCE RATES OF GENDER POLICING HARASSMENT, HETEROSEXIST HARASSMENT, AND RACIALIZED SEXUAL HARASSMENT FROM INSIDERS AND PATIENTS/FAMILIES

Demographic variables	From insiders			From patients/families		
	GPH	HH	RSH	GPH	HH	RSH
Cisgender identity						
Women	59.0	25.7	34.6	28.4	22.0	33.0
Men	27.0	20.8	27.0	7.0	22.7	36.6
LGBTQ+ identity						
LGBTQ+ ^a	51.9	48.1	31.5	18.2	45.5	38.6
Cisgender heterosexual	43.6	22.3	31.1	18.6	21.4	34.3
Race/ethnicity						
White	44.2	23.6	28.5	20.7	25.0	34.5
Underrepresented Minority ^b	44.4	22.2	42.5	12.9	27.1	42.0
Asian/Asian American/Pacific Islander	43.3	21.9	37.1	12.9	13.4	35.5
Middle Eastern	36.4	26.5	27.3	9.4	6.3	25.0
Department ^c						
Basic science	50.0	16.2	22.1	0	50.0	50.0
Medical	37.6	19.1	30.1	17.7	25.4	47.2
Care of women, children, families	45.0	21.0	31.4	22.3	24.9	31.8
Surgical	38.6	27.8	30.6	14.9	18.4	28.4
Hospital based	42.0	29.2	30.3	18.9	20.5	31.1

^aThe LGBTQ+ category includes individuals that either identified as sexual minorities (e.g., lesbian, gay, bisexual, pansexual, queer, asexual) or described their gender identity as trans or gender nonconforming or listed another gender identity.

^bThe Underrepresented Minority category includes Black/African American, Hispanic/Latinx, and Native American/American Indian.

^cOnly faculty, fellows, and residents were asked to indicate the nature of their primary department. Medical students were not included in the calculation of prevalence rates by department.

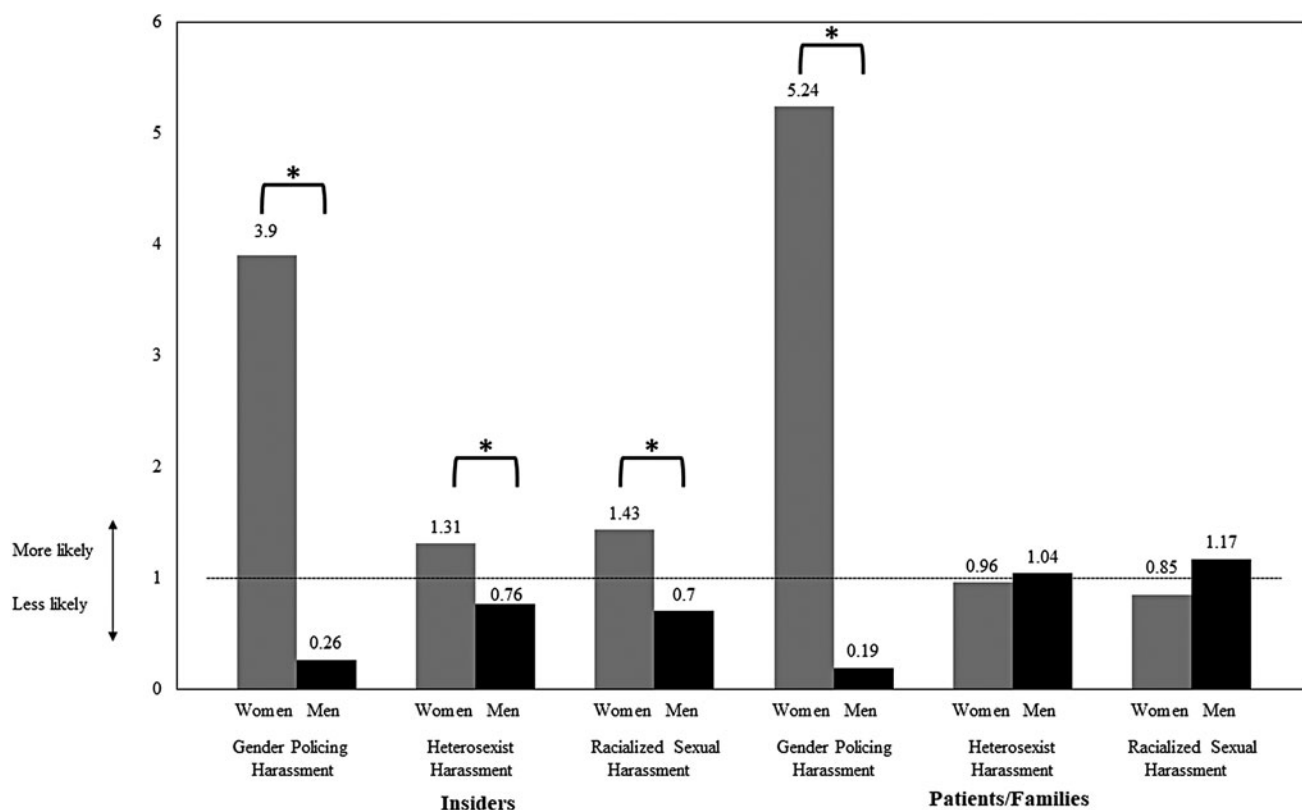


FIG. 1. Odds ratios for cisgender women (women) and cisgender men (men) experiencing at least one form of GPH, HH, and RSH within the past year, perpetrated by insiders and patients/families. A * indicates a significant effect difference between the two categories. GPH, gender policing harassment; HH, heterosexist harassment; RSH, racialized sexual harassment.

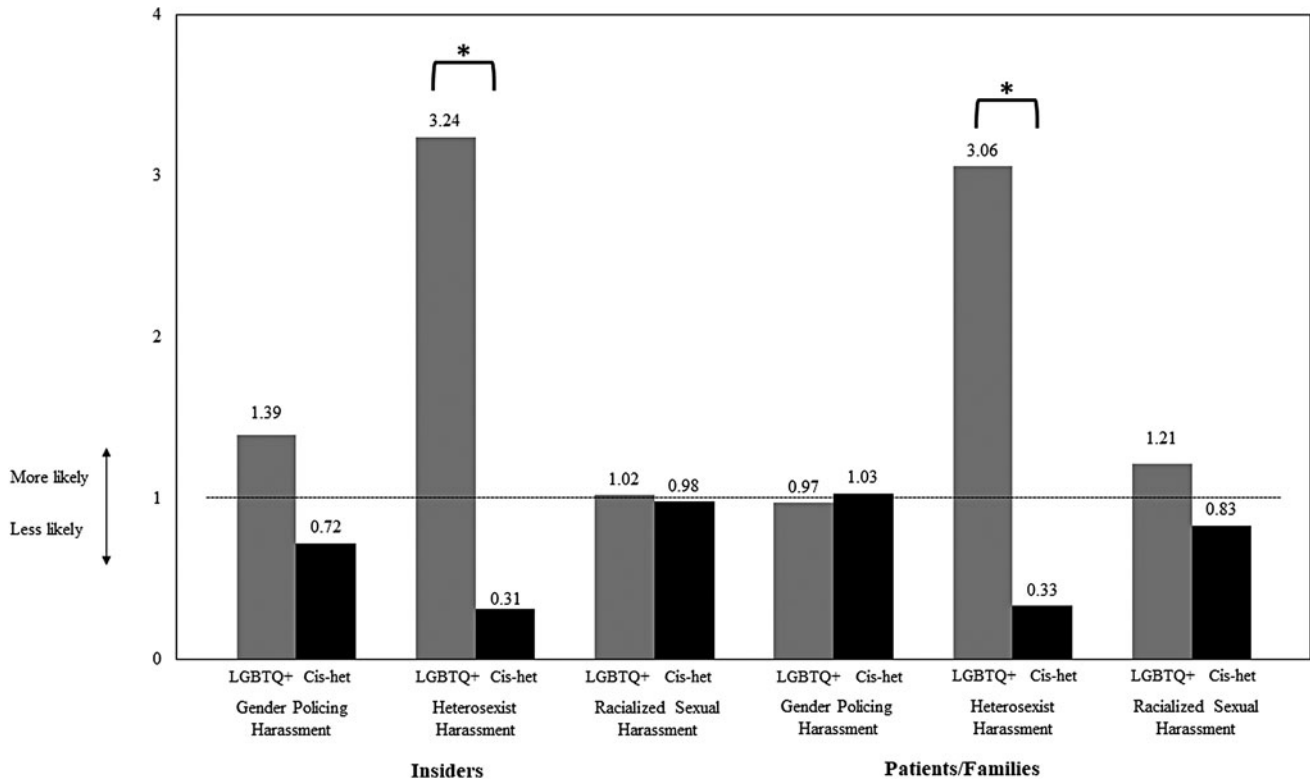


FIG. 2. Odds ratios for LGBTQ+ and cisgender heterosexual individuals experiencing at least one form of GPH, HH, and RSH within the past year, perpetrated by insiders and patients/families. A * indicates a significant effect difference between the two categories. GPH, gender policing harassment; HH, heterosexist harassment; RSH, racialized sexual harassment.

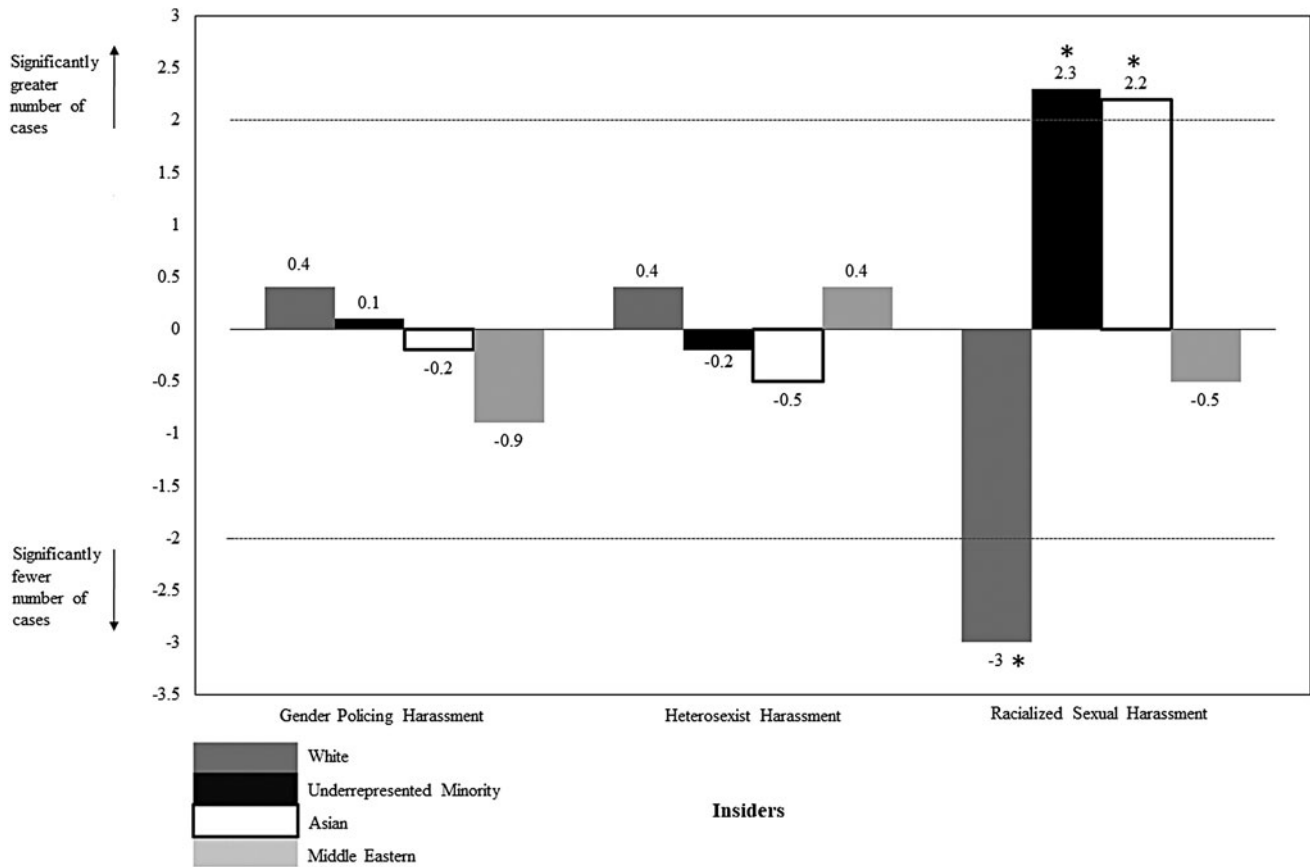


FIG. 3. Adjusted residuals for White, Underrepresented Minority, Asian, and Middle Eastern individuals experiencing at least one form of GPH, HH, and RSH within the past year, perpetrated by insiders. A * indicates a significant effect for the category. GPH, gender policing harassment; HH, heterosexist harassment; RSH, racialized sexual harassment.

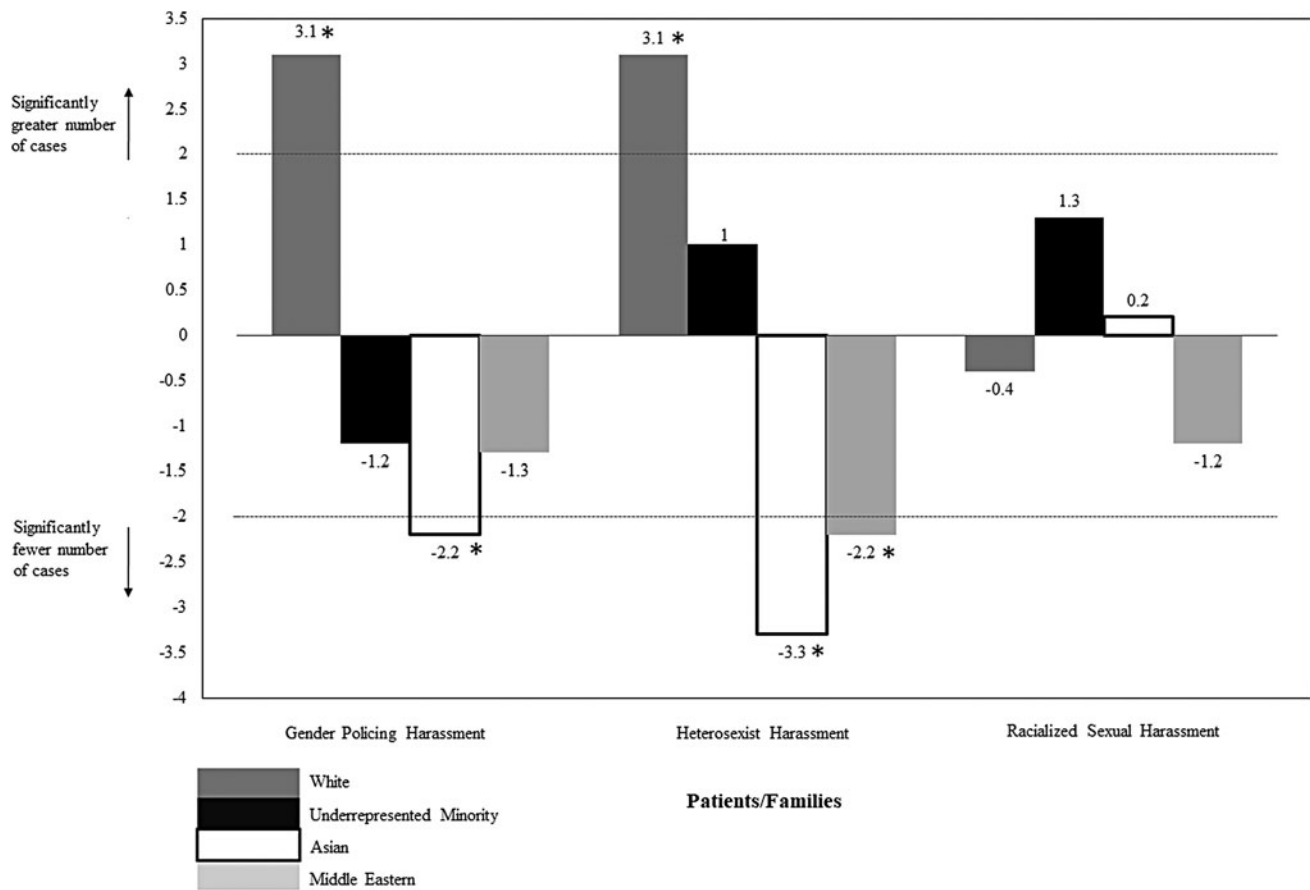


FIG. 4. Adjusted residuals for White, Underrepresented Minority, Asian, and Middle Eastern individuals experiencing at least one form of GPH, HH, and RSH within the past year, perpetrated by patients/families. A * indicates a significant effect for the category. GPH, gender policing harassment; HH, heterosexist harassment; RSH, racialized sexual harassment.

(LGBTQ+=46%; Cisnet=21%; $p < 0.001$). LGBTQ+ participants had 3.06 (95% CI: 1.66–5.64) times greater odds of experiencing HH from patients/families than cisgender heterosexual participants. There was a significant difference ($p = 0.001$) by race. As observed in the adjusted residuals, the effect was largely driven by a disproportionately high rate among White individuals (25%; adjusted residual=3.1), in addition to disproportionately low rates among Asian individuals (13%; adjusted residual=-3.3) and low rates among Middle Eastern individuals (6%; adjusted residual=-2.2). There were no statistically significant differences in reports of HH by department group ($p = 0.27$).

Racialized sexual harassment

RSH from insiders. There was a statistically significant difference in reported experiences of RSH from insiders between cisgender women and men (women=35%, men=27%; $p < 0.01$). Specifically, cisgender women had 1.43 (95% CI: 1.12–1.83) times greater odds of experiencing RSH from insiders than cisgender men. There was no statistically significant difference in reported experiences of RSH by LGBTQ+ identity ($p = 0.95$). There was a significant difference ($p < 0.01$) by race. As observed in the adjusted residuals, the effect was largely driven by disproportionately high rates among underrepresented minorities (43%; adjusted residual=2.3) and Asian individuals (37%; adjusted residual=2.2),

in addition to disproportionately low rates among White individuals (29%; adjusted residual=-3.0). There were no statistically significant differences in reports of RSH by department group ($p = 0.68$).

RSH from patients/families. There was no statistically significant difference in reported experiences of RSH from patients/families by cisgender identity ($p = 0.22$), by LGBTQ+ identity ($p = 0.56$), or by racial identity ($p = 0.39$). There was a statistically significant difference in reports of RSH from patients/families by department group ($p < 0.001$). As observed in the adjusted residuals, the effect is largely driven by a disproportionately high rate of RSH from patients/families in the medical specialties (47%; adjusted residual=4.8), in addition to disproportionately low rates in surgical specialties (28%; adjusted residual=-2.2).

Discussion

The current study is the first to our knowledge to examine systematically the prevalence of GPH, HH, and RSH in the context of academic medicine. We used validated, behaviorally based instruments, and a large sample of academic medical faculty, fellows, residents, and medical students at a large Midwestern academic institution (not believed to be atypical), to assess these various forms of harassment over a single year. Overall, our results suggested that there are

noteworthy proportions of individuals who faced identity-based harassment, perpetrated by insiders and by patients and patients' families. These findings demonstrate that these forms of harassment, previously unexamined in medicine, should receive immediate and increasing research attention.

While GPH has not been empirically examined in medicine previously, the findings of high past-year rates across groups echo organizational science results demonstrating that gender harassment broadly is prevalent across work contexts. GPH is a troubling yet recurring variant of gender harassment.^{33,34} Importantly, we found striking gender differences in experiences of GPH, perpetrated by both insiders and patients/families, with more cisgender women than men reporting it. These differences are consistent with a large body of literature in demonstrating the disproportionate rates of gender-bias targeted at women in traditionally male-dominated fields. Role congruity theory proposes that individuals are expected to conform to group stereotypes.³⁵ For instance, doctors are expected to possess agentic, masculine, and dominant characteristics, yet women are expected to behave in ways that are congruent with traditional femininity. Consequently, women face a "double bind," in which they are penalized for not acting assertive enough to meet the expectations of a doctor and at the same time penalized for not acting feminine enough to meet the expectation of being a woman.³⁵⁻³⁷

Consistent with this theory, the most commonly experienced manifestation of GPH perpetrated by insiders was harassment for being "not tough enough." We also found a significant effect by race, where White participants were more likely to experience GPH perpetrated by patients/families and Asian participants less so. This difference suggests that White individuals may be expected to conform to gender roles more strongly than Asian individuals. This persistent pattern of gender policing has been found in previous research,³⁸ and while consequences of GPH have been examined in other work contexts, instances of GPH may have substantial consequences for well-being, retention, and productivity in academic medicine as well.³⁹

In addition, we found that sizeable proportions of participants experienced at least one form of HH over the past year. In particular, we found that LGBTQ+ individuals (who made up 4.4% of the overall sample) were significantly more likely to experience HH from all sources, compared to cisgender heterosexual individuals. Years of research have demonstrated that consequences of heterosexism include a negative work environment for sexual minorities, in addition to significant psychological consequences such as depressive symptoms.⁴⁰ Negative effects also extend to those who identify as heterosexual.⁴¹ Like GPH, cisgender women were more likely than cisgender men to report HH from insiders; furthermore, White participants were more likely to report HH perpetrated by patients, but Asian and Middle Eastern participants were less likely. Taken together, these observations demonstrate that there are norms around heterosexuality in medicine, and harassment aimed at preserving these norms is experienced and witnessed not only by LGBTQ+ individuals but also by cisgender heterosexuals. We also found a significant department effect, driven by a disproportionately high rate of HH perpetrated by insiders from the hospital based departments, in addition to disproportionately low rates in internal medicine. Future research should examine how

unique factors associated with departments, such as stress or tempo, are driving these differences.

Furthermore, a quarter or more of participants who were people of color experienced RSH from all sources in the previous year. Our inclusion of RSH, a measure of intersectional harassment, represents a novel contribution to the study of harassment in academic medicine. Intersectionality as a term was coined by Kimberlé Crenshaw but has its origins in scholarship of women of color activists over the past 100+ years. It draws attention to ways that larger structures of power, privilege, and oppression create distinct experiences for individuals that depend on the intersection of their multiple social group memberships (*e.g.*, gender, race, LGBTQ+).^{42,43} Our findings that underrepresented minorities, Asians, and cisgender women were significantly more likely to report RSH highlight how marginalized groups may experience forms of harassment that target them based on multiple identities. Intersectionality also suggests the possibility that those with "multiple minority" status (*e.g.*, women of color) might be especially vulnerable to this type of harassment. Although our sample sizes do not permit this analysis, we suggest that researchers focusing on equity within medicine integrate this into their research questions. Like HH, we also found significant differences by department group. Specifically, there were disproportionality high rates of RSH perpetrated by patients/families within medical specialties, but low rates in the surgical specialties. It is possible that the different nature of interactions with patients (*e.g.*, a patient undergoing surgery vs. a patient discussing a new concern with an internist) within each department group may be yielding these differences. Further research should examine the factors that may lead to these interdepartment group differences.

Our study contributes novel information regarding the prevalence of GPH, HH, and RSH within academic medicine. A strength of the study is our sample size, which permitted us to detect important differences by gender, LGBTQ+, race, and department group. Despite our large sample, our response rates were modest, although they are typical of online surveys on sensitive sex-related topics.⁴⁴ Note that we also took steps to reduce demand characteristics by describing the survey as about "experiences with civility and respect in our institution" in the recruitment materials. Another major strength includes our use of behaviorally based measures to assess experiences of harassment. These measures most accurately capture instances of harassment, since many targets are not likely to label their experiences as such.^{45,46} In addition, we asked participants to recall instances of harassment occurring over the past year. As it is possible that there may be errors in participants' ability to recall accurately, future research could use daily diary methods to capture instances of harassment as they occur.

While our measures and survey design were developed directly from empirically based practices, our measures may not have captured every harassment experience. Furthermore, many harassment questions described a behavior that was followed by one or more concrete examples, following the model set by the well-validated SEQ.^{12,47} The items were constructed this way for the sake of clarity, ensuring that participants comprehend the precise meaning of each question. Nevertheless, some participants may have narrowed their focus to report on only the behaviors described in the

specific examples (*e.g.*, hearing the specific comment “Black women are angry”). Therefore it is possible that some experiences of harassment were underreported, which may account for some nonsignificant differences between groups. It is also possible that some experiences of harassment were underreported because there are a limited number of items used to assess each harassment type. Another possible explanation for nonsignificant differences was the small size of some groups, which lowered the power of some analyses. A more comprehensive and nuanced understanding of how harassment is experienced within academic medicine could address potential methodological limitations using interviews or focus groups.

Our entire sample is from a single institution, which limits our ability to generalize to other academic institutions and limits the demographic diversity of our sample. We combined some race/ethnicity groups to create a theoretically driven variable with categories large enough to permit us to make meaningful comparisons and draw conclusions. However, we acknowledge that there are important differences between the groups we categorized (*e.g.*, Black vs. Latinx participants) that may uniquely shape their harassment experiences. To improve generalizability, and to better understand differences and similarities by race/ethnicity, we encourage researchers from various institutions to examine both the prevalence of sexual harassment and these novel forms of harassment among different groups. In addition, we combined gender minority identities and sexual orientation identities to generate a theoretically driven LGBTQ+ variable.⁴⁸ While our variable reflects important complexities related to minority gender and sexual orientation identities, we acknowledge that gender identity is an independent category from sexual orientation. It is possible that there may be distinct effects by each identity group; however, in the current study we were unable to test this due to our small sample of gender minority individuals.

Conclusions

The results from the current study reflect that less studied forms of harassment, including GPH, HH, and RSH, are prevalent within academic medicine and are perpetrated by insiders, as well as patients/families. Furthermore, members of marginalized groups, including women, LGBTQ+, and racial minorities, are likely to experience higher rates of multiple forms of harassment. In line with nationwide efforts to make academic medicine more equitable, these understudied forms of harassment need to be investigated in a broader range of settings within the medical profession. Gaining a comprehensive understanding of harassment is essential to ensure optimal organizational effectiveness and the ability of the field of academic medicine to achieve its worthy mission.

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