

Sexual Harassment in Ophthalmology

Olivia J. Killeen, MD, MS; Leona Ding, MS; Laura Enyedi, MD; Grace Sun, MD; Michelle T. Cabrera, MD

IMPORTANCE High rates of sexual harassment were reported among ophthalmologists who responded to a survey in 2018. A comparison with the rates in 2023 seems warranted following increased initiatives to combat sexual harassment.

OBJECTIVES To compare the rates and characteristics of sexual harassment in ophthalmology from survey respondents in 2018 and 2023 and to investigate rates of gender discrimination among the 2023 respondents.

DESIGN, SETTING, AND PARTICIPANTS In this cross-sectional, observational survey study, the survey was administered anonymously using Google Forms through the Women in Ophthalmology email blast list from August 25 to September 25, 2023. Primarily female ophthalmologists or ophthalmology trainees were surveyed in the United States and Canada. The study was determined to be exempt by the University of Washington institutional review board because it involved an anonymous, low-risk survey of adults. Participants provided consent electronically.

MAIN OUTCOMES AND MEASURES Rates of sexual harassment in ophthalmology, number of occurrences in the past 5 years, and gender discrimination. Rates were compared between the 2018 and 2023 surveys.

RESULTS Of 1051 emails sent, 692 (65.8%) were opened, and of those opened, 289 of 692 eligible participants (41.8%) responded, so that the respondents represented 289 (27.5%) of the 1051 emails sent. Among the 288 survey participants who provided gender data, there were 282 women (97.9%), 3 men (1.0%), 1 nonbinary or third gender participant (0.3%), and 2 other participants (ie, they preferred not to say or preferred to self-describe) (0.6%), with 113 (39.2%) aged 31 to 40 years. Of the 289 survey respondents in 2023, 172 (59.5%) experienced sexual harassment in ophthalmology compared with 265 of 447 (59.3%) surveyed in 2018 (difference, 0.2%; 95% CI, -7.0% to 7.5%; $P = .95$). Also, of the 172 respondents in 2023 who reported experiencing sexual harassment, 107 (62.2%) experienced it within the past 5 years compared with 125 of 265 respondents (47.2%) who reported experiencing it in 2018 (difference, 15.0%; 95% CI, 5.5%-24.2%; $P < .001$). In 2023, 41 of 170 respondents (24.1%) reported their most severe experience to an authority compared with 40 of 265 (15.1%) in 2018 (difference, 9.0%; 95% CI, 1.3%-16.8%; $P = .02$). Of 287 survey respondents in 2023, 244 (85.0%) experienced gender discrimination.

CONCLUSIONS AND RELEVANCE In this survey study, the rates of sexual harassment among respondents remained high 5 years after a survey on sexual harassment in ophthalmology, with higher frequency of recent experiences and continued low reporting rates. With other forms of gender discrimination also highly prevalent among respondents, these results support pursuit of validated strategies to foster a culture of zero tolerance toward harassment and discrimination.

JAMA Ophthalmol. doi:10.1001/jamaophthalmol.2024.6489
Published online February 20, 2025.

[+ Invited Commentary](#)

[+ Supplemental content](#)

Author Affiliations: Department of Ophthalmology, Duke University, Durham, North Carolina (Killeen, Enyedi); Department of Ophthalmology and Visual Sciences, University of Michigan, Ann Arbor (Killeen); Department of Ophthalmology, University of Washington, Seattle (Ding, Cabrera); Department of Pediatrics, Duke University, Durham, North Carolina (Enyedi); Department of Ophthalmology, Weill Cornell Medicine, New York, New York (Sun); Division of Ophthalmology, Seattle Children's Hospital, Seattle, Washington (Cabrera).

Corresponding Author: Michelle T. Cabrera, MD, Department of Ophthalmology, University of Washington, 4800 Sand Point Way NE, Seattle, WA 98105 (cabreram@uw.edu).

A 2018 survey study highlighted the concerning prevalence of workplace sexual harassment (SH) among primarily female ophthalmologists and trainees. Of 1671 emails sent, 698 (41.8%) were opened. Of those opened, 447 of 698 participants (64.0%) responded; therefore, the respondents represented 447 (26.8%) of the 1671 emails sent. Over half ($n = 265$ [59.2%]) had experienced SH during their ophthalmology career, 125 (47%) had experienced SH within the past 5 years, and the median number (IQR) of occurrences was 10 (range, 4-20).¹ Among all participants, 186 of 447 (42%) observed SH as a bystander, and 61 of 186 (33%) took no action.

Here, we report the results of a 5-year follow-up survey to understand whether the rates and characteristics of SH in ophthalmology have changed in the past 5 years, a period marked by increased initiatives to combat SH in the medical community.² Because SH is one form of gender discrimination, we also explored other forms of gender discrimination that were not included in the 2018 survey.

Methods

The 2018 survey¹ was repeated in 2023 with additional questions regarding gender discrimination (eAppendix in [Supplement 1](#)) and administered anonymously using Google Forms through the Women in Ophthalmology (WIO) email list in August 25 to September 25, 2023. Eligible participants included ophthalmologists or trainees in the United States and Canada. The survey question in 2018 and 2023 was phrased as “What is your gender?” and the options included “male,” “female,” “non-binary/third gender,” “prefer not to say,” and “prefer to self-describe.” Thus, these responses are used for gender instead of the options of man, woman, and nonbinary or third gender, which would have reflected more appropriately the social construct of gender. Participants could enter a raffle to win 1 of 72 \$50 Target gift cards. The χ^2 method for categorical data and the Cochran Q test and multiple marginal independence tests using the bootstrap approach for multiple response questions were used to compare survey results between 2018 and 2023. Because of a higher proportion of respondents aged 21 to 30 years in the 2023 survey, a subanalysis was performed adjusting for age. All P values were 2-sided but not adjusted for multiple analyses. $P < .05$ was considered significant. Quantitative data were analyzed from November 1, 2023, to November 14, 2024, using IBM SPSS Statistics for Windows software, version 29.0.2.0 (IBM Corp) and SAS software, version 9.4 (SAS Institute Inc). The American Association for Public Opinion Research (AAPOR) reporting guideline was followed throughout this study.

Results

Of 1051 emails sent, 692 (65.8%) were opened. Of those opened, 289 eligible participants (41.8%) responded, so that the respondents represented 289 (27.5%) of the 1051 emails sent. Among 288 survey participants who provided gender data,

Key Points

Question What are the rates and characteristics of sexual harassment in ophthalmology among survey respondents in 2023 compared with a similar survey in 2018?

Findings Among the 289 respondents in this survey study, who were mostly women ($n = 282$), sexual harassment and gender discrimination, which was high in 2018, remained high in 2023. The more recent survey found that although two-thirds experienced sexual harassment, less than one-fourth of serious sexual harassment incidents were reported to an authority.

Meaning These results support pursuit of validated strategies to foster a culture of zero tolerance toward harassment and discrimination.

there were 282 women (97.9%), 3 men (1.0%), 1 nonbinary or third gender participant (0.3%), and 2 other participants (0.6%), with 113 (39.2%) aged 31 to 40 years. The demographic and SH characteristics of respondents and perpetrators in the 2018 and 2023 surveys are shown in [Table 1](#) and [Table 2](#), respectively. The 2023 survey participants were slightly younger than the 2018 participants (50 of 288 [17.4%] vs 31 of 447 [6.9%] were aged 21-30 years; difference, 10.5%; 95% CI, 5.5%-15.4%; $P < .001$), with higher Asian representation (98 of 289 [34.5%] vs 121 of 447 [27.1%]; difference, 7.4%; 95% CI, -0.3% to 14.0%; $P = .02$).

Among the participants surveyed in 2023, 172 of 289 (59.5%) experienced SH compared with 265 of 447 (59.3%) surveyed in 2018 (difference, 0.2%; 95% CI, -7.0% to 7.5%; $P = .95$). Among the 289 participants surveyed in 2023, 107 of 172 (62.2%) experienced SH within the past 5 years compared with 125 of 265 (47.2%) surveyed in 2018 (difference, 15.0%; 95% CI, 5.5%-24.2%; $P < .001$). In 2023, 41 of 170 participants (24.1%) reported their most severe experience to an authority compared with 40 of 265 participants (15.1%) in 2018 (difference, 9.0%; 95% CI, 1.3%-16.8%; $P = .02$). The most frequent number of occurrences of harassment in 2023 was more than 20 (41 of 171 [24.0%]). In 2023, 22 of 113 bystanders (19.5%) took no action after witnessing SH compared with 61 of 186 bystanders (32.8%) in 2018 (difference, -13.3%; 95% CI, -24.1% to -4.4%; $P < .001$).

Because of a slightly younger 2023 cohort, a subanalysis was performed adjusting for age (eTable in [Supplement 1](#)). Among the participants surveyed in 2023, 172 of 289 (59.5%) experienced SH compared with 265 of 447 (59.3%) surveyed in 2018 (difference, 0.2%; 95% CI, -7.0% to 7.5%; $P = .94$). Among the 289 participants surveyed in 2023, 107 of 172 (62.2%) experienced SH within the past 5 years compared with 125 of 265 (47.2%) surveyed in 2018 (difference, 15.0%; 95% CI, 5.5%-24.2%; $P = .002$). In 2023, 41 of 170 participants (24.1%) reported their most severe experience to an authority compared with 40 of 265 (15.1%) in 2018 (difference, 9.0%; 95% CI, 1.3%-16.8%; $P = .02$). In 2023, 22 of 113 bystanders (19.5%) took no action in response to witnessing SH compared with 61 of 186 bystanders (32.8%) in 2018 (difference, -13.3%; 95% CI, -24.1% to -4.4%; $P = .005$). Most participants in 2023 had experienced gender discrimination ($n = 244$

Table 1. Demographic Characteristics Associated With Sexual Harassment and Gender Discrimination in the Ophthalmology Community, as Reported by Respondents in the Initial 2018 Survey Study and This 2023 Survey Study^a

Characteristic	Respondents, No. (%)		Difference (95% CI)	P value ^b
	2018 Results	2023 Results		
Survey respondent demographics (n = 447 in 2018 and n = 289 in 2023)				
Age (n = 288 in 2023), y ^c				
21-30	31 (6.9)	50 (17.4)	10.5 (5.5 to 15.4)	<.001
31-40	168 (37.6)	113 (39.2)	1.7 (−5.6 to 8.9)	
41-50	120 (26.8)	71 (24.7)	−2.2 (−8.6 to 4.3)	
51-60	76 (17.0)	28 (9.7)	−7.3 (−12.2 to −2.4)	
61-70	43 (9.6)	20 (6.9)	−2.7 (−6.7 to 1.3)	
>70	9 (2.0)	6 (2.1)	0.1 (−2.0 to 2.2)	
Race or ethnicity ^d				
Asian or Pacific Islander	121 (27.1)	98 (34.5)	7.4 (−0.3 to 14.0)	.02
Black or African American	25 (5.6)	11 (3.9)	−1.7 (−4.9 to 1.3)	
Hispanic or Latino	18 (4.0)	21 (7.4)	3.4 (−0.3 to 6.7)	
Native American or Alaska Native	5 (1.1)	1 (0.4)	−0.7 (−2.2 to 0.7)	
White non-Hispanic	279 (62.4)	157 (55.3)	−7.1 (−15.4 to −0.8)	
My racial and ethnic identity is not listed here	20 (4.5)	10 (3.5)	−1.0 (−4.1 to 2.1)	
Gender (n = 288 in 2023) ^c				
Female	442 (98.9)	282 (97.9)	−1.0 (−2.9 to 1.0)	.71
Male	3 (0.7)	3 (1.0)	0.3 (−1.0 to 1.8)	
Nonbinary or third gender	1 (0.2)	1 (0.3)	0.1 (−0.7 to 0.9)	
Prefer not to say	1 (0.2)	1 (0.3)	0.1 (−0.7 to 0.9)	
Prefer to self-describe	0	1 (0.3)	0.3 (−0.3 to 1.0)	
Characteristics of sexual harassment				
Experienced any sexual harassment in ophthalmology	265/447 (59.3)	172/289 (59.5)	0.2 (−7.0 to 7.5)	.95
No. of occurrences of harassment experienced, median (IQR) ^e	10 (4-20)	NA	NA	NA
Most frequent No. of occurrences, (No./total No. [%]) ^e	NA	>20 (41/171 [24.0])	NA	NA
Experienced sexual harassment in ophthalmology in past 5 y	125/265 (47.2)	107/172 (62.2)	15.0 (5.5 to 24.2)	<.001
Reported the most severe experience to an authority	40/265 (15.1)	41/170 (24.1)	9.0 (1.3 to 16.8)	.02
Specific sexual harassment experiences (n = 265 in 2018 and n = 172 in 2023) ^c				
Offensive comments	206 (77.7)	131 (76.2)	−1.6 (−9.7 to 6.5)	<.001
Unwanted attention	154 (58.1)	109 (63.4)	5.3 (−4.1 to 14.6)	
Unwelcome verbal advances	118 (44.5)	91 (52.9)	8.4 (−1.2 to 17.9)	
Unwanted, persistent invitations	49 (18.5)	39 (22.7)	4.2 (−3.6 to 12.0)	
Unwelcome explicit proposition	38 (14.3)	24 (14.0)	−0.4 (−7.1 to 6.3)	
Offensive displays	59 (22.3)	28 (16.3)	−6.0 (−13.4 to 1.5)	
Offensive body language	102 (38.5)	59 (34.3)	−4.2 (−13.4 to 5.0)	
Unwanted physical advances	94 (35.5)	57 (33.1)	−2.3 (−11.4 to 6.8)	
Sexual bribery or blackmail	15 (5.7)	7 (4.1)	−1.6 (−5.6 to 2.5)	
Role of respondent (n = 265 in 2018 and n = 172 in 2023) ^d				
Medical student	137 (51.7)	94 (54.7)	3.0 (−6.6 to 12.5)	.10
Resident	217 (81.9)	139 (80.8)	−1.1 (−8.6 to 6.4)	
Fellow	63 (23.8)	45 (26.2)	2.4 (−5.9 to 10.7)	
Research fellow	17 (6.4)	5 (2.9)	−3.5 (−7.4 to 0.4)	
Academic attending	59 (22.3)	47 (27.3)	5.1 (−3.3 to 13.4)	
Private practice ophthalmologist	53 (20.0)	32 (18.6)	−1.4 (−8.9 to 6.2)	

(continued)

Table 1. Demographic Characteristics Associated With Sexual Harassment and Gender Discrimination in the Ophthalmology Community, as Reported by Respondents in the Initial 2018 Survey Study and This 2023 Survey Study^a (continued)

	Respondents, No. (%)			
Characteristic	2018 Results	2023 Results	Difference (95% CI)	P value ^b
Perceived effects (n = 265 in 2018 and n = 171 in 2023) ^{d,f}				
Interfered with ability to work	61 (23.0)	45 (26.3)	3.3 (−5.0 to 11.6)	.02
Created an intimidating, hostile, or offensive work environment	101 (38.1)	56 (32.7)	−5.4 (−14.5 to 3.8)	
Made me uncomfortable	216 (81.5)	152 (88.9)	7.4 (0.7 to 14.0)	
Sense of humiliation	69 (26.0)	52 (30.4)	4.4 (−4.3 to 13.1)	
Increased anxiety in the workplace or professional setting	100 (37.7)	67 (39.2)	1.5 (−7.9 to 10.8)	
Avoidant behavior	113 (42.6)	64 (37.4)	−5.2 (−14.6 to 4.2)	
Impaired research opportunities	20 (7.5)	10 (5.8)	−1.7 (−6.4 to 3.0)	
Negative effect on career opportunities	42 (15.8)	22 (12.9)	−3.0 (−9.7 to 3.7)	
Changed jobs	17 (6.4)	10 (5.8)	−0.6 (−5.2 to 4.0)	
Left career	4 (1.5)	1 (0.6)	−0.9 (−2.8 to 0.9)	
Other	35 (13.2)	5 (2.9)	−10.3 (15.1 to −5.5)	
No significant effects	16 (6.0)	13 (7.6)	1.6 (−3.3 to 6.5)	
Barriers to reporting (n = 225 in 2018 and n = 172 in 2023) ^{d,f}				
Fear of retaliation	102 (45.3)	74 (43.0)	−2.3 (−12.2 to 7.5)	<.001
Did not want to be labeled	108 (48.0)	78 (45.3)	−2.7 (−12.5 to 7.3)	
Assumed reporting would have no impact	120 (53.3)	85 (49.4)	−3.9 (−13.8 to 6.0)	
No known reporting option	94 (41.8)	49 (28.5)	−13.3 (−22.6 to −4.0)	
Embarrassment or shame	75 (33.3)	73 (42.4)	9.1 (−0.5 to 18.7)	
Didn't feel upset enough by the experience	81 (36.0)	58 (33.7)	−2.3 (−11.7 to 7.2)	
Was afraid reporting would not be confidential	70 (31.1)	50 (29.1)	−2.0 (−11.1 to 7.0)	
Did not want to think about the experience further	40 (17.8)	50 (29.1)	11.3 (2.9 to 19.7)	
Concern for consequences to the perpetrator	33 (14.7)	26 (15.1)	0.4 (−6.6 to 7.5)	
Concern about being blamed	46 (20.4)	38 (22.1)	1.6 (−6.5 to 9.8)	
Fear of not being believed	49 (21.8)	43 (25.0)	3.2 (−5.2 to 11.6)	
Did not recognize sexual harassment at the time	58 (25.8)	46 (26.7)	1.0 (−7.8 to 9.7)	
Mistreatment stopped	28 (12.4)	14 (8.1)	−4.3 (−10.2 to 1.6)	
Outcome of reporting (n = 40 in 2018 and n = 43 in 2023) ^{d,f}				
The harassment stopped	8 (20.0)	8 (18.6)	−1.4 (−18.4 to 15.6)	.79
The perpetrator faced no known punishment	22 (55.0)	23 (53.5)	−1.5 (−23.0 to 19.9)	
The perpetrator faced an appropriate punishment	6 (15.0)	9 (20.9)	5.9 (−10.5 to 22.4)	
The harassment continued but with reduction of severity	2 (5.0)	4 (9.3)	4.3 (−6.7 to 15.3)	
The harassment continued with the same severity	4 (10.0)	4 (9.3)	−0.7 (−13.4 to 12.0)	
I don't know	2 (5.0)	6 (14.0)	9.0 (−3.4 to 21.3)	
Other	13 (32.5)	10 (23.3)	−9.2 (−28.5 to 10)	
Bystander responses (n = 186 in 2018 and n = 113 in 2023) ^d				
I intervened during the event to express disapproval to the perpetrator	25 (13.4)	29 (25.7)	12.3 (2.8 to 21.7)	<.001
I intervened in a neutral way	51 (27.4)	49 (43.4)	16.0 (4.8 to 27.1)	
I provided support or empathy to the target following the event	92 (49.5)	75 (66.4)	16.9 (5.6 to 28.2)	
I spoke to the perpetrator following the event to express disapproval	16 (8.6)	16 (14.2)	5.6 (−2.0 to 13.1)	
I reported the event to a supervisor	14 (7.5)	22 (19.5)	12.0 (3.7 to 20.2)	
I did not take any action	61 (32.8)	22 (19.5)	−13.3 (−24.1 to −4.4)	
Other	9 (4.8)	7 (6.2)	1.4 (−4.1 to 6.8)	
Characteristics of gender discrimination ^g				
Experienced any form of gender discrimination	NA	244 (85.0)	NA	NA

(continued)

Table 1. Demographic Characteristics Associated With Sexual Harassment and Gender Discrimination in the Ophthalmology Community, as Reported by Respondents in the Initial 2018 Survey Study and This 2023 Survey Study^a (continued)

Characteristic	Respondents, No. (%)		Difference (95% CI)	P value ^b
	2018 Results	2023 Results		
Specific gender discrimination experiences (n = 287) ^d	NA	NA	NA	NA
Feeling their ideas or opinions were less valued	NA	197 (80.7)	NA	NA
Feeling negatively recognized for being outspoken or stern	NA	152 (62.3)	NA	NA
Feeling unequally compensated based on gender	NA	136 (55.7)	NA	NA
Feeling they missed out on leadership opportunities due to gender	NA	111 (45.5)	NA	NA
Feeling disregarded or disrespected for being a parent or pregnant	NA	92 (37.7)	NA	NA
Feeling they are not being promoted based on gender	NA	77 (31.6)	NA	NA
Experiencing bullying due to gender	NA	66 (27.0)	NA	NA
Experiencing other gender discrimination	NA	43 (17.6)	NA	NA

Abbreviation: NA, not applicable.

^a Percentage represents proportion of those who selected that answer among all respondents for that section.

^b Generated using the χ^2 method for categorical data and the Cochran Q test and multiple marginal independence tests using the bootstrap approach for multiple response questions.

^c One 2023 participant declined to provide age or gender data, so the denominator is 288. The survey question in 2018 and 2023 was phrased as "What is your gender?" and the options included "male," "female," "non-binary/third gender," "prefer not to say," and "prefer to self-describe." Thus, these responses are used for gender instead of the options of man, woman, and nonbinary or third gender, which would have reflected more

appropriately the social construct of gender.

^d Race/ethnicity was self-reported by respondents. Allows for more than 1 response per participant; therefore, the sum of values exceeds the total number for that section, and the sum of percentages exceeds 100.

^e The 2018 survey question regarding frequency of harassment collected continuous data whereas the 2023 question gathered mixed-type responses. The median or mean cannot be calculated when the data are mixed type, so the 2018 and 2023 results cannot be compared for this question.

^f For most notable experience.

^g These questions were not included in the 2018 survey.

[85.0%]), most commonly feeling that their ideas or opinions were less valued (n = 197 [80.7%]) (Table 1).

Discussion

Following the 2017 #MeToo movement, awareness of SH in medicine has increased,² and medical organizations have reported an increase in reports and investigations of SH.³ Five years after a survey on SH in ophthalmology among respondents from a WIO email list,¹ rates remained high. Respondents continued reporting that SH affected mental health, well-being, and careers. Medical students and residents remained the most common type of individuals who experienced SH targets in this survey. Attending physicians were still common perpetrators, but the rate of patients as perpetrators increased, with known deleterious effects on ophthalmology trainee well-being in particular.⁴ Experiences among 2023 respondents appeared to increase compared with 2018 and compared with respondents from 2013 to 2018. It is unknown whether this reflects different individuals responding to the surveys, increased recognition, or increased incidents. In spite of increased reporting to an authority in this time frame, less than one-fourth of respondents in 2023 reported their most serious incident, potentially hampering institutional initiatives addressing SH.³ Of note, bystander interventions increased over the 5 years, perhaps reflecting successful bystander trainings.

Our findings suggest that efforts to address SH have been insufficient to decrease harassment; more innovative approaches to creating safe and inclusive environments seem im-

perative in our institutions. Effective antiharassment initiatives beyond bystander training also appear necessary. Protecting target identity and establishing transparent ways to report, investigate, and resolve SH are necessary.^{5,6} Perpetrators should be held accountable through proven methods, which rarely require dismissal to be effective.^{3,5,6} Ophthalmology leaders should replicate successful strategies to combat SH in academic departments, private practices, and professional societies to strive for an inclusive workplace where all can thrive.^{3,5-7}

Limitations

Limitations include low representation of male respondents and respondents from varied racial and ethnic groups and possible response bias. This survey did not probe underlying reasons for possible changes in the occurrences of harassment, the reporting of harassment, or bystander interventions. Because of anonymity, the extent of overlap between participants in the 2018 and 2023 surveys is unknown; it cannot be determined whether the rate comparisons represent a true change in rates. The response rate of less than 30% for each survey is comparable to physician specialist response rates in other web-based surveys,⁸ but it is unknown whether the results are generalizable to nonrespondents. Detailed data on respondents' workplaces were not collected.

Conclusions

In conclusion, this survey found that among respondents in 2018 and 2023, gender discrimination and SH remain highly prevalent in ophthalmology. The rates of harassment inci-

Table 2. Characteristics of Sexual Perpetrator According to Participants Responding to the Initial 2018 Survey Study and This 2023 Survey Study^a

	Respondents, No. (%)			
Characteristic	2018 Survey	2023 Survey	Difference (95% CI)	P value ^b
Approximate age (n = 265 in 2018 and n = 172 in 2023), y				
21-30	73 (27.5)	33 (19.2)	-8.4 (-16.3 to -0.4)	<.001
31-40	93 (35.1)	55 (32.0)	-3.1 (-12.2 to 5.9)	
41-50	130 (49.1)	84 (48.8)	-0.2 (-9.8 to 9.4)	
51-60	137 (51.7)	109 (63.4)	11.7 (3.3 to 21.1)	
61-70	93 (35.1)	82 (47.7)	12.6 (3.2 to 22.0)	
>70	32 (12.1)	47 (27.3)	15.3 (7.5 to 23.0)	
Role (n = 265 in 2018 and n = 172 in 2023)				
Medical student	28 (10.6)	15 (8.7)	-1.8 (-7.5 to 3.8)	<.001
Resident	78 (29.4)	33 (19.2)	-10.2 (-18.3 to -2.2)	
Fellow	37 (14.0)	10 (5.8)	-8.1 (-13.6 to -2.7)	
Academic attending	225 (84.9)	119 (69.2)	-15.7 (24.7 to -6.1)	
Private practice ophthalmologist	49 (18.5)	40 (23.3)	4.8 (-2.3 to 13.3)	
Patient	118 (44.5)	120 (69.8)	25.2 (16.1 to 34.3)	
Patient's family member	41 (15.5)	45 (26.2)	10.7 (2.8 to 18.6)	
Ophthalmic technician	15 (5.7)	6 (3.5)	-2.2 (-6.1 to 1.7)	
Hospital or practice administrator	9 (3.4)	10 (5.8)	2.4 (-1.8 to 6.6)	
Other	30 (11.3)	7 (4.1)	-7.3 (-12.1 to -2.4)	
Region where perpetrator resided (n = 265 in 2018 and n = 170 in 2023)				
US West	61 (23.0)	38 (22.4)	-0.6 (-8.7 to 7.4)	.004
US Midwest	94 (35.5)	80 (47.1)	11.6 (2.1 to 21.0)	
US South	70 (26.4)	56 (32.9)	6.5 (-2.3 to 15.4)	
US Northeast	124 (46.8)	65 (38.2)	-8.6 (-18.0 to 0.9)	
Canada	10 (3.8)	1 (0.6)	-3.2 (-5.8 to -0.6)	
I don't know	3 (1.1)	7 (4.1)	3.0 (-0.3 to 6.2)	

^a Percentage represents proportion of targets who selected that answer. Respondents could choose more than 1 answer to account for multiple perpetrators and multiple occurrences of harassment; therefore, the sum of values exceeds the number, and the sum of percentages exceeds 100.

^b Generated using the Cochran Q test and multiple marginal independence tests using the bootstrap approach for multiple response questions.

dents were higher in 2023 compared with 2018, which, in turn, were higher than rates in 2013. Although bystander intervention increased in 2023 compared with 2018, rates of reporting remained low. Beyond recognizing the magnitude of this

issue, these results support the need for actionable items in ophthalmology organizations that successfully foster, and hopefully result in, a culture of zero tolerance toward harassment and discrimination.^{3,5,6}

ARTICLE INFORMATION

Accepted for Publication: December 1, 2024.

Published Online: February 20, 2025.

doi:10.1001/jamaophthalmol.2024.6489

Author Contributions: Dr Cabrera had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Killeen, Enyedi, Cabrera.
Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: Killeen, Sun, Cabrera.
Critical review of the manuscript for important intellectual content: All authors.

Statistical analysis: Ding.

Obtained funding: Cabrera.

Administrative, technical, or material support: Enyedi, Cabrera.

Supervision: Enyedi, Sun, Cabrera.

Conflict of Interest Disclosures: None reported.

Funding/Support: This work was made possible by a charitable donation from Mend the Gap: Equity in Medicine podcast and Healo and unrestricted grants from Research to Prevent Blindness and the National Institutes of Health CORE grant (EY00130) to the University of Washington, Seattle, Washington.

Role of the Funder/Sponsor: The funders had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Meeting Presentation: This paper was presented at the Women in Ophthalmology Summer Symposium; August 24, 2024; Carlsbad, California; and has also been accepted for presentation at the Association of University Professors of Ophthalmology Program Directors Council 2025 Educating the Educators Meeting; January 29, 2025; Fort Lauderdale, Florida.

Data Sharing Statement: See Supplement 2.

REFERENCES

1. Cabrera MT, Enyedi LB, Ding L, MacDonald SM. Sexual harassment in ophthalmology: a survey study. *Ophthalmology*. 2019;126(1):172-174. doi:10.1016/j.ophtha.2018.09.016
2. Frank E, Zhao Z, Fang Y, et al. Trends in sexual harassment prevalence and recognition during intern year. *JAMA Health Forum*. 2024;5(3):e240139. doi:10.1001/jamahealthforum.2024.0139
3. Rihal CS, Baker NA, Bunkers BE, et al. Addressing sexual harassment in the #MeToo era: an institutional approach. *Mayo Clin Proc*. 2020;95(4):749-757. doi:10.1016/j.mayocp.2019.12.021
4. Scruggs BA, Hock LE, Cabrera MT, et al. A U.S. survey of sexual harassment in ophthalmology training using a novel standardized scale. *J Acad Ophthalmol* (2017). 2020;12(1):e27-e35. doi:10.1055/s-0040-1705092

5. Shapiro J, Whittemore A, Tsen LC. Instituting a culture of professionalism: the establishment of a center for professionalism and peer support. *Jt Comm J Qual Patient Saf*. 2014;40(4):168-177. doi:10.1016/S1553-7250(14)40022-9
6. Benya FF, Widnall SE, Johnson PA, eds. National Academies of Sciences, Engineering, and Medicine; Policy and Global Affairs; Committee on Women in Science, Engineering, and Medicine; Committee on the Impacts of Sexual Harassment in Academia. *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*. National Academies Press; 2018. Accessed June 10, 2024. <https://www.ncbi.nlm.nih.gov/books/NBK507206/>
7. Vargas EA, Brassel ST, Cortina LM, Settles IH, Johnson TRB, Jaggi R. #MedToo: a large-scale examination of the incidence and impact of sexual harassment of physicians and other faculty at an academic medical center. *J Womens Health (Larchmt)*. 2020;29(1):13-20. doi:10.1089/jwh.2019.7766
8. Cunningham CT, Quan H, Hemmelgarn B, et al. Exploring physician specialist response rates to web-based surveys. *BMC Med Res Methodol*. 2015; 15:32. doi:10.1186/s12874-015-0016-z