

Workplace Environment Microaggressions in Otolaryngology- Head and Neck Surgery: An International Survey

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Abstract

Objective. To survey members of the otolaryngology community about their personal and observed experiences of being treated differently because of one's physical attributes, cultural norms, or preferences in the workplace.

Study Design. Cross-sectional survey.

Setting. International Electronic Survey.

Methods. We invited members of the international otolaryngology community including 3 European or American otorhinolaryngological Societies to complete a survey about personal/observed experience of differential treatment in the workplace related to age, biological sex; disability, gender identity, language proficiency, military experience, citizenship, ethnicity/race, political belief, and sexual orientation. Results were analyzed according to participant ethnicity/race (white vs non-white) and gender (male vs female)

Results. Four hundred seven participants completed the evaluations: 301 white (74%) and 106 non-white (26%) participants. Non-white participants reported significantly more experiences of differential treatment (microaggressions) than white participants ($p < .05$). Non-white participants more frequently felt that they needed to work harder for the same opportunities as their peers and were more likely to consider leaving a position because of an unsupportive environment. In general, females reported more frequent experiences with differential treatment related to sexual orientation, biological sex, and gender identity than males.

Conclusion. We recognized reports of differential treatment as a proxy for microaggressions. Non-white members of the otolaryngology community self-report experiencing or observing more microaggressions than white members in the workplace. Acknowledging the existence and impact of microaggressions in the field of Otolaryngology is the first step towards cultivating an inclusive, diverse workforce where all members feel supported, validated, and welcomed.

Keywords

discrimination, ethnicity, head neck, microaggression, otolaryngology, race, racism, religion, surgery, survey, workplace

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The concept of microaggressions was originally introduced in the 1970s by noted psychiatrist Dr. Chester Pierce to describe offensive mechanisms and aggressions displayed in interpersonal behavior.¹ This idea was expanded upon by Derald Wing Sue for our current definition of microaggressions: “the everyday, verbal, nonverbal, and environmental slights, snubs, or insults, whether intentional or unintentional, which communicate hostile, derogatory, or negative messages to target persons based solely upon their marginalized group membership.”² Microaggressions are part of systemic or structural processes that can create a feeling of superiority or dominance among a chosen group.^{1,3-10}

Western medicine has historically been dominated by white males.¹¹⁻¹⁴ While China is the world's most populous country with the highest number of Otolaryngologists (42,000 for 1.4 billion people),¹⁵ the 39,909 Otolaryngologists from the European Union (EU), non-EU countries and the United States are the most visible.^{16,17} This perception of dominance is aided by the fact that Sub-Saharan Africa (population 1.18 billion) has approximately 494 Otolaryngologists.¹⁸ and India (population 1.4 billion)

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has less than 8000 Otolaryngologists.¹⁹ In Central and South America, the profession is concentrated in more affluent, urban areas, and there are workforce deficits.¹⁹ The areas of the world with the largest populations and the greatest rates of population growth often appear less represented.

The dissonance prompts questions about how diverse, inclusive, and welcoming the specialty is.²⁰⁻²⁶ Certainly, data from the United States consistently show that least 60% of Otolaryngology workforce is white.^{22,27,28} Correspondingly, neither African-Americans nor Latinos have ever been more than 10% of the workforce despite both groups occupying a higher percentage of the US population.²⁸

Arguably, the historical forces of European imperialism and colonization have affected the structure and distribution of resources in the world.^{15,16} In terms of the workplace and institutional power, there is data that support an allocation of resources that favors the descendants of colonists over the descendants of the colonized, and favors men more than women.^{11,29,30} Acknowledging concept and practice of dominance remains key to understanding microaggressions.

Researchers have assessed microaggressions in the workplace in numerous fields.³¹⁻³⁶ While perceptions are by definition subjective, these are still worth investigating as they can define the reality of an individual's experience.^{37,38} The scientific rigor for studying interpersonal interactions may be different from familiar methods in clinical medicine, but formulas for creating a positive, supportive workplace are underpinned by logic and social science. Accepting these differences in the process of scientific inquiry may be of particular importance as we grapple with global shortage in the Otolaryngology workforce and the need to attract people to the specialty.^{18,25,39}

Methods

The Texas Agriculture & Mechanics University Undergraduate Student Campus Climate Survey of 2013 was adapted to survey Otolaryngologists regarding personal experiences or observed instances of being treated differently at work as it related to different aspects of self-identity (Supplemental Appendix S1, available online). The survey also asked questions about their general experience in the work environment. Our adapted questionnaire aligned with theoretical constructs that have been validated and published specifically regarding perceptions of work environment, burnout, and a sense of inclusion and belonging.⁴⁰⁻⁴²

The survey included 10 demographic and 4 general questions investigating the following outcomes: age, biological sex, disability, gender identity, language proficiency, military experience, citizenship, ethnicity/race, political belief, sexual orientation, and socioeconomic status (Supplemental Appendix S1, available online). For the 4 questions dedicated to personal or observed

experiences, participants were invited to rate each item with a 6-point scale ranging from “I observed this one daily” to “I have not witnessed an experience like this at my institution” (Supplemental Appendix S1, available online). This study was considered exempt from Institutional Review Board reviews by the University of Illinois.

Survey Distribution and Data Collection

The survey was developed using SurveyMonkey® (SurveyMonkey Inc.). Each participant could complete the survey only once. The survey was emailed to 1383 practitioners in otolaryngology—head and neck surgery of the Young Otolaryngologists of the International Federation of Otorhinolaryngological Societies (YO-IFOS)/IFOS and 1590 practitioners from the Harry Barnes Society or Society of University Otolaryngologists on 2 occasions. The survey was also distributed via email to the program coordinators of 125 academic otolaryngology programs in the United States on 2 occasions, with the request that the coordinator forward the email to their department members. The targeted participants were mainly from North America, Central America, Europe, North Africa (2 respondents), and Oceania, which are cosmopolitan regions. Responses were anonymous. Incomplete responses were excluded from the analysis. The responses are reported as the entire cohort (all responders) and then stratified into 2 groups: white and non-white participants. Non-white participants included black, Hispanic, Asian, Middle Eastern, Indian, and others.

Statistical Analyses

Statistical analyses were performed with the Statistical Package for the Social Sciences for Windows (SPSS version 22.0; IBM Corp.). The differences in response between groups were evaluated using a Kruskal-Wallis test or χ^2 test according to data. A $p < .05$ was considered as significant.

Results

Setting and Demographics

Out of at least 2973 practitioners who received the email, 407 participants completed the evaluations (13.7%). The median time of evaluation was 7 minutes. The demographic features of all participants are reported in Table 1. There were 301 white (74%) and 106 non-white responders (26%), respectively. White participants came from Western Europe (N = 147; 48.8%), Eastern Europe (N = 48; 15.9%), and Western offshoots (N = 105; 35.3%). Non-white participants originated from Western Europe (N = 35; 33.0%) and Western offshoots (N = 71; 67.1%), and 2 from Africa. Most participants were <45 years old (Table 1). The participants reported being in their institution for 0-3 years (N = 162; 39.8%), 4-6 years (N = 75; 18.4%), 7-10 years (N = 40; 9.8%), or more than 10 years (N = 130; 32.0%). For these variables, there were no significant differences between the 2 groups.

Table 1. Demographic Features

Demographics	White (301)	Non-white (106)	p Value
Gender			
Female	156 (51.8)	54 (50.9)	NS
Male	144 (47.8)	52 (49.1)	
Nonbinary	1 (0.3)	0 (0)	
Age group			
18-24	5 (1.7)	2 (1.9)	NS
25-34	154 (51.2)	35 (33.0)	
35-44	73 (24.3)	34 (32.1)	
45-54	40 (13.3)	20 (18.9)	
55-64	19 (6.3)	10 (9.4)	
>65	9 (3.0)	4 (3.8)	
No response	1 (0.3)	1 (0.9)	
Largest role in self-identity definition			
Gender	137 (45.7)	31 (29.2)	.001
Nationality	71 (23.7)	22 (20.8)	
Religion	27 (9.0)	36 (34.0)	
Race	26 (8.7)	6 (5.7)	
Other	39 (13.0)	11 (10.4)	
Institution role			
Student ^a	5 (1.7)	2 (1.9)	.004
Resident	99 (32.9)	19 (17.9)	
Fellow	25 (8.3)	4 (3.8)	
Junior faculty	52 (17.3)	24 (22.6)	
Senior faculty	67 (22.3)	39 (36.8)	
Professor associate	40 (13.3)	9 (8.5)	
Professor	2 (0.7)	2 (1.9)	
No response/other	11 (2.6)	7 (6.6)	
Religions			
Protestant	15 (5.0)	8 (7.5)	.011
Catholicism	87 (28.9)	19 (17.9)	
Christianity	52 (17.3)	24 (22.6)	
Judaism	15 (5.0)	1 (0.9)	
Islam	9 (3.0)	9 (8.5)	
Buddhism	0 (0)	0 (0)	
Hinduism	0 (0)	2 (1.9)	
Other	17 (5.6)	7 (4.2)	
Atheism/no religion	96 (35.2)	36 (33.9)	
Multiple	0 (0)	0 (0)	

Abbreviation: NS, nonsignificant.

^aIn some countries, residents are still students, while resident position concerns older postgraduate doctor.

The gender balance and sexual orientation were similar between groups. Precisely, the study included asexual (N = 3; 0.7%) or questioning (N = 2; 0.5%) participants (5 did not respond). The distribution of institution roles significantly differed between groups ($p = .004$). White responders were mainly resident (32.9%), senior faculty (22.3%), and junior faculty (17.3%). Non-white participants were mostly senior faculty (36.8%), junior faculty (22.6%), and residents (17.9%). The most represented religions significantly differ from the white to the non-white group ($p = .011$, **Table 1**). Gender and nationality

were the most commonly chosen factors in determining self-identity among the white group, while religion and gender were most common in the non-white group ($p = .001$). Participants described their citizenship status as citizen (N = 337; 82.8%), permanent citizen (N = 50; 12.3%), or not citizen (N = 20; 4.9%), with no significant difference between groups.

Observed Instances of Differential Treatment

Both white and non-white participants reported similar rates of observing situations where someone was treated differently (age, biological sex, gender identity, sexual orientation disability, language proficiency, military/veteran experience, and socioeconomic status) (**Table 2**). Non-white responders reported significantly higher proportions of observed differential treatment (citizenship, political belief, and ethnicity/race) than white participants.

Reports of Personal Experience of Discrimination

Non-white participants more frequently reported differential treatment (disability, gender identity, citizenship, political belief, ethnicity/race, and socioeconomic status) than white participants (**Table 2**, **Figure 1**). **Table 3** reports participants' personal experiences of receiving comments in the workplace about physical appearances or personality. White responders reported higher proportion of comments related to friendliness than non-white participants.

Non-white participants more frequently reported feeling like others' do not understand their personal experiences and feelings of exclusion. They also more frequently experienced derogatory comments and being mistaken for another colleagues or role in the institution compared with white responders. Moreover, non-white participants reported the need to dress or act, to hide or downplay a significant part of its identity to appear more professional or to work harder for the same opportunity more than white responders (**Table 4**). The proportion of non-white participants who have considered leaving their position because of the workplace environment was significantly higher than those of the white group. Similar findings were noted for feeling unable to advocate for themselves or colleagues about racism, sexism, or religion discrimination (**Table 4**). Most white participants (53%-74%) were able to respond "I have not experienced this..." to the following questions with statistically significant differences:

- Mistaken for another colleague
- Mistaken for another role in the hospital
- Felt the need to act or dress differently
- Trouble finding mentors with whom they related
- Felt the need to censor speech to gain respect
- Felt the need to hide or downplay part of their identity

Table 2. Personal Experience, Observation, or Witnessing of Discrimination Events

	White group (N = 301)						Non-white group (N = 106)						p Value
	Da 1	We 2	Mo 3	Few 4	On 5	Ne 6	Da 1	We 2	Mo 3	Few 4	On 5	Ne 6	
<i>Observation or witnessing of an event in which someone was treated differently because of</i>													
Age	17.4	16.1	14.4	23.7	5.0	23.4	12.4	20.0	9.5	29.5	5.7	22.9	NS
Biological sex	11.6	17.9	17.6	16.3	6.3	30.2	16.0	17.0	14.2	17.0	6.6	29.2	NS
Disability	5.3	6.0	7.3	15.0	6.0	60.5	5.7	7.6	11.4	13.3	8.6	53.3	NS
Gender identity	6.3	6.6	6.3	19.6	7.0	54.2	4.7	8.5	10.4	20.8	10.4	45.3	NS
Language proficiency	6.6	10.3	14.0	22.6	7.0	39.5	11.3	12.3	17.0	21.7	8.5	29.2	NS
Military experience/veteran	1.3	1.0	2.3	5.0	3.7	86.7	0.9	1.9	5.7	6.6	0.9	84.0	NS
Citizenship	4.0	6.6	8.3	17.3	11.3	52.5	5.7	8.5	10.4	29.2	4.7	41.5	.032
Political belief	5.3	7.3	9.0	17.3	6.0	55.1	6.6	5.7	15.1	27.4	6.6	38.7	.041
Ethnicity/race	6.0	8.0	9.3	16.3	5.0	55.3	16.0	10.4	12.3	27.4	4.7	29.2	.001
Sexual orientation	5.0	3.7	7.4	18.4	5.4	60.2	3.8	8.5	8.5	18.9	3.8	56.6	NS
Socioeconomic status	8.1	7.0	12.1	21.1	6.0	45.6	13.3	14.3	11.4	21.0	5.7	34.3	NS
<i>Personal experience of different treatment because of</i>													
Age	7.3	11.0	10.6	19.3	11.0	40.9	9.5	7.6	11.4	21.0	6.7	43.8	NS
Biological sex	7.7	8.7	12.7	13.3	4.7	53.0	17.9	7.5	8.5	10.4	4.7	50.9	NS
Disability	0.3	0.3	0.3	2.4	1.7	94.9	1.9	0.0	1.9	7.5	2.8	85.8	.031
Gender identity	3.0	1.7	1.3	4.0	0.0	89.9	2.8	2.8	2.8	6.6	2.8	82.1	.040
Language proficiency	1.7	1.3	2.0	6.3	3.7	85.0	2.8	1.9	2.8	15.1	4.7	72.6	NS
Military experience/veteran	0.0	0.3	0.3	2.4	0.7	96.3	0.0	0.0	2.9	2.9	2.9	91.4	NS
Citizenship	0.3	1.0	2.3	5.7	4.0	86.6	1.9	1.9	7.5	7.5	6.6	74.5	.039
Political belief	0.7	3.0	2.0	8.4	6.0	79.9	2.8	1.9	5.7	17.9	8.5	63.2	.004
Ethnicity/race	0.7	0.3	1.0	2.7	3.7	91.6	8.5	6.6	8.5	20.8	11.3	44.3	.001
Sexual orientation	1.3	0.7	1.0	3.4	0.7	93.0	1.9	0.0	2.8	4.7	0.9	89.6	NS
Socioeconomic status	2.7	1.3	2.7	7.4	4.4	81.5	0.9	3.8	10.4	9.4	4.7	70.8	.011
Professional rank (position)	11.1	12.4	10.4	22.5	4.7	38.9	13.3	6.7	8.6	21.9	5.7	43.8	NS

Abbreviations: Da, daily; Few, few times in the past year; Mo, monthly; Ne, never; On, once in the past year; We, weekly.

- Worked harder for comparable opportunities
- Felt unable to advocate for themselves

Gender Differences

There were significant differences when the data were further stratified by gender (**Table 5**). In the white group, females reported higher proportions of daily-to-monthly observed and personal experiences of microaggressions related to biological sex and gender identity than males (**Table 5**). Similar findings were noted for personal experience of microaggressions regarding sexual orientation. The gender differences were less blatant in the non-white group. Non-white females reported higher proportions of daily-to-monthly observed or personal experiences of discrimination based on biological sex than males (**Figure 2**). Only 30% of women responded that they have never experienced discrimination based on biological sex compared to almost 80% of men.

Discussion

Racial or gender microaggressions, including microassaults, microinsults, and microinvalidations, whether intentional

or unintentional may significantly impact the work of the physician.² Combating microaggressions and discrimination is an important issue in the modern, cosmopolitan world in which individuals of different nationalities, ethnicities, orientations, beliefs, and cultures live and work together. In the workplace, everyone wants to feel valued and appreciated regardless of background. In this study, we administered an international survey, although most of our responses came from America and Europe, to receive global input from the Otolaryngology community regarding the experience of microaggressions and discrimination in the workplace. In the survey, we opted to utilize regions established by Angus Maddison 2010, because this economic model recognizing the connection between colonialism and today's world economies and how this connection influences culture.^{43,44}

This study primarily supported that non-white responders of the Otolaryngology community reported higher proportions of personal or observed experiences of microaggression compared with white responders. Our results are similar to the findings of Walker et al⁴⁵ who conducted a US survey on 730 Lesbian, Gay, Bisexual, Transgender, or Questioning (LGBTQ) and 707 straight

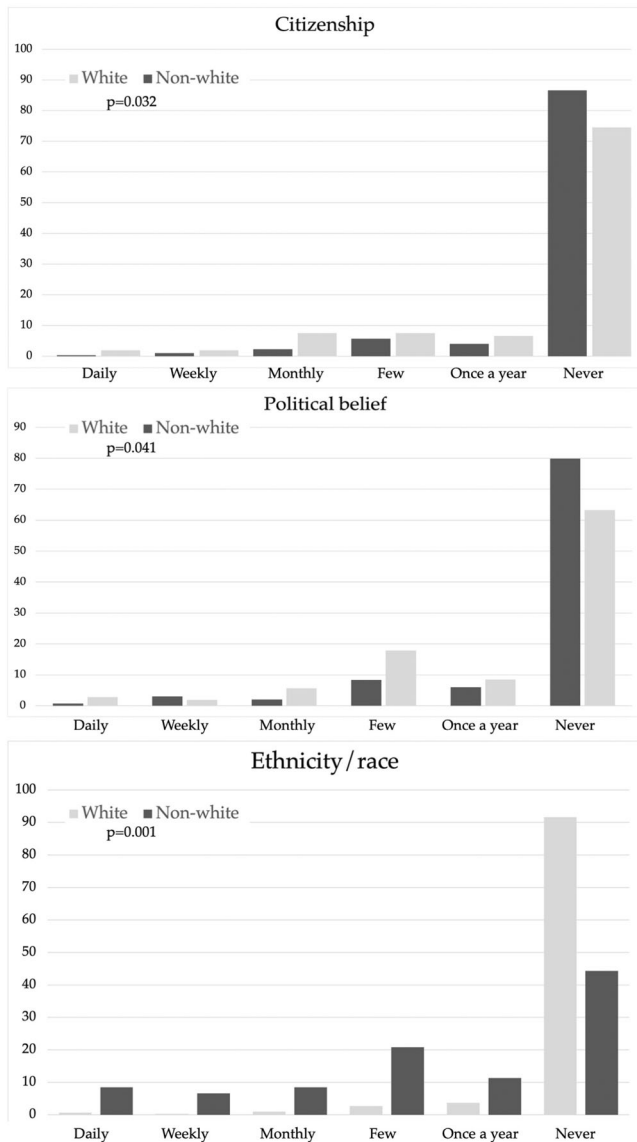


Figure 1. Personal experience of discrimination events regarding political belief, citizenship, and race/ethnicity. Non-white participants reported personal experiences of discrimination regarding ethnicity/race, citizenship, and political belief than white participants.

gynecologist trainees. These authors observed that LGBTQ trainees were more likely to experience offensive remarks based on race/ethnicity and sexual orientation and also confirmed differences between white and non-white physicians. Moreover, they also reported that blacks and other ethnicities/races were more likely to report differences based on professionalism and satisfaction with their training program, corroborating the feeling of non-white responders in our survey who considered leaving their positions because of the workplace environment. Similar findings were reported by Ode et al in a survey conducted in US orthopedic surgeons.³⁵ Ode et al reported that 94% of surveyed black orthopedic surgeons agreed that racial discrimination in the

workplace is a common problem, while black female orthopedic surgeons reported lower occupational opportunity and higher discrimination than black male orthopedic surgeons across all survey items.³⁵

The higher proportion of microaggressions against non-white females was an additional observation of our present study. In fact, our survey reveals that the proportions of observed or personal experiences of microaggression related to sexual orientation, biological sex, and gender identity were significantly higher in females than males irrespective of ethnicity/race. Several studies have previously been conducted about the prevalence of discriminations and microaggressions in otolaryngology–head and neck surgery. Recent data supported that females are underrepresented across all academic ranks in top-ranked US otolaryngology programs.²³ Hamour et al reported in a Canadian survey that harassment was reported at a higher rate in females (57.0%), while white faculty and trainees experienced less discrimination than their non-white colleagues (22.7% vs 54.5%).²⁶ The higher rate of sexual harassment was moreover reported to be common in surgical specialties in Europe, but few females reported this.³⁹ Sudol et al reported that the high prevalence of sexist and ethnic microaggressions against female and ethnic-minority surgeons was however associated with physician burnout and resignation.⁴⁶

Diversity, microaggression, and discrimination in otolaryngology are emerging as a touchstone issue that needs to be considered throughout all levels of training from medical school to residency to fully licensed academic or private practice. Indeed, discrimination in the form of microaggression against minority populations may negatively impact access to specialty fields, leading to the underrepresentation of non-white individuals.¹³ In the United States, the representation of black, Hispanic, and Native or Indigenous students remains low among medical school matriculants compared with their proportions in the US population.²⁸ In 2018, only 11.8% of medical school graduates were minorities, including 6.2% black or African American; 5.3% Hispanic, Latino, or of Spanish origin; 0.2% American Indian (Indigenous) or Alaska Native; 0.1% Native Hawaiian; or Other Pacific Islander. Underrepresented minorities made up only 6.7% of applicants to otolaryngology programs in 2020, and the proportions gradually decrease as the hierarchy ascends from resident physician to full academic professor.²⁸

To date, most studies on discrimination in otolaryngology head and neck surgery have been conducted about gender discrimination and female underrepresentation although race and gender are often considered together.^{22,30,47,48} Our study is the first to survey workplace microaggression in Otolaryngology on an international basis.

The main limitation of this survey was the low participation rate. While we estimated at most a 13.7% response rate, the true reach of this survey is unknown, and therefore, our response rate may be an overestimation. The low response may be attributed to the lack of

Table 3. Personal Experience of Discrimination Comments

	White group (N = 301)						Non-white group (N = 106)						p Value
	Da	We	Mo	Few	On	Ne	Da	We	Mo	Few	On	Ne	
	1	2	3	4	5	6	1	2	3	4	5	6	
<i>Personal experience of comments about my personal features</i>													
Hair texture	6.3	10.3	13.3	25.0	8.0	37.0	6.6	11.3	9.4	25.5	7.5	39.6	NS
Height/weight	6.4	13.0	13.7	23.7	5.4	37.8	6.6	11.3	11.3	21.7	8.5	40.6	NS
Clothing	6.7	11.0	11.7	22.7	9.7	38.1	4.7	8.5	13.2	17.0	7.5	49.1	NS
Professionalism	8.4	14.8	19.1	21.5	4.0	32.3	8.6	16.2	9.5	22.9	9.5	33.3	NS
Friendliness	10.1	17.4	18.5	21.1	2.7	30.2	10.4	17.0	13.2	17.0	10.4	32.1	.036
Religion/spiritual beliefs	2.7	3.0	4.0	17.3	8.7	64.3	2.8	1.9	7.5	13.2	7.5	67.0	NS
Relationship status	5.4	9.7	11.0	22.7	8.4	42.8	4.7	7.5	13.2	19.8	7.5	47.2	NS
Family planning	2.0	6.7	11.1	22.1	7.0	51.0	2.9	9.5	8.6	20.0	5.7	53.3	NS

Abbreviations: Da, daily; Few, few times in the past year; Mo, monthly; Ne, never; On, once in the past year; We, weekly.

Table 4. Personal Experience, Observation, or Witnessing of Discrimination Events

	White group (N = 301)						Non-white group (N = 106)						p Value
	Da	We	Mo	Few	On	Ne	Da	We	Mo	Few	On	Ne	
	1	2	3	4	5	6	1	2	3	4	5	6	
<i>Personal experience of comments/events about other features</i>													
Lack of understanding about my experiences	4.7	6.7	10.7	22.7	9.0	46.2	9.4	12.3	12.3	28.3	7.5	30.2	.034
Doubt about my judgment on a matter of my responsibility	4.4	10.1	13.1	23.5	14.8	34.2	7.5	13.2	8.5	21.7	17.0	32.1	NS
Dismiss my experience	5.0	8.3	10.0	20.3	14.7	41.7	7.5	10.4	7.5	25.5	16.0	33.0	NS
Exclude me	2.0	6.7	6.7	18.1	11.4	55.2	7.5	5.7	7.5	24.5	16.0	38.7	.013
Interrupt or speak over me	5.0	9.0	13.7	27.0	9.0	36.3	7.5	13.2	10.4	22.6	14.2	32.1	NS
Assumptions about my intelligence/abilities	1.7	6.7	7.3	14.7	13.0	56.7	4.7	9.4	6.6	22.6	14.2	42.5	NS
Derogatory comment about me	1.7	3.0	7.0	15.3	8.3	64.7	4.7	3.8	5.7	21.7	15.1	49.1	.036
Make me feel like I don't belong	3.4	4.4	6.0	15.4	13.1	57.7	6.6	4.7	8.5	18.9	14.2	47.2	NS
Jokes about me	2.3	3.3	8.3	14.0	12.0	60.0	2.8	2.8	5.7	14.2	15.1	59.4	NS
Attempt to prevent me from succeeding	3.0	4.1	5.7	12.5	8.1	66.6	4.7	4.7	5.7	14.2	15.1	55.7	NS
Attempt to publicly humiliate me	1.0	1.7	4.7	7.7	9.4	75.6	0.9	4.7	3.8	10.4	13.2	67.0	NS
Put me down or are condescending	2.0	2.7	8.7	14.4	8.7	63.4	3.8	2.8	8.5	16.0	17.0	51.9	NS
Treat me as if I am invisible	2.7	3.0	5.4	11.4	7.4	70.1	3.8	5.7	6.6	16.0	9.4	58.5	NS
Little interest in my opinion	3.4	4.4	10.1	21.8	15.8	44.6	2.8	6.6	7.5	21.7	22.6	38.7	NS
Talking about me behind my back	3.0	6.1	9.8	17.5	10.1	53.5	7.5	4.7	9.4	22.6	15.1	40.6	NS
Mistake me for another colleagues	3.0	4.3	4.3	10.7	11.4	66.2	2.8	6.6	11.3	18.9	12.3	48.1	.009
Mistake me for another role in hospital	4.4	6.0	9.7	13.8	9.4	56.7	6.6	10.4	9.4	24.5	10.4	38.7	.021
Give me more simple tasks compared to my peers	2.7	5.0	3.4	10.4	5.7	72.8	4.8	1.9	5.8	7.7	8.7	71.2	NS
Surprise about my knowledge/competence	1.3	6.4	7.0	16.1	12.8	56.4	6.7	4.8	10.6	16.3	9.6	51.9	NS
Felt alone	3.0	8.0	9.3	27.6	10.6	41.5	5.7	12.3	10.4	21.7	13.2	36.8	NS
Felt the need to dress or act	5.4	6.7	4.7	17.7	5.7	59.9	12.3	11.3	9.4	16.0	8.5	42.5	.008
Consideration to leave my position because environment	3.7	6.0	5.0	18.0	12.7	54.7	11.3	6.6	6.6	21.7	8.5	45.3	.041
Unable to advocate for myself/others about racism/ sexism/religion discriminations	1.0	2.0	3.7	14.1	5.0	74.2	5.7	5.7	8.5	16.0	9.4	54.7	.001
Trouble finding mentors with whom I related	4.0	4.7	5.7	19.7	6.7	59.3	10.4	8.5	5.7	25.5	10.4	39.6	.007
Felt the need to censor my speech to gain respect	4.7	5.4	6.0	18.7	7.7	57.5	9.4	6.6	11.3	16.0	9.4	47.2	NS
Felt the need to hide/downplay a significant part of my identify to appear more professional	4.7	5.0	5.3	14.0	6.7	64.3	9.4	7.5	8.5	16.0	13.2	45.3	.014
To work harder for the same opportunity compared with colleagues	7.1	4.7	7.4	20.9	6.4	53.3	22.6	5.7	4.7	22.6	8.5	35.8	.001

Abbreviations: Da, daily; Few, few times in the past year; Mo, monthly; Ne, never; On, once in the past year; We, weekly.

Table 5. Gender Differences Outcomes

	White group (N = 301)												p Value	
	White female (N = 156)						White male (N = 144)							
	Da	We	Mo	Few	On	Ne	Da	We	Mo	Few	On	Ne		
Observation of biological sex discrimination	15.4	19.9	16.7	19.2	4.5	24.4	6.9	16	18.8	13.2	8.3	36.8	.027	
Observation of gender identity discrimination	8.3	9.6	7.1	17.3	5.8	51.9	3.5	3.5	5.6	22.2	8.3	56.9	.007	
Observation of sexual orientation discrimination	5.3	3.9	6.5	19.4	5.8	59.4	2.7	2	3.3	10	3	30.8	.031	
Personal experience of biological sex discrimination	10.9	12.2	20.5	20.5	6.4	29.5	3.5	4.9	4.2	5.6	2.8	79	.001	
Personal experience of gender identity discrimination	3.9	1.9	1.3	7.1	0	85.8	1.4	1.4	1.4	0.7	0	95.1	.001	
Personal experience of sexual orientation discrimination	0.6	0.6	1.3	3.2	0	94.2	1.4	0.7	0.7	3.5	1.4	92.2	NS	
	Non-white group (106)													
	Non-white female (N = 54)						Non-white male (N = 52)							
Observation of biological sex discrimination		29.6	20.4	16.7	9.3	3.7	20.4	1.9	13.5	11.5	25	9.6	38.5	.001
Observation of gender identity discrimination		5.6	9.3	11.1	22.2	9.3	42.6	3.8	7.7	9.6	19.2	11.5	48.1	NS
Observation of sexual orientation discrimination		3.7	9.3	7.4	18.5	3.7	57.4	3.8	7.7	9.6	19.2	3.8	55.8	NS
Personal experience of biological sex discrimination		29.6	11.1	13	13	1.9	31.5	5.8	3.8	3.8	7.7	7.7	71.2	.001
Personal experience of gender identity discrimination		3.7	3.7	1.9	7.4	3.7	79.6	1.9	1.9	3.8	5.8	1.9	84.6	NS
Personal experience of sexual orientation discrimination		1.9	0	0	3.7	0	94.4	1.9	0	5.8	5.8	1.9	84.6	NS

Abbreviations: Da, daily; Few, few times in the past year; Mo, monthly; Ne, never; On, once in the past year; We, weekly.

interest on the topic and the potential few experiences of many invited participants of discrimination, both making this kind of survey vulnerable to sampling error and respondent bias. However, the present participation rate was comparable with previous surveys that were conducted on the same topic in otolaryngology or surgical fields.^{26,35,49} The study was conducted through an international society, which includes several world regions with culture differences, in which the proportion and the consideration of white or non-white otolaryngologists may substantially vary. Thus, although this bias appears to be inevitable in a large survey, it may influence the outcomes of participants. Our future goals may use qualitative methods to survey black, Indigenous, and other people of color (BIPOC) physicians and share their narratives.^{41,50,51} This is one way to handle a minority voice that can be diluted by the reality we are actually trying to address. As noted, there are only 494 Otolaryngologists in Sub-Saharan Africa, so it may be necessary to amplify their voices in order to equitably hear their concerns.⁵² We would also like to specifically include more Asian professionals in future studies.

We used “differential treatment” as a proxy for microaggressions as noted in our background. We are aware that this may not be appropriate in all cases. However, the perception of being treated differently

from colleagues is a real, harmful concept.^{53,54} The survey itself also distinguished between simply being treated differently, and being treated differently because of some visible, physical characteristic. Specific items in the questionnaire—“feeling alone, feeling like the butt of jokes, feeling publicly humiliated, and feeling invisible or feeling that co-workers have little interest in one’s opinion”—these feelings do not describe a positive or desirable workplace culture. Our general results confirmed that non-white respondents felt that they have to work harder than their white peers. Whether this is labeled differential treatment or as microaggressions is less important than receiving the information that individuals in our specialty feel undervalued.

Our survey was created based on an existing climate questionnaire, but is not a validated measurement tool, and we acknowledge this challenge. Our subjects likely interpreted the questions differently based on their experiences; for example, the responder may have only considered comments/interactions they personally interpreted as negative as “differential treatment.” We attempted to mitigate this factor by allowing for “free text” responses to provide subjects the opportunity to provide context and explanations of their answers and this information will assist project design for our future work.

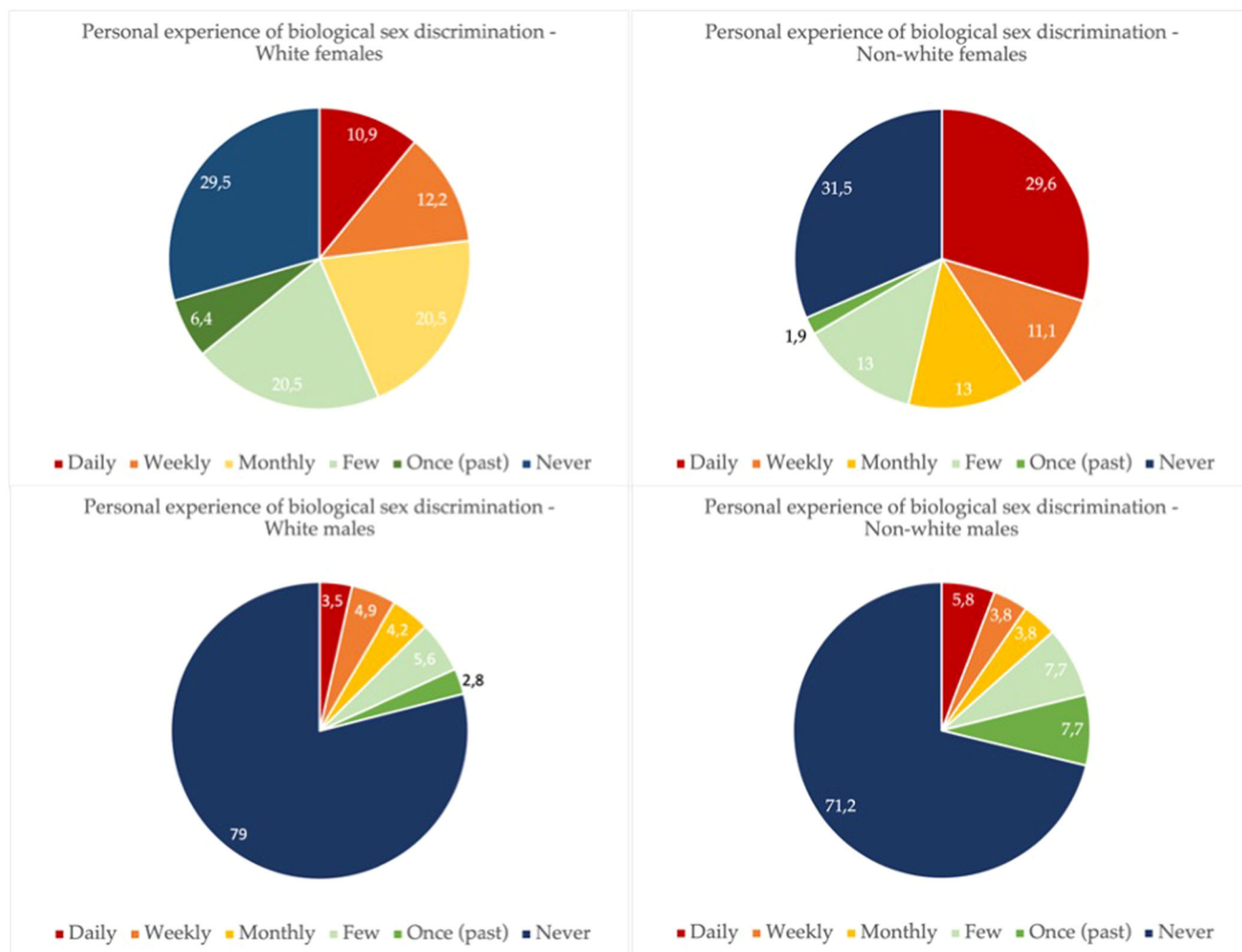


Figure 2. Personal experience of biological sex discrimination regarding gender and ethnicity/race. Males reported significant lower proportions of personal experience of discrimination regarding biological sex than females.

Conclusions

Certainly, one interpretation of this data is that the majority of white respondents felt welcomed as professionals and respondents of color felt like they had to work to fit in or that they were less able to show up for work as their authentic selves. Most male respondents reported that they have not experienced gender-based discrimination, but most women did not report enjoying a work environment free of gender bias. If Otolaryngology desires to be perceived as equitable, diverse, and welcoming to all, then the perceptions of minoritized Otolaryngologists should not be minimized or rationalized. The specialty would benefit from a commitment to becoming more purposeful in mentoring, recruiting, and retaining underrepresented minorities as well as assessing how members of the workforce perceive their respective working environments. This important feedback can be the basis for a robust action plan.

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Jerome R. Lechien, conception and design, analysis and interpretation of data, drafting of the manuscript; **Krystal Kan**, conception and design, analysis and interpretation of data, drafting of the manuscript; **H. Steven Sims**, conception and design, analysis and interpretation of data, drafting of the manuscript, revising the manuscript for important intellectual content, and final approval of the version to be published.

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Supplemental Material

Additional supporting information is available in the online version of the article.

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