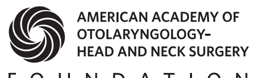

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Prevalence of and Barriers to Health Disparities Education Among Otolaryngology Residency Curricula

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Abstract

Objective. To assess the prevalence of health disparities curricula in otolaryngology residency programs and identify implementation barriers.

Study Design. Cross-sectional survey.

Setting. National otolaryngology residency programs.

Methods. A survey based on published literature discussing the incorporation of health disparities curricula, educational design, quality, barriers to implementation, and patient demographics was sent to US otolaryngology residency program directors (PDs). Otolaryngology programs excluded from consideration included those of osteopathic recognition, programs outside of the United States, and military programs. In excluding osteopathic, international, and military-based residency programs from our survey, we aimed to maintain sample homogeneity and focus our analysis on allopathic programs due to potential variations in demographic compositions and practice settings. This decision was made to ensure a more targeted examination of health disparities within a specific context, aligning with our research objectives and resource constraints. Anonymous survey results were collected and analyzed to determine the prevalence of health disparities curricula as well as their effectiveness and standardization across residency programs.

Results. A total of 24 PDs (response rate, 23%) responded to the survey. Half of the PDs reported having a health disparities curriculum, among whom only 25% felt the quality of their curriculum was very good or excellent. All institutions with an explicit health disparities educational program reported having developed their own curriculum, 75% of which changed annually. However, 92% of these programs reported not measuring outcomes to assess their curriculum's utility. The most reported barriers to curriculum development for all programs included insufficient time (63%), limited teaching ability specific to health disparities education (54%), and faculty disinterest in teaching (33%).

Conclusion. Very few of the surveyed otolaryngology residency programs have implemented a health disparities curriculum. A comprehensive and standardized health disparities curriculum would be beneficial to ensure that residents can confidently develop competency in health disparities, aligning with the Clinical Learning Environment Review mandate and Accreditation Council for Graduate Medical Education expectations.

Keywords

curriculum, health disparities, residency education

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Health disparities refer to unequal medical care access and variations in morbidity and mortality across different groups due to socioeconomic status, age, race/ethnicity,[1,2] geographic location, and sex.[3] There has been an increasing body of literature identifying the multifactorial aspects of health disparities and its detrimental impact on those historically disenfranchised in the United States. Findings from the 2019 National Healthcare Quality and Disparities Report revealed that while from 2000 to 2018 there was a trend in improved health access and quality, the pace of improvement varied by priority area.[4,5] In certain regions, disparities persisted and sometimes worsened for those of poor socioeconomic status, even when controlled for priority areas.[4,5]

There has been notable national urgency within otolaryngology to address these systemic disparities. A recent article by the president of the American Academy of Otolaryngology–Head and Neck Surgery (AAO–HNS) announced an update of the academy's Core Purpose and Core Guiding Principles to reaffirm its commitment to providing "…equitable ear, nose, and throat care through

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professional and public education, research, and healthy policy advocacy."[6] Further exemplifying their dedicated effort, the AAO–HNS launched a global education fund to uplift international otolaryngologists through educational resources, initiatives, and programs to promote enhanced clinical care in areas with disproportionally worse access to quality health care.[7] These intentional changes aim to instill inclusivity, diversity, and equity into the national and international otolaryngology community to not only acknowledge the dramatic disparities within the broad patient population, but recognize the physician's role in mitigating these barriers to care at an individual level.

Despite this recent trend in focusing on health disparities and educational efforts to assist physicians in recognizing and handling them, studies still show a deficiency in resident knowledge of site-specific disparities relevant toward their patient population.[8-11] More recent discussions about these persistent inequities have prompted health professionals to improve educational tools to begin understanding, alleviating, and changing the disparate health outcomes of their patients.[12,13] Specifically, the Accreditation Council for Graduate Medical Education (ACGME) instilled expectations, rather than requirements, for resident education objectives via the Clinical Learning Environment Review (CLER) Pathways to Excellence: Expectations for an Optimal Clinical Learning Environment (Executive Summary) to reflect the demand for culturally competent physicians trained to better empathize, address, and uplift patient care.[14] Specifically, within their Focus Area on Health Care Quality Improvement, Pathway 5 outlines expectations for education on health disparities by ensuring that residents, fellows, and faculty members receive comprehensive education on eliminating health disparities. Notably, programs must teach the clinical care team the distinction between health disparities and health care disparities, ensure awareness of the clinical site's priorities for addressing health disparities, demonstrate strategies to identify and eliminate health disparities among specific patient populations, and keep the clinical team informed about the site's procedures for addressing health disparities.[15]

While most literature on resident education in health disparities has focused on medical specialties, there is limited research on this topic in the surgical setting, especially among subspecialties.[16-20] The scant research available suggests there is a lack of standardized, effective, and relevant health disparities information in resident education. This study aims to better understand the current implementation of health disparities education among otolaryngology residency programs as well as the barriers associated with implementation.

Materials and Methods

This study was deemed exempt by the Georgetown University Institutional Review Board. An anonymous electronic survey (Supplemental Material S1, avalable online) was adapted from a similar survey disseminated to internal medicine program directors (PDs) and sent via email to otolaryngology PDs.[5] The survey incorporated a series of Likert scale, multiple-choice, and short-answer questions. For some questions, PDs could include a clarifying response. There was also an optional question for PDs to disclose the name of their residency program. Reminders were sent to non-responders bimonthly a total of 5 times over a duration of 10 weeks. PDs from osteopathic, international, or military-based institutions were excluded from the study for logistical reasons. Descriptive statistics were used to analyze the data, and only complete responses to the survey questionnaire were incorporated into the analysis.

Results

Program Characteristics

Surveys were sent to 106 PDs, among whom 24 (23%) completed the survey. Institution type, location, size, and resident demographics are found in **Table 1**. Most PDs led residency programs in the southern United States (n = 5, 42%). Of those who identified their programs, all were large-sized residency programs (greater than 3 residents) and situated in urban settings.[22]

Existing Health Disparities Curriculum

Twelve of the 24 PDs (50%) reported the existence of an established health disparities curriculum for otolaryngology residents. Approximately 25% (n = 3) of programs reported the curriculum was required by their institution, 33% (n = 4) required by the otolaryngology department only, while the remainder reported that their curriculum is

Table 1. Demographics of Institutions Whose Program Directors Opted to Identify Their Institution

Region	No (n = 12) (%)
Northeast	2 (17)
Midwest	2 (17)
South	5 (42)
West	3 (25)
Setting	No. (n = 12) (%)
Urban	12 (100)
Suburban	0 (0)
Rural	0 (0)
Program size	No. (n = 12) (%)
1-3 residents	0 (0)
3-7 residents	0 (0)
8+ residents	12 (100)
Resident demographics	Average, (%)
Underrepresented minority residents	1 (8.3)

Underrepresented minority refers to those identifying as black/African American, Hispanic/Latino/of Spanish origin, and American Indian/Alaskan Native/Native Hawaiian/Pacific Islander-Samoan.[21]

an ancillary component to another resident education program such as quality improvement (n = 3, 25%), or resident elective (n = 2, 17%). All 12 institutions developed their own curriculum, and 75% (n = 9) of PDs reported that the curriculum generally varied between years. Half of this cohort estimated their program dedicated a cumulative 4 hours of their annual curriculum to health care disparities.

Programs instituted various methods to deliver their health disparities curriculum. The most frequently used methods, as seen in **Figure 1**, included lectures (n = 12, 100%), group discussions (n = 10, 83%), small groups (n = 3, 25%), case scenarios (n = 2, 17%), and discussions of clinical experience (n = 2, 17%). Others included eLearning, presentation of regional data, quality improvement projects, and journal club (each n = 1, 8.3%). Program curriculum topics covered a variety of concepts as listed in **Figure 2**. PDs had mixed confidence in their curriculum, rating the quality as good (n = 5, 42%), fair (n = 4, 33%), very good (n = 2, 17%), and excellent (n = 1, 8.3%). Only 1 program (n = 1, 8.3%) measured outcomes of their curriculum and did so through assessment in attitude changes among residents as well as direct observation of resident skills and behavior. Barriers to curriculum development are listed in **Figure 3**.

Programs Lacking Health Disparities Curriculum

Among the 12 PDs who reported they did not have a health disparities curriculum, 42% (n = 5) reported they planned to develop a curriculum, 33% (n = 4) were unsure about future curriculum development, and 25% (n = 3) did not plan to incorporate a health disparities curriculum. Major barriers for curriculum development among programs that do not have a health disparities curriculum are listed in **Figure 3**.

Discussion

Evaluation of the ACGME CLER Pathways to Excellence found that just 34% of 9062 residents and fellows interviewed in this report received cultural competency training tailored to their clinical site's patient population.[23] Our study suggests that otolaryngology residents are even less likely than this national average to receive such training. At a national level, residency programs emphasized their awareness of health disparities.[14,23] However, residents and fellows reported that educational efforts were generally nonspecific, focusing primarily on clinical care and lacking formal structure. Additionally, only 10% of respondents reported participating in a quality improvement program aimed at reducing health disparities at their site.[14,23] Other studies have commented that individual programs vary not only in emphasis on this training, but also in objectives, delivery, content, and evaluation.[5,16,24,25]

Only half of the otolaryngology PDs we surveyed reported having a health disparities curriculum, all of which were developed in-house and an overwhelming majority of which varied between years. It is noted that while 75% of institutions reported annual changes in their curriculum, this variation does not necessarily imply a complete overhaul each year. Given the breadth of topics under the health disparities umbrella, it is reasonable to assume that not all areas may be covered annually. Moreover, adaptations to the curriculum over time are expected to address the dynamic nature of disparities,

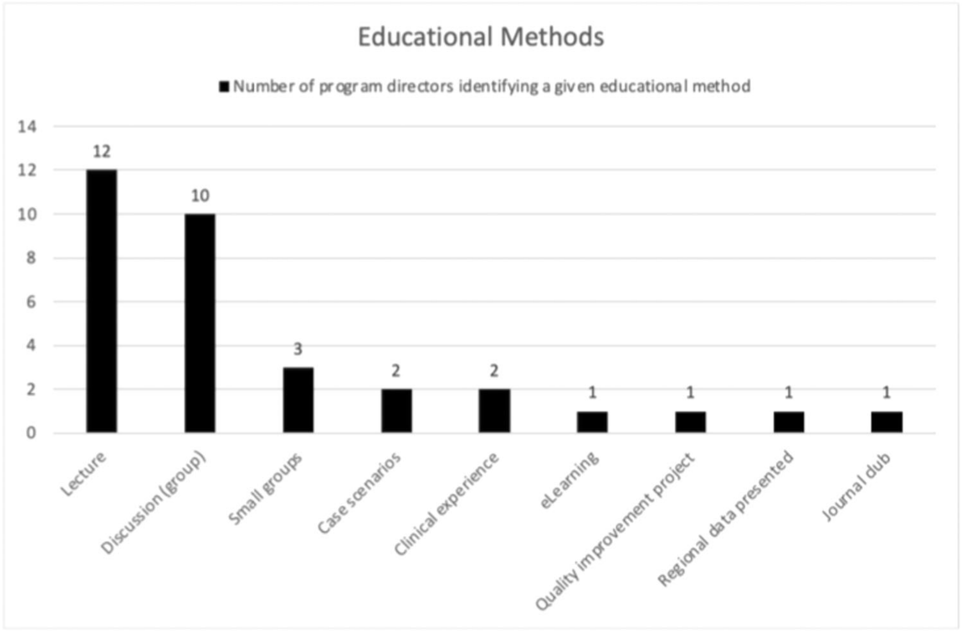

Figure 1. Educational methods utilized in curriculum as identified by program directors.

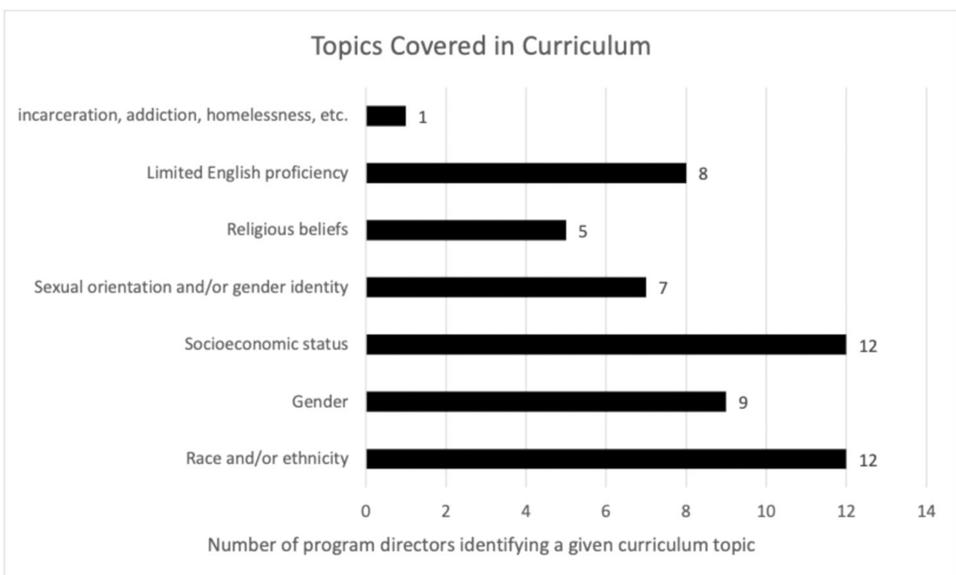

Figure 2. Topics covered in curriculum as identified by program directors.

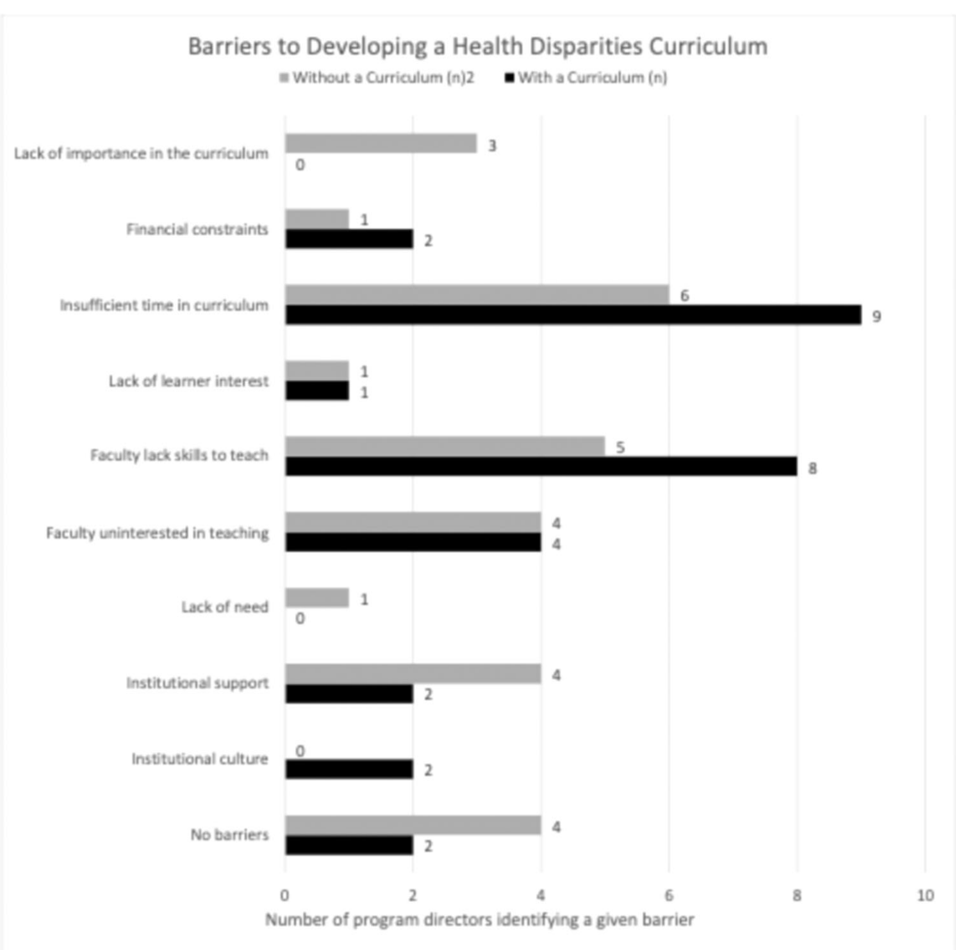

Figure 3. Reported barriers to developing a health disparities curriculum.

informed by feedback from the hospital or learning site. Broadly, this national and study-specific data suggest a need for more targeted and site-specific training to better prepare residents for the diverse patient populations they may encounter. When probed further about their curriculum commitments, half of the PDs stated their program dedicated approximately a cumulative 4 hours of their curriculum to health care disparities and 92%

(n = 11) reported their curriculum was less than 10 hours. In comparison to other specialties who are still deficient in training yet dedicate more hours to health disparities, this time constraint raises the question of whether residency training on this topic is appropriate, cohesive, and truly impactful for residents' clinical training.[26]

The data on health disparities curriculum development at the institutional level reveals crucial insights into the primary barriers affecting resident education. Only 25% (n = 3) of respondents reported that health disparities education was required by the institution. Moreover, 17% (n = 2) of respondents reported a lack of institutional support as a primary barrier in implementation. Development of health disparities curricula at an institutional level may help standardize training among residency programs and provide culturally competent education based on that site's demographic. Institutions should use the proposed ACGME CLER Pathways to Excellence guidelines to better define training objectives/milestones, develop reliable assessment tools, and aid in faculty development. Moreover, there may be an opportunity for national educational organizations, such as the Society of University Otolaryngologists or Otolaryngology Program Directors Organization to partner with institutions and create a standardized curriculum. The incorporation of nonphysician coaches may help reduce faculty workload among residency programs. At the same time, context of the contemporary sociopolitical climate remains a background player in obstacles toward promoting health disparities education. In discussing the absence of institutional support and incentives for a health disparities curriculum, it is important to note the potential impact of the 2023 students for fair admissions (SFFA) versus Harvard decision on diversity, equity, and inclusion (DEI) efforts, including health equity initiatives in graduate medical education.[27] Although precise data on the number of programs facing institutional barriers influenced by this decision is unavailable due to respondent anonymity, it is evident that some institutions grappling with these barriers operate in states where the SFFA ruling have been used to undermine DEI efforts in the educational setting.[27] More than ever, medical institutions must seek opportunities to advocate for health equity initiatives in the pursuit of eliminating disparities.

Interestingly, 33% (n = 4) of institutions without a health disparities curriculum reported "no barriers" to implementing a health disparities curriculum. The fact that a considerable portion of these institutions identified no specific obstacles raises questions about the underlying dynamics. It suggests that while some institutions may perceive a lack of explicit barriers, other factors—perhaps organizational, cultural, or strategic—are influencing the decision-making process. Residency programs and institutions at large may be incentivized to develop a health disparities curriculum if one were deemed a requirement for ACGME accreditation. Furthermore, the PDs' mixed confidence in the quality of their curriculum raises concerns about the success of current educational initiatives as only 25% (n = 3) rated their curricula as very good or excellent. A lack of endorsement by the PDs in their own educational programs warrants a deeper investigation into curricular components that may need to be amended to improve desired outcomes.

However, even identifying positive efforts or areas of improvement may be challenging since 92% (n = 11) of PDs with an established curriculum do not measure its outcomes. The limited measurement of educational outcomes poses challenges in assessing the impact of these curricula on residents' knowledge, skills, and attitudes. The scarcity of consistent and valuable outcome measures indicates a significant gap in the evaluation of the effectiveness of health disparities education, highlighting the need for standardized and robust assessment tools to ensure the quality of medical education.

Examining adequate educational designs, literature on resident education at large as well as some related health disparities curricula have proposed validated methods to enhance resident engagement. One program designed a successful 3-year, longitudinal course that incorporated a team-based and experiential population health curriculum to enhance clinic-based quality improvement and promote engagement in the patient community projects.[28] Such educational designs provide programs with a feasible method to longitudinally deliver relevant material to residents across different modalities to equip residents to identify and intervene for better patient care. Furthermore, in discussing the integration of health disparity curricula within residency programs, it is paramount to explore highly effective and previously validated educational methods tailored to engage and empower residents.[29] Similarly, taking methodology from case-based learning to present real-life scenarios highlighting disparities in health care access and outcomes will foster critical thinking and problem-solving skills.[30,31] Interactive workshops and small-group discussions provide platforms for residents to collaborate, share perspectives, and better recall learned materials.[32] Experiential learning opportunities, such as community outreach projects or rotations in underserved areas, offer residents firsthand exposure to health disparities, fostering empathy and advocacy skills.[33] By incorporating these methods, residency programs can effectively equip residents with the knowledge and skills to address health disparities and advocate for health equity in their future practice.

There were a few limitations to the study. While our survey was disseminated to all PDs who met inclusion criteria, the 23% (n = 24) response rate limits generalizability of results. Additionally, the reported demographics in our study reveal a noticeable skew when compared to recent national data, particularly in large-sized programs and programs in urban settings.[34] Moreover, the study is also limited in examining otolaryngology residency demographics due to a voluntary response bias. We also recognize the limitation in assessing curriculum consistency solely

based on the survey questions utilized. Nonetheless, the responses included in our study offer valuable insights into the prevailing trends in health disparities education implementation among otolaryngology residency programs.

Conclusion

Based on our survey results, only a small proportion of otolaryngology residency programs have implemented a health disparities curriculum, and an even smaller percentage have utilized a consistent curriculum over time. There is a severe lack of outcome measures related to otolaryngology residency programs' health disparities curricula to validate or refute their effectiveness. Given significant program- and institutional-level barriers to the development and implementation of health disparities curricula, otolaryngology residency programs are at a crossroads in compliance for new resident education expectations. Our survey reveals limited implementation of health disparities curricula in otolaryngology residency programs. Standardizing these curricula could enhance resident competency in addressing health disparities, aligning with CLER and ACGME requirements.

Author Contributions

Isabel Snee, created project concept, acquired/analyzed/interpreted data, drafted/revised manuscript, approved final version; **Amir Hakimi**, assisted in creating project concept, helping to acquire/analyze/interpret data, assisting in drafting/revising manuscript, providing approval for final version; **Sonya Malekzadeh**, assisted in creating project concept, helping to acquire/analyze/interpret data, assisting in drafting/revising manuscript, providing approval for final version.

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Supplemental Material

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

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