

# Leadership Training Curriculum for Otolaryngology-Head and Neck Surgery Residents: A Scoping Review



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### Introduction & Methods

- ➤ Otolaryngologists increasingly require strong leadership abilities to oversee surgical operations, lead diverse teams, and manage provider groups.
- ➤ Present surgical residency training primarily emphasizes clinical and technical achievements, with limited attention given to non-technical skills, including leadership.
- This study aims to assess the current state of leadership development among OHNS residents, identify strengths and weaknesses in existing leadership training initiatives, and discuss the future direction of OHNS leadership curriculum development.
- ➤ Our ultimate objective is **to improve and optimize leadership training to better prepare future otolaryngologists and foster the growth of strong leadership skills** essential for leading operating rooms, multidisciplinary teams, and provider groups in the field of OHNS.
- Scoping Review Approach: We conducted a scoping review per PRISMA-ScR guidelines, extensively researching leadership education for OHNS residents in peer-reviewed articles from EmBase, PubMed, and Google Scholar.
- ➤ Inclusion Criteria: We included full-length, peer-reviewed articles that involved OHNS residents and/ or leadership curricula in their interventions
- ➤ Data Extraction: We focused on curriculum details, evaluation (using the Kirkpatrick effectiveness score), and quality assessment (using the BEME global rating scale).

#### Results

- > Study Inclusion: Four articles met the eligibility criteria for inclusion in the study (Figure 1).
- ➤ Diverse Audience and Program Duration: All studies United States based. Studies had diverse target audiences, including faculty, staff members, military personnel, and residents from various specialties. Program durations varied from two-day immersion programs to longitudinal initiatives spanning three years<sup>3-6</sup>.
- > Curriculum Delivery: Most programs primarily used classroom settings with one study utilizing small group settings and an off-site location<sup>5-6</sup>. Only one study conducted a needs assessment to inform curriculum design<sup>6</sup>.
- ➤ **Evaluation Methods**: Three studies integrated survey data, while one study used both qualitative and quantitative methods<sup>4-6</sup>. Kirkpatrick effectiveness scores ranged from 0 to 2, with two studies achieving an evidence rating of 3 (conclusions can probably be based on results)<sup>5-6</sup>.

## Discussion/ Conclusion

- > Our results identified four studies with substantial heterogeneity across all of them that varied in their target audience, quality of evidence, and overall effectiveness.
- > None of the included studies discussed a leadership curriculum dedicated solely to OHNS residents and mostly included vague curriculum descriptions and methods of implementation, making replication of such programs challenging.
- These findings underscore the need for substantial development in leadership training within OHNS residency, as the underdeveloped state of leadership curriculum in OHNS residency programs presents a significant opportunity for impactful development.
- Future work should prioritize needs assessments, competency-based design, rigorous evaluation with iterative improvements, and reproducibility for widespread distribution and implementation.

#### **Effectiveness** Citation **Participant Quality of Duration**/ **Summary Description** Evidence Setting Type Bent<sup>3</sup> When surveyed. OHNS faculty rated themselves higher as OHNS One leaders vs. residents. Both groups expressed a belief in academic residents, faculty institution, teachability of leadership skills in adults. members no specified Authors plan to introduce a leadership development pilot duration program at their institution in response to these findings. Issa<sup>4</sup> Analyzed self-evaluation and 360-degree evaluation scores of Doctors, One the professionalism intelligence model. academic nurses, institution, Physicians scored themselves lower than non-physicians trainees, admin/staff yearlong when assessing leadership intelligence program Levine<sup>5</sup> Chief Program covered complex geriatric patient management and One leadership skills, aiding chief residents in developing academic residents, faculty institution, achievable projects. members two-day Surveys before & after with one and two-year follow-ups immersion indicated ongoing improvement in conflict resolution, program teaching, and leadership skills among trainees. Schultz No notable differences in strength scores between military OHNS One comparison groups and OHNS residents, but significant residents, academic military institution & enhancement was seen in their comprehension of leadership one military personnel vision and key concepts following 'Basic Training.' academy, On post-test review, 100% of participants reported the yearlong program was valuable program

Table 1: Data Extraction Table for Studies Describing Otolaryngology-Head and Neck Surgery Leadership Curricula

# Figures

Identification	Total records identified database searching n = 4379 Google Scholar 3380 Embase 944 PubMed 55	Figure 1: Article Screening and Inclusion for Leadership Training Curriculum for Otolaryngology-Head and Neck Surgery
Screening	Records screened after duplicates removed n = 3416	Abstracts excluded n = 3218
Eligibility	Full text articles assessed for eligibility n = 198	Full text articles excluded  n = 194  Not Leadership Specific = 122  Not OHNS related = 25
Included	Studies included in qualitative synthesis n = 4	Commentary = 14 Review = 12 No program implementation = 6 Not specific to OHNS residents = 5 Abstract/Poster Only = 5 No full text available = 3 Not peer reviewed = 2

Torres-Landa S, Wairiri L, Cochran A, Brasel KJ. Evaluation of leadership curricula in general surgery residency programs. Am J Surg. 2021;222(5). doi:10.1016/j.amjsurg.2021.05.012

Sanfey H, Williams R, Dunnington G. Recognizing residents with a deficiency in operative performance as a step closer to effective remediation. *J Am Coll Surg*. 2013;216(1). doi:10.1016/j.jamcollsurg.2012.09.008

Bent JP, Fried MP, Smith R V., Hsueh W, Choi K. Leadership Training in Otolaryngology Residency. *Otolaryngology - Head and Neck Surgery*. 2017;156(6). doi:10.1177/0194599817698441

Issa K, Abi Hachem R, Gordee A, et al. Analysis of self-and 360-evaluation scores of the professionalism intelligence model within an academic otolaryngology-head and neck surgery department. *J Healthc Leadersh*. 2021;13. doi:10.2147/JHL.S296501

Schulz K, Puscas L, Tucci D, et al. Surgical training and education in promoting professionalism: A comparative assessment of virtue-based leadership development in otolaryngology-head and neck surgery residents. Med Educ Online. 2013;18(1). doi:10.3402/meo.v18i0.22440

6. Levine SA, Chao SH, Brett B, et al. Chief resident immersion training in the care of older adults: An innovative interspecialty education and leadership intervention. J Am Geriatr Soc. 2008;56(6). doi:10.1111/j.1532-5415.2008.01710.x