Perceptions of Otologic Surgery: Identifying Educational Discordances in Otolaryngology Residency Training

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INTRODUCTION

- Effective surgical education requires shared understanding of resident abilities and attending expectations.
- Accurate self-assessment is essential to resident progression towards surgical autonomy.
- Prior studies show residents are imperfect in their self-assessment and this relationship is not well characterized in otolaryngology.[1,2]
- The objective of this study was to compare otolaryngology residents' self-reported comfort with attending surgeons' perceptions of procedural difficulty for common neurotologic procedures.

HYPOTHESIS

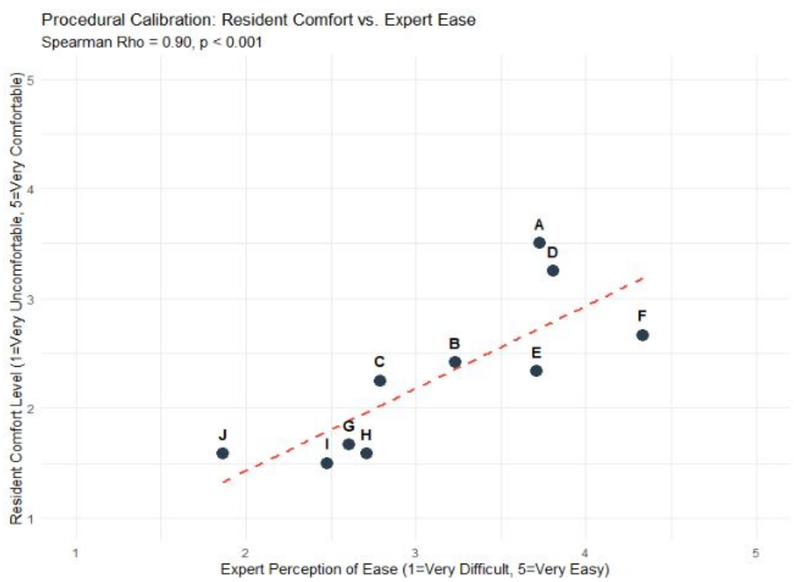
- We hypothesized that measurable discrepancies would exist between these groups, reflecting areas of educational misalignment that may inform improvements in graduate medical education.

REFERENCES

1. Gow KW. Self-evaluation: how well do surgery residents judge performance on a rotation? Am J Surg. 2013 May;205(5):557-62; discussion 562. doi: 10.1016/j.amjsurg.2013.01.010. Epub 2013 Mar 15. PMID: 23499389.
2. de Blacam C, O'Keeffe DA, Nugent E, Doherty E, Traynor O. Are residents accurate in their assessments of their own surgical skills? Am J Surg. 2012 Nov;204(5):724-31. doi: 10.1016/j.amjsurg.2012.03.003. Epub 2012 May 18. PMID: 22608671.

RESULTS

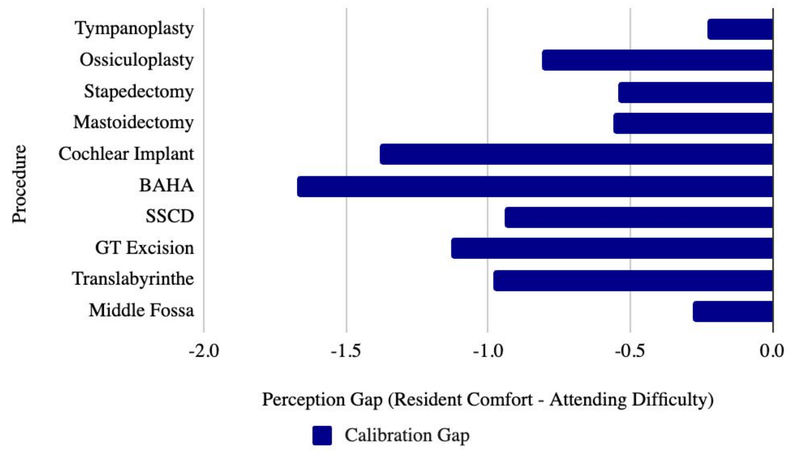
Figure 1. Correlation between Resident and Attending Perceived Difficulty



Strong positive correlation (Spearman's $\rho = 0.9$, $p < 0.001$) exists between observed resident-reported comfort and attending-perceived difficulty across procedures. This suggests residents and attendings are aligned in their ranking of procedural difficulty.

Gap analysis showed consistent negative gaps across all 10 different neurotologic procedures (-0.23 to -1.67), indicating residents consistently underestimate their operative ability compared to attending expectations.

Figure 2. Gap Analysis of Resident Comfort Level vs. Attending Perceived Difficulty



METHODS

- An anonymous, cross-sectional, observational survey of otolaryngology residents and attendings was conducted.
- Experience level, case volume, and training resources were collected.
- Residents and attendings rated perceived difficulty and comfort level for 10 procedures using 5-point Likert scale.
- Mixed-effects ordinal logistic regression models were used to identify overall differences in ratings between the two groups.
- Novice-Expert discordance was assessed using Spearman's correlation and subsequent gap analysis.

DISCUSSION

- Residents accurately identify procedural difficulty, however they underestimate their operative ability.
- A "humility gap" may limit autonomy and delay progression towards independence.
- Improving feedback strategies and incorporating competency-based assessment frameworks may help align resident assessment with attending expectations and contribute to development of more confident, capable, and well-prepared otolaryngologists.