Is the Program-Specific Paragraph Responsible for Declining Application Numbers? A Commentary

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Abstract
An alarming trend of declining applications to otolaryngology–head and neck surgery has surfaced over the past 3 years. There are many possible explanations for this decline, and a recent publication has implicated “impossible” qualifications as the reason for this decline. While these qualifications may deter a significant number of potential applicants, they have not changed significantly in the past 5 years and do not seem to explain a sudden decline. This commentary argues that the program-specific paragraph, which was introduced in 2015, may be at least in part responsible.

Keywords
residency selection, program-specific paragraph

Discussion
Over the past 3 years, the number of applicants to otolaryngology–head and neck surgery (OTO-HNS) residency programs has decreased. In 2014, 572 applications were submitted compared with 331 in 2017.1,2 These data have been summarized well in several articles published in the June issue of this journal. The reasons for this are unclear, and work is currently ongoing to try and gain perspective. Clearly, however, this is an alarming trend.

In the article entitled “The State of the Otolaryngology Match: A Review of Applicant Trends, ‘Impossible’ Qualifications, and Implications,” the authors argue that applications for OTO-HNS are decreasing because of the “impossible” standards that have been set.3 These include exorbitant US Medical Licensing Examination (USMLE) Step 1 scores (average 248 in 2014), Alpha Omega Alpha membership, and outstanding clerkship grades, among others. They assert that using these items as selection criteria causes medical students to “self-select” out of OTO-HNS because they perceive that the specialty is too competitive. By fostering this self-selection, OTO-HNS programs have eliminated from the applicant pool a number of fine individuals who would make excellent residents.

It makes sense that students self-select out of the specialty based on these criteria. Indeed, if everyone who thought that OTO-HNS was a desirable specialty applied regardless of their qualifications, I suspect there would be a vast increase in the number of applications. In contrast to OTO-HNS, the authors provide data that application numbers in other competitive specialties (eg, orthopedics, dermatology) have either remained constant or increased during this time. While OTO-HNS has indeed become more competitive over that past decade “by the numbers,” so have other highly competitive specialties (Figures 1-3). Despite these parallels, only OTO-HNS has seen a decline in applications. So what makes OTO-HNS unique? What happened in 2015 that caused this drastic change?

To understand the current trend in application numbers, one has to look back a little farther. In a 2008 article, Baroody and colleagues4 accurately pointed out the vast number of programs to which medical students applied to increase their chances of matching. They argued that this placed an onerous burden on both the applicants and the programs. The issue was again raised in 2014, in which 2 articles provided a “call to action” to decrease the number of programs to which medical students apply.

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Figure 1. Mean US Medical Licensing Examination (USMLE) Step 1 scores, 2009-2016, for matched applicants.8 OTO-HNS, otolaryngology–head and neck surgery.

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of programs per applicant and similarly the number of applicants per program.\textsuperscript{5,6}

The following year (2015), the Otolaryngology Program Directors Organization instituted a significant change to the application process called the program-specific paragraph (PSP). This required applicants to write a paragraph as an addendum to their personal statement describing why they wished to match at each specific residency program. It seems logical that by adding an extra step to the process, applicants would be discouraged from submitting "blanket" applications to a large number of programs. However, it seems remarkable that the same year this was instituted was the same year that application numbers started declining. Is it possible that the PSP is in part responsible for the decline in OTO-HNS applications? It seems plausible that application numbers started declining.

Is it possible that the PSP is in part responsible for the decline in OTO-HNS applications? It seems plausible—the PSP represents a unique hurdle that sets OTO-HNS apart from other similarly competitive specialties and was the only major change that took place at the start of the decline. It seems that the Otolaryngology Program Directors Organization has recently reevaluated this policy, as the PSP is now optional for the current application cycle. Time will tell if this has any impact on application numbers.

It is important to note that the authors of the article in question have pointed out that traditional criteria such as USMLE Step 1 scores, clerkship grades, and Alpha Omega Alpha status do not predict future performance as a resident, advocating instead for behavioral assessments and psychometric analyses.\textsuperscript{3,7} These efforts are commendable and would position OTO-HNS at the forefront of residency selection reform. However, the traditional criteria do not seem to explain the current trend in OTO-HNS applications, and careful consideration is required prior to modifying the application process.

**Conclusion**

Applications to otolaryngology–head and neck surgery are declining. The reasons for this are unclear. Rigorous qualifications such as USMLE Step 1 scores and clerkship grades have been proposed as an explanation for the decline, and reforms have been proposed. While reform to the resident selection process is likely to benefit both applicants and programs, it seems unlikely to reverse the trend in declining applications given that these criteria have not changed recently. The PSP was instituted in the first year of the decline and seems a likely culprit. Careful evaluation of modifications to the application requirements is required prior to institution.

**Author Contributions**

Scott Kramer, conceptual design, review, data analysis.

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**References**


4. Baroody FM, Pinto JM, Naclerio RM. Otolaryngology (urban) legend: the more programs to which you apply, the better the chances of matching. *Arch Otolaryngol Head Neck Surg* 2008;134:1038.


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**Figure 2.** Mean percentage of Alpha Omega Alpha members, 2009-2016, for matched applicants.\textsuperscript{8} OTO-HNS, otolaryngology–head and neck surgery.

**Figure 3.** Mean number of research experiences, 2009-2016, for matched applicants.\textsuperscript{8} OTO-HNS, otolaryngology–head and neck surgery.