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# Enhancing Career Interest and Competency in Ophthalmology: The Impact of a Student-Friendly Interactive Conference

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## Introduction

Ophthalmology has drastically increased in popularity, sharply spiking in competition ratios to 14.41:1 in 2024 [1]. Despite this, medical students often have little exposure to ophthalmology before graduation and even fewer resources to help understand the application process. Furthermore, ophthalmology conferences are often tailored to trainees and above, which may create a barrier of entry to students.

Student conferences are a popular and accessible method to increase interest and awareness of specialties. This study sought to explore the impacts of an interactive ophthalmological student conference and provide recommendations based off analysis and reflections for future potential events.

## Method

An interactive, hybrid, national conference, awarded 6.5 CPD points from the Royal College of Ophthalmologists (RCOphth), was held at the Western Eye Hospital on November 30th 2024. A list of talks and workshops are shown below (**Table 1**).

Pre- and post-conference surveys were distributed to all attendees via Microsoft Forms and the MedAll platform. Surveys explored attendee perceptions of ophthalmology and conference feedback. Results were analysed with simple statistical measures and thematic analysis.

| | |
|---|---|
| Talk 1 | A Day in the Life of Ophthalmology |
| Talk 2 | Research in Ophthalmology |
| Talk 3 | The Role of an Eye Care Liaison Officer |
| Talk 4 | Ophthalmology in Australia |
| Talk 5 | Applications in Ophthalmology: How to Get into ST1 |
| Talk 6 | Succeeding in Duke Elder and FRCOphth |
| Talk 7 | The Royal College of Ophthalmologists Address |
| Workshop 1 | Basic Ophthalmic Suturing |
| Workshop 2 | Slit Lamp |
| Workshop 3 | "Trapplectomy" [2] |

**Table 1** List of Talks and Workshops in the conference

*Demonstration of "Trapplectomy" by Mr Faisal Ahmed*

## Results

Average Interest in Ophthalmology (**4.3/5**; 0 = poor, 5 = excellent)



Previous Attendance at Ophthalmology Conference (**25%**)



**Figure 1** Visual representations of self-reported pre-conference questionnaire results (n = 49).

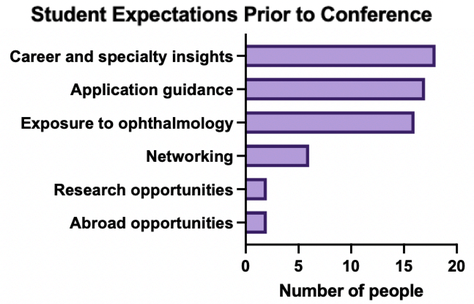



**Figure 2** Bar chart for motivators prior to the conference for medical students to attend (n = 49).

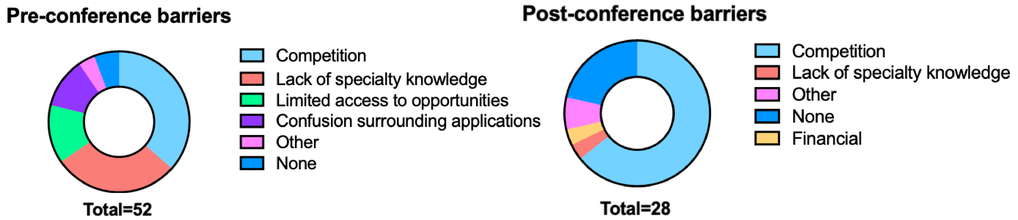



**Figure 3** Pie chart showing perceived barriers of entry into ophthalmology pre- and post-conference.

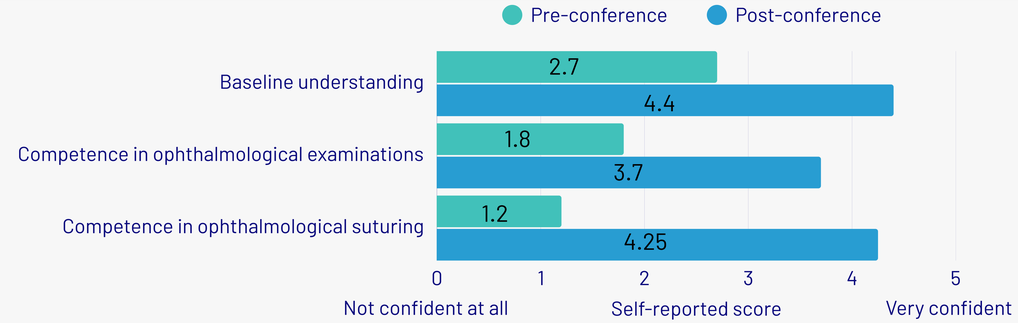



**Figure 4** Bar chart comparing self-reported confidence in ophthalmology skills pre- and post-conference (n = 28).

## Discussion

**1. Poor Baseline Knowledge in Students**

Our pre-conference questionnaire shows a poor self-reported baseline knowledge and competence in ophthalmology amongst medical students **(Figure 4)**, despite their keen interest in the speciality **(Figure 1)**. Reflected in the expectations of students **(Figure 2)**, many are looking for high-level guidance and insights into the field to assess whether they should pursue this as a career. Lack of specialty knowledge was a key barrier into ophthalmology pre-conference (31%) **(Figure 3)**. It should therefore be of priority to medical schools and ophthalmologists to increase opportunities and accessibility to insights into the specialty, reducing entry barriers for students.

**2. Successful Lecture Formats**

On average, the lectures were rated a 4.52/5 **(Figure 1)**, and lack of specialty knowledge became a significantly smaller barrier to entry **(Figure 3)**. The effectiveness of the lectures may in part be attributed to their shorter length (20 minutes with a 5-minute handover). As reflected in the feedback, this approach kept engagement in students whilst meeting their expectations, as they wanted career insights, rather than detailed lectures on pathophysiology or academic research.

**3. Inclusively Designing Workshops**

Whilst students were appreciative for any standard of workshop, we found high quality workshops increased interest, engagement and utility to students. We found successful strategies included: a highly experienced lead demonstrator, multiple assistant demonstrators, ample time for tasks and suitable difficulty of workshops. Following the conference, students reported a 63% increase in baseline understanding, 106% increase in confidence for ophthalmological examinations, and 254% increase in confidence for ophthalmological suturing **(Figure 4)**.

**4. Financial Barrier**

A new barrier emerged post-conference: financial costs during the application stage **(Figure 3)**. As this finding was not investigated in depth, further research into the accessibility of examinations and portfolio building is required to ensure ophthalmology is an equitable and inclusive specialty.

## Conclusion

Results show that student-friendly ophthalmology conferences are an effective measure at addressing certain barriers of entry into ophthalmology, such as a lack of knowledge about the specialty and application criteria. Following recent trends, competition into the specialty is set to rise, and hence medical schools and ophthalmologists should seek to address the most common barriers for students, by holding single-day events such as this one, utilising their vast network and experience in the field.

**There are no conflicts of interest to declare**

## References

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[2] Porteous, A.M. and Ahmed, F. (2018). A novel wet-lab teaching model for trabeculectomy surgery. Eye, 32(9), pp.1537–1550. doi:https://doi.org/10.1038/s41433-018-0093-4.