

December 2022

Peer Reviewed

LKC Medical Society Research Newsletter



Deborah Lee

Research Spotlight

Deborah Lee is a M5 student in LKC Medicine from Marie Curie House. She is keen to explore the field of myopia and other eye pathologies. In her free time, she enjoys long walks and spending time in nature (as long as it is not too hot).

What is your favourite cell?

Neurons! They have such a unique structure. They are also integral to sustaining life and sustaining one's meaning in life in the form of memories and thought. My neurons helped me think of this answer too.

What research do you do?

I was involved in a study about Myopia from August 2021 during Scholarly Project in M4 and recently presented it at the Singapore Health and Biomedical Congress (SHBC) Scientific Competition this year.

Tell us more about your project!

The study aimed to assess the knowledge, attitudes and preferences of the Singapore population on myopia and its treatment options. Myopia was chosen as the subject topic because of its prevalence in Singapore and its complications if it were allowed to progress.

How did you get started on research?

I started with Scholarly Project in M4 and wanted to continue with the same topic from there. I continued after the Scholarly Project period as I thought it was worthwhile to have a project to work on aside from schoolwork and my mentors from the project were great to work with.

What are the best and worst things about research?

Best: working in a team with good mentors, brainstorming and solving difficulties together, picking up new skills

Worst: when you're rushing for a deadline and are met with a sudden new difficulty

Do you think research is important for medical students?

Yes! I think research allows medical knowledge to progress and in doing so improving care for our patients.

What makes a good researcher?

A good researcher is constantly curious, not afraid of setbacks and is a good team player.

Any advice for students looking to get started?

Don't be afraid to ask for help and advice!

What's your fondest memory in LKC?

I enjoyed PBNJ very much because I felt a strong sense of camaraderie and support from my friends both on-stage and offstage. It was also a good time where we could all relax and soak in the music and performances!

Project Title: Knowledge, Attitudes and Practices of Myopia Treatment Options Among Singapore Residents

Background

Myopia, a global health problem, is highly prevalent in Singapore. Myopia treatment is important in combating myopia progression and reducing the risk of sight-threatening pathologies. However, there is no local data on public awareness of myopia and its interventions. We conducted a survey among Singapore residents to address this knowledge gap.

Methods

A cross-sectional survey involving 853 participants was completed online (Google Forms) over a 2-week period. Socio-demographic data, awareness levels of different myopia-related topics and treatment preferences were analysed.

Results

The respondents were predominantly Chinese (92.1%) and myopic (69.9%) with mean age (\pm standard deviation) of 43.2 ± 14.7 years. The majority (87.3%) were knowledgeable of myopia risk factors but not its various ocular complications (14.0-34.1%). More respondents (51.8-80.9%) believed behavioural modification, such as increasing outdoor time, reducing screen-time, to be more effective in myopia-control than evidence-based interventions including topical atropine therapy and orthokeratology (12.4-32.0%). Myopia awareness and treatment preferences were not influenced by educational level and income ($p > 0.05$, Pearson chi-square test). Recommendation by eye-care professionals (57.9%) and cost (24.9%) were important factors for choosing myopia treatment. Subgroup analysis showed significantly more myopes than non-myopes believed that reducing near-work and corrective lens can slow myopia progression (all $p < 0.05$, Mann-Whitney U-test).

Discussion & Conclusion

The respondents had low awareness of some myopia-related topics, preferred corrective quick-fixes, and favoured behavioral modification for myopia-control. Better education from mass media and eye-care professionals may improve awareness in these aspects which can especially benefit those with younger age of onset and rapid progression.