

THE PERSPECTIVE OF OPHTHALMOLOGISTS, OPTOMETRISTS AND OPTICIANS ON REFRACTION FOR CHILDREN IN KUALA LUMPUR – A MIXED-METHOD STUDY

Effendy Hashim^{1*}, Mahani Mohd Salleh², Nurulain Mat Zin³, Waheeda Azwa Hussein⁴

¹Hospital Pulau Pinang.

²Hospital Putrajaya.

³Hospital Sultan Ismail Petra Kuala Krai. ⁴Hospital Raja Perempuan Zainab II Kota Bharu.

*Corresponding author's email: effendyhashim77@gmail.com

ABSTRACT

Background: The burden to correct uncorrected refractive errors among children has not been fully explored in Malaysia. There are gaps in the practice of refraction for children especially on the usage of cycloplegic drugs to aid refraction. *Objectives:* To gather evidence on the practice of refraction and cycloplegic refraction for children by ophthalmologists, optometrists and opticians in Kuala Lumpur.

Methodology: A mixed-method quantitative and qualitative study was conducted in Kuala Lumpur among ophthalmologists, optometrists and opticians by convenient sampling. The respondents were asked to answer survey questionnaires by using online or face-to-face methods. Among them, a few were interviewed using a semi-structured guide, transcribed and analysed to capture their perspective on the practice of refraction for children.

Results: Two hundred and twenty-two ophthalmologists, optometrists and opticians responded (30.5% response rate) to the survey where twenty participated in the semi-structured interview. *Quantitative:* A high percentage of respondents refracting (67-78%) children at the age above four years. A low percentage of respondents conducted cycloplegic refraction for children at the age above ten years (5 – 11%). Among children of all age groups, a low percentage of ophthalmologists refracted (7-10%) in comparison to optometrists (10- 48%) and opticians (9-92%). The children received cycloplegic refraction only from ophthalmologists (3- 43%) and optometrists (2-35%) but not from opticians (0%). *Qualitative:* The practice of refraction for children varies according to the children's age, the categories of eye care practitioners, legality, working sector, and chair-time.

Conclusion: Qualification, legality, work setting, and time factor was an important barrier and enabler for the practice of refraction and cycloplegic refraction for children.

Keywords: children, refraction, cycloplegic