

UNIVERSITI TEKNOLOGI MARA

OCULAR AXIAL LENGTH AMONG FIRST YEAR
UNDERGRADUATE UNIVERSITY STUDENTS IN
UITM SELANGOR, PUNCAK ALAM CAMPUS

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AUTHOR'S DECLARATION

I declare that the work in this research is considerably my own, and for any part of this work which is not mine, I have indicated it by fully acknowledgement in accordance with the standard referring practices of discipline.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, University Teknologi Mara (UiTM) regulating the conduct of my study and research.

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ABSTRACT

Background of study: The prevalence rates of myopia in many Asian have reached epidemic proportion. Axial length of the eye ball is one of the characteristic that need to be measured in the myopia progression. To date, few studies have measured the axial length among young adults Malays in Malaysia particularly among university students. Thus this study is conducted to know the mean ocular of axial length among Malay first year university students in UiTM Selangor, Puncak Alam Campus. **Purpose:** The objectives in this study are to identify the ocular axial length and the relationship between axial length and refractive error among first year university students in UiTM Selangor, Puncak Alam Campus. **Method:** In this study A-scan TOMEY Biometer AL-100 was used to measure the axial length of the eye. Following standard optometric procedure; a drop of anesthetic (0.5% Proparacaine Hydrochloride) was instilled onto the patient's right eye for axial length measurement using TOMEY Biometer AL-100. Sensitivity was tested using edge of cotton wool prior to measurements. The probe for axial length measurement was cleaned and disinfected with alcohol swab (pentasept) prior to use. Probe was carefully aligned perpendicularly to the cornea. Three reading was taken and the average calculated as the measured axial length. Participant was advised not to rub their eyes for at least 40 minutes after axial length measurement. **Result:** The mean axial length of the eyeball in young adult population in UiTM Selangor, Puncak Alam Campus was 24.27 ± 1.12 mm. There was strong relationship between axial length and refractive error of the eye. The result of relationship between axial length and refractive error using Spearman correlation showed $r = - 0.77$, ($p= 0.01$) **Conclusion:** The mean of axial length among first year university students in UiTM Selangor, Puncak Alam Campus was 24.27 ± 1.12 mm. The result from this study shows there is strong correlation between axial length and refractive error.

Keywords: axial length, university students, young adults

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