

## TRANSFERRING OPTICAL KNOWLEDGE OF RETINAL HAZARD OF BLUE-BLOCKING LENSES

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### ABSTRACT

**Aims:** To assess the improvement in the optical knowledge regarding retinal hazard of blue-blocking lenses after the intervention of teaching module and to give awareness about the hazard of blue light exposure to the retina.

**Methodology:** This study focusses on the impact of the knowledge transfer. The test score was collected before and after the module teaching was conducted. The data collection was paperless using google docs only. The educational intervention was carried out by watching a short animation video about the optical knowledge of retinal hazard of blue-blocking lenses. This study was conducted in IIUM, Kuantan Campus. For statistical analysis, non-parametric test and Wilcoxon sign rank test were used.

**Results:** In the total of 50 IIUM Optometry students were participated in the study. The educational intervention increased the Optometry students' awareness about the blue light exposure could lead to photochemical damage to the retina ( $P < 0.05$ ). Improvement of knowledge were also noted in the difference of mean scores before and after the module teaching were conducted. Overall, there was statistically significant increase in knowledge after educational intervention.

**Conclusion:** Educating optometry students about the retinal hazard of blue-blocking lenses increased their level of knowledge about the importance of eye's protective measures from the blue light exposure. Similar educational method is an effective way to increase the knowledge and awareness of optometry students regarding blue light phototoxicity and to act about this situation from worsen.

**Keywords:** blue light, blue control lenses, optical knowledge, retinal hazard