THE ASSOCIATION BETWEEN VISUAL FUNCTION MEASUREMENT AND VISUAL FUNCTION QUESTIONNAIRE AMONG LEARNER'S DRIVING HOLDERS IN BESERAH, KUANTAN

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ABSTRACT

Aims: To investigate the association between visual function measurements and visual function questionnaire among Learner's Driving License (LDL) holders in Beserah, Kuantan, and to identify the visual function status among the LDL holders in Beserah, Kuantan.

Methodology: A total of 139 LDL holders who were attending driving classes in East Coast Driving Academy (ECDA), Beserah, Kuantan were selected as participants. They recorded their responses in a Jotform consisting of 5 self-reported Visual Function Questionnaire (VFQ) related to driving. This was followed by measuring their visual acuity (VA) using Snellen chart, colour vision (CV) using Ishihara Plates and stereopsis using Stereo Fly Test.

Results: A significant positive correlation between VA and VFQ related to driving in daytime (r_s = 0.267, ρ <0.05) and driving at night, at usual places (r_s = 0.182, ρ < 0.05). However, there is no significant correlation between VA and VFQ related to driving in bad weather (r_s = -0.035, ρ >0.05). It was also discovered that there is a significant negative association between CV and VFQ related to colour matching (r_s = - 0.290, ρ<0.05). For visual function status, 94.2% of the participants have VA of 6/12 and better (Snellen 6/12 in the best-corrected eye). 96.4% passed the CV test and 82.0% has good stereopsis (50sec of arc and better).

Conclusions: Only 2 questionnaires are valid to be used as screening tools to detect visual impairment, which are the VFQ related to driving in daytime and at night, at usual places. It is also crucial to perform precise tests in visual screening prior to getting a driving license, to improve LDL's holders driving performance, for theirs and other road users' safety

Keywords: driving, visual acuity, colour vision, visual function status, visual function questionnaire, visual screening