VISUAL IMPAIRMENT, HEARING LOSS AND COGNITIVE FUNCTION IN A COMMUNITY-DWELLING OLDER ADULTS

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ABSTRACT

Aims: To determine whether impaired hearing and visual acuity are associated with cognitive dysfunction in older adults

Methodology: Data on sociodemographic information, medical history and cognitive function of older adults aged 60 and above from Selangor were obtained through face-to-face interviews using standardized questionnaires. The cognitive function was measured using the Malay version of Montreal Cognitive Assessment (MoCA-BM). Visual acuity was measured using Early Treatment Diabetic Retinopathy Study (ETDRS) chart while hearing was assessed using pure-tone audiometry.

Results: From 210 participants, 76.2% (n=160) were found to have hearing impairments only, 10.5% (n=22) with both visual and hearing impairment (dual sensory impairment, DSI) and none with visual impairment only. Binary logistic regression analysis revealed that participants with lower cognitive scores were significantly associated with DSI (OR, 4.00; 95% CI, 1.40-11.42; $p<0.001$).

Conclusion: Dual sensory impairment is associated with low cognitive scores. Further studies are needed to determine how severity and duration of DSI affect cognitive function.

Keywords: visual impairment, hearing impairment, dual sensory impairment, older adults, cognitive function