Fall-related Factors among Older, Visually-Impaired Thais

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Abstract: There are multi-factorial factors, including decreased visual acuity, cardiovascular illnesses, metabolic diseases, declined physical strength, and environmental hazards, that have been recognized as risks for falls, especially among the elderly. Thus, this cross-sectional study aimed to examine, among older, visually-impaired Thais, potential predictors of falls, such as intrapersonal factors (visual function, chronic illnesses, physical performance, activities of daily living, and instrumental activities of daily living), interpersonal factors (social support), and extra-personal factors (home environmental hazards).

The sample consisted of 278 Thais, 60 years of age and older, living in Bangkok, Thailand and attending the eye clinics at three tertiary hospitals. Data were collected via interview, questionnaires, and physical assessment, and analyzed via descriptive statistics, chi-square, univariate analysis, ANOVA, and multiple logistic regression analysis.

The results revealed subjects experienced a 37.8% prevalence of falls over the prior six months. The majority (65.84%) of participants were assessed as having moderate visual impairment (visual acuity = 20/70 - 20/200). Their most common eye diseases were cataracts (37.8%) and glaucoma (28.8%). Multiple logistic regression modeling revealed that only their physical performance significantly predicted a fall occurrence (p<.001; adjusted OR = 0.96; CI: 0.93-.99), with those with poorer physical performance having a higher risk of falls. The findings suggested the importance of nurses, in an effort to prevent falls, assessing the physical performance of older, visually impaired Thais.

Key Words: falls; older Thais; visual impairment; chronic illness; physical performance

Introduction

It is well known that visual impairment is a major cause of falls among older adults. Visual impairment has been recognized as a significant, international health problem among older persons, with approximately 65% of older individuals, the majority of whom live in developing countries, experiencing visual impairment. Overall, approximately 46% of older Thais have been found to have some form of visual impairment, with approximately 36.6% of those who are visually impaired living in Bangkok. Throughout Thailand,