Factors Predicting Development of Pressure Ulcer in non-Diabetic Elderly Stroke Patients *

Chophaka Suttipong, Siriorn Sinduh

Abstract

Purpose: To determine predicting factors of pressure ulcer development in elderly stroke patients.

Design: A predictive study design.

Methods: The 107 elderly stroke patients from urban communities in 3 districts; Bangkok Noi, Thonburi and Pasicharoen; were recruited for this study. Data were collected by using the demographic questionnaire, the skin Assessment tool, and the Braden risk assessment scale for each patient. The results were analyzed using descriptive statistics, chi-square test, and logistic regression analysis.

Main findings: The results revealed that sensory perception ($\chi^2 = 12.4, p = .002$) mobility ($\chi^2 = 34.5, p < .001$) activity ($\chi^2 = 33.9, p < .001$) moisture ($\chi^2 = 41.0, p < .001$) friction and shearing ($\chi^2 = 53.7, p < .001$) and nutrition ($\chi^2 = 32.3, p < .001$) were significantly associated with pressure ulcers. Multiple Logistic Regression analysis was applied to calculate the odds ratio. Three risk factors were statistically significant in predicting pressure ulcer. There were moisture (OR = 2.2, 95%CI = 1.12 - 4.12, p < .05) friction and shearing (OR = 11.2, 95%CI = 2.61 - 47.91, p = .001) and nutrition (OR = 2.8, 95%CI = 1.36 - 5.85, p < .01).

Pseudo R^2 indicated that 75.2% of the variation in pressure ulcer development was explained by the binary logistic regression model. Overall, the correct prediction rate was 86%.

Conclusion and recommendations: Health care providers should develop a clinical practice guidelines for prevention and risk factors management of pressure ulcer development, especially moisture, friction, shearing, and nutrition to reduce the incidence rate of pressure ulcers in elderly stroke patients.

Keywords: elderly, pressure ulcer, stroke

* This research project was supported by China Medical Board of New York, Inc. Faculty of Nursing, Mahidol University.