

THE RISK FACTORS OF FALL AMONG COMMUNITY – DWELLING ELDERLY IN AIR ITAM, PENANG

by

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**Dissertation submitted in partial fulfilment of the
requirements for the degree of
Bachelor of Health Sciences (Nursing)**

JUNE 2013

DECLARATION

I certify that this thesis does not incorporate without acknowledgment of any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except due to reference made in text.



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This is to certify that the dissertation entitled "The Risk Factors of Fall among Community-Dwelling Elderly in Air Itam, Penang" is the bonafide record of research work done by Ms Assillah Fatin Binti Mohamad Ghous, Matric No: 106512 during the period of September 2012 until June 2013 under my supervision. This dissertation submitted in partial fulfillment for degree of Bachelor of Health Science (Nursing). Research work and collection of data belong to Universiti Sains Malaysia.

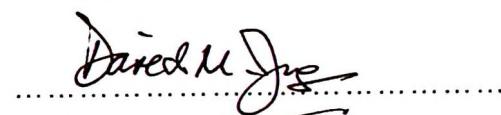
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THE RISK FACTORS OF FALL AMONG COMMUNITY-DWELLING ELDERLY IN AIR ITAM, PENANG

ABSTRACT

Introduction: Fall is defined as unintentionally coming to the ground or some lower level than that or from slipping, tripping or stumbling as a consequence of sustaining a violent blow, loss of conscious or sudden onset of paralysis as in stroke or epileptic seizure. Fall among elderly often related to accidents associated with the interaction between identifiable environmental hazards and increased individual susceptibility to hazards from accumulated effects of age and diseases.

Objective: To identify the risk factors of fall among community-dwelling elderly in Air Itam, Penang.

Methods: A cross-sectional survey using a set of self-administered questionnaire from the combination of Fall Risk Assessment Tool and Barthel's Index Score on the risk factors. A total of 200 respondents were involved in this study. Data was analyzed using SPSS version 20.0 and Chi-Square test was used to analyze descriptive data.

Results: A total of 31% (n=62) reported to have experienced fall. For cognitive status risk factor it was found that 79% of fallers have impaired cognitive status while 70% of fallers are psychologically impaired. *P* value less than 0.05 for the following items which reflect physical capability are the ability to shower, toileting, dressing, transfer, mobility and ability to climb stairs. There is also significant difference between incontinence and fall which reported 69.6% of fallers are within bowel incontinence whereas 63.3% of fallers are within urinary incontinence. Nutritional status, poor orientation to environment and poor eye sight and the risk of fall showed significant difference as the *p* < 0.001. Higher percentage of fall was among women than men and risk for fall increases with age. Evidently, with the percentage of 67.7% of fallers are women and 46.6% in the age group of 70-74 years old.

Conclusion: The predisposed risk factors identified are age, gender, poor physical performance, poor psychological status, poor cognitive function, deficit nutrition, impaired vision, bowel and urinary incontinence. Situational risk factors identified are locations such as toilet, kitchen and being outdoor increase the risk for fall.

RISIKO JATUH DALAM KALANGAN WARGA EMAS KOMUNITI-KEDIAMAN, AIR ITAM, PULAU PINANG

ABSTRAK

Pengenalan: Jatuh ditakrifkan sebagai keadaan yang secara tidak sengaja jatuh ke tanah atau tahap tertentu yang lebih rendah iaitu tergelincir, tersandung atau kerana terkena sesuatu dengan kuat, hilang kesedaran atau lumpuh secara tiba-tiba seperti strok atau sawan. Jatuh dalam kalangan warga tua sering dikaitkan dengan kemalangan yang berkaitan antara interaksi bahaya keadaan sekeliling dan kemerosotan tahap kesihatan akibat proses penuaan dan penyakit.

Objektif: Untuk mengenal pasti faktor-faktor risiko kejatuhan dalam kalangan warga emas komuniti-kediaman di Air Itam, Pulau Pinang.

Kaedah: Satu kajian silang dengan menggunakan satu set soal selidik yang memerlukan responden menilai sendiri bagi menjawab soalan. Soalan selidik merupakan gabungan “Fall Risk Assessment Tool” dan Indek Skor Barthel untuk mengenal pasti risiko jatuh. Seramai 200 orang responden terlibat dalam kajian ini. Data dianalisis menggunakan perisian SPSS versi 20.0 dan ujian Chi-Square digunakan untuk menganalisis data deskriptif.

Keputusan: Sebanyak 31% ($n=62$) dilaporkan mempunyai pengalaman jatuh. Bagi status kognitif, sebanyak 79% daripada individu yang jatuh mempunyai status kognitif yang terjejas manakala 70% daripada individu yang jatuh mempunyai masalah psikologi. Nilai P kurang daripada 0.05 bagi faktor-faktor berikut yang mewakili keupayaan fizikal iaitu keupayaan untuk mandi, penggunaan tandas, berpakaian, mengubah posisi, kemampuan untuk bergerak sekurang-kurang jarak 50 elang serta keupayaan untuk mendaki tangga mempunyai perbezaan signifikansi. Inkontinen juga mempengaruhi risiko jatuh, keputusan analisis melaporkan 69.6% daripada individu yang jatuh mempunyai masalah membuang air besar manakala 63.3% individu jatuh mempunyai masalah pembuangan air kecil. Terdapat perbezaan yang signifikan antara status pemakanan, masalah orientasi terhadap persekitaran dan masalah penglihatan dengan risiko kejatuhan dapat dibuktikan dengan nilai $p <0.001$. Peratusan jatuh adalah lebih tinggi dalam kalangan wanita dengan 69.9% warga emas yang jatuh adalah wanita manakala jatuh meningkat dengan usia iaitu peratusan 46.8% adalah daripada kumpulan berumur 70-74 tahun.

Kesimpulan: Risiko jatuh sedia ada yang dikenal pasti adalah umur, jantina, keupayaan fizikal yang lemah, masalah psikologi, fungsi kognitif terjejas, malnutrisi, kurang penglihatan, masalah pembuangan air besar dan lemah kawalan kencing (inkontinen). Risiko persekitaran pula adalah keadaan lokasi-lokasi seperti tandas, dapur dan berada di luar rumah meningkatkan risiko jatuh.