

Older People Safety

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THE IMPLEMENTATION OF FALLS PREVENTION FOR OLDER PERSONS IN RESIDENTIAL AGED CARE THROUGH BUILDING DESIGN

¹Peter Bewert, ²Sharon Callister, ³Rohan McDonald. ¹Executive Manager Care Services the Salvation Army Aged Care Plus; ²Chief Executive Officer the Salvation Army Aged Care Plus; ³Executive Manager Capital Projects, the Salvation Army Aged Care Plus

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Background Building design features of residential homes typically follow a medical model in design. This design often includes 'grab rails' in common areas to assist older persons with their mobility. This however provides an institutionalised feel rather than a home like environment. Contemporary building design can engineer out these institutionalised falls prevention measures and result in contemporary features that reduce falls incidence.

Description of problem The instance of falls in the elderly are a major contributing factor to physical decline in health status and subsequent increase of physical care needs in a residential aged care environment. The Salvation Army Aged Care Plus has adopted a person centred approach to building design to ensure the living environment is more homely. The building design has engineered rest points and other design features which has substantially reduced the incidence of falls in the elder population group within the environment.

Results Results have indicated a reduction in falls, an increase in physical agility, mobility and dexterity in combination with allied health intervention models. These results have been consistently reviewed and tested experientially over two recent aged care home commissioning of similar size, nature and resident functional status.

Conclusions The strategic design of the living environment can assist with an aesthetically pleasing home like environment for the older person living in residential aged care whilst substantially reducing falls risk. This outcome impacts on quality of life experience and satisfaction of the older person in the residential care environment.

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ENSURE SAFETY FROM AGRICULTURAL WORK OF ELDERLY IN JAPAN

¹Masahiro Kawasaki, ¹Hiromi Kawasaki, ¹Satoko Yamasaki, ¹Akihiro Kihara, ¹Susumu Fukita, ²Mika Nishiyama, ³Pete D'Angelo. ¹Hiroshima University, Japan; ²Hiroshima Bunkyo Women's University, Japan; ³Doi Clinic, Japan

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Background Japanese agriculture is often a collection of small landowners. Farmland is maintained by men who also work for a company. Agricultural work continues even after retirement. It is important for elderly people to protect themselves from accidents. Agricultural areas are sparsely populated making health maintenance even more important. The purpose of this study is to analyse the understanding and physical status of elderly farmers.

Methods Participants of an agriculture company, a mutual aid organisation, in rural areas. A questionnaire, interview and physical measurement was conducted. Analysis was performed using the t-test.

Results Questionnaire; 119 farmers (82 men and 37 women) average age 65.8 years old.

64 had knee pain (54.2%), 55 had waist pain (46.6%).(When sleeping facing up, there was waist pain: 43, 46.8%)(Waist pain when bending: 47, 37.9%)(Painful to divert the waist: 52, 54.8%) (Painful to twist the waist: 35, 28.2%) (Painful in the same position: 70, 68.5%) Physical function; bending: pain in the knee: 34.9 cm (no pain: 29.9 cm) ($p = 0.02$), best walking 5.0 seconds (5.5 seconds) ($p = 0.048$). Normal walking 10 metres; pain in the waist: 7.64 seconds, (no pain: 7.00 seconds) ($p = 0.049$).

Conclusions Performing agricultural work continues in order to maintain the ancestral farmland. Farmers of advanced age have problems with pain in the knee and waist. Their bodies have weakened due to ageing. They were feeling pain when they bend, stretch or twist. There is a fear of falling when trying to stand. Scaffolding around the work area should be in place. Before and after agricultural work, stretching exercise is required. However, stretching exercise is difficult for farmers because of the pain in the knee and waist. Methods for easily achievable exercise need to be designed and taught to farmers.

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PREDICTORS OF OLDER ADULTS' PARTICIPATION IN BALANCE CLASS TO PREVENT FALLS: CASE-CONTROL STUDY

¹Dustin W Currie, ²Sallie R Thoreson, ³Lauren Clark, ¹Cynthia W Goss, ⁴Mark J Marosits, ¹Carolyn G DiGiuseppi. ¹University of Colorado Anschutz Medical Campus, USA; ²Colorado Department of Public Health and Environment, USA; ³University of Utah, USA; ⁴Worldways Social Marketing, USA

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Background Falls are the leading cause of injury morbidity and mortality in older adults. Exercise, including balance and strength training, decreases fall risk, but few older adults exercise as recommended. We examined factors associated with older adults' participation in balance classes.

Methods This case-control study was nested in a controlled trial in which churches were randomly assigned to a social marketing program to encourage older adults to attend N'Balance classes or to no intervention. Eligible subjects were study church congregants aged ≥ 60 who completed a study survey. Cases included all eligible subjects who attended an N'Balance class during the study period; controls were congregants randomly selected to receive a survey who did not attend a balance class in this period. Study church leaders provided information about themselves and their church. Individual and church level characteristics were examined using logistic regression to determine the independent effect of social marketing and identify additional predictors of balance class participation.

Results After accounting for individual and church level differences, cases ($n = 173$ N'Balance participants) were much more likely than controls ($n = 270$) to attend churches that received the social marketing program (adjusted OR [aOR]: 20.62 [95% CI: 9.55, 44.54]). Cases were older (aOR per year of age: 1.06 [1.03, 1.10]), more likely to be female (aOR: 3.07 [1.74, 5.42]), and more frequently experienced 'near falls' (aOR: 1.98 [1.44, 2.72]). Cases were also more likely to attend a church with an older religious leader (aOR per year of age: 1.04 [1.01, 1.07]), located in a rural area (aOR: 1.89 [1.11, 3.22]).

Conclusions Church-based social marketing was strongly associated with increased uptake of balance classes for reducing fall risk, particularly among certain high-risk groups. Church-based