Welcome

This issue features:

- Lismore Falls Forum report
- April Falls 2016
- Websites, Meetings and Conferences
- Recent Abstracts from the research literature

fallnetwork.neura.edu.au

FOR YOUR DIARY:

- **NSW Falls Prevention Network Forum**
  20th May 2016, Sydney

- **2016 International Dementia Conference,**
  June 16 & 17, Sydney

- **ANZFPS Conference, 2016**
  November 27-29, Melbourne Park Tennis Centre

Presenters at the Lismore Forum (L-R) Dr Kim Delbaere, Ms Cath Bateman, Dr Jasmine Menant and Ms Anne Moehead and at back Ms Mandy Nolan, MC (see page 2 for report).
Northern NSW LHD - Lismore Falls Forum

The Northern NSW LHD Falls Forum was held at Southern Cross University in Lismore on Thursday 8th October 2015 and attended by 145 participants; this included 20 participants at the videoconference sites (Coffs Harbour, Port Macquarie and Gold Coast). Participants travelled from 7 rural locations (to Lismore and were from a range of work settings including hospital, community, residential aged care as well as community service providers from both the public and private sector. Most attendees were nursing staff (45%) followed by allied health (36% including physiotherapists [19%], occupational therapists [14%] and exercise physiologists [3%].

The forum was opened by Mr Chris Crawford, CEO Northern NSW LHD. The MC for the morning sessions was Ms Mandy Nolan and the afternoon session was chaired by Dr Avigdor Zask, Program Coordinator, Research & Evaluation, Tobacco Control, Adolescent Resilience, Alcohol Projects, Falls Prevention & Healthy Environments, Northern NSW LHD.

Presentations included:

- Ms Lorraine Lovitt, Leader NSW Falls Prevention Program, Clinical Excellence Commission
- Falls Prevention is everyone’s business®
- Ms Julia Dayhew, Falls Prevention Coordinator, Northern NSW LHD

Northern NSW Overview

- Ms Anne Moehead, Nurse Practitioner, Psychogeriatrics/Dementia, Northern NSW LHD

Care of the Confused Hospitalised Older Persons (CHOPs) Project

- Ms Cath Bateman, CHOPs Project Officer, Agency for Clinical Innovation

Volunteer education program

- Dr Jasmine Menant, Senior Research Officer, Falls & Balance Research Group, NeuRA
- Falls prevention research update
- Dr Kim Delbaere, Research Fellow, NeuRA
- Understanding and managing fear of falling in older adults
- Ms Kate Swanton, Director, Health & Wellness, Feros Care

Creating strong foundations for falls prevention

- Ms Lorraine Lovitt, Leader NSW Falls Prevention Program, Clinical Excellence Commission

Falls prevention resources

The Presentations were recorded and can be accessed at:

http://fallsnetwork.neura.edu.au/events/2015-events/
Evaluations were completed by 91 participants a response rate of 63% which is very good. The average rating of the overall forum was above average at 3.9 (where 1 is poor and 5 is excellent). The main comments on the forum were that it was an informative day with excellent speakers and Mandy Nolan doing a great job as MC.

The main messages that participants gained from attending the forum were:

- the importance of exercise interventions to decrease falls risk,
- falls prevention research provides the evidence base for interventions,
- importance of engagement with patients, their families and carers.

Take away strategies:

- implementation of preventative strategies particularly in encouraging exercise participation of their patients/clients,
- improving engagement with patients, carers and their families,
- use the resources and programs (such as the volunteer program and CHOPs) highlighted at the forum.

Feedback form participants as to why their patients/clients fell was due to:

- Dementia and or delirium,
- frailty and impulsivity,
- environmental issues (particularly in residential aged care).

Suggestions for topics at future forums included:

- specific examples of graded falls prevention exercises,
- prevention and management of falls in community and residential care settings,
- strategies for falls prevention in the acute care setting,
- examples of successful program,
- further information on falls risk factors, discharge planning and education, bariatric falls, cognitive behavioural therapy, falls in people with disabilities
- how to increase exercise adherence/participation.

The forum participants found the forum to be an informative day with interesting and useful presentations and thanked the organisers for holding the forum in Lismore and providing the videoconference sites.
April Falls Day® 2016 theme: Share the Care: Falls Prevention is everyone’s business® and is about involving everyone in the care of the older person – patients, family, carer, doctors, nurses, allied health staff - to prevent falls and keep older people safe.

April Falls Day® 2016 is an opportunity to promote preventing falls and harm from falls across your hospital, community setting or residential aged care facility.

The Clinical Excellence Commission, NSW Falls Prevention Program will have a range of resources to promote Share the Care: Falls Prevention is everyone’s business® available in early 2016.


Other Fall Promotional Material – promoting Falls Prevention is everyone’s business®

Do get organised early: please remember to order your April Falls Day® merchandise from Good Gear by Friday 5th February 2016. You can order: balloons, pens, sticky notes, eye glass cleaner and t-shirts. These orders including a purchase order number need to be provided to Good Gear by Friday 5th February 2016. The costs for purchases are to be covered by services.

How to order:

Complete an order form and email to sales@goodgear.com.au

GoodGear will email you an order confirmation

PAYMENT is required – The order will only proceed if an official Purchase Order or Credit Authority is provided to GoodGear.

Cut-off date is Friday 5th February 2016 so that deliveries can be shipped out on week commencing 14th March 2016.

All prices listed on the Order Form & Catalogue are Gst Exclusive.

If you have any questions at April Falls Day® 2016 please contact Ingrid Hutchison on 9269 5516 or Ingrid.hutchinson@health.nsw.gov.au
Websites

Dementia Care Competency and Training Network

This website an initiative of NSW Health provides support to clinicians working in all sectors (hospital, community and residential care) in metropolitan, rural and remote areas by providing online dementia care courses and a range of resources that promote positive and person-centred care for persons living with dementia. The current research has been translated into education that is delivered in an engaging and interactive format and supported by the Dementia Care Competency Framework.

ImpactNSW
http://www.impactnsw.com/

This website provides a range of resources that support the design and delivery of person-centred and enabling support for older people, including those with disability. This website is for those who want to support people in a person-centred way and to really make a difference in people's lives. The resources included on this website discuss enabling (reablement) of older people, person-centred approaches to care and support for older people and empowerment.

EnableNSW

EnableNSW provides equipment and services to people in NSW with chronic health conditions or disability to assist them with mobility, communication and self-care. They also provide financial assistance for people who have to travel significant distances to access specialist medical treatment which is not available locally. As part of HealthShare NSW, EnableNSW is responsible for the administration of NSW Health disability support and other assistance programs.
Abstracts

Recent abstracts from the research literature

Reviews

Effects of physical exercise interventions in frail older adults: a systematic review of randomized controlled trials

de Labra C, Guimaraes-Pinheiro C, Maseda A, Lorenzo T, Millán-Calenti JC.


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(Copyright © 2015, BioMed Central)

Abstract

BACKGROUND: Low physical activity has been shown to be one of the most common components of frailty, and interventions have been considered to prevent or reverse this syndrome. The purpose of this systematic review of randomized, controlled trials is to examine the exercise interventions to manage frailty in older people.

METHODS: The PubMed, Web of Science, and Cochrane Central Register of Controlled Trials databases were searched using specific keywords and Medical Subject Headings for randomized, controlled trials published during the period of 2003-2015, which enrolled frail older adults in an exercise intervention program. Studies where frailty had been defined were included in the review. A narrative synthesis approach was performed to examine the results. The Physiotherapy Evidence Database (PEDro scale) was used to assess the methodological quality of the selected studies.

RESULTS: Of 507 articles, nine papers met the inclusion criteria. Of these, six included multi-component exercise interventions (aerobic and resistance training not coexisting in the intervention), one included physical comprehensive training, and two included exercises based on strength training. All nine of these trials included a control group receiving no treatment, maintaining their habitual lifestyle or using a home-based low level exercise program. Five investigated the effects of exercise on falls, and among them, three found a positive impact of exercise interventions on this parameter. Six trials reported the effects of exercise training on several aspects of mobility, and among them, four showed enhancements in several measurements of this outcome. Three trials focused on the effects of exercise intervention on balance performance, and one demonstrated enhanced balance. Four trials investigated functional ability, and two showed positive results after the intervention. Seven trials investigated the effects of exercise intervention on muscle strength, and five of them reported increases; three trials investigated the effects of exercise training on body composition, finding improvements in this parameter in two of them; finally, one trial investigated the effects of exercise on frailty using Fried’s criteria and found an improvement in this measurement. Exercise interventions have demonstrated improvement in different outcome measurements in frail older adults, however, there were large differences between studies with regard to effect sizes.

CONCLUSIONS: This systematic review suggested that frail older adults seemed to benefit from exercise interventions, although the optimal program remains unclear. More studies of this topic and with frail populations are needed to select the most favorable exercise program.

The effect of whole body vibration exposure on balance and functional mobility in older adults: a systematic review and meta-analysis

Orr R.


(Copyright © 2015, Elsevier Publishing)

Abstract

The aim of this review was to systematically evaluate the effect of WBV exposure alone on balance and functional mobility in older adults. A literature search of randomized controlled trials (RCT) reporting the effects of WBV on balance or functional mobility outcomes in older adults, was conducted using multiple databases. WBV-plus-exercise was only included if the control group performed the same exercises as the WBV group, but without vibration. The methodological quality of studies was assessed using the PEDro scale. Meta-analysis was performed...
if three or more studies measured the same outcome. Twenty RCTs met the inclusion criteria. Eight RCTs compared WBV-only with control and eight RCTs compared WBV-plus-exercise with the same-exercise only group. Meta-analysis indicated that WBV improved single-leg stance (p = 0.05) and timed up and go (p = 0.004) measures compared with controls. WBV improved other balance and mobility outcomes with inconsistent results. Although balance and mobility appeared to be responsive to WBV-plus-exercise, particularly in lower-functioning patients, compared with WBV-only, caution is required when interpreting the findings. Although there is some evidence for an overall effect of WBV on selected balance and mobility measures, its impact remains inconclusive. Robust RCTs examining WBV-only exposure on balance and functional mobility in older adults are warranted.

Epidemiology

*A descriptive analysis of incidents reported by community aged care workers*


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**Abstract**

Little is known about the types of incidents that occur to aged care clients in the community. This limits the development of effective strategies to improve client safety. The objective of the study was to present a profile of incidents reported in Australian community aged care settings. All incident reports made by community care workers employed by one of the largest community aged care provider organizations in Australia during the period November 1, 2012, to August 8, 2013, were analyzed. A total of 356 reports were analyzed, corresponding to a 7.5% incidence rate per client year. Falls and medication incidents were the most prevalent incident types. Clients receiving high-level care and those who attended day therapy centers had the highest rate of incidents with 14% to 20% of these clients having a reported incident. The incident profile indicates that clients on higher levels of care had higher incident rates. Incident data represent an opportunity to improve client safety in community aged care.

*A multicenter retrospective study on falls in elderly population: epidemiology and impact on hospital workload in two emergency departments of northern Italy*


*Emerg. Care J.* 2014; 10(2).

(Copyright © 2014, PagePress)

**Abstract**

Aims of this study were to evaluate the incidence of falls in subjects aged ≥65 years in Parma Province (Northern Italy), and the burden of fall-related hospitalizations. All the Emergency Department (ED) visits for domestic or trivial falls were retrieved from the data-base of the two EDs of Parma Province during 2013. All cases were classified according to age and gender. Out of 129,898 total ED visits, 3720 (2.9%) were related to trivial falls in patients aged ≥65 years. Females accounted for 2648 visits and males for 1072. The absolute number of visits due to falls increased with age in both genders, with a peak between 80 and 84 yrs. When related with the actual number of residents by age groups, females showed a continuous increase, peaking at age >100 yrs, and males a continuous increase, peaking at age 95-99 yrs. Of these patients, 963 (25.9%) needed hospitalization, 605 in the orthopedic ward, 342 in medical wards, and 16 in specialist surgical units. In conclusion, falls represent a major cause of morbidity in the elderly in Northern Italy, representing 13.3% of the ED visits for people aged ≥65, with a high impact on hospital workload.

**Elderly fall patients triaged to the trauma bay: age, injury patterns, and mortality risk**

Evans D, Pester J, Vera L, Jeanmonod D, Jeanmonod R.


Affiliation: St Luke’s University Hospital, Bethlehem, PA 18015, USA. Electronic address: rebeccajeanmonod@yahoo.com.
**Abstract**

**BACKGROUND:** Falls in the elderly are a significant cause of morbidity and mortality. We sought to better categorize this population and describe factors contributing to their falls.

**METHODS:** This is a retrospective review of geriatric patients presenting to a level 1 community trauma center. We queried our trauma database for all patients 65 years and older presenting with fall and triaged to the trauma bay from 2008 to 2013. Researchers reviewed the patients’ trauma intake paperwork to assess mechanism, injury, and location of fall, whereas discharge summaries were reviewed to determine disposition, morbidity, and mortality.

**RESULTS:** A total of 650 encounters were analyzed. Five hundred thirty-nine resided at home (82.9%), 110 presented from nursing homes or assisted living (16.9%), and 1 came from hospice (0.15%). Ninety-five patients died or were placed on hospice as a result of their falls (14.7%), of which 88 came from home. Controlling for Injury Severity Score, living at home was an independent risk factor for fall-related mortality (odds ratio, 3.0). Comparing the elderly (age 65-79 years; n = 274) and the very elderly (age ≥80 years; n = 376), there were no differences in Injury Severity Score (P = .33), likelihood of death (P = .49), likelihood of C-spine injury (P = 1.0), or likelihood of other axial or long bone skeletal injury (P = .23-1.0). There was a trend for increased likelihood of head injury in very elderly patients (P = 0.06).

**CONCLUSION:** Prevention measures to limit morbidity and mortality in elderly fall patients should be aimed at the home setting, where most severe injuries occur. Very elderly patients may be at increased risk for intracranial fall-related injuries.

The characteristics of falls in an inpatient traumatic brain injury rehabilitation setting

McKechnie, D. Fisher MJ and Pryor J.

*J.Clin.Nursing. 2015* epoxy

**Abstract**

**AIMS AND OBJECTIVES:** To describe the nature of falls in an inpatient traumatic brain injury rehabilitation setting.

**BACKGROUND:** Falls are the most frequently recorded patient safety incident in the inpatient context. However, higher rates of falls are reported in rehabilitation settings compared to acute care settings. In the rehabilitation setting, patients with a traumatic brain injury have been identified as at high risk of falling. However to date, research into the nature of falls involving this patient population is limited.

**DESIGN:** Five-year retrospective cohort study design.

**METHODS:** Falls data from an inpatient traumatic brain injury rehabilitation unit were retrieved from the NSW Ministry of Health Incident Information Management System and patient clinical notes; nursing shift data were retrieved from the local rostering system.

**RESULTS:** The fall rate was 518 per 1000 patient bed days. Over a 24-hour period falls (n = 103) occurred in a trimodal pattern. The median fall free period after admission was 14 days and 22% of traumatic brain injury patients had at least one fall. 53% of falls occurred in the patient’s bedroom and 57% were attributed to loss of balance. At time of fall, 93% of fallers had impaired mobility and 85% required assistance for transfers.

**CONCLUSION:** Falls within inpatient traumatic brain injury rehabilitation are a significant and complex clinical issue. While many patients continued to be at risk of falling several months after admission, a repeat faller’s first fall occurred earlier in their admission than a single faller’s. Relevance to clinical practice. Generic falls prevention measures are insufficient for preventing falls in the brain injury rehabilitation population. Falls prevention initiatives should target times of high patient activity and situations where there is decreased nursing capacity to observe patients. Rehabilitation clinicians need to be mindful that a patient’s risk of falling is not static and in fact, may increase over time.
Abstracts Continued
Recent abstracts from the research literature

Fear of falling

Effects of mild cognitive impairment on the development of fear of falling in older adults: a prospective cohort study


Affiliation: National Center for Geriatrics and Gerontology, Obu, Japan.

Abstract

OBJECTIVES: The aim of this study was to determine whether mild cognitive impairment (MCI) affects the development of fear of falling (FoF) in older adults.

DESIGN: Prospective cohort study.

SETTING: The Obu Study for Health Promotion in the Elderly, Japan.

PARTICIPANTS: A total of 1700 community-dwelling people aged 65 years or older without FoF at baseline participated.

MEASUREMENTS: FoF and related variables, such as physical function, self-rated health, depression, and total number of medication doses, were investigated at baseline. Participants also underwent cognitive tests and were divided into cognitive healthy and MCI. Fifteen months after the baseline measurements, we collected information about the status of FoF and fall incidence during the 15-month follow-up.

RESULTS: At the 15-month follow-up survey, 452 participants (26.5%) reported the development of FoF. Logistic regression analysis showed that MCI (odds ratio [95% CI] = 1.41 [1.07-1.87]) and a fall incident (3.00 [2.23-4.07]) during follow-up independently predicted the development of FoF, after controlling for demographic factors, physical function, self-rated health, and depression. The odds ratio for the development of FoF in participants with both MCI and a fall incident compared with those without them was 7.34 (4.06-13.3), after controlling for confounding factors.

CONCLUSION: MCI predicts the new onset of FoF in older adults, especially when they have experience with falling. Aside from the risk of falling, it is suggested that individuals with MCI are an at-risk population for FoF and related negative consequences in terms of postfall syndrome.

Effects of strength and balance training on the mobility, fear of falling and grip strength of elderly female fallers

Prata MG, Scheicher ME.


Affiliation: Department of Physiotherapy and Occupational Therapy, São Paulo State University, Marília, SP, Brazil; Postgraduate Program in Human Development and Technologies, São Paulo State University, Rio Claro, São Paulo, Brazil. Electronic address: mscheiche@marilia.unesp.br.

Abstract

The aim of this study was to evaluate the effects of virtual reality and strength training on the balance, fear of falling and handgrip strength of older women with a history of falls. The fear of falling, mobility and grip strength were evaluated in 11 elderly fallers (72.4 ± 5.2 years). The faller group was submitted to 12 weeks of virtual reality and muscle strength training. The results showed improvement in mobility (p = 0.0004) and in the fear of falling (p = 0.002). No significant difference was observed for hand grip strength. It can be concluded that virtual reality and muscle strength interventions are beneficial for mobility and fear of falling in older women with a history of falls.
Rehabilitation of the psychomotor consequences of falling in an elderly population: a pilot study to evaluate feasibility and tolerability of virtual reality training


Affiliation: Université Paris Descartes, Paris, France.

(Permission © 2015, European Society for Engineering and Medicine, Publisher IOS Press)

Abstract

BACKGROUND: A fall in elderly subjects can lead to serious psychological consequences. These symptoms can develop into Fear of Falling with behavioural disorders comparable to PTSD that may severely limit autonomy. Virtual reality training (VRT) could be seen as a worthwhile therapeutic approach for this syndrome since it has been shown to be a useful tool for motor rehabilitation in combat-related PTSD. We thus developed a training scenario for VRT with psychomotor therapists.

OBJECTIVE: To test the feasibility and acceptability of VRT when used by elderly adults for fall rehabilitation.

METHODS: Our population of 8 patients older than 75 years, with a Mini Mental Score Examination greater than 18/30 performed sessions of VRT and answered a questionnaire on the feasibility and acceptability of it.

RESULTS: This sample showed a highly favourable response to the prototype VRT. They found it easy to use, enjoyed the experience, and thought it realistic and helpful.

CONCLUSION: The conclusions of our study are limited by sample size. However, applications with VRT can offer the potential of an acceptable technique for elderly subjects. The next step will be to show the efficacy of this method in the management of post-fall PTSD.

Longitudinal follow-up study on fear of falling during and after rehabilitation in skilled nursing facilities

Visschedijk JH, Caljouw MA, Bakkers E, van Balen R, Achterberg WP.


Affiliation: Department of Public Health and Primary Care, Leiden University Medical Centre, PO Box 9600, 2300, RC Leiden, The Netherlands. W.P.Achterberg@lumc.nl.

(Permission © 2015, BioMed Central)

Abstract

BACKGROUND: Fear of falling (FoF) is regarded as a major constraint for successful rehabilitation in older people. However, few studies have investigated FoF in vulnerable older people who rehabilitate in a skilled nursing facility (SNF). Therefore, this study measures the prevalence of FoF during and after rehabilitation and assesses differences between those with and without FoF. The relation between FoF and instrumental activities of daily living (IADL) after discharge was also assessed.

METHODS: In this longitudinal follow-up study, patients who rehabilitated in a SNF were assessed at admission and at 4 weeks after discharge. A one-item instrument was used to measure FoF at admission; based on their answer, the patients were divided into groups with no FoF and with FoF. To study FoF after discharge, the one-item instrument and the short Falls Efficacy Scale-International (FES-I) were used. IADL after discharge was assessed with the Frenchay Activities Index (FAI).

RESULTS: Of all participants, 62.5 % had FoF at admission. The participants with FoF were older, more often female, and had a higher average number of falls per week, more depressive symptoms and a lower level of self-efficacy. Four weeks after discharge, 82.1 % of the participants had FoF. IADL after discharge was considerably lower in patients with FoF (FAI of 27.3 vs. 34.8; p = 0.001).

CONCLUSIONS: FoF is common among older persons who rehabilitate in SNF. FoF seems to be persistent and may even increase after rehabilitation, thereby hampering IADL after discharge. Interventions are needed to reduce FoF to ensure better outcomes in older patients rehabilitating in a SNF.
Abstracts Continued

Recent abstracts from the research literature

Risk Factors

“I’ve fallen and I can’t get up,” a basic primer for caregivers to understand falls in persons with dementia, Alzheimer’s disease, and cognitive impairment

Rowe J.


(Copyright © 2015, Sage Publications)

Abstract

This article seeks to demystify the complexity of what constitutes dementia, Alzheimer’s disease, and cognitive impairment as it relates to identifying the basic contexts of these diseases in relationship with falls and fall prevention. It further will identify the new changes in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) that replaces the term dementia and provides the new diagnostic framework for major and mild neurocognitive functioning. This article additionally provides some practical strategies for caregivers to equip themselves to understand some of the difficulties and challenges that they face when dealing with loved ones or patients who become afflicted by these diseases.

Validity of 12-month falls recall in community-dwelling older women participating in a clinical trial

Sanders KM, Stuart AL, Scott D, Kotowicz MA, Nicholson GC.


(Copyright © 2015, Hindawi Publishing)

Abstract

OBJECTIVES: To compare 12-month falls recall with falls reported prospectively on daily falls calendars in a clinical trial of women aged ≥70 years.

METHODS: 2,096 community-dwelling women at high risk of falls and/or fracture completed a daily falls calendar and standardised interviews when falls were recorded, for 12 months. Data were compared to a 12-month falls recall question that categorised falls status as “no falls,” “a few times,” “several,” and “regular” falls.

RESULTS: 898 (43%) participants reported a fall on daily falls calendars of whom 692 (77%) recalled fall(s) at 12 months. Participants who did not recall a fall were older (median 79.3 years versus 77.8 years, p=0.028). Smaller proportions of fallers who sustained an injury or accessed health care failed to recall a fall (all p<0.04). Among participants who recalled “no fall,” 85% reported zero falls on daily calendars. Few women selected falls categories of “several times” or “regular” (4.1% and 0.4%, resp.) and the sensitivity of these categories was low (30% to 33%). Simply categorising participants into fallers or non-fallers had 77% sensitivity and 94% specificity.

CONCLUSION: For studies where intensive ascertainment of falls is not feasible, 12-month falls recall questions with fewer responses may be an acceptable alternative

Analyzing the history of falls in patients with severe knee osteoarthritis


Affiliation: Department of Orthopedics, Amalia Fleming General Hospital, Athens, Greece.

(Copyright © 2015, Korean Orthopaedic Association)

Abstract

BACKGROUND: One out of three adults over the age of 65 years and one out of two over the age of 80 falls annually. Fall risk increases for older adults with severe knee osteoarthritis, a matter that should be further researched. The main purpose of this study was to evaluate the effect of age, gender, chronic diseases, social environment, pain elsewhere in the body and components of health related quality of life such as pain, stiffness, physical function, and dynamic stability on falls frequency in older adults aged 65 years and older with severe knee osteoarthritis.
METHODS: An observational longitudinal study was conducted on 68 patients (11 males and 57 females) scheduled for total knee replacement due to severe knee osteoarthritis (grade 3 or 4) and knee pain lasting at least one year or more. Patients were personally interviewed for fall history and asked to complete self-administered questionnaires, such as the 36-item Short Form Health Survey (SF-36) and the Western Ontario and McMaster Universities Arthritis Index (WOMAC), and physical performance test was performed.

RESULTS: The frequency of falls was 63.2% for the past year. The majority of falls took place during walking (89.23%). The main cause of falling was stumbling (41.54%). There was a high rate of injurious falling (29.3%). The time patients needed to complete the physical performance test implied the presence of disability and frailty. The high rates of fall risk, the high disability levels, and the low quality of life were confirmed by questionnaires and the mobility test.

CONCLUSIONS: Patients with severe knee osteoarthritis were at greater risk of falling, as compared to healthy older adults. Pain, stiffness, limited physical ability, reduced muscle strength, all consequences of severe knee osteoarthritis, restricted patient's quality of life and increased the fall risk. Therefore, patients with severe knee osteoarthritis should not postpone having total knee replacement, since it was clear that they would face more complicated matters when combining with fractures other serious injuries and disability.

Frailty predicts short-term incidence of future falls among British community-dwelling older people: a prospective cohort study nested within a randomised controlled trial


Affiliation: Department of Primary Care and Population Health, University College London (Royal Free Campus), Rowland Hill Street, London, NW3 2PF, UK. s.iliffe@ucl.ac.uk.

Abstract

BACKGROUND: Although population-based studies have shown frailty predicted future falls, their follow-up periods were one year or longer and short-term fall risks associated with frailty are unknown.

METHODS: A prospective cohort study nested within a randomised controlled trial was conducted to examine associations between frailty and short-term incident future falls among community-dwelling older people. Two hundred forty eight community-dwelling people ≥65 years without history of ≥three falls and allocated to a usual care arm of exercise intervention trial were prospectively monitored for falls over 24 weeks. Frailty index (FI) was constructed from 40 deficits at baseline. The future fall risks according to frailty status was examined using logistic regression models.

RESULTS: Of 248 participants, 46 were classified as frail and 57 had one or more falls during follow-up. Both each 0.01 increase in FI and frailty defined as FI > 0.25 were significantly associated with higher risks of future falls in multivariate logistic regression models adjusted for age, gender and history of two falls in the previous year (odds ratio (OR) = 1.05, 95% confidence interval (95% CI) = 1.02-1.07, p < 0.001; OR = 3.04, 95% CI = 1.53-6.02, p = 0.001, respectively). Receiver operating characteristic (ROC) curve analysis showed FI predicted future falls with fair accuracy with area under ROC curve of 0.62 (95% CI = 0.53-0.71, p < 0.01).

CONCLUSIONS: Frailty was a significant and independent predictor of short-term future falls among community-dwelling older people who had volunteered for a physical activity study. It is important for healthcare practitioners to recognise frailty as a risk factor of imminent future falling even in older people who appear to be ageing well.

Nocturnal enuresis as a risk factor for falls in older community-dwelling women with urinary incontinence

Pahwa AK, Andy UU, Newman DK, Stambakio H, Schmitz KH, Arya LA.


Affiliation: Division of Urogynecology, Department of Obstetrics and Gynecology, University of Pennsylvania.

Abstract

Although population-based studies have shown frailty predicted future falls, their follow-up periods were one year or longer and short-term fall risks associated with frailty are unknown. A prospective cohort study nested within a randomised controlled trial was conducted to examine associations between frailty and short-term incident future falls among community-dwelling older people. Two hundred forty eight community-dwelling people ≥65 years without history of ≥three falls and allocated to a usual care arm of exercise intervention trial were prospectively monitored for falls over 24 weeks. Frailty index (FI) was constructed from 40 deficits at baseline. The future fall risks according to frailty status was examined using logistic regression models.

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Abstracts Continued
Recent abstracts from the research literature

PURPOSE: To determine the association between urinary symptoms, fall risk and physical limitations in older community-dwelling women with urinary incontinence (UI).

MATERIALS AND METHODS: In-depth assessment of day and nighttime urinary symptoms, fall risk, physical function, physical performance tests and mental function in older community-dwelling women with UI and who had not sought care for their urinary symptoms. All assessments were performed in the participants’ homes. We used univariable and multivariable linear regression to examine the relationship of urinary symptoms with fall risk, physical function, and physical performance.

RESULTS: In 37 women with UI (mean age 74 ± 8.4 years), 48% were at high risk for falls. Nocturnal enuresis was reported by 50%. Increased fall risk was associated with increasing frequency of nocturnal enuresis (p=0.04), worse lower limb (p<0.001) and worse upper limb (p<0.0001) function and worse performance on a composite physical performance test of strength, gait and balance (p=0.02). Women with nocturnal enuresis had significantly lower median physical performance test scores (7, range 0, 11) than women without nocturnal enuresis (median 9, range 1, 12, p=0.04). In a multivariable regression model that included age, nocturnal enuresis episodes and physical function, only physical function was associated with increased fall risk (p<0.0001).

CONCLUSION: Nocturnal enuresis is common in older community-dwelling women with UI and may serve as a marker for fall risk even in women not seeking care for their urinary symptoms. Interventions targeting upper and lower body physical function could potentially reduce risk of falls in older women with UI.

A Case-control Study Examining the Characteristics of Patients who Fall in an Inpatient Traumatic Brain Injury Rehabilitation Setting

McKechnie, D. Fisher MJ . and Pryor J.

J Head Trauma Rehabil  epub: 2015

OBJECTIVE: The purpose of the study was to describe the characteristics of patients who fall in the inpatient traumatic brain injury (TBI) rehabilitation setting. Setting: Specialized inpatient TBI rehabilitation unit. PARTICIPANTS: Fifty-four patients with history of falls and 55 nonequivalent patients without history of falls. Design: Retrospective nonequivalent case-control study.

MAIN MEASURES: The Functional Independence Measure, Glasgow Coma Scale, Westmead Post-traumatic Amnesia Scale, demographic and functional characteristics, and behavior and medication variables.

RESULTS: No significant difference between patients with and without history of falls for age, sex, medication class or total number of medications administered on admission, and median admission Westmead Post-traumatic Amnesia Scale score was observed. Patients with history of falls had a significantly longer duration of post-traumatic amnesia, rehabilitation length of stay, and lower mean total admission Functional Independence Measure score and median Glasgow Coma Scale score at the time of injury. Patients with history of falls were more than 10 times more likely than patients without history of falls to require assistance on admission for activities of daily living, transfers, and continence/toileting. Neurobehaviors including noncompliance and anosognosia were significantly associated with patients with history of falls.

CONCLUSIONS: A patient in the rehabilitation setting with a more severe TBI characterized by multisystem impairments is at an increased risk of falling, whereas some traditional fall risk factors were not associated with patients who fall. Rehabilitation settings should consider cohort-specific fall risk profiling. The Ontario STRATIFY Falls Risk Screening Tool is perhaps not the best tool to screen for falls in this inpatient population.

Interventions

Effects of a Pilates exercise program on muscle strength, postural control and body composition: results from a pilot study in a group of post-menopausal women


Age (Dordr) 2015; 37(6): 118.

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Abstract

Participation in exercise programs is heartily recommended for older adults since the level of physical fitness directly influences functional independence. The aim of this present study was to investigate the effects of supervised Pilates exercise training on the physical function, hypothesizing that a period of Pilates exercise training (PET) can increase overall muscle strength, body composition, and balance, during single and dual-task conditions, in a group of post-menopausal women. Twenty-five subjects, aged 59 to 66 years old, were recruited. Eligible participants were assessed prior and after 3 months of PET performed twice per week. Muscular strength was evaluated with handgrip strength (HGS) test, 30-s chair sit-to-stand test (30CST), and abdominal strength (AST) test. Postural control and dual-task performance were measured through a stabilometric platform while dynamic balance with 8 ft up and go test. Finally, body composition was assessed by means of dual-energy X-ray absorptiometry. Statistically significant improvements were detected on HGS (+8.22 %), 30CST (+23.41 %), 8 ft up and go test (-5.95 %), AST (+30.81 %), medio-lateral oscillations in open eyes and dual-task condition (-22.03 % and -10.37 %). Pilates was effective in increasing upper body, lower body, and abdominal muscle strength. No changes on body composition were detected.

RESULTS on this investigation indicated also that 12-week of mat Pilates is not sufficient to determine a clinical meaningful improvement on static balance in single and dual-task conditions.

A falls wheel in a large academic medical center: an intervention to reduce patient falls with harm

Hefner JL, McAlearney AS, Mansfield J, Knupp AM, Moffatt-Bruce SD.


Abstract

This article presents an evaluation of a multifaceted fall prevention initiative. The main element of this initiative was the creation and implementation of a Falls Wheel—a visual communication tool of a patient’s fall injury risk for all care team members placed on every patient door throughout the health system. The Falls Wheel allows for patient categorization along two dimensions simultaneously: risk of fall and risk of injury from a fall. During the yearlong implementation, the rate of falls with harm dropped by almost 50%. A process audit revealed that there was high fidelity to the intervention components, including displaying the wheel correctly 95% of the time, and the Falls Wheel was updated to match the risk level in the electronic health record 70% of the time. The goal of this article was to share the experience of one health system and encourage others to adopt and rigorously test the Falls Wheel. Replication and extension of this program at other hospitals and health systems will enable staff and empower patients to reduce falls with harm and their unintended consequences.

Day hospital fall prevention programme for elderly people to reduce re-presentation with fall

Irwanto D, Xu YH, Familo, R, Leahy C, Chan DKY.


Abstract

PURPOSE: To review the outcome of a day hospital (DH) fall prevention programme in terms of the rate of re-presentation with fall within 6 months and the reasons for dropout.

METHODS: 115 patients aged 68 to 100 years who were medically stable and could benefit from the DH fall prevention programme were randomly selected. Of the 115 patients, 47 attended ≥2 sessions (completion group), 25 attended <2 sessions (non-completion group), and 43 were not referred (non-referral group). The decision to refer patients to the programme was made by the allied health team in the emergency department.

RESULTS: For patients who were not referred to the DH fall prevention programme, the reasons were unclear (n=22), safe discharge without the need for follow-up (n=15), too frail or from a nursing home (n=4), and refusal to participate (n=2). The most common reason for dropout from the programme was lack of interest (n=20),
frailty (n=2), not contactable (n=2), and mobility problem (n=1). The rate of re-presentation with falls within 6 months was lowest in the completion group, followed by the non-completion group and the non-referral group (17% vs. 36% vs. 47%, p=0.009); the difference was significant between the completion and non-referral groups (p=0.001), and between the completion and non-completion groups (p=0.05).

CONCLUSION: The DH fall prevention programme reduced the rate of re-presentation with fall within 6 months.

Influence of admission to a tertiary care hospital after a fall on use of potentially inappropriate medications among older patients

Francis E, Dyks D, Kanji S.


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Abstract

BACKGROUND: Each year, about one-third of individuals over the age of 65 years will experience a fall, and half of these will experience a subsequent fall in the following year. The use of potentially inappropriate medications (PIMs) is an important factor contributing to increased fall risk in geriatric patients.

OBJECTIVE: To determine the proportion of patients over the age of 65 admitted to orthopedics and general medicine services with diagnosis of a fall who experienced a change in the total number or dosage of PIMs, as defined by the Beers criteria, upon discharge from hospital.

METHODS: This retrospective observational study involved patients admitted to a tertiary care hospital with diagnosis of a fall between January 1 and December 31, 2011. Those aged 65 years or older with at least one PIM on admission were eligible for inclusion. Data analysis included 2 and Fisher testing, as well as multivariate analysis.

RESULTS: A total of 148 patients were included, of whom 63 (43%) had an overall change in the dosage or number of PIMs during their hospital stay. Forty patients (27%) had an overall reduction in the dosage or number of PIMs upon discharge from hospital, whereas 23 (16%) experienced an overall increase in the dosage or total number of PIMs. The mean number (± standard deviation) of PIMs decreased during the hospital stay, from 1.6 ± 0.8 on admission to 1.4 ± 0.9 on discharge (p = 0.03). Benzodiazepines were the class of PIMs most frequently discontinued or reduced in dosage.

CONCLUSION: One-quarter of patients admitted with falls had de-escalation of PIMs upon hospital discharge. Although dosage reduction or drug discontinuation may not be appropriate for all patients, a standardized approach to medication review during the hospital stay and improved prescriber education and awareness of PIM use among elderly individuals are warranted.

These abstracts have been sourced from SafetyLit.org

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To join the NSW Falls Prevention Network listserv, send an email to:

majordomo@lists.health.nsw.gov.au

In the body of the message type

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Do not put anything in the subject line. You will receive an e-mail to confirm you have been added to the listserv.

To unsubscribe send an e-mail to:

majordomo@lists.health.nsw.gov.au

and in the body of the message type

unsubscribe nsw-falls-network

on the next line type end

If you have any problems, contact Esther Vance at e.vance@neura.edu.au.

Share your news and information/ideas
Do you have any news on Falls Prevention you want to share with others on the network, or do you want to report on a project that is happening in your area.

Please email Esther with your information. We also welcome suggestions for articles and information you would like to see in this newsletter.

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e.vance@neura.edu.au

The Network Listserv
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