Welcome to our final issue for 2008. This issue features a report on the Stay on Your Feet program from Northern Sydney Central Coast Area Health Service and also highlights and achievements of the NSW Falls Prevention Program for 2008.

We are looking forward to an exciting 2009. Plans include:
- an upgrade to our website in February 2009;
- videoconference sessions for the Greater Western Area Health Service in March 2009;
- Falls Network Meeting in June 2009.

Please take a moment to complete our website survey which is now available at our website at:
http://www.powmri.edu.au/fallsnetwork

We would like to take this opportunity to wish you all a peaceful, restful, and safe Christmas and holiday break.
Stay on Your Feet is a 4 year project funded by NSW Health and Northern Sydney Central Coast Health. The project was designed to test whether or not strategies such as those implemented in the NSW North Coast during the 1990’s would work in the wider community. The communities we are working with are Ryde, Hunter’s Hill and Gosford.

The main aims of the project are: firstly, to increase the proportion of older people who take appropriate action to reduce their risk of a fall related injury. We’ve been doing this by addressing the risk factors for falls and working with various partners e.g. hardware stores, Podiatrists, Dept of Housing and Local Government to increase awareness of falls risk. Secondly, to improve the availability of physical activity programs endorsed by the AHS as appropriate for older people, in Gosford a Tai Chi program has been introduced and in Hunters Hill gentle exercise classes have been introduced into Dept of Housing estates. Lastly, to encourage Health Professionals to recommend appropriate falls injury prevention activities to their clientele. We are working closely with GP’s, bone densitometry technicians and community nursing.

We are taking a multistrategic approach to falls injury prevention by addressing all of the risk factors for falls in a variety of ways, for example, when addressing home hazards, we produced an information kit which consisted of a shopping bag printed with the logo which contained relevant literature including the fact sheet produced by the team. The bag also contained a torch / key ring. All of our merchandise is badged with the Stay on Your Feet logo. The bags were distributed through local hardware stores and by individuals responding to ads in the media. we took out advertising on the back and side of local buses, we had radio ads which featured Jeannie Little. The local council distributed 60,000 fact sheets with their rates notice. The two project officers, Helen Kale and Suzanne Mitten Lewis have been extremely busy giving presentations to senior’s organisations and agencies such as Department of Housing.

Health Professionals have been involved at varying levels. We decided to do something new with General Practitioners, instead of asking them to give the patients a referral into exercise classes, we asked them to fax the referrals to the Health Promotion Unit, we then follow up with the patients. Bone densitometry technicians and community nurses are recommending exercise to their patients and giving them free passes to try out the classes, Occupational Therapists, Podiatrists, Optometrists and others are handing out Stay on Your Feet information packages to their clientele.

For further information please contact
Helen Kale 43494814 or Suzanne Mitten-Lewis 9858 7973
Northern Sydney Health Promotion
NSW Falls Prevention Program: 2008 Highlights

Review of best-practice guidelines

The Australian Commission on Safety and Quality in Health Care has formed an Expert Advisory Group to review the Australian Council for Safety and Quality in Health Care Falls Prevention Best Practice Guidelines for Australian hospitals and residential aged care facilities. New format will include separate falls prevention best-practice guidelines for hospital, community and residential aged care and expected to be completed by June 2009.

Development of Resources

DVD/CD Trigger: Education resource for hospitals to support the implementation of falls prevention best-practice guidelines has been developed and is currently being piloted in rural and metro sites with final distribution planned for early 2009.

Evaluation

The first statewide falls prevention policy – the Management Policy to Reduce Fall Injury Among Older People: 2003-2007 has established supporting infrastructure for the implementation of future activity in falls prevention. This body of work and the strategic interventions which have supported it provide a solid foundation for future work to enhance falls prevention in NSW. An evaluation of the implementation of this policy has been commissioned by the NSW Department of Health, Centre for Health Advancement and is being conducted by the Injury Risk Management Research Centre (IRMRC), University of New South Wales. A retrospective evaluation report is in final stages of completion.

DVA Innovative Funding Project: Falls Prevention using QuickScreen®

The aim of the project is to improve falls risk assessment and management and care of the Veteran community. This project commenced with a pilot workshop for health professionals (allied health, community nurses and General Practice Nurses) in Hunter New England Area Health Service (HNEAHS): Tamworth, September 16th and Maitland on October 31st.

Further workshops will be conducted in Greater Southern Area Health Service (GSAHS) and it is anticipated to conduct further workshops across Area Health Services.

April Falls Day

This day has been gazetted in the NSW Health Calendar on April 1st. This day has been identified for Area Health Services to hold activities to target hospital staff, families and carers and the general community about falls prevention. Northern Sydney Central Coast Area Health Service (NSCCAHS) initially established April Falls activities. This year activities were conducted during April in most of the Area Health Services.

The NSW Minister for Health provided support and released a press release outlining that falls prevention is a priority and the CEO, Clinical Excellence Commission (CEC) attended April Falls Day Launch at Ryde Hospital NSCCAHS.
April Falls Day at Ryde Hospital

A/Professor Sue Kurrle (NSCCAHS), Lorraine Lovitt (CEC) Margaret Armstrong (NSCCAHS), Mathew Daley (CE, NSCCAHS), Professor Clifford Hughes (CEO, CEC).

CEC April Falls Day was held on April 29th.
This year presentations showcased an innovative volunteer program where volunteers provide activities for those patients that have been identified at ‘high-risk of a fall (Falls Buster Program); the establishment of a physical activity network and programs in a rural area health service; ‘Stepping On’ a specific falls prevention program for people living in the community’, a Home Hazard information DVD for CALD communities and launch of the CEC DVD/CD resource for hospital staff.

'Stepping On'
Dr Lindy Clempson, Associate Professor in Ageing, Faculty of Health Sciences, The University of Sydney

‘Falls Buster Program’
Sandra Bill, Volunteer co-ordinator & John Gale A/ Health Service Manager, Bourke St Health Service, Goulburn

Ingrid Hutchinson (CEC), Lorraine Lovitt (CEC), Esther Vance (NSW Falls Prevention Network), Margaret Armstrong (NSCCH Coordinator NSW Falls Policy)
BALANCE ASSESSMENT

Balance disorders in the elderly.
Sturkieks D, St George R, Lord S.
Affiliation: Prince of Wales Medical Research Institute, Barker Street, Randwick, Sydney, NSW 2031, Australia.
(Copyright © 2008, Elsevier Publishing)

ABSTRACT
Good balance is an imperative skill for daily life that requires the complex integration of sensory information regarding the position of the body relative to the surroundings and the ability to generate appropriate motor responses to control body movement. Balance calls upon contributions from vision, vestibular sense, proprioception, muscle strength and reaction time. With increased age, there is a progressive loss of functioning of these systems which can contribute to balance deficits. Balance disorders represent a growing public health concern due to the association with falls and fall-related injuries, particularly in regions of the world in which high proportions of the population are elderly. Falls present one of the most serious and costly problems associated with older adulthood. Falls can mark the beginning of a decline in function and independence and are the leading cause of injury-related hospitalisation in older people. One in three people over the age of 65 years who are living in the community experience at least one fall each year and 10-15% of these falls are associated with serious injury. In economic terms, the direct and indirect costs associated with falls are large and will grow as the proportion of older people increases. Consequently, understanding age-related changes in the physiological systems imperative to balance is of utmost importance to prevent falls in older people and reduce the injury-related burden on individuals and society.

Mobility and balance in Parkinson's disease: a population-based study.
Matinolli M, Korpelainen JT, Korpelainen R, Sotaniemi KA, Matinolli VM, Myllylä VV.
Affiliation: Department of Neurology, University of Oulu, Oulu, Finland.
(Copyright © 2008, Blackwell Publishing)

ABSTRACT
Background and purpose: To assess the clinical correlates of mobility and balance, and to identify the risk factors for falls in Parkinson's disease (PD).
Methods: One-hundred and nineteen PD patients underwent clinical examination and tests for mobility and balance using the Timed Up&Go (TUG) test, walking speed, and the measurement of postural sway.
Results: The fallers (35% of the subjects) performed significantly worse in the TUG test than the non-fallers, and they also had a slower walking speed (P = 0.037 and P = 0.006, respectively). The total Unified Parkinson's Disease Rating Scale (UPDRS) score and age were positively associated with the TUG-test score. The severity of the disease and the use of walking aids correlated negatively with the walking speed, whereas the use of dopamine agonists was positively associated with the walking speed. The UPDRS total score [odds ratio (OR) 1.04, 95% confidence intervals (CI) 1.01-1.07] and increased postural sway (OR 1.25, 95% CI 1.02-1.54) were independent risk factors for falling in PD.
Conclusion: Advanced age and severity of the disease are related to impaired mobility and balance in PD patients. The severity of the disease and increased postural sway seem to be the most important independent risk factors for falling in PD.

BIOMECHANICS OF FALLING

Biomechanical evaluation of injury severity associated with patient falls from bed.
Bowers B, Lloyd J, Lee W, Powell-Cope G, Baptiste A.
Affiliation: University of South Florida, College of Engineering, Tampa, FL, USA.

ABSTRACT
This study investigated the severity of injuries associated with falling from bed and the effectiveness of injury-prevention strategies. Injury criteria were calculated for head- and feet-first falls from six bed heights onto a tiled surface and floor mat. These values indicated a 25% chance of experiencing a serious head injury as a result of falling feet-first from a bed height of 97.5 cm onto a tiled surface. Risk of injury increased to 40% when extrapolated for the height added by bedrails. Using a floor mat decreased this risk to less than 1% for bedrail height for feet-
first falls. Calculated impact forces indicated a risk of skull fracture when hitting the tiled surface. Floor mats and height-adjustable beds positioned to the lowest height should be used to decrease the risk of injury associated with falling from bed.

**EPIDEMIOLOGY AND RISK FACTORS FOR FALLS**

**Characteristics of falls producing hip fractures in nonagenarians.**
Formiga F, López-Soto A, Duaso E, Chivite D, Ruiz D, Pérez-Castejón JM, Navarro M, Pujol R.  
Affiliation: F. Formiga, Geriatric Unit. Internal Medicine Service, Hospital Universitari de Bellvitge, L Hospitalet de Llobregat 08907. Barcelona. Spain. email: fformiga@csub.scs.es.  
(Copyright © 2008, Serdi Publisher)

**ABSTRACT**

**Objectives:** To evaluate the characteristics associated with falls causing hip fracture in patients 90 years of age or older (nonagenarians). A second objective was to compare these characteristics with those present in younger patients (65-79 year-olds).

**Design:** Prospective, observational study. Setting: Six hospitals in Barcelona (Spain) and its surrounding area. Participants: 105 nonagenarians diagnosed with hip fracture after a fall. Most patients were women (78; 74%), with a mean age of 92.2 +/- 2 years. All of them were living in the community, except for eight institutionalized patients. 221 patients aged 65 to 79 composed the younger patient's comparison group.

**Measurements:** Characteristics of falls causing hip fracture were analyzed: location, time and the risk factor for the fall, classified as intrinsic, extrinsic or combined. Results: The mean number of falls in the previous year was 1.5 - 22% of the patients reported having fallen two or more times. Falls usually happened while at home (70%) and during the day (64%). An intrinsic risk factor was considered the most likely cause in 37% of the cases, an extrinsic risk factor in 35%, and a combination in 28%. Multiple stepwise logistic regression analysis showed that nonagenarians were characterized by lower BI scores, more falls happening during night time, a higher use of, benzodiazepines and diuretics, and a lower use of non-benzodiazepinic hypnotics.

**Conclusions:** Most falls causing hip fracture in nonagenarians happen during the day and at home. Falls in nonagenarians happening more frequently during nighttime, and these oldest subjects had lower BI scores, and a higher use of benzodiazepines and diuretics and less use of non-benzodiazepines hypnotics compared with the younger patients.

**The Optimal Sequence and Selection of Screening Test Items to Predict Fall Risk in Older Disabled Women: The Women's Health and Aging Study.**
Lamb SE, McCabe C, Becker C, Fried LP, Guralnik JM.  
(Copyright © 2008, Gerontological Society of America)

**ABSTRACT**

**BACKGROUND:** Falls are a major cause of disability, dependence, and death in older people. Brief screening algorithms may be helpful in identifying risk and leading to more detailed assessment. Our aim was to determine the most effective sequence of falls screening test items from a wide selection of recommended items including self-report and performance tests, and to compare performance with other published guidelines.

**METHODS:** Data were from a prospective, age-stratified, cohort study. Participants were 1002 community-dwelling women aged 65 years old or older, experiencing at least some mild disability. Assessments of fall risk factors were conducted in participants' homes. Fall outcomes were collected at 6 monthly intervals. Algorithms were built for prediction of any fall over a 12-month period using tree classification with cross-set validation.

**RESULTS:** Algorithms using performance tests provided the best prediction of fall events, and achieved moderate to strong performance when compared to commonly accepted benchmarks. The items selected by the best performing algorithm were the number of falls in the last year and, in selected subpopulations, frequency of difficulty balancing while walking, a 4 m walking speed test, body mass index, and a test of knee extensor strength. The algorithm performed better than that from the American Geriatric Society/British Geriatric Society/American Academy of Orthopaedic Surgeons and other guidance, although these findings should be treated with caution.

**CONCLUSIONS:** Suggestions are made on the type, number, and sequence of tests that could be used to maximize estimation of the probability of falling in older disabled women.
Predicting Which Older Adults Will or Will Not Fall Using the Fullerton Advanced Balance Scale.
Hernandez D, Rose DJ.
Affiliation: Center for Successful Aging at California State University, Fullerton, CA.
(Copyright © 2008, Elsevier Publishing)

ABSTRACT
OBJECTIVE: The purpose of this study was to determine if the Fullerton Advanced Balance (FAB) scale can predict faller status in a group of independently functioning older adults. DESIGN: A cross-sectional design was used to establish the sensitivity and specificity of the FAB scale to predict faller status based on a retrospective self-reported fall history. For the purpose of this study, a faller was classified as an older adult with a history of 2 or more falls in the previous 12 months.
SETTING: Multipurpose senior centers in an urban community.
PARTICIPANTS: A sample of independently functioning older adults (N=192; mean age +/- SD, 77 +/- 6.5y).
INTERVENTIONS: Not applicable.
MAIN OUTCOME MEASURES: FAB scale, a retrospective history of falls.
RESULTS: Binary logistic regression analysis indicated that the total FAB scale score could be used to predict faller status (as determined by a retrospective self-reported fall history). In the present sample, the probability of falling increased by 8% with each 1-point decrease in total FAB scale score. Receiver operating characteristic analysis determined that a cut-off score of 25 out of 40 on the FAB scale produced the highest sensitivity (74.6%) and specificity (52.6%) in predicting faller status. Five individual test items on the FAB scale were particularly predictive of faller status and could be combined to form a short version of the scale that may be even more predictive of faller status and require less time to administer.
CONCLUSIONS: The FAB scale is a predictive measure of faller status when used with independently functioning older adults. A practitioner can be confident in more than 7 out of 10 cases that an older adult who scores 25 or lower on the FAB scale is at high risk for falls and in need of immediate intervention.

Elderlies' emergency department contacts following falls
Kirchhoff M, Bregnbak MJ, Backe H, Hendriksen C, Obel K.
Ugeskr Laeger 2008; 170(45): 3667-70.
(Copyright © 2008, Den Alm Danske Laegerforening)

ABSTRACT
INTRODUCTION: The aim of this retrospective study was to quantify and characterize contacts to the acute emergency department due to fall accidents among elderly aged 65 years and above at H:S Hvidovre hospital in Copenhagen during a three-month period. Data on demographics, injuries and admission rates were collected along with follow-up data during the six months after the index contact.
MATERIAL AND METHODS: Case records from patients aged 65 years and above seen in the emergency department from July 1st to September 30th 2001 were examined. Patients with documented falls as primary cause of contact were included. Via a central database the use of emergency department, admissions to hospital and mortality during the next six months were monitored.
RESULTS: During the three-month period, 535 elderly persons (582 visits) were seen in the acute emergency department because of a fall. Of these 186 (32%) had a fracture. A total of 39% of the patients were admitted to hospital. Among the elderly who returned directly to their home from the emergency department, 37% had no planned appointment for follow-up in the social or health care system. The next six months saw 215 contacts to acute emergency departments and 444 hospital admissions (including the first admission). The contacts and admissions generated 8,310 bed-days. The six-month mortality was 13%.
CONCLUSION: The results document the frailty of a considerable proportion of the elderly who contact the acute emergency department because of a fall. About half of the elderly returning home directly from hospital have no planned follow-up. A more structured assessment and collaboration between hospital and primary health care is needed in order to prevent further falls among the elderly.
Injuries and Unattended Home Exits in Persons with Dementia: A 12-Month Prospective Study.
(Copyright © 2008, Sage Publications)

ABSTRACT
Persons with dementia are at particular risk for injuries and unattended home exits. The purposes of this study were to prospectively describe the characteristics and determine the hazard rates of unattended home exits and injuries. A total of 9 times over 12 months, data were collected from 53 caregivers of persons with dementia about persons with dementia unattended home exits or injuries. A total of 24% of persons with dementia had at least 1 unattended exit; 4 participants exited multiple times. Men and younger persons with dementia were significantly more likely to exit than women or older individuals. A total of 30% of persons with dementia sustained injuries in 29 separate incidents; all but 3 injuries were caused by falls, and 38% of injuries resulted in nursing home placement. The hazard rate of untoward events was high, at approximately 1 unattended exit and 1 fall per person-year. For all persons with dementia living in the community, health care plans should include specific interventions to prevent these untoward events.

The effects of usual footwear on balance amongst elderly women attending a day hospital.
Horgan NF, Crehan F, Bartlett E, Keogan F, O’Grady AM, Moore AR, Donegan CF, Curran M.
Affiliation: School of Physiotherapy, Royal College of Surgeons in Ireland, Dublin 2, Ireland.
(Copyright © 2008, Oxford University Press)

ABSTRACT
OBJECTIVE: to examine the effects of footwear on balance in a sample of older women attending a day hospital.
DESIGN: this was a crossover trial with a quasi-randomised allocation.
SETTING: assessments took place in the geriatric day hospital.
SUBJECTS: a cohort of 100 older women aged 60 years and over attending a day hospital.
METHODS: demographic data and a brief falls history were recorded. Participant’s footwear was assessed using a footwear assessment form. A Berg Balance Scale (BBS) was completed under two conditions--shoes on and shoes off with order counterbalanced.
RESULTS: the mean BBS was 39.07 (SD 9.14) with shoes on and 36.54 (SD 10.39) with shoes off (P < 0.0001). Balance scores were significantly higher with shoes on for 10 of the 14 Berg subcategories. Lower barefoot BBS scores were associated with a greater beneficial effect of footwear on balance (P < 0.001). Shoe characteristics were not associated with change in the BBS score.
CONCLUSIONS: Wearing their own footwear significantly improved participants’ balance compared to being barefoot. The greatest benefit of footwear was seen in those with the poorest balance. Further studies should investigate whether particular types of footwear are associated with greater benefit.

Falls in the nursing home setting: does time matter?
Lester P, Haq M, Vadnerkar A, Feuerman M.
Affiliation: Winthrop University Hospital, Mineola, NY, USA. (Copyright © 2008, Lippincott Williams and Wilkins)

ABSTRACT
OBJECTIVES: Falls increase morbidity and mortality among nursing home residents and have varied causes and risk factors. The purpose of this study was to assess whether falls in nursing home residents were more prevalent at particular times of the day.
DESIGN/PARTICIPANTS: This study was a retrospective chart review for falls in a skilled nursing facility in New York from January to June, 2007.
RESULTS: There were 220 falls during the 6-month period. Most falls (66%) occurred in the resident’s room and almost half (48%) resulted in an injury. Falls during the evening were likely to result in a more serious injury than daytime falls (P = .03). A statistically significant higher percentage of falls (27%) occurred between 4 pm and 8 pm (compared with expected number in a 4-hour period, P < .001). Among the 3 nursing shifts, the lowest percentage of falls occurred during the 11 pm to 7 am night shift (16%).
CONCLUSION: This study reveals a variation in the prevalence of falls in the nursing home based on time of day that is different from the pattern of falls in the hospital setting. More research is needed to evaluate possible causes.
of this temporal pattern of falls in the nursing home. Perhaps these data can be used to implement specific interventions at times when falls are more common to reduce the risk of falls.

**Frequencies of falls in Swiss hospitals: Concordance between nurses’ estimates and fall incident reports.**

Cina-Tschumi B, Schubert M, Kressig RW, De Geest S, Schwendimann R.


Affiliation: Institute of Nursing Science, University of Basel, Bernoullistrasse 28, 4056 Basel, Switzerland.

(Copyright © 2008, Elsevier Publishing).

**ABSTRACT**

**BACKGROUND:** Patient falls are frequent incidents in hospitals, and various measurement methods are described in the literature to assess in-patient fall rates. However, the literature includes no validation of nurses’ estimates of fall frequencies, which are the preferred assessment method in multi-centre surveys.

**OBJECTIVES:** To explore the concordance of nurses’ estimated fall frequencies with continuously collected data.

**DESIGN:** Cross-sectional, correlational secondary data analysis.

**SAMPLE/SETTING:** Patient fall data from 21 wards in 2 Swiss acute care hospitals participating in the RICH Nursing Study.

**METHODS:** Registered nurses’ (N=233) estimated fall frequencies, assessed by the International Hospital Outcome Study questionnaire in absolute number of falls over the last month, and, using a four-point Likert scale (never=1; frequently=4), over the last year, were compared to standardized hospital fall incident reports compiled over the same periods. Fall incident reports for the last month were assessed in absolute numbers and were calculated as fall rates per 1000 patient days, with data computed at the ward level. The concordance with nurses’ estimates was then tested using Spearman’s rho and Kendall’s tau correlations.

**RESULTS:** The mean last-year fall frequencies estimated by nurses on the four-point Likert scale ranged from 1.4 to 3.1 for non-injurious falls and from 1.0 to 2.6 for injurious falls per ward. The fall rates assessed using fall incident reports over the same period ranged from 0.1 to 3.8 non-injurious falls per 1000 patient days and from 0.1 to 2.6 injurious falls per ward. Nurses’ estimates and fall incident reports correlated significantly regarding the last year, both for injurious falls (r= 0.685, p= 0.014) and non-injurious falls (r=0.630, p= 0.028), although no statistically significant correlations were found regarding the 1 month estimates.

**CONCLUSIONS:** Nurses’ long-term estimates of patient incidents are concordant with continuously and systematically assessed data, and offer valid data where other measurement methods are unavailable.

**Risk of falling in patients with a recent fracture.**

van Helden S, Wyers CE, Dagnelie PC, van Dongen MC, Willems G, Brink PR, Geusens PP.

*BMC Musculoskeletal Disorder* 2007; 8(1): 55. (Copyright © 2007, BioMed Central)

**ABSTRACT**

**BACKGROUND:** Patients with a history of a fracture have an increased risk for future fractures, even in short term. The aim of this study was to assess the number of patients with falls and to identify fall risk factors that predict the risk of falling in the first three months after a clinical fracture.

**METHODS:** Prospective observational study with 3 months of follow-up in a large European academic regional hospital. In 277 consenting women and men aged [greater than or equal to] 50 years and with no dementia and not receiving treatment for osteoporosis who presented to hospital with a clinical fracture, fall risk factors were assessed according to the guidelines on fall prevention in the Netherlands. Follow-up information on falls and fractures was collected by monthly telephone interview. Incidence of falls and odds ratio’s (OR, with 95% confidence intervals) were calculated.

**RESULTS:** 512 consecutive patients with a fracture were regarded for analysis, 87 were not eligible for inclusion and 137 patients were excluded. No follow-up data were available for 11 patients. Therefore full analysis was possible in 277 patients. A new fall incident was reported by 42 patients (15%), of whom five had a fracture. Of the 42 fallers, 32 had one new fall and 10 had two or more. Multivariate analysis in the total group with sex, age, ADL difficulties, urine incontinence and polypharmacy showed that sex and ADL were significant fall risk factors. Women had an OR of 3.02 (95% CI 1.13-8.06) and patients with ADL-difficulties had an OR of 2.50 (95% CI 1.27-4.93). Multivariate analysis in the female group with age, ADL difficulties, polypharmacy and presence of orthostatic hypotension indicated that polypharmacy was the predominant risk factor (OR 2.51; 95% CI: 1.19 - 5.28). The incidence of falls was 35% in women with low ADL score and polypharmacy compared to 15% in women without these risk factors (OR 3.56; CI 1.47 - 8.67).
CONCLUSION: 15% of patients reported a new fall and 5 patients suffered a new fracture within 3 months. Female sex and low ADL score were the major risk factors and, in addition, polypharmacy in women.

FEAR OF FALLING

Perceptions of older people living in the community about their fear of falling.
Lee F, Mackenzie L, James C.
Affiliation: Morisset Hospital, Hunter New England Area Health Service, NSW.
(Copyright © 2008, Taylor and Francis Group)

ABSTRACT

Purpose. A fear of falls is widespread amongst older Australians. It increases the risk of falls and can lead to restriction of activity. The aim of this study was to gain insight into the precursors of a fear of falls and the experiences associated with this fear.

Methods. Using a qualitative, phenomenological method, individual, semi-structured interviews were conducted with 9 community-based participants who reported moderate to high levels of fear of falling. Results. Most participants did not fear falling until they had experienced a fall themselves. The fear of falls was described as a negative experience, often linked with incapacitation, fear of dependence and having to leave their home. Participants chose to avoid falls by 'taking care'. Five themes emerged from data analysis: activity levels; view of the future; perceptions of fall experiences; fall avoidance; and development of fear of falls.

Conclusions. The results indicated that factors other than a fear of falling resulted in a restriction of activities for these participants; therefore, it cannot be assumed that a fear of falls alone results in reduction of activity. Fear of falls, in combination with other potential issues that could restrict activities, should be taken into account in the development of fall-prevention programs in order to ensure clients' needs are being met.

INTERVENTION STUDIES

Use of a Fall Prevention Practice Guideline for Community-Dwelling Older Persons at Risk for Falling: A Feasibility Study.
Milisen K, Geeraerts A, Dejaeger E.
Affiliation: Center for Health Services and Nursing Research, Katholieke Universiteit Leuven, Leuven, Belgium.
(Copyright © 2008, Karger Publishers)

ABSTRACT

Background: Falls among older persons occur frequently and are a common cause of physical and psychological morbidity and healthcare utilization. The problem can be attributed to a complex interaction between health-related, behavioral and environmental factors. To ensure a uniform and evidence-based approach, a practice guideline was developed for fall prevention in community-dwelling older persons at risk for falls.

Objective: To test the feasibility of integrating a fall prevention practice guideline into the daily practice of 4 primary healthcare disciplines, i.e. general practitioners, nurses, occupational therapists and physiotherapists.

Methods: This was a descriptive study which was carried out by 10 local health networks located throughout Flanders. The subjects involved in the study were 99 primary care workers and 1,142 community-dwelling older patients (65 years or older) who could rise from a chair and transfer independently. For 6 months, primary care workers implemented our fall prevention guideline, which consisted of 3 parts (case finding, multifactorial in-depth assessment and interventions). After the 6-month trial phase, participating primary care workers were asked to complete a semistructured questionnaire to evaluate the feasibility of using the guideline in daily practice.

Results: The average time spent on carrying out the guideline was 32.0 +/- 14.0 min. Healthcare workers from all 4 disciplines considered case finding to be their responsibility. The picture was different for the evaluation of risk factors and interventions. Although 87.5% considered fall prevention to be an important issue, healthcare workers from different disciplines failed to agree about how to integrate the prevention guideline into daily practice. Perceived barriers to implementing the guideline were lack of time (57.3%), poor motivation of the target population (53.3%) and insufficient cooperation between healthcare workers (37.3%).

Conclusion: A guideline can be used to initiate the integration of prevention strategies into daily practice. Case finding is feasible for all disciplines. Multifactorial assessment and interventions require specific task allocation, multidisciplinary cooperation and clear communication.
The Effect of Group-Based Exercise on Cognitive Performance and Mood in Seniors Residing in Intermediate Care and Self-Care Retirement Facilities: A Randomized Controlled Trial.

Brown AK, Liu-Ambrose T, Tate R, Lord S.


ABSTRACT

OBJECTIVE: To determine the effect of a general group-based exercise program on cognitive performance and mood among seniors without dementia living in retirement villages.

DESIGN: Randomized controlled trial.

SETTING: Four intermediate care and four self-care retirement village sites in Sydney, Australia.

PARTICIPANTS: Nineteen senior men and 135 senior women who were residents of intermediate care and self-care retirement facilities.

INTERVENTION: Participants were randomized to one of the following experimental groups: 1) a general group-based exercise (GE) program composed of resistance training and balance training exercises; 2) a flexibility exercise and relaxation technique (FR) program; or 3) no-exercise control (NEC). The intervention groups (GE and FR) participated in one-hour exercise classes twice a week for a total period of six months.

MAIN OUTCOME MEASURES: Using standard neuropsychological tests, we assessed cognitive performance at baseline and at six-month retest in the following domains: 1) fluid intelligence; 2) visual, verbal, and working memory; and 3) executive functioning. We also assessed mood by the Geriatric Depression Scale and the Positive and Negative Affect Schedule.

RESULTS: The GE program significantly improved cognitive performance of fluid intelligence compared with FR or NEC. Also, there were significant improvements in the PANAS-P scale within both the GE and FR groups and an indication that the two exercise programs reduced depression in those with initial high Geriatric Depression Scale scores.

CONCLUSIONS: Our GE program significantly improved cognitive performance of fluid intelligence in seniors residing in retirement villages compared with our FR program and the NEC group. Furthermore, both group-based exercise programs provided benefits for certain aspects of mood within the six-month intervention period.

Efficacy of a multifaceted podiatry intervention to improve balance and prevent falls in older people: study protocol for a randomised trial.

Spink MJ, Menz HB, Lord SR.


ABSTRACT

BACKGROUND: Falls in older people are a major public health problem, with at least one in three people aged over 65 years falling each year. There is increasing evidence that foot problems and inappropriate footwear increase the risk of falls, however no studies have been undertaken to determine whether modifying these risk factors decreases the risk of falling. This article describes the design of a randomised trial to evaluate the efficacy of a multifaceted podiatry intervention to reduce foot pain, improve balance, and reduce falls in older people.

METHODS: Three hundred community-dwelling men and women aged 65 years and over with current foot pain and an increased risk of falling will be randomly allocated to a control or intervention group. The "usual care" control group will receive routine podiatry (i.e. nail care and callus debridement). The intervention group will receive usual care plus a multifaceted podiatry intervention consisting of: (i) prefabricated insoles customised to accommodate plantar lesions; (ii) footwear advice and assistance with the purchase of new footwear if current footwear is inappropriate; (iii) a home-based exercise program to strengthen foot and ankle muscles; and (iv) a falls prevention education booklet. Primary outcome measures will be the number of fallers, number of multiple fallers and the falls rate recorded by a falls diary over a 12 month period. Secondary outcome measures assessed six months after baseline will include the Medical Outcomes Study Short Form 12 (SF-12), the Manchester Foot Pain and Disability Index, the Falls Efficacy Scale International, and a series of balance and functional tests. Data will be analysed using the intention to treat principle.

DISCUSSION: This study is the first randomised trial to evaluate the efficacy of podiatry in improving balance and preventing falls. The trial has been pragmatically designed to ensure that the findings can be generalised to clinical practice. If found to be effective, the multifaceted podiatry intervention will be a unique addition to common falls prevention strategies already in use.
REVIEWS
A systematic review and meta-analysis of studies using the STRATIFY tool for prediction of falls in hospital patients: how well does it work?
Oliver D, Papaioannou A, Giangregorio L, Thabane L, Reizgys K, Foster G.

ABSTRACT
STRATIFY is a prediction tool developed for use in for hospital inpatients, using a 0-5 score to predict patients who will fall. It has been widely used as part of hospital fall prevention plans, but it is not clear how good its operational utility is in a variety of settings.

OBJECTIVES: (i) to describe the predictive validity of STRATIFY for identifying hospital inpatients who will fall via systematic review and descriptive analysis, based on its use in several prospective cohort studies of hospital inpatients; (ii) to describe the predictive validity of STRATIFY among inpatients in geriatric rehabilitation via meta-analysis and (iii) in turn, to help practitioners and institutions wishing to implement interventions to prevent in-hospital falls.

METHODS: a systematic literature review of prospective validation studies of STRATIFY for falls prediction in hospital inpatients. For inclusion, studies must report prospective validation cohorts, with sufficient data for calculation of sensitivity (SENS), specificity (SPEC), negative and positive predictive value (NPV and PPV), total predictive accuracy (TPA) and 95% confidence intervals (CI). We performed meta-analysis using precision-weighted fixed- and random-effects models using studies that evaluated STRATIFY among geriatric rehabilitation inpatients.

MEASUREMENTS: key features of the patient population, setting, study design and numbers of falls/fallers were abstracted. SENS, SPEC, PPV, NPV, TPA and 95% CI were reported for each cohort. Pooled values and chi-squared test for homogeneity were reported for a meta-analysis of studies conducted in geriatric rehabilitation settings.

RESULTS: forty-one papers were identified by the search, with eight ultimately eligible for inclusion in the systematic review and four for inclusion in the meta-analysis. The predictive validity of STRATIFY, using a random-effects model, for the four studies involving geriatric patients was as follows: SENS 67.2 (95% CI 60.8, 73.6), SPEC 51.2 (95% CI 43.0, 59.3), PPV 23.1 (95% CI 14.9, 31.2), NPV 86.5 (95% CI 78.4, 94.6). The Q((3)) test for homogeneity was not significant for SENS at P = 0.36, but it was significant at P < 0.01 for SPEC, PPV and NPV. TPA across all four studies varied from 43.2 to 60.0.

CONCLUSION: the current study reveals a relatively high NPV and low PPV and TPA for the STRATIFY instrument, suggesting that it may not be optimal for identifying high-risk individuals for fall prevention. Further, the study demonstrates that population and setting affect STRATIFY performance.

Measurement of fall-related psychological constructs among independent-living older adults: a review of the research literature.
Moore DS, Ellis R.
Affiliation: Louisiana State University, Baton Rouge, LA, USA. (Copyright © 2008, Taylor and Francis Group)

ABSTRACT
OBJECTIVES: Falls and the fall-related psychological concerns associated with these events pose a serious public health problem among aging adults. The measurement of fall-related psychological concerns can serve as important endpoints for fall prevention programs, yet there is some confusion regarding the best method of defining and measuring fall-related psychological constructs. Consequently, greater attention should be devoted to investigating fall-related psychological constructs and their measurement. Therefore, the purpose of this paper was to review the published research literature on the measurement of fall-related psychological constructs among independent-living older adults.

METHOD: Electronic searches of PubMed, EBSCO, Academic Search Premier, PsycINFO, CINAHL and online library catalogs were conducted using search terms including but not limited to 'fear of falling', 'falls efficacy', 'fall-related self-efficacy', 'balance confidence', 'fall-related psychological outcome(s)' and 'independent-living'.

RESULTS: Each of these constructs is unique, yet instruments are often employed to measure constructs other than those the instruments were designed to assess. Inconsistencies were also revealed both within and across studies in terms of providing evidence of validity for these instruments.

CONCLUSION: Fall-related psychological constructs, although similar in nature, are unique constructs and should be measured as such.
WEBSITES and REPORTS
New on the NSW Department of Health Website

Health of the People of NSW, Report of the Chief Health Officer, 2008: Summary Report

This report includes Falls-related (65+) Hospital Separation data for each Area Health Service (page7) as well as by year from 1997 to 2007 (page 15).

Report on Adult Health in NSW 2007

This report provides information on health behaviours, health status, access to health services, and social capital for people aged 16 years and over. Data for the report were collected from February to December 2007. Information is presented in age categories including 65-74 and 75+.

New at the Australian Institute of Health and Welfare

Review and evaluation about Australian information about primary health care: a focus on general practice.

This report presents the results of a critical evaluation of Australian data collections relating to general practice services. It describes the usefulness of these data collections for meeting priority information needs, and recommends strategies to address data gaps and limitations. The report also outlines methods currently being used to collect general practice data electronically and establish options for further investigation.
New manual for health professionals to run fall prevention programs with older people

Stepping On
Building confidence and reducing falls
A community-based program for older people

by Lindy Clemson and Megan Swann
2nd edition
Sydney University Press 2008
ISBN 9781920987555
RRP $84.95

The *Stepping On* program offers older people a way of reducing falls and at the same time increasing self confidence in situations where they are at risk of falling. The program incorporates a group setting plus individualized follow-up. It covers a range of issues, including falls and risk, strength and balance exercises, home hazards, safe footwear, vision and falls, safety in public places, community mobility, coping after a fall, and understanding how to initiate a medication review.

This manual is for occupational therapists, physical therapists, and other health professionals and health promotion workers in the area of falls-prevention with older people. The manual describes how to plan, prepare, and run the program.

*Stepping On* provides:
- A step-by-step guide to running the seven-week (2 hours per week) group program
- Essential background information for understanding the conceptual underpinning of the program, the group process and all the key falls prevention areas
- A guide to useful resources
- Handouts for group participants
- Ideas on recruitment and evaluation.

*Stepping On* reduced falls by 31% in a randomised trial published in the *Journal of the American Geriatrics Society* (September 2004).

Available from Sydney University Press

cost: A$84.95 plus postage

email: sales@sup.usyd.edu.au

phone: 02 9036 9958 or fax: 02 9114 0620
NSW FALLS PREVENTION NETWORK BACKGROUND
The NSW Falls Prevention Network has existed since 1993. The role of this network has grown since its inception and now includes:

- Meetings for discussion of falls related issues;
- Dissemination of research findings both local and international;
- Sharing resources developed and exploration of opportunities to combine resources in joint initiatives;
- Encouragement of collaborative projects and research;
- To act as a group to influence policy;
- To liaise with NSW Health to provide information on current State/Commonwealth issues in relation to falls and
- Maintenance of resources pertinent to the field

The main purpose of the network is to share knowledge, expertise, and resources on falls injury prevention for older people.

The NSW Falls Prevention Network activities are part of the implementation of the NSW Falls Prevention Policy funded by the NSW Department of Health.

SHARE YOUR NEWS AND INFORMATION/IDEAS ON FALLS PREVENTION
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.

Send your information to e.vance@powmri.edu.au

THE NETWORK LISTSERV
It is great to see the increased activity on the listserv and want to continue to promote this. To send an item to the listserv where all members of the network can see it, send an email to:

nsw-falls-network@lists.health.nsw.gov.au

You need to be a subscriber to the listserv to send an email that will be distributed to all members of the on the listserv. Remember to put a short description in the subject line.

Recently some posts to the listserv have bounced due to email address changes in the area health services, you need to re-subscribe with your new e-mail address and unsubscribe from your old address following the Join the Network instructions as shown on this page.

JOINING THE NETWORK
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 subscribe nsw-falls-network on the next line type end
- 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 the above address and in the body of the message write unsubscribe nsw-falls-network on the next line type end

If you have any problems contact Esther at e.vance@powmri.edu.au.