The Centre for Policy on Ageing’s selected readings are drawn from material held on the CPA Ageinfo database of ageing and older age.

All items are held by the CPA library and information service, which is open to the public by appointment.

Photocopies may be ordered where copyright laws permit.
2019

The fall risk assessment and correlated factors among Iranians' older adults; by Leili Salehi, Elham Akhondzadeh, Sara Esmaelzadeh (et al.).: Emerald, 2019, pp 27-36.

Working with Older People, vol 23, no 1, 2019, pp 27-36.

Falling has been distinguished as a leading cause of fatal and non-fatal injuries among older people, but there is a lack of information regarding falls risk factors in developing countries. This paper investigates the risk of falling and correlated factors in community-dwelling older people. A cross-sectional study which used a multi-sectional questionnaire was performed on a stratified random sample of 280 older people in Karaj, Iran. Adults aged 60+, living independently, able to walk independently and safely, with no cognition problems, and speaking in Persian were enrolled in the study. Mean age of participants was 69.55 ±8.8, and 51 per cent were female. Exclusion criteria were residing in assisted living facility, or being unwilling to participate. Several statistical tests including logistic regression analysis were used to analyse the data. The results showed that there are significant differences between low-, medium- and high-risk groups regarding age, marital status, diabetes, blood pressure and osteoarthritis (p<0.05). The main predictors of a higher chance of falling were age (OR=1.61; 95% CI 1.025-1.097), marital status (OR=1.485; 95% CI 1.170-1.279), vision acuity (OR=1.603; 95% CI 1.297-2.223), activities of daily living (OR=2.10; 95% CI 1.047-3.859), heart disease (OR=1.448; 95% CI 1.268-1.728), osteoarthritis (OR=1.238; 95% CI 1.711-2.127), falling history (OR=1.026; 95% CI 1.015-1.089) and medication (OR=5.975; 95% CI 1.525-23.412). better understanding of falling risk factors can lead to the implementation of effective preventive interventions, thus reducing public health expenditure, and improving quality of life. (RH)

ISSN: 13663666
From: http://www.emeraldinsight.com/loi/wwop

2018

Age-dependent physiological changes, medicines and sex-influenced types of falls; by Snezana Kustljen, Sachin Perera, Elisabeth Manias.: Taylor and Francis, May-June 2018, pp 221-231.


There is a lack of research investigating the impact of health status, gender, polypharmacy and age on different types of falls. Examples include: unspecified falls on the same level; mechanical falls on the same level relating to slipping, tripping or loosing balance; falls from a chair or vehicle; falls as a result of syncope; falls from steps or stairs; and falls from a height. The authors investigated various parameters relating to falls, including age-dependent physiological changes, regular medicine use and different types of falls experienced. The study included a random sample of 250 older patients, which comprised 10% of the total number of patients (n = 2,492), admitted to an Australian large-scale academic hospital following a fall. Patients' medicine and illness history, types of falls, and liver, renal and sensory function were collected. Univariate analysis was used to examine associations between the type of fall and explanatory variables, followed by multinominal logistic regression analysis. There was a significant association between the type of fall and gender, p = 0.01, and between the type of fall and regular medicine use, p = 0.002. The multinominal logistic regression analysis revealed that the full model, which considered all explanatory variables together, was statistically significant, p < 0.001. The strongest predictor of all types of falls except fall from a height, was female sex, followed by regular medicine use. Based on these findings, the medicine prescribing practice in this older population must be carefully reviewed. (RH)

ISSN: 0361073X
From: http://www.tandfonline.com

The association between physical activity and social isolation in community-dwelling older adults; by Lauren M Robins, Keith D Hill, Caroline F Finch (et al.).: Taylor and Francis, February 2018, pp 175-182.


There is growing need to determine effective interventions addressing social isolation among older adults. This study aimed to determine whether a relationship exists between physical activity (recreational and/or household-based) and social isolation. An examination was conducted in order to determine whether group- or home-based falls prevention exercises are associated with social isolation. A cross-sectional analysis of telephone survey data was used to investigate relationships between physical activity, health, age, gender, living arrangements, ethnicity and participation in group- or home-based falls prevention exercises on social isolation. Univariable and multivariable ordered logistic regression analyses were conducted. Factors found to be significantly associated with reduced social isolation in multivariable analysis included living with a partner/spouse, reporting better general health, higher levels of household-based physical activity and feeling less downhearted or depressed. Being more socially isolated was associated with symptoms of depression and a diagnosis of
Congestive heart failure. These findings suggest that household-based physical activity is related to social isolation in community-dwelling older adults. Further research is required to determine the nature of this relationship and to investigate the impact of group physical activity interventions on social isolation. (JL)

ISSN: 13607863


Hospitalised older adults are at high risk of falling. The HELPER system is a ceiling-mounted fall detection system that sends an alert to a smartphone when a fall is detected. This article describes the performance of the HELPER system, which was pilot tested in a geriatric mental health hospital. The system's accuracy in detecting falls was measured against the hospital records documenting falls. Following the pilot test, nurses were interviewed regarding their perceptions of this technology. In this study the HELPER system missed one documented fall but detected four falls that were not documented. Although sensitivity of the system was high, numerous false alarms brought down positive predictive value. Interviews with nurses provided valuable insights based on the operation of the technology in a real environment; these and other lessons learned will be particularly valuable to engineers developing this and other health and social care technologies. (JL)

ISSN: 07149808


The authors examine those factors which contribute to decision-making on participation and adherence to exercise to reduce falls by older people with recent falls history. Nineteen participants (9 Australian-born and 10 Italian-born; median age 78 years) who had one or more falls in the past 12 months and completed a community-based physiotherapy course were recruited. Semi-structured interviews were conducted, transcribed and thematically analysed. The findings show that family, client-clinician relationship and personal experience affected decision-making and exercise participation. The findings revealed that a number of factors influenced older people's decision and uptake of falls prevention exercise, including personal goals, recommendations from health care providers, and life experiences. There were some differences between the Italian-born and the Australian-born participants, including that most Australian-born participants adhere to exercise regimens in order to avoid requiring nursing home care, whereas Italian-born individuals did not wish to be dependent on their children. An understanding of personal motivating and de-motivating factors for exercise for falls prevention are important for health and social care professionals to consider in engaging some groups of older people. (RH)

ISSN: 01924788


The aim of this study was to conduct a systematic review of published fall risk assessment tools (FRATs) tested for predictive validity among older adults in long-term care (LTC). A literature search was conducted using five databases. Only studies reporting on sensitivity and specificity values, conducted in LTC on populations primarily aged over 60 years, were considered. 15 papers were included and three different categories of FRATs emerged: multifactorial assessment tools, functional mobility assessments and algorithms. Several FRATs showed moderate-to-good predictive validity and reliability, with the Modified Fall Assessment Tool and the Peninsula Health Falls Risk Assessment Tool (PHFRAT) also demonstrating good feasibility. Evidence for the best choice of FRAT for use in LTC remains limited. Further research is warranted for the PHFRAT, recommended for use in LTC by best practice guidelines, before its establishment as the tool of choice for these clinical settings. (JL)

ISSN: 14406381

From: http://wileyonlinelibrary.com/journal/ajag
Canadian Journal on Aging, vol 37, no 1, March 2018, pp 84-94.
Compliant flooring aims to prevent fall-related injuries among older people at risk in long-term care, but uptake of compliant flooring in this setting is limited. This study reports on a one-day stakeholder symposium to identify advantages and disadvantages of implementing compliant flooring in long-term care and the most pressing directions for future research from the perspective of key stakeholders. 23 stakeholders representing health care, industry and research attended the symposium. Attendees believed that the most important advantages of compliant flooring were reducing injuries in residents who had fallen, potential benefits to care staff and potential increases in quality of life for residents. Attendees perceived the most significant disadvantages of compliant flooring were financial considerations, lack of research evidence and challenges with installation. Attendees indicated a need for additional research on cost-effectiveness and clinical effectiveness. While stakeholders perceived compliant flooring to add value to long-term care, there were found to be significant informational and financial barriers to uptake. (JL)
ISSN: 07149808
From : http://www.cambridge.org/cjg

Quality in Ageing and Older Adults, vol 19, no 4, 2018, pp 261-272.
A six-month randomised controlled trial (RCT) was conducted to examine the impact of a home-based nutrition and exercise intervention on functional capacity to prevent falls among rural older Canadians. The paper aims to discuss this issue. Men and women (n=134), aged 60+ were assigned to one of four groups: exercise, nutrition, exercise-nutrition and control. Participants in the exercise and exercise-nutrition groups performed a home-based exercise programme (Home Support Exercise Program), and the nutrition and exercise-nutrition groups received a liquid nutritional supplement (Ensurer) for six months. Participants were assessed at baseline and six months on functional mobility, balance, flexibility and endurance. There were significant group differences over time for functional reach and the Timed Up and Go test. Significant differences existed between exercise and nutrition-exercise, and exercise and nutrition groups, respectively. Overall, the exercise group out-performed the other groups in terms of functional capacity and psychological well-being. Improvement in functional health among rural older people is achievable through the delivery of a home-based intervention focusing on exercise and nutrition. The study also shows that the effective delivery of an intervention to successfully address a fundamental and persistent problem is possible using existing resources; however, it requires a commitment of focus and energy over considerable time. The approach and findings promotes seniors to age in place in a rural context. It shows the feasibility of delivering a practical intervention in the rural setting through the health care infrastructure of home care. Apart from the rural context, the study was innovative at many levels. Specifically, this intervention addressed a significant health issue (functional capacity, falls and injuries), involved frail rural older people (who are often hard to reach through community-based programmes), provided a feasible intervention (multiple component exercise programme), used existing infrastructure (e.g. home care), and espoused community development principles (active involvement of community partners, researchers, and trainees). In addition, the study had built-in mechanisms for monitoring and support through the involvement of home service workers who received training. This approach created a strong research to practice connection (another innovation) and was critical for the credibility of the investigation, as well as the sustainability of the intervention. Another innovation was the inclusion of a population health perspective as the study framework. From the population health perspective, this research addressed several determinants of health in rural and urban areas that include: physical environment (intervention within people's homes and rural context), social environment and social support networks (through existing infrastructures of home support workers), health services (availability of health promotion strategy delivered through the health care system) and personal health practices and coping skills (exercise). (RH)
ISSN: 14717794
From : http://www.emeraldinsight.com/loi/qaoa

Key issues to consider and innovative ideas on fall prevention in the geriatric department of a teaching hospital; by Daniel K Y Chan, Cathie Sherrington, Vasi Naganathan (et al).: Wiley, June 2018, pp 140-143.
Falls in hospital are common and up to 70% result in injury, leading to increased length of stay and accounting for 10% of patient safety-related deaths. Yet high quality evidence guiding best practice is lacking. Fall prevention strategies have worked in some trials but not in others. Differences in study setting (acute, subacute, rehabilitation) and sampling of patients (cognitively intact or impaired) may explain the difference in results.

Falls pose a major threat to the wellbeing and quality of life of older people. They can result in fractures and other injuries, disability and fear and can trigger a decline in physical function and loss of autonomy. This article synthesises recent published findings on fall risk and mobility assessments and fall prevention interventions and considers how this field of research may evolve in the future. Fall risk topics include the utility of remote monitoring using wearable sensors and recent work investigating brain activation and gait adaptability. New approaches for exercise for fall prevention including dual-task training, cognitive-motor training with exergames and reactive step training are discussed. Additional fall prevention strategies considered include the prevention of falls in older people with dementia and Parkinson's disease, drugs for fall prevention and safe flooring for preventing fall-related injuries. The review discusses how these new initiatives and technologies have potential for effective fall prevention and improved quality of life. It concludes by emphasising the need for a continued focus on translation of evidence into practice including robust effectiveness evaluations so that resources can be appropriately targeted into the future. (JL)

ISSN: 00020729
From: https://academic.oup.com/ageing


Compliant flooring can be broadly defined as "any floor or floor covering with some level of shock absorbency, which includes carpet as well as more purposely designed flooring for fall injury prevention". This Canadian study explored barriers and facilitators to adoption of compliant flooring as a fall injury prevention strategy within long-term care, from the perspective of 18 long-term care senior managers. In-depth interviews were recorded, transcribed, and analysed using the Framework Method. The most important organisational facilitators to adoption were potential for injury prevention and long-term care staff's openness to change. The most important organisational barriers to adoption were negative effects to long-term care staff and financial considerations (i.e., cost and lack of funding). The most important general organisational considerations were uncertainties about clinical effectiveness, effects on long-term care staff, and flooring performance. Overall, compliant flooring was viewed positively for long-term care. The findings also suggest an opportunity for knowledge translation to inform long-term care senior managers about the existing evidence on compliant flooring. (RH)

ISSN: 02763893
From: http://www.tandfonline.com


Health and Social Care in the Community, vol 26, no 6, November 2018, pp 970-978.

Personal Alert Victoria (PAV) is a personal monitoring service funded by the government of Victoria, Australia. The service provides daily monitoring and emergency response services to frail older people who are at risk of falling. This paper explored perceptions and experiences of falls among PAV clients and identified barriers and enablers to engagement in falls prevention interventions. Data were collected via 12 semistructured telephone interviews and a client survey with 46 open-ended and closed-ended questions. Descriptive statistics and thematic analysis was guided by the COM-B model (capability, opportunity, and motivation) for behaviour change. The interview and survey explored experiences of falls, falls risk factors, access and participation in falls prevention interventions, access to health and support services and experiences using the PAV service. Capability barriers identified included poor health, lack of time, low health literacy and perceived high intensity of exercise classes. Opportunity barriers were lack of transport, high cost and long waiting times for falls prevention interventions. Motivation barriers were the belief that falls are inevitable and a perceived lack of relevance of falls prevention interventions. Enablers identified were a focus on broader health and wellbeing.
benefits (capability), hospitalisations or rehabilitation that incorporates falls prevention in recovery (opportunity), and raising awareness of falls risk (motivation). Findings suggest that further research is required to inform the tailoring of positive health messages to improve the uptake of falls prevention interventions by PAV clients. (JL)

ISSN: 09660410
From: http://www.onlinelibrary.wiley.com/journal/hsc

Risk factors for falls among older Aboriginal and Torres Strait Islander people in urban and regional communities; by Caroline Lukaszyk, Kylie Radford, Kim Delbaere (et al.).: Wiley, June 2018, pp 113-119.

The objective of this study was to examine associations between fall risk factors identified previously in other populations and falls among Aboriginal people aged 60 years and older, living in New South Wales, Australia. Interviews were conducted with older Aboriginal people in five urban and regional communities. Associations between past falls and 22 fall predictor variables were examined using linear and multiple regression analyses. Of the 336 participants, 80 people (24%) reported at least one fall in the past year, and 34 (10%) reported two or more falls. Participants had an increased fall risk if they were female; used three or more medications; had arthritis, macular degeneration, depression, history of stroke; were unable to do their own housework; or were unable to do their own shopping. In all, falls were experienced by one-quarter of study participants. Fall risk factors identified for older Aboriginal people appear to be similar to those identified in the general population. Understanding of fall risk factors may assist with the development of appropriate and effective community-led fall prevention programmes. (JL)
ISSN: 14406381
From: http://www.wileyonlinelibrary.com/journal/ajag

Serious psychological distress, sex, and falls among the elderly; by Thanh V Tran, Phu T Phan.: Taylor and Francis, January-February 2018, pp 75-84.

Serious psychological distress and falls are two major public health problems for older people. This study tests the hypothesis that, although serious psychological distress can increase the risks of falls in older people, it tends to affect older women more than older men. The study uses data from the 2011 California Health Survey Interviews (CHIS). The authors extracted a sample of 13,153 respondents aged 65+ (8,087 females and 5,066 males). They tested both unadjusted and adjusted interaction effects using bivariate and multivariate logistic regression analysis. Older women with serious psychological distress had the greatest likelihood of falls, as compared to men with serious psychological distress and men and women without serious psychological distress. With respect to the covariates, limitations of physical activity and poor self-rated health status, Asian race, and older age were more likely to be associated with falls. This study provides further information on gender disparities in falling among older people, such that serious psychological distress has a greater impact on falls for older women than older men. Thus, the authors’ findings suggest that mental health services and interventions can be useful in preventing falls for older women. (RH)
ISSN: 08952841
From: http://www.tandfonline.com


Personal response systems are used to support frail older people and people with disabilities to live independently in their own homes. This paper described the patterns, characteristics and outcomes of Personal Alert Victoria (PAV) clients who experienced a fall. Personal Alert Victoria (PAV) is a personal monitoring service funded by the government of Victoria, Australia. The service provides daily monitoring and emergency response services to frail older people who are at risk of falling. This study examined the current falls prevention referral practices of assessors who determined whether an older person would benefit from a personal response system. Deidentified data on clients from the PAV service provider from 2012 to 2014 were linked to routine data maintained by the Department of Health and Human Services in Victoria. Falls prevention referral practices of assessors were examined using an online survey. Personal response systems were most frequently activated because of a fall in this group of older people. No demographic or clinical factors differentiated PAV clients who activated the system because of a fall compared to those who did not, despite a significant increase in the rate of falls-related system activations and hospitalisation between 2012 and 2014. Assessors believed that PAV clients were at increased risk of falls and frequently recommended falls prevention interventions such as strength and balance interventions in order to address this risk. This study provides an insight into the issue of
falls among PAV clients which can help guide the tailoring of falls prevention interventions that can be integrated within existing service models. (JL)
ISSN: 09660410
From: http://www.wileyonlinelibrary.com/journal/hsc

2017

The fifth wave of the English Longitudinal Study of Ageing (ELSA, 2010/11) measured levels of pride in the self-completion questionnaire with this question: “During the past 30 days, to what degree did you feel proud?” The authors tested whether high levels of reported pride are associated with subsequent falls, using data for the 4964 participants available for follow-up at wave 7 of ELSA (2014/15). Their findings did not support the contention that “pride comes before a fall”. Unadjusted estimates indicate that the odds of reported falls were significantly lower for people with high pride levels, compared with those who had low pride (odds ratio 0.69, 95% confidence interval 0.58 to 0.81, P<0.001). This association remained after adjusting for age, sex, household wealth, and history of falls (odds ratio 0.81, 0.68 to 0.97, P<0.05). It was partially attenuated after further adjustment for mobility problems, eyesight problems, the presence of a limiting long-term illness, a diagnosis of arthritis or osteoporosis, medication use, cognitive function, and pain and depression (odds ratio 0.86, 0.72 to 1.03, P<0.1). Because the confidence interval exceeded 1 in the final model, it remains possible that pride may not be an independent predictor of falls when known risk factors are considered. People with moderate pride did not have lower odds of having fallen than those with low pride in adjusted models. Participants lost to follow-up did not differ from those retained in terms of key variables, and weighting the analyses to account for selective attrition did not produce different results. People with higher levels of pride seem to be at lower risk of falling, so that these findings suggest that pride may actually be a protective factor against falling in older adults, rather than an antecedent. (RH)
From: http://www.bmj.com/content/bmj/359/bmj.j5451.full.pdf

Dance therapy is a physical activity that can lead to balance improvement in older adults. This study aimed to evaluate the effects of dance therapy on balance and risk of falls in older women. Twenty-four older Polish women (mean age 66.4 years) attended dance sessions for three months. Pre-test and post-tests were completed using the Postural Stability Test, the Limits of Stability Test, and the Fall Risk Test M-CTSIB. Results showed the Limits of Stability Test was significantly higher (17.5%) after dance classes. Regular use of dance therapy shows promise in improving balance, by increasing the limits of stability. (RH)
ISSN: 08952841
From: http://www.tandfonline.com

A key issue for care home staff is how to balance the needs of people with dementia: while we need to keep residents safe, they also need to have fun. This study aimed to evaluate whether existing provision of recreational activities would reduce the incidence of falls and aggressive behaviour in people with dementia. Thirty-seven residents of a UK dementia care home were provided with recreational activities on some evenings and no activities on on other evenings. Activities included music sessions, board games, singing, entertainment and light exercise. This article reports on the results, which were unexpected, as they suggested that provision of recreational activities for for care home residents with dementia may increase the incidence of falls and had no effect on aggressive behaviour, contradicting previous findings. The authors conclude that while particular care should be taken with residents who become agitated by certain recreational activities or choose not to participate, may fall while staff are busy leading the group activity. (RH)
From: http://www.britishgerontology.org
Environmental and behavioral circumstances and consequences of falls in a senior living development; by Daejin Kim, Sherry Ahrentzen.: Taylor and Francis, July-September 2017, pp 286-301.
This article investigated the role of environmental and behavioural factors surrounding fall incidents in a senior living community in Florida offering three types of residential settings: independent living, assisted living, and memory support living. Using a mixed-methods approach, this research included both a retrospective analysis of fall reports and interviews with residents. The quantitative analysis showed falls in the bedroom and bathroom were more likely to happen between 12 am and 8 am. Falls in the bathroom were more likely to result in severe injuries compared to falls in other rooms. The qualitative analysis identified three types of fall-related activity (transfer, ambulation, standing), and five behavioural factors surrounding fall incidents (transferring, slipping, misjudged behaviour, tripping, health issues). (RH)
ISSN: 02763893
From: http://tandf.com

Evaluation of rewind yoga on physical function outcomes in older adults: a preliminary study; by Andrew I Miller, Cheryl Der Ananian, Carrie Hensley, Heidi Ungar.: Taylor and Francis, 2017, pp 291-300.
Yoga is growing in popularity and has the potential to improve strength, flexibility, mobility, and balance in older adults. However, few yoga courses tailored to the unique needs of older adults exist. Rewind Yoga was created to address this gap, and a pilot study was conducted to evaluate the effectiveness of Rewind Yoga on physical function parameters. Healthy, older adults (n = 16, age 65+) residing in a retirement community in Arizona enrolled in a study examining the effect of Rewind Yoga on strength, flexibility, dynamic balance and endurance as measured by the Senior Fitness Test. A single group design (n = 14) with three repeated measures (baseline, 6 weeks, and 12 weeks) was used. Results from repeated measures analysis of variance indicated significant (P < 0.05) improvements in all measures of the Senior Fitness Test at 6 and 12 weeks. Rewind Yoga appears to improve flexibility, strength, dynamic balance and muscular endurance in older adults. (RH)
ISSN: 01924788
From: http://www.tandfonline.com

Falls prevention: access and acceptability to all?; by Jill Manthorpe, Jo Moriarty.: Emerald, 2017, pp 72-81.
The equalities dimension of falls prevention services are examined in light of the Equality Act 2010 and its protected characteristics. Research and policy are discussed in light of the Act and of public services' duties to be aware of their responsibilities. This is an update of the authors' 'Diversity in older people and access to services: an evidence review' undertaken for Age UK in 2012. It finds that the research on falls prevention services does not always collect data on service users, and services do not always collect data about their users that would enable them to build a picture of their users in line with the Equality Act 2010. Services and commissioners need to be able to demonstrate that the services funded by the public purse are accessible, acceptable and appropriate to the UK's increasingly diverse older population. This paper describes some of the existing resources and research papers that contain elements of attention to the protected characteristics of the Equality Act 2010. (RH)
ISSN: 13663666
From: www.emeraldinsight.com/loi/wwop

This short commentary describes the impact that an ageing population is having on the nature of major trauma seen in emergency departments. The proportion of major trauma victims who are older people is rapidly increasing and a fall from standing is now the most common mechanism of injury in major trauma. Potential barriers to effective care of this patient group are highlighted, including: a lack of consensus regarding triage criteria; potentially misleading physiological parameters within triage criteria; non-linear patient presentations and diagnostic nihilism. It is argued that the complex ongoing care and rehabilitation needs of older patients with major trauma may be best met through Comprehensive Geriatric Assessment (CGA). Furthermore, the use of frailty screening tools may facilitate more informed early decision-making in relation to treatment interventions in older trauma victims. The authors call for geriatric medicine and emergency medicine departments to collaborate. They highlight that equipping urgent care staff with the basic competencies necessary to initiate CGA should be a priority, and geriatricians have a key role to play in delivery of such educational interventions. (JL)
Ageing and Society, vol 37, no 6, July 2017, pp 1179-1196.
Translation of falls prevention evidence into practice is problematic. Understanding older adults' views about falls prevention information could enhance delivery of falls prevention, resulting in better engagement and uptake of recommended activities. This Australian study examines the views and preferences of community-dwelling older adults about seeking and receiving falls prevention information. A community forum using a modified World Café approach was conducted. Participants discussed five topic areas in small groups, under the guidance of table facilitators. Perspectives were captured on paper. Thematic analysis was conducted to identify factors that influence participants' engagement and uptake of information. Seventy-three older adults participated in the forum covering wide-ranging preferences around falls prevention information. Personal experience was considered the key influence on an older adult's decision to initiate seeking information. While health professionals were often approached, alternative sources such as public libraries, peer educators and seniors' organisations were also favoured as credible sources of information. Older adults proposed falls prevention information should be delivered with a positive tone, coupled with highly valued qualities of respect, empathy and time to listen to foster motivation to engage in recommended activities. Consumer-focused practical strategies were proposed to potentially improve future design, communication and dissemination of falls prevention information. This improvement could enhance engagement of messages and subsequent uptake of falls prevention recommended strategies. (RH)
ISSN: 0144686X
From: cambridge.org/aso

Life satisfaction among home-dwelling older people who have experienced falls and have declined subjective health; by Edit Fonad, Britt Ebbeskog.: Taylor and Francis, January-March 2017, pp 57-73.
This study investigated the reported life situations of home-dwelling Swedish older people who have experienced falls and have declining subjective health. A mixed method design was used, consisting of a quantitative study comprising questionnaires completed by 434 home-dwelling older people, and a qualitative study comprising 30 interviews. The findings showed that declining physical function combined with limited health status was associated with falling. Despite limited physical condition, participants experienced well-being and life satisfaction in daily living. Insight obtained from these findings deepens our understanding of fallers, and may provide a basis for future research leading to improvements within health care. (RH)
ISSN: 02763893
From: http://www.tandfonline.com

The present study aimed to test the hypothesis that post-traumatic stress disorder (PTSD) can appear after a fall. It then tried to identify predictive factors for its development in older fallers. The study performed a systematic literature review and meta-analyses of studies on PTSD post fall in older subjects. 177 indexed articles were identified, of which three had complete data on PTSD post-fall in older subjects. Only the odds ratio of the association between history of fall and occurrence of PTSD was significant. The trend in the results, even though limited, revealed two groups of subjects: frail subjects that are at risk of developing PTSD and subjects who seem to be resistant to its development. A clear description of these two groups may help identify the population at risk for delayed PTSD who could then benefit from dedicated treatment. (JL)
ISSN: 08856230
From: www.orangejournal.org

This study looked at awareness of and adherence to six national fall prevention recommendations among 1,050 community-dwelling older adults in Ottawa, Canada. Although 76% of respondents agreed that falling was a concern and preventable, fewer perceived susceptibility to falling (63%). Respondents had high awareness that home modifications and physical activity can prevent falls. Reported modifications included grab bars (50%),
night lights (44%) and raised toilet seats (19%). Half met aerobic activity recommendations; 38% met strength recommendations. Respondents had lower awareness that an annual medication review, annual eye and physical examination and daily vitamin D supplementation could reduce fall risk. However reported annual medication review (79%) and eye examination (75%) was high. Nearly half met recommendations for vitamin D intake. These findings suggest a gap in knowledge of awareness and adherence to national recommendations, highlighting the ones that may require attention from those who work to prevent falls. (JL)
ISSN: 0714-9808
From: http://www.cambridge.org/cjg

Men's perspectives on fall risk and fall prevention following participation in a group-based programme conducted at Men's Sheds, Australia; by Jeannine L M Liddle ... (et al).: Wiley, May 2017, pp 1118-1126.
Research on older men's views regarding fall prevention is limited. The purpose of this qualitative study was to explore the experiences and perspectives of older men regarding fall risk and prevention so that fall prevention programmes could better engage older men. Eleven men who had taken part in a group-based fall prevention programme called Stepping On conducted at Men's Sheds in Sydney, Australia, participated in semi-structured interviews during June and July 2015 which were audio-recorded and transcribed. Data were coded and analysed using constant comparative methods. Over-arching theoretical categories were developed into a conceptual framework linking programme context and content with effects of programme participation on men. Men's Sheds facilitated participation in the programme by being inclusive, male-friendly places, where Stepping On was programmed into regular activities and was conducted in an enjoyable, supportive atmosphere. Programme content challenged participants to think differently about themselves and their personal fall risk, and provided practical options to address fall risk. Two major themes were identified: adjusting the mindset where men adopted a more cautious mindset paying greater attention to potential fall risks, being careful, concentrating and slowing down; and changing the ways where men acted purposefully on environmental hazards at home and incorporated fall prevention exercises into their routine schedules. Practitioners can engage and support older men to address falls by better understanding men's perspectives on personal fall risk and motivations for action. (JL)
ISSN: 09660410
From: wileyonlinelibrary.com/journal/hsc

A structured and systematic care process for preventive work, aimed to reduce falls, pressure ulcers and malnutrition among older people, has been developed in Sweden. The process involves risk assessment, team-based interventions and evaluation of results. Since development, this structured work process has become web-based and has been implemented in a national quality registry called 'Senior Alert' and used countrywide. The aim of this study was to describe nursing staff's experience of preventive work by using the structured preventive care process as outlined by Senior Alert. Eight focus group interviews were conducted during 2015 including staff from nursing homes and home-based nursing care in three municipalities. The interview material was subjected to qualitative content analysis. In this study, both positive and negative opinions were expressed about the process. The systematic and structured work flow seemed to only partly facilitate care providers to improve care quality by making better clinical assessments, performing team-based planned interventions and learning from results. Participants described lack of reliability in the assessments and varying opinions about the structure. Furthermore organisational structures limited the preventive work. (JL)
ISSN: 09660410
From: wileyonlinelibrary.com/journal/hsc

2016

Acceptance of seniors towards automatic in home fall detection devices; by Florian Feldwieser, Michael Marchollek, Markus Meis ... (et al).: Emerald, 2016, pp 178-186.
Falls are one of the highest-cost factors of healthcare within the older population. Various approaches for automatic fall detection exist. However little is known about older people's acceptance of these systems. The purpose of this paper was to investigate the acceptance of automatic fall detection devices as well as the technological commitment and the health status in community-dwelling adults with a predefined risk of falling. Older people with a risk of falling were equipped with either an accelerometer or an accelerometer with an
additional visual and optical fall detection system in a sub-group of the study population for a period of eight weeks. Pre- and post-study questionnaires were used to assess attitudes and acceptance towards the technology. In total, 14 subjects with a mean age of 75.1 years completed the study. Acceptance toward all sensors was high and subjects were confident in their ability to handle technology. Medical assessments showed only very mild physical and no mental impairments. Measures that assured subjects' privacy protection were welcomed. Sensor technology was as unobtrusive as possible. Privacy protection and uncomplicated use of the fall detection equipment led to high acceptance by older people with high-technical commitment and good health status. Issues to further improve acceptance could be identified. Future research on different populations is necessary. (JL)
ISSN: 17549450
From: www.emeraldgrouppublishing.com/jat.htm

Fear of falling is an important problem among older adults, even those with relatively low rates of objective fall risk who are often overlooked as targets for intervention. In this study the authors developed and pilot tested a new intervention known as Activity, Balance, Learning, and Exposure (ABLE) in a sample of 10 older adults with excessive fear of falling. The ABLE intervention integrated exposure therapy and cognitive restructuring with a home safety evaluation and an exercise programme and was conducted in the home. In this pilot project ABLE was jointly conducted by a physical therapist and a psychologist with expertise in geriatric anxiety disorders. The intervention was feasible and acceptable and resulted in decreases in fear and activity avoidance for most participants. One participant experienced an injurious fall. A number of important lessons were learned resulting in modifications to the inclusion criteria, assessments and intervention over the course of this pilot study. Results suggest that ABLE has promise for treating excessive fear of falling in older adults and support testing the intervention in a larger randomised trial. (JL)
ISSN: 08856230
From: www.orangejournal.org

Are older adults receiving evidence-based advice to prevent falls post-discharge from hospital?; by Den-Ching A Lee, Ted Brown, Rene Stolwyk ... (et al.).: Sage, June 2016, pp 448-463.
Older adults experience a high rate of falls when they transition to community living following discharge from hospital. The objective of this study was to describe the proportion of older adults who could recall having discussed falls and falls prevention strategies with a health professional within six months following discharge from hospital. A secondary objective was to describe the recalled content of those discussions and the strategies recommended and/or undertaken to prevent falls. Study participants were a prospective cohort study of 155 older adults surveyed prior to discharge from hospital, of whom 123 were followed up at month 3 and/or month 6 in the community post-discharge. Participants were recruited from three Australian hospitals. Questionnaires captured predictive factors that may predispose to a fall and data related to the objectives being examined. Of the 123 participants who had at least one follow-up, 54 reported discussing falls with a health professional (49 discussed falls with their general practitioners). Of the 54 participants who recalled having a discussion, 33 commented that they were asked whether they had fallen over. Only six discussed interventions to prevent falls. However 44 stated that they attempted a total of 53 strategies to prevent falls post-discharge. Of these strategies, 40 had an absence of evidence of effectiveness, 11 had evidence of effectiveness, while two had either evidence of no benefit/harm or evidence of harm for the prevention of falls. In all, 53 participants reported falling post-discharge but 42% of them did not recall discussing falls with their health professional. There is considerable scope for health professionals, especially general practitioners, to increase the frequency with which they discuss falls and evidence-based interventions to prevent falls in this population. (JL)
ISSN: 00178969
From: hej.sagepub.com

Eating and drinking problems among patients with dementia are often overlooked in hospitals. The author provides two perspectives highlighting this issue. The first is professional, as a qualified nurse and specialist in dementia care, and the second is personal as a carer, whose mother had Alzheimer's disease (AD) and was admitted to hospital after a fall. (RH)


Optimal mobility is fundamental for healthy ageing and quality of life. This study is part of a cross-sectional population-based study of 85-year-old people residing in Linköping municipality, Sweden. The purpose was to describe 85-year-old people's health-related quality of life (HRQoL) in relation to mobility and fall risk, while adjusting for gender and body mass index (BMI). Data collection included a postal questionnaire, a home visit and a reception visit. HRQoL was assessed with EQ-5D-3L, mobility with the Timed Up and Go test (TUG) and fall risk with the Downton Fall Risk Index (DFRI). All those who completed the DFRI, TUG and EQ-5D-3L were included in the present study (N = 327). Lower HRQoL was associated with longer time taken to complete TUG and higher fall risk in both genders but not with body mass index. Women had higher risk of falling, took a longer time to complete TUG, and reported less physical activity compared with men. Health-care professionals should address mobility capacity and fall risk in order to maintain older people's quality of life. This is of utmost importance, especially for older women, because impaired mobility, high risk of falling and occurrence of pain are common among women, and related to lower HRQoL. (RH)

ISSN: 0144686X

From : journals.cambridge.org/aso

Quality of Austrian and Dutch falls-prevention information: a comparative descriptive study; by Daniela Schoberer, Donja M Mijnarends, Monica Fleiedner ... (et al).: Sage, March 2016, pp 220-234.


The aim of this study was to evaluate and compare the quality of written patient information material available in Austrian and Dutch hospitals and nursing homes pertaining to falls prevention. Written patient information material was independently evaluated by two assessors using the 36-item Ensuring Quality Information for Patients (EQIP) scale with regard to content, structure and identification data. EQIP global scores were calculated and country- and institution-specific (hospitals and nursing homes) differences were analysed. The written patient information material available in Dutch hospitals had a significantly higher EQIP mean score than that in Austrian hospitals. The difference in EQIP global score between the countries was not significant for the written patient information material in nursing homes. Sub-scale analyses indicated that Dutch institutions reached significantly higher mean values in the global scores for content and structure than Austrian ones. Although Dutch written patient information material pertaining to falls prevention was of higher quality than that in Austria, both countries suffered from shortcomings, especially with regard to content and identification data. Authors of written patient information material face a great challenge in taking consumer involvement and evidence-based criteria into account. (JL)

ISSN: 00178969

From : hej.sagepub.com

Seniors' narratives of asking (and not asking) for help after a fall: implications for identity; by Patricia A Miller, Christina Sinding, Lauren E Griffiths (et al).: Cambridge University Press, February 2016, pp 240-258.


Falls among older people living in the community constitute a major public health concern, because of the potential morbidity and mortality associated with the fall. This study examined the informal care networks accessed by Canadian seniors who had visited the Emergency Department as a result of a fall, and considered the implications of the processes of asking for and receiving help on the older person's identity. Four themes were identified. The first was valuing independence. The remaining three themes concerned threats to the participants' identities linked to the need to ask for or receive help from family and friends. They were: becoming indebted, feeling devalued, and becoming a burden to others. Seniors were noted to excuse family members from the expectation of helping because of work and family commitments, and illness. Participants described a mutually beneficial relationship with friends, wherein both parties valued their independence and provided assistance to the other when needed. Their comments suggested that assistance was viewed as a good to be traded among peers. The authors' findings indicate that older people value their independence and may not seek help even when it appears to be available, if asking threatens valued identities. Health and social care practitioners and policy makers responsible for planning and delivery of services should take this into account, in order to ensure the best possible care for injured older people living in the community. (RH)
Yoga-based exercise improves balance and mobility in people aged 60 and over: a systematic review and meta-analysis; by Sabrina Youkhana, Catherine M Dean, Moa Wolff ... (et al.).: Oxford University Press, January 2016, pp 21-29.


One-third of community-dwelling older adults fall annually. Exercise that challenges balance is proven to prevent falls. In this study the authors conducted a systematic review with meta-analysis to determine the impact of yoga-based exercise on balance and physical mobility in people aged 60 years and above. Searches for relevant trials were conducted on a range of electronic databases from inception to February 2015. Trials were included if they evaluated the effect of physical yoga (excluding meditation and breathing exercises alone) on balance in people aged 60 years and above. The study extracted data on balance and the secondary outcome of physical mobility. Standardised mean differences and 95% confidence intervals (CI) were calculated using random-effects models. Methodological quality of trials was assessed using the 10-point Physiotherapy Evidence Database (PEDro) Scale. Six trials of relatively high methodological quality, totalling 307 participants, were identified and had data that could be included in a meta-analysis. Overall, yoga interventions had a small effect on balance performance and a medium effect on physical mobility. These findings showed that yoga interventions resulted in small improvements in balance and medium improvements in physical mobility in people aged 60 years and above. Further research is required to determine whether yoga-related improvements in balance and mobility translate to prevention of falls in older people. (JL)

ISSN: 00020729
From: www.ageing.oxfordjournals.org

2015


The vast majority of older people in Sweden live in private homes in their communities for as long as possible. Poor health and a high risk of falls are very common among this group. This cross-sectional study investigates the association between falls and general health, appetite, dental health, and the use of multiple medications among home-dwelling men and women aged 75 ears and over. Data were collected between October 2008 and March 2009 using a postal questionnaire. A total of 1243 people participated in the questionnaire survey (74% response rate), of which 1193 were included in the analysis. The majority of participants were women (n = 738, 62%). Falls in the previous 12-month period were reported by 434 (36%) participants. Most fallers (n = 276, 64%) were women. The majority of the fallers lived in a flat (n = 250, 58%). Poor health (aOR: 1.61; CI: 1.34-1.95), poor dental health (aOR: 1.22; CI: 1.07-1.39), and the use of four or more types of medication daily (aOR: 1.13; CI: 1.03-1.25) were significantly associated with falls in all participants. Poor dental health was found irrespective of whether living in a flat (aOR: 1.23; CI: 1.04-1.46) or living in a house (aOR: 1.28; CI: 1.02-1.61), and both were significantly associated with falls. The use of more than four different types of medication daily (aOR: 1.25; CI: 1.11-1.41) was associated with falls for those living in a flat. The results highlight that falls are associated with poor general health, poor dental health and the use of four or more types of medication daily. Health professionals should provide health promotion education, and investigate dental health and risk factors for oral disease. Likewise, medical and clinical practices of physicians and community care nurses should include assessing the risk of falling, and treatment that predisposes falls. (RH)

ISSN: 09660410
From: wileyonlinelibrary.com/journals/hsc


The present study aimed to explore general practitioners’ (GPs’) perceptions about their use of Chronic Disease Management (CDM) items to access allied health interventions, in particular occupational therapy and physiotherapy, with the purpose of preventing falls, as well as to identify GP support needs with regard to development of partnerships with local allied health practitioners. A qualitative study was conducted in the Sydney metropolitan area through individual semistructured interviews with eight GPs, which were recorded, transcribed and analysed thematically. Themes included (i) difficulties and opportunities associated with
multidisciplinary care; (ii) potential for CDM items to be used to support falls prevention strategies; and (iii) the user-friendliness of the CDM items. Effective coordination of multidisciplinary care between GPs and allied health professionals was desired but difficult to achieve through the CDM system, making translation of falls prevention evidence into clinical practice challenging. Further education on falls prevention and CDM item modification is needed to bridge this gap. (JL)  
ISSN: 14406381  
From: wileyonlinelibrary.com/journal/ajag

Learning to use a novel CBT intervention to reduce fear of falling in older people; by Charlotte Dunkel.: British Psychological Society, April 2015, pp 42-46.  
Faculty of the Psychology of Older People (FPOP) Newsletter, no 130, April 2015, pp 42-46.  
The STRIDE (Strategies to incRease confidence, inDependence and Energy) research project at Newcastle-upon-Tyne Hospitals NHS Foundation Trust is looking at measures that will help the half of the community-living older people who experience anxiety and fear of falling (FoF). The author describes the study's development of an eight-week cognitive behavioural therapy (CBT) based intervention, and its training for, delivery by and supervision of health care assistants (HCAs) and clinical trials associates (CTAs). (RH)  
ISSN: 13603671  
From: www.bps.org.uk

The meaning of the experience of anticipating falling; by James A Shaw, Denise M Connelly, Carol L McWilliam.: Cambridge University Press, October 2015, pp 1839-1863.  
Ageing and Society, vol 35, no 9, October 2015, pp 1839-1863.  
Falling in later life continues to be a critical issue in gerontology research, health professional practice and ageing health policy. However, much research in the area of fall risk and fall prevention neglects the meaning of the experiences of older people themselves. This humanistic interpretive phenomenological study explored the meaning of the experience of anticipating falling from the perspective of older people, in order to foster a more person-focused approach to fall risk assessment and fall prevention. Individual semi-structured interviews were conducted with nine participants over the age of 65 living independently in the community in a medium-sized Canadian city. Follow-up interviews with two key informants were completed to inform the emerging interpretations. For older participants living in the community, the experience of anticipating falling meant confronting their embodied lived-identity in the context of ageing. Experiential learning shaped how participants understood the meaning of falling, which constituted tacit knowledge of vulnerability and anxiety with respect to falling. Findings emphasise the importance of critically reflecting on the social experience of anticipating falling in order to develop effective and relevant fall prevention interventions, programmes and policies. A lifeworld-led approach to fall risk assessment and fall prevention resonates with these findings, and may encourage health-care providers to adopt a sustained focus on embodied lived identity and quality of life when engaging older people in fall prevention activities. (RH)  
ISSN: 0144686X  
From: journals.cambridge.org/aso

People are getting lost a little bit: systemic factors that contribute to falls in community-dwelling octogenarians; by Dorothy Gotzmeister, Aleksandra A Zecovic, Lisa Klilnger, Alan Salmoni.: Cambridge University Press, September 2015, pp 397-410.  
Octogenarians living in the community are the fastest-growing demographic group in Canada. Simultaneously, they have the highest prevalence of falls, and are at nine times greater risk of injury due to a fall. A systems approach is essential to our understanding on how to improve the safety of octogenarians' ageing in place. Understanding how societal factors interact and affect the older adult can help care custodians to identify and remove safety deficts that bring about falls. This study aimed to identify system-wide factors that contribute to falls in community-dwelling octogenarians. Eight falls were investigated using the systemic falls investigative method. Participants ranged in age from 83-90 years. Across-case analyses identified 247 contributing factors, grouped within four distinct themes: (a) everyday living has become risky; (b) supervision limitations; (c) health care system disconnects; and (d) poor fall risk identification and follow-up. This qualitative study provides systemic insights into how and why falls occur in community-dwelling octogenarians. (RH)  
ISSN: 07149808  
From: journals.cambridge.org/cjg
2014


An expanded framework to determine physical activity and falls risks among diverse older adults; by Maria Kosma. Research on Aging, vol 26, no 1, January 2014, pp 95-114.

heterogeneity, subgroup meta-analyses and a priori subgroup meta-analyses were performed for primary outcomes, where appropriate. Primary outcomes were incidence of falls, falls-related injury and healthcare use due to falls. Secondary outcomes were mechanisms of behavioural change in falls prevention. Qualitative data were analysed by narrative review. Falls prevention programmes that contained patient education were effective in reducing fall rates amongst hospital inpatients and post-discharge populations (risk ratio [RR] 0.77, 95% confidence interval [CI] 0.69 to 0.87), and in reducing the proportion of patients who became fallers in hospital (RR 0.78, 95% CI 0.7 to 0.87). Patient education generally increased knowledge about falls and awareness of prevention strategies. The uptake of strategies may be dependent on the activities being targeted. Falls prevention education should be recommended for older adults while in hospital and following discharge. Falls education programmes should consider the use of intensive face-to-face patient education with multimedia materials in preference to provision of written information alone or brief amounts of interpersonal contact. (RH)

ISSN: 00178969

From: hej.sagepub.com


Ageing and Society, vol 34, no 1, January 2014, pp 67-89.

Having a fall and then lying on the floor for an hour or more is known as a 'long lie', which is associated with serious injury and an elevated risk of admission to hospital, long-term care and death. Personal call alarms are designed to prevent long lies, although little is known about their use. Using cross-sectional data from the English Longitudinal Study on Ageing (ELSA), this study investigated the proportion of self-reported users of personal call alarms among 3,091 community-dwelling adults aged 65+ who reported difficulties of mobility or activities of daily living. The characteristics of users were then explored through logistic regressions comparing those living alone with those living with others. 180 people (6%) self-reported using a personal call alarm. Multivariate regression found the following to significantly predict personal call alarm use among both those living alone with those living with others: greater difficulty with activities of daily living (ADLs) or instrumental activities of daily living (IADLs); older age; and for those living with others only, lower score on the quality of life sub-scale for control. Personal call alarm use may be markedly lower than the 30% annual incidence of falls among community-dwelling older people. Better understanding is needed of the reasons for low usage, even amongst those at highest risk of falls for whom such alarms are most likely to be beneficial. (RH)

ISSN: 0144686X

From: journals.cambridge.org/aso

Which factors are associated with fear of falling in community-dwelling older people?; by Arun Kumar, Hannah Carpenter, Richard Morris (et al).: Oxford University Press, January 2014, pp 76-84.

Age and Ageing, vol 42, no 1, January 2014, pp 76-84.

Fear of falling (FOF) is common in older people and associated with serious physical and psychosocial consequences. Identifying those at risk of FOF can help target interventions to both prevent falls and reduce FOF. A cross-sectional study of 1,088 community-dwelling older people aged 65 years living in London, Nottingham and Derby aimed to identify factors associated with FOF. Data were collected on socio-demographic characteristics, self-perceived health, exercise, risk factors for falls, FOF (Short FES-I), and functional measures. Logistic regression models of increasing complexity identified factors associated with FOF. High FOF (Short FES-I =11) was reported by 19%. A simpler model (socio-demographic + falls risk factors) correctly classified as many observations (82%) as a more complex model (socio-demographic + falls risk factors + functional measures) with similar sensitivity and specificity values in both models. There were significantly raised odds of FOF in the simpler model with the following factors: unable to rise from a chair of knee height (OR: 7.39), lower household income (OR: 4.58), using a walking aid (OR: 4.32), difficulty in using public transport (OR: 4.02), poorer physical health (OR: 2.85), black/minority ethnic group (OR: 2.42), self-reported balance problems (OR: 2.17), lower educational level (OR: 2.01), and a higher BMI (OR: 1.06). A range of factors identify those with FOF. A simpler model performs as well as a more complex model containing functional assessments and could be used in primary care to identify those at risk of FOF, who could benefit from falls prevention interventions. (RH)

ISSN: 00020729

From: www.ageing.oxfordjournals.org
Alcohol, hospital admissions, and falls in older adults: a longitudinal evaluation; by Robert J Tait, Davina J French, Richard A Burns ... (et al).: Cambridge University Press, June 2013, pp 901-912.

International Psychogeriatrics, vol 25, no 6, June 2013, pp 901-912.

There are limited data on the impacts of alcohol use in older adults. The present study aimed to evaluate self-reported hospital admissions and falls against current Australian alcohol consumption guidelines. The study conducted a longitudinal analysis of data from five Australian cohort studies. The study comprised 16,785 people aged 65 years or older at baseline. Alcohol consumption was categorized using Australian guidelines in standard (10g) drinks per day as `abstinent`, `low-risk`, `long-term risk` or `short-term risk`. Separate generalised estimating equations for men and women, controlling for key demographic and health variables (depression, diabetes, circulatory and musculoskeletal conditions) were used to examine the relationship of alcohol consumption with hospitalisation and falls against a reference category of low-risk consumption. Most participants were in the low (10,369, 62%) or abstinent (5,488, 33%) categories. Among women all alcohol groups had greater odds of admission than low-risk users; among men, only the abstinent group had increased odds. For both genders depression, diabetes, circulatory and musculoskeletal conditions all increased the odds of admission. For both genders the unadjusted model showed that abstainers had increased odds of falling, with depression, diabetes, and for women, musculoskeletal conditions also associated with falls in the adjusted model. These outcomes suggest that older women in particular could benefit from targeted alcohol consumption messages or interventions. In relation to falls, other health conditions appear better targets for intervention than alcohol use. (JL)

ISSN: 10416102
From: journals.cambridge.org/ipg

Central nervous system medications and falls risk in men aged 60-75 years: the Study on Male Osteoporosis and Aging (SOMA); by Tahir Masud, Morten Frost, Jesper Ryg ... (et al).: Oxford University Press, January 2013, pp 121-124.

Age and Ageing, vol 42, no 1, January 2013, pp 121-124.

Drugs acting on the central nervous system (CNS) increase falls risk. Most data on CNS drugs and falls are in women/mixed-sex populations. This study assessed the relationship between CNS drugs and falls in men aged 60-75 years. A questionnaire was sent to randomly selected Danish men aged 60-75 years. Cross-sectional data on CNS drugs and falls in the previous year were available for 4,696 men. Logistic regression investigated the relationship between falls and CNS drugs. The median age of the sample was 66.3 years and 21.7% of participants were fallers. The following were associated with fallers: opiates, other analgesics, antiepileptics, antidepressants and anxiolytics/hypnotics. Effects of opiates interacted strongly and significantly with age, with a marked association with falls in the older half of the subjects only. No significant associations were found between antipsychotics and fallers. Selective serotonin reuptake inhibitors and tricyclics were significantly associated with fallers. The authors conclude that several CNS drug classes are associated with an approximately two- to threefold increase risk of falls in men aged 60-75 years randomly selected from the population. Further longitudinal data are now required to confirm and further investigate the role of CNS drugs in falls causation in men. (JL)

ISSN: 00020729


In 2007 the National Patient Safety Agency (NPSA) published `Slips trips and falls in hospital` and `Using bedrails safely and effectively`. This observational study aimed to identify changes in local policies in hospitals in England and Wales following these publications. Policies in place during 2006 and 2009 were requested from 50 randomly selected acute hospital trusts and their content was categorised by a single reviewer using defined criteria. 37 trusts responded. Trusts with an inpatient falls prevention policy increased from 65 to 100%, the use of unrefereenced numerical falls risk assessments reduced from 50 to 19%, and trusts with a bedrail policy increased from 49 to 89%. It was concerning to find that by 2009 advice on clinical checks after a fall was available in only 51% of trusts, and only 46% of trust policies included specific guidance on avoiding bedrail entrapment gaps. The observed changes in policy content were likely to have been influenced not only by the NPSA publications but also by contemporaneous publications from the Royal College of Physicians' National Audit of Falls and Bone Health, and the Medicines and Healthcare Products Regulatory Agency. Most areas of local policy indicated substantial improvement but further improvements are required. (JL)
Age and Ageing, vol 42, no 5, September 2013, pp 641-645.

Hospital falls place a substantial burden on healthcare systems. There has been limited research into the use of hospital flooring as an intervention against fall-related injuries. The objective of this study was to assess the cost-effectiveness of shock-absorbing flooring compared with standard hospital flooring in hospital wards for older people. A cost-utility analysis was undertaken drawing upon data collected in a pilot cluster randomised controlled trial and the wider literature. The trial included eight hospital sites across England. Four sites installed shock-absorbing flooring in one bay, and four maintained their standard flooring. Falls and resulting injuries and treatment were reported by hospital staff. Data on destination of discharge were collected. Patients were followed up at three months and further resource use data were collected. Health-related quality of life was assessed, allowing quality-adjusted life years (QALYs) to be estimated. The incremental cost-effectiveness ratio of the shock-absorbing flooring was assessed compared with the standard hospital flooring. In the base case, the shock-absorbing flooring was cost saving, but generated QALY losses due to an increase in the faller rate reported in the intervention arm. Scenario analysis showed that if the shock-absorbing flooring did not increase the faller rate it was likely to represent a dominant economic strategy generating cost savings and QALY gains. The study concludes that the shock-absorbing flooring intervention has the potential to be cost-effective but further research is required on whether the intervention flooring results in a higher faller rate than standard flooring. (JL)

ISSN: 00020729
From: www.ageing.oxfordjournals.org

Do continence management strategies reduce falls?: a systematic review; by Frances A Batchelor, Briony Dow, May–Ann Low.: Wiley Blackwell, December 2013, pp 211-216.

Urinary incontinence is associated with increased fall risk, and fall prevention programmes include recommendations to manage continence as one component of fall reduction. However the evidence to support this recommendation is unclear. The aim of this study was to identify continence management interventions that are effective in decreasing falls. A systematic review of the literature was conducted. Studies were included if they evaluated the effect of any type of continence management strategy on falls in older adults. The included studies were assessed for quality, and data relating to participants, interventions and outcomes were extracted by two independent reviewers. Four articles met the inclusion criteria. Two studies were randomised controlled trials, one a retrospective cohort study and one an uncontrolled intervention study. Interventions included pharmacological agents, a toileting regime combined with physical activity and an individualised continence programme. Only the study evaluating the combination of physical activity and prompted voiding found an effect on falls. It is surprising that there has been so little research into continence management interventions that include fall outcomes. A toileting regime combined with physical activity may reduce falls in residential care. There is a need for further studies investigating the impact of continence management on falls. (JL)

ISSN: 14406381
From: wileyonlinelibrary.com/journal/ajag


The extent to which fall prevention exercise interventions for older community-dwelling people are effective in preventing different types of fall-related injuries was examined. The authors searched electronic databases (PubMed, the Cochrane Library, Embase, and CINAHL) and reference lists of included studies and relevant reviews from inception to July 2013. They selected randomised controlled trials (RCTs) of fall prevention exercise interventions that targeted older (>60 years) community-dwelling people and provided quantitative data on injurious falls, serious falls, or fall related fractures. Based on a systematic review of the case definitions used in the selected studies, the authors grouped the definitions of injurious falls into more homogeneous categories, to allow comparisons of results across studies and the pooling of data. For each study, they extracted or calculated the rate ratio of injurious falls. Depending on the available data, a given study could contribute data relevant to one or more categories of injurious falls. A pooled rate ratio was estimated for each category of
injurious falls based on random effects models. 17 trials involving 4305 participants were eligible for meta-analysis. Four categories of falls were identified: all injurious falls, falls resulting in medical care, severe injurious falls, and falls resulting in fractures. Exercise had a significant effect in all categories, with pooled estimates of the rate ratios of 0.63 (95% confidence interval 0.51 to 0.77, 10 trials) for all injurious falls, 0.70 (0.54 to 0.92, 8 trials) for falls resulting in medical care, 0.57 (0.36 to 0.90, 7 trials) for severe injurious falls, and 0.39 (0.22 to 0.66, 6 trials) for falls resulting in fractures, but significant heterogeneity was observed between studies of all injurious falls (I²=50%, P=0.04). The authors conclude that exercise programmes designed to prevent falls in older adults also seem to prevent injuries caused by falls, including the most severe ones. Such programmes also reduce the rate of falls leading to medical care. (OFFPRINT.) (RH)

From: http://www.bmj.com

Epidemiology of ambulance responses to older people who have fallen in New South Wales, Australia; by Paul M Simpson ... (et al.). Wiley Blackwell, September 2013, pp 171-176.


The aim of this study was to quantify the size and scope of the operational burden for a large ambulance service arising from older people who had fallen and to describe this population. The authors carried out a retrospective analysis of ambulance records from New South Wales, Australia for emergency calls classified as 'falls' in the period from July 2008 to June 2009. There were 42,331 responses to people aged 65 years or older, constituting 5.1% of total emergency workload. The median age of patients was 83 (interquartile range 76-87) and 62% were women. The transport rate was 76%. Transport to hospital was more likely during the day and on weekends. Findings of the study showed that falls by older people constitute approximately 5% of all emergency responses, of which one quarter are not transported to emergency department (ED) after paramedic assessment. Increasing the sophistication of ambulance dispatch processes to older people who have fallen and continuing with the development of new models of care aimed at decreasing unnecessary transports to the EDs should be a priority when planning ambulance service delivery for older people who have fallen. (JL)

ISSN: 14406381

From: http://www.wileyonlinelibrary.com/journal/ajag

Exploring the system-wide costs of falls in older people in Torbay; by Yang Tian, James Thompson, David Buck (et al), Kings Fund. London: Kings Fund, 2013, 12 pp.

One in three people aged 65+, and half of those aged over 80, fall at least once a year. Falls cost the NHS more than £2 billion per year. With the number of people aged 65+ predicted to increase by 2 million by 2021, the costs incurred of treating patients across health, community and social care services are set to rise further. This paper uses Torbay's unique patient-level linked data set to explore the NHS and social care costs of the care pathway for older people in the 12 months before and after being admitted to hospital as a result of a fall. On average, these costs for each patient who fell were almost four times as much in the 12 months after admission for a fall as the costs of the admission itself. Over the 12 months that followed admission for falls, costs were 70% higher than in the 12 months before the fall. Comparing the 12 months before and after a fall, the most dramatic increase was in community care costs (160%), compared to a 37% increase in social care costs and a 35% increase in acute hospital care costs. While falls patients in this study accounted for slightly more than 1% of Torbay's over-65 population, in the 12 months that followed a fall, spending on their care accounted for 4% of the whole annual inpatient acute hospital spending, and 4% of the whole local adult social care budget. The authors discuss how linked health and social care data can be used to inform policy and practice. The findings strengthen the case for an integrated response for frail older people at risk of falls. However, to allow comparison of different models of care, other localities need to emulate Torbay's recording and analysis of whole-system data at the patient level - which, to the authors' knowledge, is the first time that such detailed analysis of the costs in the health and social care system has been carried out in relation to falls patients in England. (RH)


Fall determinants in older long-term care residents with dementia: a systematic review; by Tobias F Kropelin, Jacques C L Neyens, Ruud J G Halfens ... (et al).: Cambridge University Press, April 2013, pp 549-563.

International Psychogeriatrics, vol 25, no 4, April 2013, pp 549-563.

Persons with dementia are 2-3 times more likely to fall compared to persons without dementia. In long-term care settings the dementia prevalence is highest. Therefore older long-term care residents with dementia can be considered a high risk group for falls. The purpose of this study was to identify fall determinants among older long-term care residents with dementia or cognitively impaired persons in long-term care by conducting a systematic literature review. 8 studies were found which met the inclusion criteria. Of these 3 were excluded from detailed analysis because of insufficient quality. Use of psychotropic drugs, a `fair or poor' general health,
Falls and fractures: a literature review and Welsh perspective; by Gareth Morgan.: Emerald, 2013, pp 170-178.
Working with Older People, vol 17, no 4, 2013, pp 170-178.
This paper draws from the published literature on falls and fractures, and combines this with the professional experience of the author in Wales. Epidemiological calculations are presented using readily available data and summarised diagrammatically. The paper has three main elements. The first is to present some of the epidemiological considerations of this situation. The second is to describe some of the risk factors, and, by extension, the interventions that might be helpful. Third, the paper describes a case study on the Welsh situation. Falls and fractures constitute a significant public health challenge, due to the number of individuals affected and the seriousness of impacts. Risk factors, such as vitamin D deficiency, are open to modification and interventions such as exercise are also helpful. In Wales, policy could be geared to improving the response to this, such as an expansion of cost saving fracture liaison services. (RH)
ISSN: 13663666
From : www.emeraldinsight.com/wwop.htm

Globally, falls in older people are a leading cause of injury-related mortality and morbidity. Cognitive impairment is a well-known risk factor for falls in this population group. While there is now a large body of evidence to support effective interventions for falls reduction across care settings, very little is known about interventions in the vulnerable but increasing population of cognitively impaired community-dwelling older people. The aim of this systematic review was to investigate interventions designed to reduce falls in community-dwelling, cognitively impaired older adults. A literature search of databases was conducted to identify original research published in English, which met predefined inclusion and exclusion criteria for effective (non-pharmacological) falls prevention interventions in cognitively impaired community-dwelling people over 65 years of age. Data from the selected papers were extracted into tables and analysed according to study characteristics, measures, results and quality. The review identified 11 studies providing data from 1,928 participants. Interventions included exercise, health assessment and management of risk, multi-component and cognitive behavioural programmes and hip protectors as falls risk reduction strategies. Seven of the selected studies showed an intervention effect in decreasing falls risk, however only two of these showed a significant improvement in physical performance measures specifically in a cognitively impaired group. The diversity of interventions, study designs, populations and quality of the studies which met inclusion criteria resulted in conflicting evidence and inconclusive results for falls prevention interventions in this highly complex population. (JL)
ISSN: 10416102
From : journals.cambridge.org/ipg

A framework for the assessment of community exercise programmes: a tool to assist in modifying programmes to help reduce falls risk factors; by Richard C Franklin, Jackie Boehm, Jemma King ... (et al).: Oxford University Press, July 2013, pp 536-540.
Age and Ageing, vol 42, no 4, July 2013, pp 536-540.
Falls in older adults are a significant global public health challenge. Exercise interventions which incorporate the physiological components of balance and strength can reduce falls risk. However the optimum qualities, such as type, duration and frequency of engagement in these exercise programmes, are yet to be established. This research project aimed to develop and test a tool for the assessment of physiological criteria in community exercise programmes and to determine which programmes may be modified to help reduce falls risk factors. This initial phase of the research and the aim of this paper were to describe the development of the Community Exercise Program Assessment Matrix (the Matrix). A review of the falls literature identified an existing classification system, which guided the development of the Matrix. An expert panel assisted in reviewing, testing and ongoing refinement of the Matrix. The Matrix contained a range of physiological and cognitive
components as well as other items which captured non-physiological components. After testing some modifications were made to the Matrix to aid usage. This paper outlined the development of the Matrix, which is intended to be used for the recording of physiological components (related to falls prevention) of an exercise programme in terms of type, duration and frequency. The next step is to use the Matrix in conjunction with pre-and post-physiological testing of participants to assess a range of exercise programmes and changes in participant physiological functioning. (JL)

ISSN: 00020729
From: www.ageing.oxfordjournals.org

In-patient falls: what can we learn from incident reports?; by Sue Hignett, Gina Sands, Paula Griffiths.: Oxford University Press, July 2013, pp 527-531.
Age and Ageing, vol 42, no 4, July 2013, pp 527-531.
Previous research has offered useful insights on contributory factors for in-patient falls in hospitals but has been limited due to the small data set of free-text analysis. The aim of the present study was to analyse three years' national incident data (2005-08) to further explore the contributory factors of in-patient falls. A total of 20,036 reports (15% sample) were analysed by coding the free-text data field. Contributory risk factors were compared with the whole sample and explored with the Chi-squared and Fisher's exact tests. Data were reported about the degree of harm (100% of reports), (un)witnessed status of fall (78%), location (47%), patient activity (27%), physical impairment/frailty (9.5%) and cognitive impairment/confusion (9.2%). Less than 0.1% of reports provided data about dizziness, illness, vision/hearing, and medicines. Overall patients were more likely to be harmed when away from the bed space, mobilising/walking and by falling from the bed when not intending to leave the bed. This analysis explored incident reports at a level of detail not previously achieved. It identified significant contributory factors for fall locations and activities associated with physical and cognitive characteristics. (JL)

ISSN: 00020729
From: www.ageing.oxfordjournals.org

The present study aimed to determine whether older community-dwelling people underestimate their own perceived chance of falling compared with that of other older people (comparative optimism), and whether a history of falls is associated with comparative optimism. A sample of 389 community-dwelling South Australians aged 65 years or more completed a computer-assisted telephone interview about their 12-month fall history, their perceived chance of falling and their rating of other older people's chance of falling. Respondents were found to be comparatively optimistic about their chance of falling. However those who had fallen in the last 12 months had a lower comparative optimism score. As older people were comparatively optimistic about their likelihood of falling, they might not find fall prevention messages relevant. When older people present with a fall, clinicians could provide fall prevention information consistent with how older people present themselves. (JL)

ISSN: 14406381
From: http://www.wileyonlinelibrary.com/journals/ajag

Pilot cluster randomised controlled trial of flooring to reduce injuries from falls in wards for older people; by Amy Kim Drahota, Derek Ward, Julie E Udell ... (et al.).: Oxford University Press, September 2013, pp 633-640.
Age and Ageing, vol 42, no 5, September 2013, pp 633-640.
Falls disproportionately affect older people who are at increased risk of falls and injury. This pilot study investigated the effectiveness of shock-absorbing flooring for fall-related injuries in wards for frail older people. A non-blinded cluster randomised trial was conducted in eight hospitals in England between April 2010 and August 2011. Each site allocated one bay as the ‘study area’, which was randomised via computer to intervention (8.3-mm thick Tarkett Omnisports EXCEL) or control (2-mm standard in situ flooring). Sites had an intervention period of one year. Anybody admitted to the study area was eligible. The primary outcome was the fall-related injury rate. Secondary outcomes were injury severity, fall rate and adverse events. During the intervention period 226 participants were recruited to each group (219 and 223 were analysed in the intervention and control group respectively). Of 35 falls (31 fallers) in the intervention group, 22.9% were injurious, compared with 42.4% of 33 falls (22 fallers) in the control group. There were no moderate or major injuries in the intervention group and six in the control group. Staff at intervention sites raised concerns about pushing equipment, documenting one pulled back. The study concludes that future research should assess shock-
absorbing flooring with better ‘push/pull’ properties and explore increased faller risk. It is estimated that a future trial would need 33,480 to 52,840 person bed-days per arm. (JL)
ISSN: 00020729
From: www.ageing.oxfordjournals.org

Systematic review of non-transportation rates and outcomes for older people who have fallen after ambulance service call-out; by A Stefanie Mikolaizak ... (et al.).: Wiley Blackwell. September 2013, pp 147-157.
The purpose of the present study, based in New South Wales, was to review the literature on older people who had fallen but were not transported to an emergency department (ED) after the emergency ambulance response. The aim was to summarise the evidence in relation to (i) non-transportation rates, (ii) outcomes following non-transportation, and (iii) outcomes from alternative care pathways for non-transported older people who had fallen. Electronic databases and reference lists of included studies (up to December 2011) were systematically searched. Studies were eligible if they included data on non-transportation rates, information on outcomes or alternate care pathways for older people who had fallen. Twelve studies were included. Non-transportation rates following a fall ranged from 11% to 56%. Up to 49% of non-transported people who had fallen had unplanned health care contact within 28 days of the initial incident. Attendance by specially trained paramedics and individualised multifactorial interventions significantly reduced adverse events including subsequent falls, emergency ambulance calls, emergency department attendance and hospital admission. Limited but promising evidence shows that appropriate interventions can improve health outcomes of non-transported older people who have fallen. Further studies are needed to explore alternate care pathways and promote more efficient use of health services. (JL)
ISSN: 14406381
From : http://www.wileyonlinelibrary.com/journal/ajag

Understanding contextual factors in falls in long-term care facilities; by Andrew Sixsmith, Ryan Woolrych, Rebecca Schoonop (et al.).: Emerald, 2013, pp 160-166.
Quality in Ageing and Older Adults, vol 14 no 3, 2013, pp 160-166.
Despite the growing area of research involving falls in residential care settings, the link between contextual and environmental factors in falls is poorly understood. This paper draws on research being undertaken in long-term care (LTC) in Metro Vancouver, Canada, with a particular focus on identifying contextual factors contributing to fall events. The paper presents the results of a qualitative observational analysis of video-captured data collected through a network of high-quality video systems in two LTC facilities. The research comprised workshops involving experienced researchers who reviewed six video sequences of fall events. The outcome of the workshops was a written narrative summarising the discussion, and researchers’ interpretation of fall sequences. The analysis indicates that there are a broad range of environmental, behavioural and situational factors that contribute to falls in LTC. This suggests that a limited conceptualisation of a fall as an outcome of the person’s impairment and environmental hazards fails to convey the complexity of potential contributory factors typical of most fall incidents. Broadening our understanding of falls provides the potential to make recommendations for falls prevention practice across multiple levels, including individual, social and organisational contexts. The paper evaluates the potential of video-based data in fall analysis, and points to the development of a case study approach to analysing fall incidents to capture the complex nature of contributory factors beyond research that focuses solely on intrinsic and extrinsic risk factors. (RH)
ISSN: 14717794
From : www.emeraldinsight.com/qaoa.htm

2012

Assessing and adapting the home environment to reduce falls and meet the changing capacity of older adults; by Jon Pynoos, Bernard A Steinman, Anna Quyen Do Nguyen, Matthew Bressette.
Falls are a serious problem for older adults and their families. This article describes research regarding fall risk assessment, risk reduction interventions and public policy aimed at reducing the risk of falls for older adults in home settings. Assessments for frail older adults should include observations of not only the physical environment but also the interactions among the environment, behaviour and physical functioning so that interventions are tailored to the specific situation of the individual. Home modification and technology can prove useful when designing interventions aimed at reducing fall risks. Problems such as cost, reluctance to adopt or implement suggestions and a lack of knowledge may present barriers to effective home modification. Programme and policy options for the future include improved training for service personnel who visit the homes of older adults, increased awareness of and coordination between programmes or interventions aimed at
reducing the risk of falls, new sources of funding and building more housing that follows the principles of universal design. (JL)
ISSN: 02763893
From: http://www.tandfonline.com

Balance improvements in independent-living elderly adults following a 12-week structured exercise program; by June A Kloubec, Mary Rozga, Megan Block.: Taylor and Francis, April-June 2012, pp 167-178.
The purpose of this study was to validate a comprehensive, functionally oriented exercise programme to document any improvement in activity levels and functional capacity (especially balance and reducing the risk of falls) in independent-living older adults. Data were collected for 12 weeks on 31 subjects (mean age 84.76 years) and 16 controls (mean age 86 years). The Berg Balance score in the subjects demonstrated a statistically significant improvement between 0 and 12 weeks. The controls showed no significant differences in any phase of the programme. Perception of balance also improved significantly for the subjects using the Activities-Specific Balance Scale (ABC Scale). (JL)
ISSN: 01924788
From: http://www.tandfonline.com

Community falls prevention for people who call an emergency ambulance after a fall: an economic evaluation alongside a randomised controlled trial; by Tracey H Sach, Philippa A Logan, Carol A C Coupland ... (et al).
Age and Ageing, vol 41, no 5, September 2012, pp 635-641.
The present study estimated the cost-effectiveness of a community falls prevention service compared with usual care from a National Health Service and personal social services perspective over a 12 month trial period. Participants were people over 60 years of age living at home or in residential care who had fallen and called an emergency ambulance but were not taken to hospital. A total of 137 participants (82 interventions and 75 controls) were used to perform the economic evaluation. The mean difference in NHS and personal social service costs between the groups was £-1,551 per patient over one year, comparing the intervention and control groups. The intervention patients experienced on average 5.34 fewer falls over 12 months. The mean difference in QALYs (Quality Adjusted Life Years) was 0.070 in favour of the intervention group. The authors conclude that the community falls prevention service was found to be cost-effective in this high-risk group. (JL)
ISSN: 00020729

Declining age-adjusted incidence of fall-induced injuries among elderly Finns; by Niina Korhonen, Seppo Niemi, Mika Palvanen ... (et al).
Age and Ageing, vol 41, no 1, January 2012, pp 75-79.
The study aimed to determine current trends in the number and age-adjusted incidence (per 100,000 persons) of fall-induced injuries among older adults in Finland by taking into account all persons 80 years of age or older who were admitted to Finnish hospitals for primary treatment of a first fall injury over the period 1970-2009. The number of fall-induced injuries in older Finns increased considerably during the study period: for women and men separately, these numbers were from 927 to 10,333 (an 11-fold rise), and from 212 to 3,258 (a 15-fold rise), respectively. In both genders, the age-adjusted incidence (per 100,000 persons) of fall-induced injuries increased until the late 1990s but decreased thereafter, the incidence being 2,729 (women) and 1,455 (men) in 1970, and 5,930 (women) and 4,240 (men) in 2009. Even with the current injury incidence the number of these injuries is expected to more than double by 2030. (JL)
ISSN: 00020729

Effect of vertebral fractures on function, quality of life and hospitalisation: the AGES-Reykjavik study; by Kristin Siggeirsdottr, Thor Aspelund, Brynjolfur Y Jonsson ... (et al).
Understanding the determinants of health burden after a fracture in ageing populations is important. The present study aimed to assess the effect of clinical vertebral and other osteoporotic fractures on function and the subsequent risk of hospitalisation. 5,764 men and women with a mean age of 77 years from the AGES (Age, Gene/Environment Susceptibility) Reykjavik study were examined between 2002 and 2006 and followed up for 5.4 years. Four groups with a verified fracture status were used: vertebral fractures, other osteoporotic fractures excluding vertebral, non-osteoporotic fractures and no fractures. All were compared and analysed for the effect on mobility, strength, Quality of Life (QoL), Activities of Daily Living (ADL), co-morbidity and hospitalisation. Worst performance on functional tests was in the vertebral fracture group for women and the other osteoporotic fractures group for men. Both vertebral and other osteoporotic fractures showed an increased
This review looked at literature from the last ten years regarding the development of fall detector technology. The authors also discussed the application and use of products designed to detect falls and alert help from end-user and health and social care staff perspectives. Findings from the review showed that while there is a wide variety of new technology applied to fall detectors in development, the range of technologies currently available through health and social services to users is limited. Health and social care staff appear to be less convinced of the benefits of fall detectors than end users. There was also a lack of robust evidence regarding different approaches to technology in the management and detection of falls. Users had mixed views regarding the use of fall detectors, with some people having concerns about privacy, lack of human contact, user-friendliness and appropriate training, whilst others clearly identified the benefits of detecting falls and raising an alert. The implications of these findings for practice are discussed.

Falls incidence underestimates the risk of fall-related injuries in older age groups: a comparison with the FARE (Falls Risk by Exposure); by Astrid Etman, Gert Jan Wijlhuizen, Marieke J G van Heuvelen ... (et al). Age and Ageing, vol 41, no 2, March 2012, pp 190-195.
Hitherto the risk of falls has been expressed as falls incidence (i.e. the number of falls or fallers per 100 person-years). However the risk of an accident or injury is the probability of having an accident or injury per unit of exposure. The FARE (Falls Risk by Exposure) is a measure for falls risk which incorporates physical activity as a measure of exposure. The objective of this study was to compare falls incidence and the FARE when expressing the age-related risk of fall-related injuries. Data of 21,020 community-dwelling men and women aged 55 years and above obtained from a national survey were used to compare incidence of fall-related injuries and the FARE. In order to compare both measures, risk ratios (of both outcome measures) were calculated for each age group. Hierarchical regression analyses were conducted to check the best model fit when expressing falls risk by age for the total study population and for men and women separately. Results showed that the risk of fall-related injuries, calculated on the basis of the incidence of fall-related injuries, showed a linear relationship with age, whereas the risk calculated on the basis of fall-related injuries corrected for exposure (Falls Risk by Exposure, FARE) showed an exponential relationship. Calculations on the basis of the incidence of fall-related injuries underestimated the risk of fall-related injuries in people aged 70 years and older, and especially in women. Calculation of the risk of fall-related injuries based on the incidence of these injuries underestimates the risk of such injuries relative to that calculated on the basis of the FARE. FARE-based calculations enable the early identification of people at high risk of falls and provide a more sensitive outcome measure for studies evaluating falls prevention interventions.

PCP conducted interviews with 500 older people in England, Scotland and Wales and asked them about their experiences of falls. 43% of those surveyed had fallen in the last five years, with 26 per cent of those living alone suffering a fall in the last year. Over one fifth (21%) of respondents who had suffered a fall in the last five years lost their confidence as a result. Of those aged over 80, 17% of those having a fall said it made them worried about leaving the house; and 5% of those aged 75 and over will not leave the house alone. This report considers the practical impact and challenges: the vulnerability of respondents; the severity and impact of the fall; the loss of independence; and the response of statutory services. The report describes the national policies and guidelines to prevent falls in England, Wales and Scotland.

From: http://www.emeraldinsight.com/products/journals/journals.htm?id=jat
Acute classification of older people into fallers and non-fallers is crucial for falls research, but largely dependent on the accuracy of fall reporting by the participants. The present study aimed to investigate the influence of memory in relation to fall reporting. Participants were 500 community-dwelling adults aged 70-90 years. Memory and executive functioning were assessed using the Rey Auditory Verbal Learning and Trail Making test, respectively. Fall risk was estimated using the physiological profile assessment (PPA). Falls were recorded prospectively for 12 months using monthly falls diaries and follow-up phone calls as required. Spearman correlations showed that falls were significantly correlated to worse executive functioning, worse PPA scores and better memory. People with better memory had an increased risk of being classified as single fallers and multiple fallers, but not when reported injuries were included as part of the definition. Good memory appears to influence the recording of falls in community-dwelling older people and likely reflects a reporting bias. In research studies, there may be value in using a combination of injurious falls and multiple falls when classifying people into faller and non-faller groups. (JL)

ISSN: 00020729

Impact and economic assessment of assistive technology in care homes in Norfolk, UK; by Saleh Al-Oraibi, Ric Fordham, Rod Lambert.
This study looked at whether new assistive technology (AT) systems in residential care homes reduced the number of falls and demands for formal health services. The project collected retrospective data about the incidence of falls before and after AT systems were installed in two care homes in Norfolk, each with different resident profiles regarding the prevalence of dementia. Standard incident report forms were examined for a period starting ten months before the upgrades to ten months after in Care Home 1 and from six months before to six months afterwards in Care Home 2. Overall there were 314 falls reported during the course of the study. The number reduced from 202 to 112 after the introduction of AT. The mean health care costs associated with falls in Care Home 1 were significantly reduced (more than 50%). In Care Home 2 there was no significant difference in the mean cost. The results suggest that installing an AT system in residential care homes can reduce the number of falls and health care cost in homes with a lower proportion of residents with advanced dementia compared to those with more residents with advanced dementia. (JL)
ISSN: 17549450
From: http://www.emeraldinsight.com/products/journals/journals.htm?id=jat

Inferior physical performance test results of 10,998 men in the MrOS Study is associated with high fracture risk; by Bjorn E Rosengren, Eva L Ribom, Jan-Ake Nilsson ... (et al).
The aim of this study was to determine whether tests of physical performance are associated with fall-related fractures. 10,998 men aged 65 years or above were recruited. Questionnaires evaluated falls sustained twelve months before administration of a grip strength test, a timed stand test, a six-metre walk test and a 20-centimetre narrow walk test. Fallers with a fracture performed worse than non-fallers on all tests. Fallers with a fracture performed worse than fallers with no fractures both on the right-hand-grip strength test and on the six-metre walk test. A score below -2 standard deviations in the right-hand-grip strength test was associated with an odds ratio of 3.9 (95% CI: 2.1-7.4) for having had a fall with a fracture compared with having had no fall and with an odds ratio of 2.6 (95% CI: 1.3-5.2) for having had a fall with a fracture compared with having had a fall with no fracture. The study concludes that these tests performed by old men help discriminate fallers with a fracture from both fallers with no fracture and non-fallers. (JL)
ISSN: 00020729

Research has shown that individuals with dementia fall twice as often as cognitively intact people and are more likely to have injurious falls. Higher morbidity and rates of mortality and institutionalisation after falls have also been reported in this group. In this article the authors categorise risk factors for falls within seven domains, namely psychosocial and demographic factors, medical factors, medication factors, balance and mobility factors, sensory and neuromuscular factors, neuropsychological factors and environmental factors. Each factor is measured using a four-level rating system according to the strength of published evidence associating each
factor with falls. The authors then argue that there is limited but emerging literature that is attempting to define and explain why fall risk is increased in this population. This will allow for targeted fall prevention programmes. Currently there are no published randomised controlled trials that have prevented falls in community-dwelling cognitively impaired older people, and conflicting evidence is reported in hospital and residential care trials. Recent exercise interventions have demonstrated significant benefits, such as improved gait speed, strength and balance in people with cognitive impairment/dementia, providing encouraging evidence for further research and clinical interventions. (JL)

ISSN: 1745509X
From: http://www.futuremedicine.com/loi/ah

Older people's participation in and engagement with falls prevention interventions in community settings: an augment to the cochrane systematic review; by Samuel R Nyman, Christina R Victor.
Age and Ageing, vol 41, no 1, January 2012, pp 16-23.
Recently, randomised controlled trials (RCTs) of fall prevention interventions conducted in community settings were systematically reviewed. The purpose of this study was to augment the review by analysing older people's participation in the trials and engagement with the interventions. The study aimed to calculate aggregate data on recruitment (proportion who accepted the invitation to participate), attrition at 12 month follow-up (loss of participants), adherence (to intervention protocol) and whether adherence moderated the effect of interventions on trial outcomes. The median recruitment rate was 70.7%. At 12 months the median attrition rate including mortality was 10.9%. Adherence rates were 80% for vitamin D/calcium supplementation; 70% for walking and class-based exercise; 52% for individually targeted exercise; approximately 60-70% for fluid/nutrition therapy and interventions to increase knowledge; and 58-59% for home modifications. No improvement was found for medication review/withdrawal of certain drugs. Adherence to multifactorial interventions was generally 75% but ranged 28-95% for individual components. The 13 studies that tested for whether adherence moderated treatment effectiveness produced mixed results. Using median rates for recruitment (70%), attrition (10%) and adherence (80%), it was estimated that, at 12 months, on average half of community-dwelling older people were likely to be adhering to falls prevention interventions in clinical trials. (JL)
ISSN: 00020729

Older people's preferences regarding programme formats for managing concerns about falls; by Tanja A C Dorresteijn, G A Rixt Zijlstra, Yvonne J J van Eijs ... (et al).
Age and Ageing, vol 41, no 4, July 2012, pp 474-481.
This Dutch study aimed to explore the preferences of community-dwelling older persons regarding different programme formats for managing concerns about falls. 5,755 community-dwelling people aged 70 years or over took part in the study. A questionnaire assessed people's willingness to participate per programme format, i.e. a programme at home, via telephone, via home visits and telephone consultations, via television or via Internet. Of the 2,498 participants who responded, 62.7% indicated no interest in any of the formats. The willingness to participate per programme format varied between 21.5 (at home) and 9.4% (via Internet). Among people interested in at least one of the formats, higher levels of fall-related concerns were associated with increased preference for a programme with home visits. Poor perceived health and being aged over 80 were associated with less preference for a group programme. Higher educated people were more in favour of a programme via Internet compared with their lower educated counterparts. In conclusion, most community-dwelling older people were not likely to participate in any of the six proposed programme formats for managing concerns about falls. However, when diverse formats of effective programmes were made available, uptake and adherence were likely to be increased since programme preferences were associated to specific population characteristics. (JL)
ISSN: 00020729

The role of cognitive impairment in fall risk among older adults: a systematic review and meta-analysis; by Susan W Muir, Karen Gopaul, Manuel M Montero Odasso.
The objective of the study was to evaluate the epidemiological evidence linking cognitive impairment and fall risk. Studies were identified through systematic searches of three electronic medical databases covering the period 1988-2009. Bibliographies of retrieved articles were also searched. A fixed-effects meta-analysis was performed using an inverse-variance method. 27 studies met the inclusion criteria. Impairment on global measures of cognition was associated with any fall, serious injuries and distal radius fractures in community-dwelling older adults. Executive function impairment, even subtle deficits in healthy community-dwelling older adults, was associated with an increased risk for any fall and falls with serious injury. A diagnosis of dementia was associated with risk for any fall but not serious fall injury in institution-dwelling older adults. There is
strong evidence that global measures of cognition are associated with serious fall-related injury, although there is no consensus on threshold values. Executive function was also associated with increased risk, which supports its inclusion in fall risk assessment especially when global measures are within normal limits. (JL)

ISSN: 00020729

Self-efficacy is independently associated with brain volume in older women; by Jennifer C Davis, Lindsay S Nagamatsu, Chun Liang Hsu (et al).
Ageing is highly associated with brain deterioration and evidence suggests that personality variables are risk factors for reduced brain volume. The present study looked at whether falls-related self-efficacy is independently associated with brain volume. The study method was a cross-sectional analysis of whether falls-related self-efficacy is independently associated with brain volumes (total, grey and white matter). Three multivariate regression models were constructed. Covariates included in the models were age, global cognition, systolic blood pressure, functional comorbidity index and current physical activity level. MRI scans were acquired from 79 community-dwelling older women aged between 65 and 75. Falls-related self-efficacy was assessed by the activities-specific balance confidence (ABC) scale. Results showed that after accounting for covariates, falls-related self-efficacy was independently associated with both total brain volume and total grey matter volume. The final model for total brain volume accounted for 17% of the variance, with the ABC score accounting for 8%. For total grey matter volume, the final model accounted for 24% of the variance, with the ABC score accounting for 10%. Overall evidence suggests that falls-related self-efficacy, a modifiable risk factor for healthy ageing, is positively associated with total brain volume and total grey matter volume. (JL)

ISSN: 00020729

There's no apprenticeship for Alzheimer's: the caring relationship when an older person experiencing dementia falls; by Anne McIntyre, Frances Reynolds.
Older people experiencing dementia are twice as likely to fall, resulting in serious injury, reduction in everyday activity and admission to long-term care. Carer burden also increases when a care recipient falls. This study investigated the experiences of falling of community-living older people with dementia and their carers. Participants included nine older people with Alzheimer's disease and their ten carers recruited from a large mental health National Health Service trust. The antecedents, falls events and consequences of falls were discussed. Findings revealed three themes: 'learning as you go', 'we're always together', 'nobody was interested'. The findings demonstrated how falling accentuates the impact of dementia on the dyad. Spouse-carers' discussion of their own falls highlighted the need for joint assessment of health and well-being to reduce carer burden and preserve the 'couplehood' of the dyad. Implications for practice are discussed. (JL)

ISSN: 0144686X
From: http://www.journals.cambridge.org/aso

The use of exercise-based videogames for training and rehabilitation of physical function in older adults: current practice and guidelines for future research; by Stuart T Smith, Daniel Schoene.
Functional impairment in older adults resulting from injury or disease contribute to parallel declines in self-confidence. Fear of a major incident such as a stroke or a bone-breaking fall can lead to the decision to move into a supported environment, which can be viewed as a major step in the loss of independence and quality of life. Novel use of videogame console technologies are beginning to be explored as a commercially available means for delivering training and rehabilitation programmes to older adults in their own homes. This article provides an overview of the main videogame console systems (Nintendo Wii, Sony Playstation and Microsoft Xbox) and discusses some scenarios where they have been used for rehabilitation, assessment and training of functional ability in older adults. In particular the study focuses on two issues that significantly impact functional independence in older adults, namely injury and disability resulting from stroke and/or falls. (JL)

ISSN: 1745509X
From: http://www.futuremedicine.com/loi/ahe
Cost-effectiveness of fall prevention programs based on home visits for seniors aged over 65 years: a systematic review; by Sandro Corrieri, Dirk Heider, Steffi G Riedel-Heller ... (et al).
Preventive home visits (PHVs) are considered a promising intervention to improve the health and independent functioning of older adults whilst reducing health care costs. This systematic review focused on the cost-effectiveness of PHVs, analysing randomised controlled trials that evaluated the incremental cost-effectiveness ratios in fall prevention interventions. Five studies providing relevant information were reviewed. While three of the studies indicated cost-effectiveness, one delivered no statistically significant results, and one proved cost-effectiveness only for a subgroup of the study sample. The authors conclude that the cost-effectiveness of PHVs appears to depend on careful adaptation of particular measures, for certain settings in special environments for designated patients and disease patterns, on a case-by-case basis. Starting points for further research are the components of the economic evaluation, the setting, personnel and measures of the intervention, as well as the careful selection and analysis of the study sample and its subgroups. A uniform follow-up time, standardised cost measurement as well as the use of standardised denominators like quality adjusted life years could build a foundation for comparable results. (JL)
ISSN: 10416102
From : http://www.journals.cambridge.org/ipg

Detection of falls using accelerometers and mobile phone technology; by Robert Y W Lee, Alison J Carlisle.
The purpose of the research was to study the sensitivity and specificity of fall detection using mobile phone technology. An experimental investigation was carried out using motion signals detected by a mobile phone. The research was conducted in a laboratory setting, and 18 healthy adults were recruited. Each participant was requested to perform three trials of four different types of simulated falls (forwards, backwards, lateral left and lateral right) and eight other everyday activities (sit-to-stand, stand-to-sit, level walking, walking up- and downstairs, answering the phone, picking up an object and getting up from supine). Acceleration was measured using two devices, a mobile phone and an independent accelerometer attached to the waist of the participants. Bland-Altman analysis showed a higher degree of agreement between the data recorded by the two devices. Using individual upper and lower detection thresholds, the specificity and sensitivity for mobile phone were 0.81 and 0.77, respectively, and for external accelerometer they were 0.82 and 0.96, respectively. In conclusion, fall detection using a mobile phone is a feasible and highly attractive technology for older adults, especially those living alone. It may be best achieved with an accelerometer. (JL)
ISSN: 0020729

Do exercise interventions designed to prevent falls affect participation in life roles?: a systematic review and meta-analysis; by Nicola Fairhall, Catherine Sherrington, Lindy Clemson, Ian D Cameron.
The aim of this study was to evaluate the extent to which measurement of participation has been reported in trials of fall prevention interventions in older people, and to determine the effect of exercise interventions on participation in life roles. Randomised controlled trials of exercise interventions that aimed to reduce falls in older people aged 60 and above in community, aged care facilities or hospital settings were included. The outcome of interest was participation in life roles. Trials that measured participation at two time-points were included in the meta-analysis. 96 trials met the review inclusion criteria. Participation was measured in 19 of these trials (20%). Nine instruments were used to measure participation. Fifteen trials, involving 3,616 participants, were included in the meta-analysis. The pooled estimate of the effect of interventions including exercise indicated a small improvement in participation. Meta-regression that showed multifactorial intervention with an exercise component had a larger effect than exercise intervention alone, but the difference was not statistically significant. (JL)
ISSN: 00020729

Epidemiology of falls in older age; by Nancye May Peel.
Worldwide, falls among older people are a public health concern because of their frequency and adverse consequences in terms of morbidity, mortality, and quality of life, as well as their impact on health system services and costs. This epidemiological review outlines the public health burden of falls and fall-related injuries and the impact of population ageing. The magnitude of the problem is described in terms of the classification of
falls and measurement of outcomes, including fall incidence rates across settings, sociodemographic determinants, international trends, and costs of falls and fall-related injuries. Finally, public health approaches to minimise falls risk and consequent demand on health care resources are suggested. (JL)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

Ethical issues in the use of fall detectors; by Michelle Ganyo, Michael Dunn, Tony Hope.
Ageing and Society, vol 31, part 8, November 2011, pp 1350-1367.
Fall detectors are a form of remote monitoring assistive technology that have the potential to reduce older adults' risks of falling. In this paper the ethical issues raised by the use of fall detectors are examined. The fall detection devices currently available are outlined, and a summary of how these devices require social care services or family carers to respond in particular ways is provided. The ethical issues associated with the use of fall detectors are classified under four headings: autonomy, privacy, benefit, and the use of resources. These issues arise out of the nature of the technology itself, and the way that this technology is integrated into the day-to-day support package of the person for whom it is provided. It is argued that manufacturers have a duty to provide information about the 'ethical side-effects' associated with the use of a particular device, and that the process of making a decision to provide a person with a fall detector should include a checklist of questions that is designed to enable decision makers to work through the ethical issues raised. (JL)
ISSN: 0144686X
From: http://www.journals.cambridge.org/aso

Fall risk factors in community-dwelling elderly who receive Medicaid-supported home- and community-based care services; by Takashi Yamashita, Haesang Jeon, A John Bailer ... (et al).
The study aimed to identify fall risk factors in an understudied population of older people receiving community-based care services. Data were collected from enrollees of Ohio's Medicaid home- and community-based waiver programme (preadmission screening system providing options and resources today [PASSPORT]). 23,182 participants receiving PASSPORT services in 2005/2006 were classified as fallers and non-fallers, and a variety of risk factors for falling was analysed using logistic regressions. Risk factors for falling were identified as follows: a previous history of falling, older age, white race, incontinence, a higher number of medications, activity of daily living limitations, unsteady gait, tremour, grasping strength, and absence of supervision. The authors conclude that identifying risk factors for the participants of a Medicaid home- and community-based waiver programme are useful for a falls risk assessment. However it would be most helpful if the community-based care service programmes were to incorporate measurements of known fall risk factors into their regular data collection (JL)
ISSN: 08982643
From: http://jah.sagepub.com/

Falls prevention: special section.
Special section featuring an editorial followed by five articles on the prevention of falls in later life. The goals of the section are to introduce the topic to readers unfamiliar with this field of research and to bring readers up to date on the current status of the field. From the five papers readers will have an understanding of the widespread problem of falls, how falls research has evolved, how falls can be prevented, and the psychosocial and cultural factors that influence older people's participation in falls prevention interventions. (JL)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

Falls risk factors: assessment and management to prevent falls and fractures; by Finbarr C Martin.
Canadian Journal on Aging, vol 30, no 1, March 2011, pp 33-44.
Falls and fragility fractures are common, dangerous, and important public health challenges. They are best understood as geriatric syndromes with close relation to frailty and other ageing-related health problems. They are associated with many health-related and other risk factors including dizziness, postural instability, cognitive impairment, medical co-morbidities, and other medical conditions including osteoporosis and Parkinson's disease. At a population level, the challenge is to improve the health and well-being of all older people to reduce the incidence of falls. At a clinical level, the challenge is to assess the individual risk factors and apply evidence-based individually tailored, multifactorial interventions. The most powerful component is strength-and-balance exercise training. (JL)


presentation of the broader significance of age-related falls is now required. This includes ageing processes, suboptimal physical fitness, stable specific impairment, unstable systemic illness, preventable injury and disability, dependency and mortality. Key residual research questions include the proportional contribution of falls risk reduction to fracture prevention, and the epidemiology of falls-related comorbidity. Falls researchers need to come together and collaborate strategically in evaluating agreed best prevention models. (JL)
ISSN: 1745509X
From: http://www.futuremedicine.com/loi/ahe

Psychosocial issues in engaging older people with physical activity interventions for the prevention of falls; by Samuel R Nyman.
This article presents an overview of the psychosocial factors that influence older people's participation in physical activity interventions to prevent falls. The importance of psychosocial factors is stressed inasmuch as interventions will be rendered useless if they do not successfully gain the active participation of older people. The theory of planned behaviour is used as a framework for the review on how knowledge (a prerequisite), attitudes, subjective norms (the social context), and perceived behavioural control (confidence) promote or inhibit the intention to carry out activities to prevent falls. The review is supplemented with evidence for self-identity to influence intention, and the article concludes with a discussion of the recommendations made by the Prevention of Falls Network Europe for engaging older people in falls prevention. (JL)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

Recruiting and retaining older persons within a home-based pilot study using movement sensors; by Cathy Bailey, Vanessa Buckley.
Health and Social Care in the Community, vol 19, no 1, January 2011, pp 98-105.
This article reports on key aspects of recruiting and retaining a small group of community dwelling older adults who have experienced falls into a study, piloting motion sensors in their homes for eight weeks. While the aim of the study was to consider how motion sensors may increase understanding of falls in the home, and how such sensors would fit into older people's lives, it also produced valuable research insights into the recruitment and retention of older people into home-based technology research and its challenges. The authors consider the recruitment strategy in terms of informed consent and non-exploitation, planning and explaining, the retention strategy in terms of communicating and recording and sharing data. It is hoped that by offering an analysis of the challenges and strategies it may help develop skills that maximise the involvement of older adults in research whilst at the same time ensuring inclusive and non-exploitative research relationships. (JL)
ISSN: 09660410
From: http://www.ingentaconnect.com/content/bsc/hgcc

The role of culture and diversity in the prevention of falls among older Chinese people; by Khim Horton, Angela Dickinson.
This grounded theory study explored the perceptions of Chinese older people living in England on falls and fear of falling, and identified facilitators and barriers to fall prevention interventions. With a sample of 30 Chinese older people, two focus group discussions and ten in-depth interviews were conducted in Mandarin or Cantonese. Constant comparative analysis highlighted a range of health-seeking behaviours after a fall. Chinese older people were reluctant to use formal health services or talk about their falls. In particular they hid falls from their adult children to avoid worrying them. Fatalistic views about falls and poor knowledge about availability and content of interventions were prevalent. Cost of interventions was important. Chinese older adults valued their independence, and cultural intergenerational relations had an impact on taking action to prevent falls. (JL)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

The role of health professionals in promoting the uptake of fall prevention interventions: a qualitative study of older people's views; by Angela Dickinson, Khim Horton, Ina Machen ... (et al).
Uptake of and adherence to fall prevention interventions is often poor and little is known about older people's perceptions of and beliefs about fall prevention interventions. The present study aimed to explore older people's perceptions of the facilitators and barriers to participation in fall prevention interventions in the UK. A qualitative study was carried out with older people using semi-structured interviews and 17 focus groups. These groups included 32 Asian and 30 Chinese older people. The study took place in community settings in four geographical areas of the South of England. The mean age of participants was 75 years (range 60-95). Data
analysis used a constant comparative method. Study participants reported that health professionals and their response to reported falls played a major role in referral to and uptake of interventions, both facilitating and hindering uptake. Health professionals frequently failed to refer people to fall prevention interventions following reports of falls and fall-related injuries. Consideration should be given to inclusion of opportunistic and routine questioning of older people about recent falls by practitioners in primary care settings. Referrals should be made to appropriate services and interventions for those who have experienced a fall to prevent further injuries or fracture. (JL)

ISSN: 00020729

Telehealthcare and falls: using telehealthcare effectively in the support of people at risk of falling; by Brian Kerr, Ann Murray (eds), Dementia Services Development Centre, University of Stirling; Joint Improvement Team, Scottish Government; National Telecare Development Programme, Scottish Government. Stirling; Edinburgh: Dementia Services Development Centre, University of Stirling; Joint Improvement Team, Scottish Government, 2011, 45 pp.
This is one of six publications funded by the Scottish Government's National Telecare Development Programme, with the strategic aim of raising awareness of the importance of telehealthcare in health and social care services. It provides examples of equipment which might contribute to the safety and quality of life of people at risk of falling. It covers the causes, consequences, prevention and management of falls; the importance of needs and risk assessments; ethical dilemmas and how these can be resolved; issues particular to carers; and the content of a suggested training programme. (RH)
From: Dementia Services Development Centre, Iris Murdoch Building, University of Stirling, Stirling FK9 4LA. http://www.dementia.stir.ac.uk

Unintentional falls in older adults: a methodological historical review; by Mark Speechley. Canadian Journal on Aging, vol 30, no 1, March 2011, pp 21-32. PubMed lists over 6,000 references on unintentional falls in older adults. This article traces key methodological milestones in the application of epidemiological methods since the earliest publications in the late 1940s. Within the context of advances in case definition, sampling, measurement, research design and statistical analysis, the article reviews estimates of frequency of occurrence, risk factor associations, morbidity and mortality consequences, demonstration of the multiple risk factor theory of falls using fall prevention interventions, and the challenges of fall risk prediction models. Methodological explanations are provided for observed heterogeneities, and the case is presented for moving beyond undifferentiated lists of risk factors by focusing on balance and gait as the factors through which the mechanistic effects of distal risk factors can be understood. Moreover, the case is made to advance statistical analyses by looking at interactions among intrinsic risk factors and between intrinsic, extrinsic, and environmental factors. (JL)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

2010

Caring for an aging population: context, practice and policy; by Margaret A Denton, Isik U Zeytinoglu (eds), Social and Economic Dimensions of an Aging Population Project - SEDAP. Canadian Journal on Aging, vol 29, no 1, March 2010, pp 1-162 (whole issue of 10 articles). The multidisciplinary research programme Social and Economic Dimensions of an Aging Population (SEDAP-II) is concerned with how population ageing will affect Canada's labour force and economy. This issue of the Canadian Journal on Aging considers diverse aspects of caregiving. Four articles consider the future needs of an ageing population by describing the current context of ageing and making future projections. Two articles examine the current context of two diverse groups of care givers: married or never-married sons as carers; and adult children of Japanese Canadians. Two articles address the relationship between home care providers and care recipients. Lastly, two articles describe and evaluate a falls intervention effort for an "at risk" group of older people receiving home care services. (RH)
ISSN: 07149808
From: http://www.journals.cambridge.org/cjg

Community falls prevention for people who call an emergency ambulance after a fall: randomised controlled trial; by Philippa A Logan, C A C Coupland, J R F Gladman (et al). British Medical Journal, vol 340, no 7755, 15 May 2010, p 1070. Can a rehabilitation service to prevent falls in the community reduce the rate of falls in people who fall and call an emergency ambulance but are not taken to hospital? This article is a summary of a paper on bmj.com of a
Determinants of disparities between perceived and physiological risk of falling among elderly people: cohort study; by Kim Delbaere, Jacqueline C T Close, Henry Brodaty (et al).
Fear of falling is common in older people and is associated with poor balance, depression and falls. 300 men and women aged 70-90 were randomly recruited from a cohort of 1037 living in the community in eastern Sydney, Australia and participating in the Sydney Memory and Ageing Study. Participants were categorised in relation to their physiological fall risk and their perceived fall risk: vigorous, anxious, stoic and aware. The anxious group had a low physiological but a high perceived fall risk, which was related to depressive symptoms, neurotic personality traits and decreased executive functioning. The stoic group had a high physiological but low perceived fall risk, which was protective for falling and mediated through a positive outlook on life and maintained physical activity and community participation. This summary of a paper published on bmj.com shows that many older people underestimate or overestimate their risk of falls. (RH)
ISSN: 09598138
From: www.bmj.comBMJ2010;340:c2102

Falls among the elderly: key is prevention, not detection; by Audrey Kinsella.
Falls at home among the elderly population are frequent and costly occurrences. Timely responses to falls are possible when initiated by the use of Personal Emergency Response Systems (PERS). More work is needed, however, in preventing these falls from occurring. Means to prevent falls include using higher technology such as telehealth systems and lower technology such as home modifications that better ensure safety of elderly residents. Fall prevention programmes that are developed specifically for those living in their own homes need to comprise a combination of both low- and high-tech preventative strategies. (KJ)
ISSN: 17549450

The FIM (regd trademark) instrument to identify patients at risk of falling in geriatric wards: a 10-year retrospective study; by Nicolas Julien Pettipierre, Andrea Trombetti, Iain Carroll (et al).
The main objective was to evaluate if the admission functional independence measure (FIM) score could be used to predict the risk of falls in geriatric inpatients. A 10-year retrospective study was performed. The study was conducted in a 298-bed geriatric teaching hospital in Geneva, Switzerland. All patients discharged from the hospital from 1 January 1997 to 31 December 2006 were selected. Measures used were FIM scores at admission using the FIM instrument, and number of falls extracted from the institution's fall report forms. During the study period, there were 23,966 hospital stays. A total of 8,254 falls occurred. Of these, 7,995 falls were linked to 4,651 stays. Falls were recorded in 19.4% of hospital stays, with a mean incidence of 7.84 falls per 1,000 patient-days. Although there was a statistically significant relationship between total FIM score, its sub-scales, and the risk of falling, the sensitivity, specificity, positive predictive value and negative predictive value obtained with receiver operating characteristic curves were insufficient to permit fall prediction. This might be due in part to a non-linear relationship between FIM score and fall risk. In this study, the FIM instrument was found to be unable to predict risk of falls in general geriatric ward. (KJ/RH)
ISSN: 000020729

Intergenerational service learning: to promote active aging, and occupational therapy gerontology practice; by Beverly P Horowitz, Stephanie Dapice Wong, Karen Dechello.
Americans are living longer, and the meaning of age has changed, particularly for baby boomers and seniors. These demographic changes have economic and social ramifications with implications for health care, including
rehabilitation services and health science education. Service learning is an experiential learning pedagogy that integrates traditional higher education with structured active learning experiences. This article reports on one intergenerational service learning programme spanning 3 years. It was designed to facilitate community dialogue on fall prevention and active ageing, and to provide intergenerational educational community-based experiences in occupational therapy professional education. The programme additionally sought to promote students’ understanding of ageing and issues related to ageing in place, students’ professional development and civic engagement, and to encourage students to consider pursuing a career in occupational therapy gerontology practice. (KJ/RH)

ISSN: 02701960

From: http://www.tandfonline.com

A multicentre randomised controlled trial of day hospital-based falls prevention programme for a screened population of community-dwelling older people at high risk of falls; by Simon Conroy, Denise Kendrick, Rowan Harwood (et al).

Age and Ageing, vol 39, no 6, November 2010, pp 704-709.

The objective of this study was to determine the clinical effectiveness of a day hospital-delivered multifactorial falls prevention programme, for community-dwelling older people at high risk of future falls identified through a screening process. The design of the study was a multicentre randomised controlled trial. The setting was an eight general practices and three day hospitals based in the East Midlands, UK. Participants: three hundred and sixty-four participants, mean age 79 years, with a median of three falls risk factors per person at baseline. Interventions: a day hospital-delivered multifactorial falls prevention programme, consisting of strength and balance training, a medical review and a home hazards assessment. The main outcome measure was rate of falls over 12 months of follow-up, recorded using self-completed monthly diaries. Results: one hundred and seventy-two participants in each arm contributed to the primary outcome analysis. The overall falls rate during follow-up was 1.7 falls per person-year in the intervention arm compared with 2.0 falls per person-year in the control arm. The stratum-adjusted incidence rate ratio was 0.86 (95% CI 0.73-1.01), P = 0.08, and 0.73 (95% CI 0.51-1.03), P = 0.07 when adjusted for baseline characteristics. There were no significant differences between the intervention and control arms in any secondary outcomes. This trial did not conclusively demonstrate the benefit of a day hospital-delivered multifactorial falls prevention programme, in a population of older people identified as being at high risk of a future fall. (KJ)

ISSN: 00020729


Prevalence and correlates of frailty among community-dwelling older men and women: findings from the Hertfordshire Cohort Study; by Holly Syddall, Helen C Roberts, Maria Evandrou (et al).


Frailty, a multi-dimensional geriatric syndrome, confers a high risk for falls, disability, hospitalisation and mortality. The prevalence and correlates of frailty in the UK are unknown. Frailty, defined by Fried, was examined among community-dwelling young-old (64-74 years) men (n = 320) and women (n = 318) who participated in the Hertfordshire Cohort Study. The prevalence of frailty was 8.5% among women and 4.1% among men (P = 0.02). Among men, older age (P = 0.009), younger age of leaving education (P = 0.05), not owning or mortgaging one's home (odds ratio [OR] for frailty 3.45 [95% confidence interval [CI] 1.01-11.81], P = 0.05, in comparison with owner/mortgage occupiers) and reduced car availability (OR for frailty 3.57 per unit decrease in number of cars available [95% CI 1.32, 10.0], P = 0.01) were associated with increased odds of frailty. Among women, not owning/mortgaging one's home (P = 0.02) was associated with frailty. With the exception of car availability among men (P = 0.03), all associations were non-significant (P > 0.05) after adjustment for co-morbidity. Frailty is not uncommon, even among community-dwelling young-old men and women in the UK. There are social inequalities in frailty which appear to be mediated by co-morbidity. (KJ/RH)

ISSN: 00020729


Prevention of falls in the community; by Lindy Clemson.


Prevention of falls in the community is successful in trial settings, but translation into practice remains a challenge. This article critically reviews the randomised controlled trial (RCT) by Logan and colleagues described elsewhere in this issue of the British Medical Journal, comparing it with other similar studies. While the study showed a significant benefit to people at high risk of falls, the challenge is to enable ongoing referral and take-up in practice. Lindy Clemson suggests that further studies are needed. (RH)
Psychosocial risk factors associated with falls among Chinese community-dwelling older adults in Hong Kong; by Angela Leung, Iris Chi, Vivian W Q Lou (et al).


This study examined the relationship between psychosocial factors and falls among community-dwelling older adults in the Hong Kong Special Administrative Region of China. The study included 1573 adults aged 60+ who lived at home and who were applying for long-term care services. These participants were part of a large cross-sectional survey carried out between 2003 and 2004, in which they completed the Hong Kong Chinese version of the Resident Assessment Instrument - Home Care (RAI-HC) assessment. Of those who were surveyed, 516 (32.8%, 95% CI 30.5% to 35.2%) had fallen in the previous 90 days. Bivariate analyses showed that five psychosocial factors (depressive symptoms, fear of falling, a decline in social activities, the number of hours of informal care support during weekdays and living alone) were significantly associated with falls (P < 0.05).

Logistic regression analysis showed living alone (odds ratio (OR) = 0.62; 95% CI 0.44 to 0.86) was the only psychosocial factor significantly associated with falls, after adjusting for the known significant factors related to falls. It was also found that more older people who lived with others had environmental hazards than those who lived alone (71.0% vs 29.0%). These findings suggest that living with others may not be as safe as we assume. Interventions to increase awareness of home safety and to seek co-operation with family members in falls prevention are recommended. Family members who are living with frail older adults should be taught fall preventive strategies. On the other hand, Chinese older adults who live alone often receive support from relatives or friends. Social support seems to be crucial to prevent them from falls, and this measure is recommended to be continued in the community. (KJ/RH)

The effects of usual footwear on balance amongst elderly women attending a day hospital; by N Frances Horgan, Fiona Crehan, Emma Bartlett (et al).


For a group of 100 older women (aged 65+) attending a day hospital in Ireland, wearing their own footwear was associated with significantly improved balance compared to being barefoot. In this study, a Berg Balance Scale (BBS) was completed under two conditions: shoes on and shoes off with order counter-balanced. Lower barefoot BBS scores were associated with a greater beneficial effect of footwear on balance. Shoe characteristics were not associated with change in the BBS score. The greatest benefit of footwear was seen in subjects with the poorest balance. The authors recommend that older individuals at risk of falls do not go barefoot when walking. (RH)

Elderly women's experiences of living with fall risk in a fragile body: a reflective lifeworld approach; by Leena Berlin Hallrup, Daniel Albertsson, Anita Bengtsson Tops (et al).


The purpose of this Swedish qualitative study was to explore the lived experience of fall risk from a lifeworld perspective in older women with previous fragility fractures. Thirteen women with a high risk of fall and fracture, aged 76-86, living in their own homes in rural areas, were recruited from a voluntary fracture prevention programme. All women had a history of fragility fractures and were interviewed in their homes from spring to autumn 2004. A phenomenological reflective lifeworld approach was chosen to analyse in-depth interview data. The study was conducted within an interdisciplinary research group inspired by dialogical research. Older women's life space has been narrowed due to advanced age, physical injury or by efforts to prevent new injuries leading to changes in self-perception. However, the women seek strategies to challenge limitations and insecurity, and strive to retain mobility and daily life routines. Four major constituents of the phenomenon 'elderly women's experiences of fall risk' emerged in this study: a changing body, living with precaution, ambiguous dependency, and influence and need for understanding. Employing the women's thoughts and resources in trust-based dialogues with caregivers may strengthen their concord and the prospects to continue an active life. Such older women seek strategies to challenge limitations and feelings of insecurity, and strive to maintain mobility and daily life routines. A trust-based care respecting the preferences of the women seemed to stimulate behavioural change in maintaining an active life. (KJ/RH)
The national audit of services for falls and bone health; by Jonathan Bayly, Jonathan Treml. 
GM (Geriatric Medicine), vol 39, no 6, June 2009, pp 311-318.
Falls and related fractures are a major cause of disability and mortality in older people. Falls prevention services have been available in the UK for many years, but audits of these services show that improvements are needed. The authors discuss the results of the most recent audit, 'National audit of the organisation of services for falls and bone health of older people 2009', commissioned by Healthcare Quality Improvement Partnership. (RH)
ISSN: 0268201X
From : http://www.gerimed.co.uk

Older adults' perspectives on home exercise after falls rehabilitation: understanding the importance of promoting healthy, active ageing; by Helen Hawley.
This qualitative research study set out to explore what might encourage older people to exercise at home after falls rehabilitation. Research methods were used based on a grounded theory approach, to provide insights into older adults' experiences following a fall, of both rehabilitation and home exercise. Nine UK community-dwelling participants who had been through falls rehabilitation and who were over 60 years old were recruited through health professionals. Participants had attended one of three different rehabilitation centres, or were under the care of the Specialist Case Manager for Elderly, Frail and Falls who sees clients with more complex needs. The key factor causing older people to carry out their home exercise programme is a determination to regain independence following illness and a fall. However, social interaction has a key role to play in this strive for independence through supporting the continuation of home exercise. Interview data reveal that relationships with professionals, families and friends (the existence of social networks) during and after the rehabilitation process can impact on uptake and continuation of exercise. A grounded theory approach to research with older people can be a useful tool for informing health promotion workers and other health professionals in practice. This study helps us to acknowledge that from an older adult's perspective, independence is highly valued, and encourages us to consider how we can then adopt this as a motivator for participation in healthy, active ageing. When working with older people, professionals need to adopt a holistic approach to their health, using a person-centred approach to promote positive, active ageing. (KJ/RH)
ISSN: 00178969
From : http://www.sagepublications.com

Post-traumatic stress disorder in older people after a fall; by Man Cheung Chung, Kevin J McKee, Chris Austin (et al).
Post-traumatic Stress Disorder (PTSD) is a debilitating psychological condition, never studied in relation to falls in older people. This study determined the prevalence and correlates of PTSD in a convenience sample of 196 people aged 65+ post-fall. Baseline data were collected by interview in hospital post-fall and by postal self-completion at 12 and 24 weeks post-baseline. Information collected at baseline included falls-related data, activity problems, fear of falling, PTSD symptoms, anxiety and depression, and at follow-up PTSD symptoms, anxiety and depression, the receipt of rehabilitation and further falls. In hospital, of 40 participants whose fall had occurred more than 1 month previously, 35% had full acute PTSD and 17.5% had partial acute PTSD. At follow-up, full or partial chronic PTSD was found in 26.1% of participants at first follow-up, and in 27.4% of participants at second follow-up. Older age, pre-fall activity problems, fear of falling, and anxiety assessed at baseline were associated with follow-up PTSD diagnosis, as were anxiety and depression assessed concurrently. PTSD occurs in a substantial minority of older people post-fall. No pattern emerged of factors predictive of PTSD, although the association between fear of falling and PTSD suggests some patients thought to have fear of falling may be manifesting PTSD and require identification to enable therapeutic intervention. (KJ/RH)
ISSN: 08856230
From : http://www.interscience.wiley.com/journal/gps

Knee arthritis is a risk factor for falling. Increasing numbers of people are receiving total knee arthroplasty (TKA), but the natural history of falling before and after TKA is unknown. In this study with 1-year follow-up at the Avon Orthopaedic Centre, Bristol, 24.2% of those undergoing TKA fell in the 3 months before surgery. Post-operative falls rates were 11.7% to 11.8% per quarter in the first year. TKA led to the improvement in
balance confidence, but this was not maintained in patients with a history of falling pre-operatively. TKA led to a reduction in depression symptomatology in non-fallers, but not in people who had fallen pre-operatively. Pre-operative falling was predicted by depression symptomatology and pre-operative history of falling. A recent history of falling is common in people undergoing TKA, and about 45% of patients fall again in the year following surgery. Patients being considered for TKA should be asked about falls history and undergo falls risk assessment and intervention. (RH)

ISSN: 00020729
From: http://www.ageing.oxfordjournals.org

What do community-dwelling Caucasian and South Asian 60-70 year olds think about exercise for fall prevention?; by Maria Horne, Shaun Speed, Dawn Skelton (et al).

To identify salient beliefs that influence uptake and adherence to exercise for fall prevention among community-dwelling Caucasian and South Asian 60-70 year olds in the UK, the authors undertook an ethnographic study using participant observation, 15 focus groups (n=87; mean age 65.7), and 40 Individual semi-structured interviews (mean age 64.8). This qualitative study showed that both Caucasian and South Asian young older adults are generally not motivated to initiate or maintain exercise purely to help prevent falls. Both Caucasian and South Asian young older adults tend not to acknowledge their risk of falls. More similarities than dissimilarities seem to exist between Caucasian and South Asian older adults in their beliefs about falls and exercise for fall prevention. Fall prevention should not necessarily be the focus of health promotion strategies, but the peripheral benefits of exercise and leading active, healthy lifestyles should be promoted. (RH)

ISSN: 00020729
From: http://www.ageing.oxfordjournals.org

The Winchester falls project: a randomised controlled trial of secondary prevention of falls in older people; by Claire L Spice, Wendy Morotti, Steve George (et al).

The mortality and morbidity of falls in older people is significant, with recurrent fallers being at an increased risk. This Mid Hampshire project determined the effectiveness of two interventions aimed at preventing further falls in recurrent fallers. In the first, 18 general practices were randomly allocated to one of three groups: a primary care group was assessed by nurses in the community, using a risk factor review and subsequent targeted referral to other professionals. A secondary care group received a multidisciplinary assessment in a day hospital followed by identified appropriate interventions. A control group received usual care. Participants were 505 people aged 65+ living in the community, presenting to an emergency department with an index fall and with two or more falls in the previous year. Follow-up was for one year, and was completed by 421 (83%). The proportion of participants who fell again was lower in the secondary care group (75%, 158/210) compared to the control group (84%, 133/159). The primary care group showed similar results to the control group (87%, 118/136). A structured multidisciplinary assessment and intervention can reduce further falls. (RH)

ISSN: 00020729
From: http://www.ageing.oxfordjournals.org

2008

Assessment of osteoporotic fracture risk in community settings: a study of post-menopausal women in Australia; by B-K Tan, Roger I Price, N Kathryn Briffa (et al).

The healthcare costs of managing osteoporotic fractures is projected to rise because of the change in population demographics. To reduce the fracture epidemic, strategies are needed to identify those at risk early, to allow preventative intervention to be implemented. This Australian study investigated whether low-cost community-based assessments, such as calcaneal ultrasound and falls risk assessments, can distinguish between a group of older women at risk of osteoporotic fracture and those at lower risk. During 2002 and 2003, 104 community-dwelling women (mean age 71.3, standard deviation 5.8) were recruited via various modes including advertisements in community newspapers and community centres. These women underwent dual-energy X-ray absorptiometry bone mineral density (BMD) and calcaneal quantitative ultrasound (QUS) measurements, spinal radiography, and performance-based assessment of strength, mobility and balance. The women were classified into a "high risk" (osteoporotic) group based on low BMD (T-score of -2.5 or less) and/or a history of a fragility fracture, or a "low risk" (non-osteoporotic) group. Multiple stepwise logistic regression identified decreased speed of sound (SOS), a QUS variable, and poor mobility (slower performance in timed "up and go" (TUG) task), as significant discriminators, adjusted for age. This result suggests that there may be a potential role for
primary healthcare practitioners to use calcaneal QUS and functional mobility assessment (TUG) to screen for post-menopausal women at risk of osteoporotic fracture in community settings. (RH)

ISSN: 09660410
From: http://www.blackwellpublishing.com/hsc

Cluster randomised trial of a targeted multifactorial intervention to prevent falls among older people in hospital; by Robert G Cumming, Catherine Sherrington, Stephen R Lord (et al). British Medical Journal, vol 336 no 7647, 5 April 2008, pp 758-760. The efficacy of a targeted multifactorial falls prevention programme for patients with relatively short lengths of stay in hospital was determined in a study of 3999 patients (mean age 79; median length of stay 7 days) in 34 elderly care wards in 12 hospitals in Sydney, Australia. A nurse and physiotherapist each worked for 25 hours a week for 3 months in all intervention wards. They provided a multifactorial intervention that included a risk assessment of falls, staff and patient education, drug review, modification of bedside and ward environments, an exercise programme, and alarms to selected patients. Intervention and control wards were similar at baseline for previous rates of falls and individual patient characteristics. Overall, 381 falls occurred during the study. No differences were found in fall rates during follow-up between intervention and control wards: respectively 9.2 falls per 1000 bed days and 9.2 falls per 1000 bed days. The incidence ratio adjusted for individual lengths of stay and previous fall rates in the ward was 0.96. This targeted multifactorial falls prevention programme was not effective for older people in hospital for relatively short lengths of stay. (RH)

ISSN: 09598138
From: http://www.bmj.com

Cortical function, postural control, and gait; by Neil B Alexander, Jeffrey M Hausdorff (eds). Journals of Gerontology: Series A, Biological Sciences and Medical Sciences, vol 63A, no 12, December 2008, pp 1325-1388 (Special section).
The link between cognition, gait and the potential for falls is being increasingly recognised; and the editors of this special section review some of the literature. In eight more articles, other experts present new data that further explore the mechanism underlying this link. Themes examined include: age-associated effects on dual tasks in relation to gait speed or health; executive function and balance; executive function and cognitive impairment; navigation; attention when carrying out another task when walking; the effect of competing attentional demands when walking; and the possibility of cognitive impairment and underlying mobility impairment. (RH)

ISSN: 10795006
From: http://www.geron.org

This systematic review aims to explore whether depressive symptoms and fear of falling have been used as outcome measures in fall prevention trials; and to determine the effects of fall prevention trials on these variables in older people. A literature search covering various medical databases was conducted to identify randomised controlled trials regarding the effects of fall prevention programmes on depressive symptoms and fear of falling in older people. Studies were classified according to the intervention method (single or multifactorial) and study results (positive/negative) regarding depressive symptoms and fear of falling. Methodological quality was assessed in relation to blinding at outcome assessment, follow-up, and whether intention-to-treat analysis was used. Depressive symptoms were used as an outcome measure in eight and fear of falling in 21 studies. A multifactorial approach seems the most effective method in reducing fear of falling, while some single methods such as T’ai Chi also seem beneficial. Little evidence was found relating to the effects of fall prevention trials on depressive symptoms. Fear of falling may be reduced by fall prevention programmes. More studies assessing the effects on depressive symptoms - especially among depressed older people - are needed. (RH)

ISSN: 13607863
From: http://www.tandfonline.com

According the US Centers for Disease Control (CDC), nearly three-quarters of older people suffer from one or more chronic disease, such that they require some degree of formal or informal care. This book considers a range of technologies targeted at the assessment, early detection and mitigation of such conditions, including decline in functional abilities, gait, mobility, sleep disturbance, visual impairment, hearing loss, falls, and
cognitive decline. It not only describes the state of embedded and wearable technologies (including those under research), but also focuses on their potential utility. (RH)

**Price**: $99.50

**From**: Humana Press, 999 Riverview Drive, Suite 208, Totowa, New Jersey 07512, USA. Email: humana@humanapr.com

Environmental interventions to prevent falls in community-dwelling older people: a meta-analysis of randomized trials; by Lindy Clemson, Lynette Mackenzie, Claire Ballinger (et al).

*Journal of Aging and Health*, vol 20, no 8, December 2008, pp 954-971.

A pooled analysis of six trials (n=3298) demonstrated a 21% reduction in falls risk (relative risk, RR = 0.79; 0.65 to 0.97). The trials had been conducted in Australia (3), and one each in Germany, France and New Zealand. Heterogeneity was attributable to the large treatment effect of one trial. Analysis of a sub-group of studies with participants at high risk of falls (four falls, n=570) demonstrated a clinically significant 9% reduction of falls (RR= 0.61; 0.47 to 0.79), an absolute risk difference of 26% for a number needed to treat four people. Home assessment interventions that are comprehensive are well focused, and incorporate an environmental-fit perspective with adequate follow-up can be successful in reducing falls with significant effects. The highest effects are associated with interventions that are conducted with high risk groups. (RH)

**ISSN**: 08982643

**From**: http://www.sagepublications.com

The evolution of unintentional injury mortality among elderly in Europe; by Eleni Th Petriodou, Stavroula K Dikalioti, Nick Dessypris (et al).


Cause-specific unintentional injury mortality trends among people aged 65+ in the European Union (EU) were compared over a 10-year period (1993-2002). Overall and cause-specific data for 23 out of the 29 EU and European Free Trade Association (EFTA) countries with populations of 1 million or more were retrieved from the World Health Organization (WHO) and age-standardised mortality rates for the first and last 3 available years of the study period were calculated. Proportional mortality changes were estimated through linear regression. Circa 1993, country-specific rates varied widely (> fourfold), but this gap is closing and a statistically significant downward trend in overall mortality is noted circa 2002, in about half of the countries. Rates from falls were reduced by 4.3%, from motor vehicle traffic by 3.1%, and from smoke, fire and flames by 3.1%. A large proportion of EU countries enjoys steady declining trends by major unintentional injury mortality category. Success factors and barriers underlying these benchmarking patterns should be further explored to accelerate the process of injury reduction. (RH)

**ISSN**: 08982643

**From**: http://www.sagepublications.com

Fall risk-assessment tools compared with clinical judgment: an evaluation in a rehabilitation ward; by Michael Vassallo, Lynn Poynter, Jagdish C Sharma (et al).


200 patients admitted to a geriatric rehabilitation hospital had a STRATIFY and a Downton Fall Risk Assessment and were observed for wandering behaviour. Wandering had a predictive accuracy of 78%, with 157/200 identified compared to 100/200 using the Downton score of 93/200 using STRATIFY. The Downton and STRATIFY tools demonstrated predictive accuracies pf 50% and 46.5% respectively. Sensitivity for predicting falls using wandering was 43.1%, significantly worse than Downton (92.9%) and STRATIFY (82.3%). While the study showed that clinical observation had a higher accuracy than the two risk assessment tools, it was significantly less sensitive implying that fewer patients who fell were correctly identified as being at risk. (RH)

**ISSN**: 00020729

**From**: http://www.ageing.oupjournals.org

Falls education for practitioners: auditing a three-tier learning approach; by Eileen Mitchell, Helen Lawes.


In line with National Institute for Clinical Excellence (NICE) guidelines (2004), practitioners in West Dorset are developing and maintaining their basic professional competence in falls assessment and prevention. Local ‘falls champions’ have been appointed to assist in the education of all staff who work in older people’s services, in order to raise awareness and promote best practice. A three-tier style of education has been developed, to allow staff to learn skills of assessment and intervention in relation to falls prevention. Evaluation over a two-year period clearly demonstrates how primary care trust staff are beginning to meet the requirements of the NICE recommendation on ‘education and information-giving’, while choosing their own style of learning. (KJ/RH)
Fear of falling: measurement strategy, prevalence, risk factors and consequences among older persons; by Alice C Sheffer, Marieke J Schuurmans, Nynke van Dijk (et al).
Fear of falling (FOF) is a major health problem in older people living in communities, present not only in those who have fallen but also in older people who have never experienced a fall. This study's aims were to: study methods to measure FOF; study the prevalence of FOF among fallers and non-fallers; identify factors related to FOF; and investigate the relationship between FOF and possible consequences for community-dwelling older people. A systematic review identified 28 relevant studies from a systematic search of several databases and by cross-checking selected articles for other relevant publications. Due to the many different kinds of measurements used, the reported prevalence of FOF varied between 3% and 85%. The main risk factors for developing FOF are at least one fall, being female, and being older. The main consequences were identified as a decline in physical and mental performance, an increased risk of falling, and progressive loss of health-related quality of life (HRQoL). This review shows that there is great variation in the reported prevalence of FOF in older people, and that there are multiple associated factors. Knowledge of risk factors may be useful in developing multidimensional strategies to decrease FOF and improve quality of life. However, the only identifiable risk of FOF is a previous fall. In order to measure the impact of interventions, a uniform measurement strategy for FOF should be adopted, and follow-up studies should be conducted. (RH)

The Alexander Technique (AT) is a task-based approach to perceptual-motor learning that purports to improve coordination. This study examined the feasibility of a 2-week intensive programme of AT for improving balance and balance confidence in a group of ambulatory older people. Nineteen subjects with fall history (average age 78.8) participated. A brief, intensive group-delivered trial of exploratory perceptual learning appears feasible to incorporate into balance training and results in improved scores on balance outcomes. Further research of balance confidence is warranted to analyse discrepancies between self-reported and observed changes in confidence. (KJ/RH)

Home accidents in the community-dwelling elderly in Izmir, Turkey: how do prevalence and risk factors differ between high and low socioeconomic districts?; by Pembe Keskinoglu, Metin Picakciefe, Nurcan Bilgic (et al).
The prevalence of, and risk factors for, home accidents in two socio-economically contrasting regions of Turkey were determined and compared in a cross-sectional study of 497 older people age 65+. Data were analysed by chi square and t tests. Prevalence of home accidents was 39.9% in the low socioeconomic region and 13.1% in the high socioeconomic region in the previous 6 months. The most common type of accident was fall (51.7%) followed by cut or piercing (22%). Home accidents are associated with being female and increasing age in the higher socioeconomic region, whereas being female, being unmarried, and living in a squatter house are associated with home accidents in the low socioeconomic region. (RH)

How balance can overcome barriers; by Kathy Carter.
Quality in Ageing, vol 9, issue 1, March 2008, pp 41-44.
Balance is key to improving the quality of life for older patients. This article looks at barriers to participation, which exist in different forms in all areas of fitness and exercise, and are of an emotional or practical nature. The feature quotes a study published in The Gerontologist carried out by researchers at the University of Southampton's School of Psychology. They sought to identify factors that may inhibit uptake to falls-related interventions. Dr Dawn Skelton discusses the importance of exercise in reducing the number of falls and fall-related injuries in older people, and the BalanceMaster machine is highlighted. (KJ/RH)
Inability to get up after falling, subsequent time on floor, and summoning help: prospective cohort study in people over 90; by Jane Fleming, Carol Brayne, Cambridge City over-75s Cohort (CC75C).
Being unable to get up and therefore lying on the floor for a long time are prevalent after falls in men and women over 90, and this study describes the incidence and extent, also the use of call alarm systems in these circumstances. 90 women and 20 men aged over 90, surviving participants of the Cambridge City over-75s Cohort (CC75C), were followed up for one year regarding the immediate consequences of any falls. 54% (144/265) of fall reports described the participants as being found on the floor, and 82% (217/265) of falls occurred when the person was alone. Of the 60% who fell, 80% (53/66) were unable to get up after at least one fall, and 30% (20/66) had lain on the floor for an hour or more. Difficulty in getting up was consistently associated with age, reported mobility, and severe cognitive impairment. Cognition was the only characteristic that predicted lying on the floor for a long time. Lying on the floor for a long time was strongly associated with serious injuries, admission to hospital, and subsequent moves into long-term care. Call alarms were widely available, but were not used in most cases of falls that led to lying on the floor for a long time. Comments from older people and carers showed the complexity of issues around the use of call alarms, including perceptions of irrelevance, concerns about independence, and practical difficulties. Lying on the floor for a long time after falling is more common among the “oldest old” than previously thought, and is associated with serious consequences. Factors indicating higher risk and comments from participants suggest practical solutions are needed on training in strategies to get up from the floor; and access and activation issues in design of call alarms and information on their effective use. Care providers need better understanding of the perceptions of older people to provide acceptable support services. (RH)
ISSN: 09598138
From: www.bmj.com

The influence of drug use on fall incidents among nursing home residents: a systematic review; by Carolyn S Sterke, Arianne P Verhagen, Ed F van Beeck (et al).
Falls are a major problem among older people, particularly in nursing homes. Abnormalities of gait and balance, psychoactive drug use, and dementia have been shown to contribute to fall risk. The authors conducted a systematic review of the literature to investigate which psychoactive drugs increase fall risk, and what is known about the influence of these drugs on gait in nursing home residents with dementia. 17 studies were included in this review, including studies with a prospective cohort design. Pooled risk estimates were not calculated because there was no homogeneity across studies. The strength of evidence for psychoactive drugs as a prognostic factor for falls was assessed by defining four levels of evidence: strong, moderate, limited or inconclusive. Strong evidence was defined as consistent findings (80% or more) in at least two high quality cohorts. Strong evidence was found that the use of multiple drugs (3/5 cohorts, effect sizes 1.30-10.30), antidepressants (10/12 cohorts, effect sizes 1.10-7.60), and anti-anxiety drugs (2/2 cohorts, effect sizes 1.22-1.32) is associated with increased fall risk. The evidence for the associations of other psychoactive drug classes with fall risk was limited or inconclusive. Although the research available is limited, the scarce evidence shows that multiple drugs, antidepressants and anti-anxiety drugs increase fall risk in nursing home populations with residents with dementia. (RH)
ISSN: 10416102

Systematic reviews suggest that the most effective way to reduce falls is multifactorial risk assessment and individual interventions against risk factors. The present review traced studies using Medline, Embase, CENTRAL, CINAHL, PsychINFO, Social Sciences Citation Index, reference lists of included studies and previous reviews. Eligible studies were randomised or quasi-randomised trials that evaluated interventions to prevent falls that were based in emergency departments, primary care or the community, that assessed multiple risk factors for falling, and provided or arranged for treatments to address these risk factors. 19 studies, of variable methodological quality, were included. The combined risk ratio for the number of fallers during follow-up among 18 trials was 0.91 and for fall related injuries (8 trials) was 0.90. No differences were found in admission to hospital, emergency department attendance, death, or move to institutional care. Sub-group analyses found no evidence of different effects between interventions in different locations, populations selected for high risk of falls or unselected, and multidisciplinary teams including a doctor, but interventions that actively provide treatments may be more effective than those that provide only knowledge and referral. Evidence that
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. The 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. 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. 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 (BMI), 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. 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. (KJ/RH)

ISSN: 10795006
From: http://www.geron.org

Predicting people with stroke at risk of falls; by A Ashburn, D Hyndman, R Pickering (et al).
Falls are common following stroke, but knowledge about predicting future fallers is lacking. Of 512 people identified by this study who had been admitted to hospital with stroke, 122 (mean age 70.2 years) completed a battery of tests (balance, function, mood and attention) within 2 weeks of leaving hospital and 12 months post-discharge. Fall status was available for 115, of whom 63 (55%) had experienced one or more falls, 48 (42%) experienced repeated falls, and 62 (54%) experienced near falls. All variables available at discharge were screened as potential predictors of falling. Six variables emerged: near-falling in hospital; Rivermead leg and trunk score; Rivermead upper limb score; Berg Balance score; mean functional reach; and the Nottingham extended activities of daily living (NEADL) score. A score of near falls in hospital and upper limb function was the best predictor with 70% specificity and 60% sensitivity. Participants who were unstable (near falls) in hospital with poor upper limb function (unable to save themselves) were most at risk of falls. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

Rate of accidental falls in institutionalised older people with and without cognitive impairment halved as a result of a staff-oriented intervention; by Anne Bouwen, Jan de Lepeleire, Frank Buntinx.
A simple staff-oriented intervention had a substantial effect on the frequency of accidental falls. In a clustered randomised controlled trial, 10 nursing wards from 7 nursing homes, 5 wards were randomised in a control 5 in an intervention group. Nurses from the intervention group received multi-faceted training about the occurrences of accidental fall, risk factors for falls, and possible environmental modifications. For each fall, they were asked to record the relevant risk factors, to keep a fall diary and to evaluate fall causes and possible preventive actions.
For all residents, cognition and mobility were evaluated using a Mini Mental State Examination (MMSE) and a Timed Up and Go Test (TUGT). Fall rate were recorded in an identical way for 6 months before and after the start of the intervention. The relative risk of falling at least once in people in the intervention versus the control group, adjusted for the pre-intervention results was 0.46. There was no difference between residents with and without cognitive impairment or impaired mobility. In those falling at least once, the difference between the average number of falls in the two intervention arms was not significant. (RH)

ISSN: 00020729
From: http://www.ageing.oupjournals.org


Using longitudinal data collected on 321 Chinese primary care patients aged 65+, the authors investigated the reciprocal relationship between fear of falling and depression. They examined whether functional disability and social functioning mediated the link between fear of falling and depression. Participants were recruited from three primary care units in Hong Kong, and were assessed in Cantonese by two trained assessors with Minimum Data Set - Home Care twice over a 1-year period. Findings revealed that fear of falling at baseline significantly predicted depression at 12-month follow-up assessment after age, gender, marital status, education and depression at baseline were adjusted, but depression at baseline did not predict fear of falling at 12 months after fear of falling at baseline was adjusted. Moreover, social functioning mediated the impact of fear of falling on depression. These findings indicate that fear of falling potentially increase the risk of depression in Chinese older people in primary care settings. (RH)

ISSN: 13607865
From: http://www.tandfonline.com

Shifting the focus in fracture prevention from osteoporosis to falls; by Teppo Järvinen, Harri Sievänen, Karim M Khan (et al).


Although preventing fractures in older people is important, the authors of this article believe that we should be putting our efforts into stopping falls, not treating low bone mineral density. It is falling, not osteoporosis, that is the strongest single risk factor for fractures in older people. (RH)

ISSN: 09598138
From: http://www.bmj.com

A systematic review and meta-analysis of studies using the STRATIFY tool for prediction of falls in hospital patients: how well does it work?; by David Oliver, Alexandra Papaioannou, Lora Giangregorio (et al).


Falls are the commonest safety incident in hospital. STRATIFY is a prediction tool developed for use for hospital inpatients, using a 0-5 score to predict patients who will fall. It has been widely used as part of hospital falls prevention plans, but it is not clear how good its operational utility is in a variety of settings. STRATIFY has been subjected to the most independent validation studies and compares well with other tools on speed, adherence and reliability. A search identified 41 possible papers, eight of which were eligible for inclusion in a systematic review and four for inclusion in a meta-analysis; nine high-quality independent validation cohorts were identified. Although high values were reported for specificity and negative predictive value (NPV), sensitivity and positive predictor values were generally too low to make the use of such a tool (or similar ones) operationally useful in falls prevention in hospital. (RH)

ISSN: 00020729
From: http://www.ageing.oupjournals.org

A systematic review of older people's perceptions of facilitators and barriers to participation in falls-prevention interventions; by Frances Bunn, Angela Dickinson, Elaine Barnett-Page (et al).


The prevention of falls is currently high on the health policy agenda in the UK, which has led to the establishment of many falls prevention services. If these are to be effective, however, the acceptability of services to older people needs to be considered. This paper reports a systematic review of studies of older people's perceptions of these interventions. The papers for review were identified by searching electronic databases, checking reference lists, and contacting experts. Two authors independently screened the studies and extracted data on the factors relating to participants in, and adherence to, falls prevention strategies. 24 studies were identified, of which 12 were qualitative. Only one study specifically examined interventions that promote participation in falls prevention programmes; the others explored older people's attitudes and views. The factors
that facilitated participation included social support, low intensity exercise, greater education, involvement in decision-making, and a perception of the programmes as relevant and life-enhancing. Barriers to participation included fatalism, denial and under-estimation of the risk of falling, poor self-efficacy, no previous history of exercise, fear of falling, poor health and functional ability, low health expectations and the stigma associated with programmes that targeted older people. (RH)

ISSN: 0144686X
From: http://www.journals.cambridge.org/ASO


This global report is the product of the conclusions reached and recommendations made at the WHO Technical Meeting on Falls Prevention in Older Age, which took place in Victoria, Canada in February 2007. The report includes international and regional perspectives of falls prevention issues and strategies, and is based on a series of background papers that were prepared by worldwide recognized experts (and available at http://www.who.int/ageing/projects/falls_prevention_older_age/en/index.html). The report was developed by the Department of Ageing and Life Course (ALC) under the direction of Alexandre Kalache and coordination of Dongbo Fu, closely assisted by Ms Sachiyo Yoshida. Falls prevention is considered with reference to determinants of active ageing such as culture, gender, behaviour, personal factors, the physical and social environments, economics. The WHO Falls Prevention for Active Ageing model suggests a multisectoral approach based on: building awareness of the importance of falls prevention and treatment; improving the assessment of individual, environmental and societal factors that increase the likelihood of falls; and for facilitating the design and implementation of culturally appropriate, evidence-based interventions that will significantly reduce the number of falls among older people. (RH)

Price: CHF/US$15.00
From: WHO, WHO Press, 1211 Geneva 27, Switzerland. E-mail: bookorders@who.int Website: www.who.int/bookorders

2007


For an older person in hospital, a fall can have devastating consequences, prolonging hospital stay and leading to loss of confidence. Falls cost the NHS between £5340 and £12500 per patient in delayed discharge, and can cause nurses to question their own practice and blame themselves. Further, the efforts of clinicians and researchers implementing falls prevention interventions are hampered because of inconsistencies in assessing risk. The use of falls risk assessment tools varies throughout the UK. In Scotland some hospitals use them while others do not. Unlike England and Wales, Scotland has no national guidelines. To deal with this problem, the authors conclude that it is important to develop an evidence-based guideline that covers the whole of the UK. (KJ/RH)

ISSN: 14720795
From: http://www.nursingolderpeople.co.uk


Many older people refuse to participate in strength and balance training (SBT), limiting the effectiveness for falls prevention. To persuade older people to take up SBT, we need to know whether their intention to undertake SBT is motivated by the perceived threat of falling or the perceived suitability and benefits of SBT. Help the Aged commissioned a survey of 558 people aged 60-95 assessing intention to undertake SBT, as well as measures of threat appraisal (concerns about falling, perceived risk, and consequences of falling) and coping appraisal (perceived benefits and appropriateness for them undertaking SBT). Intention to undertake SBT was much more closely related to all elements of coping appraisal than threat appraisal. The elements of coping appraisal included the belief that it has multiple benefits and is associated with a positive social identity and the feeling that family, friends and doctors would approve of taking part. (RH)

ISSN: 10795014
From: http://www.geron.org
Avoiding slips, trips and falls: an information guide on how to avoid falls in the home; by Windsor and Maidenhead Adult Care Services; Berkshire East Primary Care Trust; learning and Skills Council. Windsor: Windsor and Maidenhead Adult Care Services, 2007, 12 pp.
Falling can badly damage a person's quality of life. This booklet provides advice on how to avoid falls, and therefore be safe and maintain one's independence. (RH)

From: Windsor and Maidenhead Adult Care Services, York House, Sheet Street, Windsor SL4 1DD.
www.rbwm.gov.uk

Since the first edition of this book was written to synthesise and review the enormous body of work covering falls in older people, there has been an even greater wealth of informative and promising studies designed to increase our understanding of risk factors and prevention strategies. This new edition is written in three parts: epidemiology, strategies for prevention, and future research directions. New material includes the most recent studies covering: balance studies using tripping, slipping and stepping paradigms; sensitivity and depth perception visual risk factors; neurophysiological research on automatic or reflex balance activities; and the roles of syncope, vitamin D, cataract surgery, health and safety education, and exercise programs. This new edition will be an invaluable update for clinicians, physiotherapists, occupational therapists, nurses, researchers, and all those working in community, hospital and residential or rehabilitation aged care settings. There are 45 b/w illustrations and 30 tables. (RH/KJ)
ISBN: 0521589649
Price: £42.00 (pbk)
From: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.
http://www.cambridge.org

This report presents findings of a literature review that explores how the recent recommendations made by the Prevention of Falls Network Europe (ProFaNE) may be implemented in everyday practice by those working with older people. It also aims to stimulate further ideas for implementation of the ProFaNE recommendations. Findings are subdivided into subsections of general theory and evidence and falls-related theory and evidence. An appendix lists the literature searches conducted and numbers of documents found. (RH)

"Faster counting while walking” as a predictor of falls in older adults; by Oliver Beauchet, Véronique Dubost, Gilles Allali (et al).
Participants were 187 people aged 73-100 (mean age 84.5) living independently in 27 housing developments for older people in Saint-Étienne, France. During enrolment, they were asked to count aloud backwards from 50, both at rest and while walking, and then divided into two groups according to counting performance. Information on incident falls during the following year were collected monthly. Faster counting while walking was strongly associated with falls, suggesting that better performance in an additional verbal counting task while walking might represent a new way to predict falls in older people. Despite the development of dual-task based fall risk assessment tests, findings about the relationship between dual-task-related gait changes and falls remain controversial. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

Flooring as an intervention to reduce injuries from falls in healthcare settings : an overview; by Amy Drahota, Diane Gal, Julie Windsor.
The ageing population is generating increasing concern over the occurrence and associated costs of falls in healthcare settings. Supplementary to the investigation of strategies to prevent falls is the consideration of ways to reduce the number of injuries resulting from falls in these settings. A comprehensive literature search, carried out in conjunction with a Cochrane Systematic review on hospital environments for patient health-related outcomes, identified the available evidence. Search were also conducted in Medline and Scopus specifically to identify studies on flooring types, falls and injuries. Reference lists of relevant studies and reviews were scanned and relevant authors were approached for further information. Flooring should be considered as a possible
intervention for reducing injuries from falls. However, more rigorous and higher quality research is needed to identify the most appropriate material for use. (RH)

ISSN: 14717794
From: http://www.pavpub.com

Getting up from a fall and planning ahead [DVD]: produced in partnership with Tick Tock, the Royal Borough of Windsor and Maidenhead, and East Berkshire Falls Prevention Groups; by Berkshire East Falls Service Implementation Group.; Berkshire Health Promotion Resources, 2007, DVD (7 mins 50 secs);

This DVD (also available as VHS video) is aimed at older people and others at risk of having a fall. It offers practical advice on what to do in the case of a fall. It explains a simple method for getting up and what to do if you can't. It gives advice on planning ahead to be better prepared if you do have a fall, for example, placing items around your rooms that could be useful if you were to fall, and having a procedure for calling for help. (RH)

Price: £12.00
From: Berkshire Health Promotion Resources: Tel 01753 638678; Website: www.bhps.org.uk/falls

Mind your step!: a falls prevention programme designed to reduce falls in those over 75 years; by Lorna Conn.

Falls among older people cause significant mortality and morbidity, presenting a serious issue for older people and health and social care professionals alike. The simple occurrence of a fall conceals the range of physical, psychological, social and environmental factors which can contribute to this event. Research advocates that professionals should engage with health promotion and develop individualised programmes of different interventions. In this Northern Ireland study, a multidisciplinary falls prevention initiative was developed with older people who had recently fallen. The initiative started with a common assessment but was followed by a variable individualised programme of different interventions. The older people involved were assessed pre- and post-intervention using a questionnaire checklist on several different dimensions associated with falling. Outcomes were assessed in terms of reduction in risk and the incidence in falls, both of which were found to be statistically significant in several of the identified dimensions post-intervention. Consequently, it could be estimated that approximately 44 falls were prevented through this 9-month initiative. This study would support the integration of this falls prevention initiative into routine community care practice through the existing over-75 health check and the development of a specialised falls team. Further research would be beneficial to follow up whether the reduction in the incidence of falling is sustained over time. Enhanced participation of user, carer, voluntary and community partners is recommended as this would allow older people themselves to play an active role in improving their own well-being and that of others. (RH)

ISSN: 14717794
From: http://www.pavpub.com

Multifactorial and functional mobility assessment tools for fall risk among older adults in community, home-support, long-term and acute care settings; by Vicky Scott, Kristine Votova, Andrea Scanlan (et al).

A systematic review of published studies testing the validity and reliability of fall-risk assessment tools for use with older people in community, home support, long-term and acute care settings was conducted. EbscoHost and MEDLINE were searched for studies in English published between January 1980 and July 2004, where the primary or secondary purpose was to test the predictive value of one or more fall assessment tools on people aged 65+. The tool must have had as its primary outcome fall, falls-related injury, or gait and balance. Only studies that used perspective validation were considered. 34 articles testing 38 different tools met the inclusion criteria. The community setting represents the largest number of studies (14) and tools (23) tested, followed by acute (12 studies and 18 tools), long-term care ((6 studies and 10 tools), and home support (4 studies and 4 tools). 11 of the 38 tools are multifactorial assessment tools (MAT) that cover a wide range of fall-risk factors and 27 are functional mobility assessment tools (FMA) that involve measures of physical activity related to gait, strength and balance. Fall risk assessment tools exist that show moderate to good validity and reliability in most areas of health service delivery. However, few tools were tested more than once or in more than one setting. Thus, no single tool can be recommended for implementation in all settings or far all sub-populations within each setting. (RH)

ISSN: 00020729
From: http://www.ageing.oupjournals.org
Physical fatigue affects gait characteristics in older persons; by Jorunn L Helbostad, Sara Leirfall, Rolf Moe-Nilssen (et al).
Balance and gait problems increase fall risk, and this study investigates how a repeated sit-to-stand task affected gait control in older people. 22 people (mean age 78) took part in a fatigue group (FG) and 22 people (mean age 80) in a matched control group (CG). Participants walked back and forth on a walkway at different walking speeds. Gait data were adjusted for pre-test post-test differences in walking speed. The FG participants were physically fatigued by a repeated sit-to-stand task. There were no group differences in preferred gait speed or in step length following the fatiguing task, but there were significant increases in step width. Gait changes following a physical fatiguing task agree with changes previously found in older people at risk of falling, suggesting that physical fatigue may represent a risk factor for falls in older people. (RH)
ISSN: 10795006
From: http://www.geron.org

Results from a cross-sectional study of a random sample of 4031 community-living Dutch people aged 70+ are that 54.3% reported fear of falling, with 37.9% reporting associated avoidance of activity. High age, female gender, fair or poor perceived general health, and one or more multiple falls were independently associated with fear of falling and associated avoidance of activity. In particular, the associations for fair and poor perceived health and multiple falls were very strong. These findings may help health care professionals to identify people eligible for interventions aimed at reducing fear of falling and activity restriction. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

Psychosocial factors associated with fall-related hip fractures; by Nancye M Peel, Roderick J McClure, Joan K Hendrikz.
Cases of fall-related hip fracture in people aged 65+ living in the community were recruited from hospital admissions in Brisbane, Australia in 2003-2004. 387 participants were matched with at least two controls per case who were recruited via electoral roll sampling. A questionnaire assessing psychosocial factors, identified as determinants of healthy ageing, was administered at face-to-face interviews. The study found that psychosocial factors having a significant independent protective effect on hip fracture risk included being currently married, living in present residence for 5 years or more, having private health insurance (PHI), resilience in response to stress, having a higher level of life satisfaction, and engagement in social activities in older age. The study suggests that fall injury among older people may be prevented or reduced by implementing healthy ageing strategies involving community-based approaches to enhance their psychosocial environments. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

The Director for Older People, Department of Health reports on certain aspects in implementing the National Service Framework (NSF) for Older People. He offers a five-point plan for older people's care. First, early intervention and assessment of old age conditions. Second, long-term conditions management in the community, integrated with social care and specialist services. Third, early supported discharge from hospital; and whenever possible delivering care closer to home. Fourth, general acute hospital care whenever needed, combined with quick access to new specialist centres. Lastly, partnerships built around the needs and wishes of older people and their families. To illustrate these five key elements, the report cites examples of successful treatment of falls and fractures. If replicated elsewhere, the prospect of services such as those offered by community hospitals such as Livingstone Hospital Rehabilitation Unit in Kent, is likely to be an attractive for many older people. (RH)
Price: FOC
From: Download document (29/01/07)

Promotional materials, health professional referrals, media, community presentations, mail-outs, and friends or relatives were used to recruit 110 community-residing people aged 70+ and at risk of falling to a randomised trial of a fall prevention programme. Mail and telephone recruitment strategies were able to be compared to actual recruitment yields, with costs reported for each. Mail-outs by organisations had response rates between 3.1% and 7.7%, with recruitment yields between 1.8% and 4.4%. Local media editorials were low cost and useful. Gender and physical status of participants varied according to the recruitment method, with multi-sources producing a reasonably representative sample. Databases and mail-outs using personalised letters were the most effective recruitment strategies for a community-based preventative programme. This study contributes to the expanding evidence of the kinds of recruitment that are more effective, considering the contexts of the study and the intervention. (RH)

ISSN: 14406381


Four articles including a guest editorial on sleep and sleep disorders in older people. Three of these articles are from American academe, and one on falls is from Australia. The articles address many current questions about this growing area of research. (KJ/RH)

ISSN: 10795006

From: http://www.geron.org


Cross-sectional studies were performed in hostels and an Internet-based survey was posted on the Greypath website regarding falls and sleep disturbance. There were 150 participants (mean age 81 ±8 years) in 8 residential aged hostels in Sydney and 150 respondents (mean age 70 ±5 years) to the internet survey. Sleep disturbances were reported by most participants in both surveys. For hostel participants, falls were associated with poor sleep quality and number of nocturnal awakenings (2.5 ±1.5 vs 2 ±1.4). Other risk factors for falls included Geriatric Depression Scale (GDS) score, pain, Timed Get Up and Go Test score, and the use of diuretics. For the Internet respondents, risk factors for falls included poor health rating and the use of spectacles, bifocals and walking aids; fewer falls were reported by those participants without any sleep disturbances. This Australian study finds that sleep disturbances are common in older people and are associated with their risk of falling. Internet-based surveys may be a useful adjunct to research on older people. (RH)

ISSN: 10795006

From: http://www.geron.org


Evidence for strategies to prevent falls and fractures in care home residents and hospital inpatients was evaluated, and the effect of dementia and cognitive impairment investigated. 1027 references, including 115 systematic reviews, expert views or guidelines were identified on searches of Medline, CINAHL, Embase, Psychinfo, Cochrane Database, and Clinical Trials Register, also hand searching of references from reviews and guidelines until January 2005. Of 92 full papers inspected, 43 were included. Meta analysis for multifaceted interventions in hospital (13 studies) showed a rate ratio of 0.82 for falls, but no significant effect on the number of fallers or fractures. For hip protectors in care homes (11 studies), the rate ratio for hip fractures was 0.67 (0.46 to 0.98), but there was no significant effect on falls and not enough studies on fallers. For all other interventions (multifaceted interventions in care homes, removal of physical restraint, fall alarm devices, exercise, changes in the physical environment, use of calcium or vitamin D, and medication review in hospital), meta analysis was either unsuitable because of insufficient studies, or showed no significant effect on falls, fallers, or fractures, despite strongly positive results in some individual studies. Meta regression showed no significant association between effect size and prevalence of dementia or cognitive impairment. There is some
The temporal relationship between falls and fear-of-falling among Chinese older primary-care patients in Hong Kong; by Kee-Lee Chou, Iris Chi.


Although the association between falls and fear of falling has been established by previous studies, the temporal ordering of the two is uncertain. Moreover, the common and unique risk factors that contribute to falls and fear of falling have not been investigated in either primary health care settings or Asian societies. This study aimed to examine the temporal sequencing of fear of falling and a fall, and to identify the risk factors associated with the two. A prospective cohort study with three six-month measurement waves was conducted in primary care settings in Hong Kong, the sample being derived from the waiting list control group of a randomised clinical trial. The 321 respondents were evaluated with the Minimum Data Set for Home Care (MDS-HC). It was found that falls and fear of falling at baseline were not independent predictors of respectively developing a fear of falling and becoming a faller, but that age was a common independent predictor for falls and the onset of fear of falling. Individuals with a fear of falling were at risk of both falling and a fear of doing so within 12 months. The good news is that no vicious circle of falls and the fear was found; and that modifiable risk factors, including IADL (instrumental activity of daily living) limitations, environmental hazards and fear of falling were identified, so that effective prevention programmes for falls and fear of falling can be designed. (KJ/RH)

ISSN: 0144686X
From: http://www.journals.cambridge.org/jid_ASO

Together we can: reduce falls through a partnership between older people, community pharmacy and the public sector; by National Pharmacy Association - NPA; Better Government for Older People - BGOP; East Sussex County Council; East Sussex Local Pharmaceutical Committee. St Albans: National Pharmacy Association, 2007, 37 pp.

In 2004, Better Government for Older People (BGOP) and the National Pharmacy Association (NPA) formed a strategic alliance to focus on current government policy with older people. This report describes a project run in East Sussex, where falls prevention has a high priority. It also presents results of a one-day conference, ‘Together in East Sussex We Can’, which aimed to alert attendees to the contribution of community pharmacies to the prevention of falls as a key element in ensuring well-being and independence. Also suggested is how partnerships such as Local Area Agreements, Partnership for Older People’s Projects (POPPs) and SureStart for Older People could be used to integrate community pharmacy into the whole systems approach. The report outlines the falls prevention work by local initiatives in Hastings and Rother, Eastbourne, and Sussex Downs and Weald. Appendices include the East Sussex Integrated Falls Service Strategy (November 2006), written before the ‘Together We Can’ event and community pharmacy involvement. On the basis of the project, community pharmacy has much to contribute to any falls prevention strategy and to the wider well-being agenda. (RH)

From: National Pharmacy Association, Mallinson House, 38-42 St Peter’s Street, St Albans, Herts AL1 3NP. www.npa.co.uk

2006

Exploring the relationship between fear of falling and neuroticism: a cross-sectional study in community-dwelling women over 70; by Rachel Mann, Yvonne Birks, Jill Hall (et al).


Current assessment measures and interventions designed to reduce fear of falling in older people do not take into account perceptions of anxiety. Effects of intervention to reduce fear of falling may be improved by the inclusion of personality assessments. In this study, cross-sectional data from 1,091 UK community-dwelling female participants aged 70+ were examined using multiple and logistic regression analysis. Fear of falling was measured on a 6-point Likert scale. Neuroticism was measured using the Eysenck personality inventory. Fear of falling could be predicted by neuroticism, history of falling, experience of fracture, need to use both arms to push up from a chair, poor subjective general health as measured by the SF-12, and living alone. Neuroticism seems to be an important psychological factor in the experience of fear of falling in community-dwelling older women. It may be relevant for inclusion in current assessment measures and for consideration in the design of interventions to reduce fear of falling. (RH)
Higher church attendance predicts lower fear of falling in older Mexican-Americans; by C A Reyes-Ortiz, H Ayele, T Mulligan (et al).
Several studies have shown that involvement in religious activity appears to benefit health. To estimate the association between church attendance and fear of falling, the authors used a sample of 1541 non-institutionalised Mexican-Americans aged 70+ from the 1998-1999 wave of the Hispanic Established Population for the Epidemiological Study of the Elderly (Hispanic EPESE), followed until 2000-2001. Baseline potential predictors of fear of falling were church attendance, socio-demographics, history of falls, summary measure of lower body performance (random balance, 8-foot walk, and repeated chair stands), functional status, depressive symptoms, cognitive status, and medical conditions. Fear of falling at the 2-year follow-up was measured as no fear, somewhat afraid, fairly afraid, and very afraid. Chi-square test and multiple logistic regression analysis were used to estimate associations between the outcome and the potential predictors. Multiple logistic regression analysis showed that frequent church attendance was an independent predictor of lower fear of falling 2 years later. Other independent predictors of fear of falling were female gender, poorer objective lower body performance, history of falls, arthritis, hypertension, and urinary incontinence. (RH)
ISSN: 13607863
From: http://www.tandfonline.com

The Minority Ethnic Elders Falls Programme (MEEFP) run by Help the Aged to raise awareness on falls prevention with Black and Minority Ethnic (BME) older people and their carers closed in March 2007. This three-year programme was funded by the Department of Health (DH) and addressed issues such as the lack of access to falls prevention services by BME older people because of language barriers; their limited knowledge on the availability of services in their locality; and the unsuitability of practices for different communities. The MEEFP supported pilot projects which incorporated the views of BME older people in the planning and delivery of their work in a variety of locations throughout England (Barnet, Camden, another North London location, Manchester, Portsmouth, Birmingham, Doncaster and Leeds). In the third and final year, information about the MEEFP programme was disseminated to over 200 organisations and presented at conferences and exhibitions in England. To support the programme, various resources were produced to target both practitioners and older people including two exercise videos. These two reports chart the Programme's progress with a description of all projects, the challenges, successes and lessons learned. (KJ/RH)
From: Download from website: http://www.helptheaged.org.uk/meefp

Observation of SIGN [Scottish Intercollegiate Guidelines Network] guidelines in nursing homes; by Sureshini Sanders.
Geriatric Medicine, vol 36, no 3, March 2006, pp 45-47.
Nursing home patients constitute a very frail and ever-growing group who are at increased risk of falls and fractures. Guidelines from the Scottish Intercollegiate Guidelines Network (SIGN) on osteoporosis are particularly relevant for this group. The author reviews the adherence to SIGN guidelines in two nursing homes covered by a general practice in West Lothian. Previous studies suggest that calcium and vitamin D supplementation improves balance and decreases the rates of falls and fractures. The practice decided to give all patients in the homes covered treatment with calcium and vitamin D; patients with osteoporosis were also prescribed a bisphosphonate. The practice has continued with these prescribing decisions. (RH)
ISSN: 0268201X
From: http://www.gerimed.co.uk

Older people's views of falls-prevention interventions in six European countries; by Lucy Yardley, Felicity L Bishop, Nina Beyer (et al).
The factors common to a variety of populations and settings that may promote or inhibit uptake and adherence to falls-related interventions were identified in semi-structured interviews with 69 people aged 68-98 in Denmark, the Netherlands, Germany, Greece, Switzerland and the UK. The sample was selected to include those whose participation experiences were very different. All were asked about interventions that included strength and balance training. Attitudes were similar in all countries and all contexts. People were motivated to participate in strength and balance training by a wide range of perceived benefits (interest and enjoyment,
improved health, mood, and independence) and not just reduction of falling risk. Participation also was encouraged by a personal invitation from a health practitioner and social approval from family and friends. Barriers to participation included denial of falling risk, the belief that no additional falls prevention measures were necessary, practical barriers to attendance at groups (e.g. transport, effort and cost), and dislike of group activities. Because many older people reject the idea that they are at risk of falling, the uptake of strength and balance training programmes may be promoted more effectively by maximising and emphasising their multiple positive health benefits for health and well-being. A personal invitation from a health professional to participate is important, and it may also be helpful to provide home-based courses for those who dislike of find it difficult to attend groups. (RH)


Although falls in older people cannot be eliminated, the conditions and situations that contribute to the risks of falling could be dealt with, controlled or possibly eliminated. However, where time and manpower is limited in small countries such as Malta, priority has to be given to those who fall frequently, present with falls, have unsteady gaits, have multiple risk factors for osteoporosis, or have sustained fractures. (RH)


The symbolic value of tai chi for older people; by Peter Scourfield.

The prevention and management of falls is a key part of Cambridge City and South Cambridgeshire PCT's Improving Health Programme. This article is based on a small-scale study into tai chi for older people at risk of falling. The aims of the research were first, to explore what benefits the class members felt they derived from practising tai chi; and second and more specifically, whether or not class members actually practised tai chi at home. The study was based on two broad assumptions: that the practice of tai chi has benefits for older people at risk of falling; and such benefits that might result from tai chi, increase with more frequent practice. The latter assumption prompted the desire to investigate whether class members practised tai chi at home. The research revealed that class members did not believe that tai chi had necessarily reduced their risk of falling. However, notwithstanding this, their commitment to tai chi was very strong. The findings suggest that tai chi had a symbolic value for this predominantly middle class group. It allowed them to "buy into" a third age lifestyle, despite increasing limitations of entering the fourth age. The members used tai chi, not only to improve balance and fitness, but also as a means of achieving a positive self-image. It was therefore an age-resisting strategy that operated on both a physical and symbolic level. (RH)


A Cochrane review of fall prevention interventions was used to identify fall definitions in published trials. Secondary searches of various databases were used to identify additional methodological or theoretical papers. Two independent researchers undertook data extraction, with adjudication by a third reviewer in cases of disagreement. 90 publications met the predefined inclusion criteria. Of these, 44 provided no definition of the
term fall. In the remainder, there were substantial variations in the definition and methods of measuring falls. Reporting periods ranged from 1 week to 4 years, with only 41% using prospective data collection methods. This systematic review thus draws attention to the large variation of parameters found, indicating a substantial lack of standardisation in the use and application of terminology and documentation methods concerning falls.

Takings a stand against falls; by Emma Vere-Jones.
Janet Robson, a district nurse team leader for Tameside and Glossop PCT, has won this year's NT Award for devising measures to reduce falls among nursing home residents. This article outlines the problems causing falls that she identified, whether in particular areas in the home, or with issues such as eyesight, footwear, or the effects of medication. Her guidelines - which have become known as the Robson Model - are being used not only in care homes, but also by district nurses to help people in their own homes. (RH)

Use of the 'STRATIFY' falls risk assessment in patients recovering from acute stroke; by Jane Smith, Anne Forster, John Young.
Falls are one of the most common medical complications after stroke. A reliable falls risk indicator for routine use on stroke units would be a clinically useful component of a falls prevention programme. In this north of England study of all patients with a diagnosis of stroke admitted to stroke units over a 6-month period, the risk assessment tool STRATIFY was completed at admission, along with the Barthel index, Rivermead mobility index, abbreviated mental test score, and Albert's test (for visual neglect). STRATIFY was then completed weekly and within 48 hours of anticipated discharge. From 387 patients admitted to the participating units during the study period, 225 contributed to the 28-day in-patient study, and 234 were followed up at 3 months after discharge. STRATIFY performed poorly in predicting falls in the first 28 days (sensitivity 11.3% and specificity 89.5%) and after discharge (sensitivity 16.3% and specificity 86.4%). There is a need for a stroke-specific rather than a generic falls risk assessment tool. (RH)

The Counsel and Care National Falls Survey: progress in implementing Standard 6 of the National Service Framework for Older People; by Gillian Dalley, Counsel and Care; Health and Social Care Quality Centre (HSCQC), London: Counsel and Care, July 2005, 34 pp.
One the "milestones" set by the National Service Framework for Older People (NSF) was establishing an integrated falls service in all localities in England by April 2005. This report has been produced in support of Help the Aged's National Falls Awareness Day, 19 July 2005, and presents results based on 95 responses to a postal survey questionnaire (Appendix 1) sent to all 302 English Primary Care Trusts. 37% of respondents had an integrated falls service in place. The report outlines the successes and difficulties, the key factors, and priorities underpinning introduction of integrated falls services. (RH)

Encouraging positive attitudes to falls prevention in later life: a report for Help the Aged; by Lucy Yardley, Chris Todd, Help the Aged. London: Help the Aged, 2005, 51 pp (summary leaflet also available).
There is evidence that many older people interpret "falls prevention" as meaning hazard reduction (avoiding risky activities, for example), rather than the potential for exercises to improve strength and balance to prevent
falls. This report presents the findings of two studies that provide evidence for this view. The first, by Lucy Yardley at the University of Southampton, was a focus group and interview study to identify features of communications about falling risk and prevention that might result in negative experiences, and to discover how messages might be improved. The second, by Chris Todd at the University of Manchester, used quantitative methods to determine which beliefs and feelings have the greatest influence on older people's intentions to undertake balance training (BT) to prevent falling. Help the Aged's Preventing Falls Programme will use this report's findings to inform its work with older people and practitioners to reduce the risk of falling in later life. The findings of this study are summarised in a 4 page leaflet "Don't mention the f-word!" (RH)

ISBN: 1904528872
Price: £10.00
From: Help the Aged, 207-221 Pentonville Road, London N1 9UZ. www.helptheaged.org.uk Email: info@helptheaged.org.uk


In Australia, falls by hostel residents aged 65+ are common. Living in an institution is associated with an increased risk of fractures. The authors studied cross-sectional prevalence and event association of falls for 179 residents aged 65+ (80% women) independent in activities of daily living (ADLs) living in eight hostels in Canberra. 49% of subjects had fallen in the previous year, and 29% of these had sustained a fracture; 53% of fallers had recurrent falls. The study identified some new potential risk factors for falls. In multivariate analysis, four factors were associated independently with falling within a year: using a walking device; history of cancer; taking selective serotonin re-uptake inhibitors (SSRIs); and cigarette smoking. For recurrent falls, cerebrovascular disease and using nitrates were also independent risk factors. In univariate analysis, reversible inhibitors of monoamine oxidase and potassium-sparing diuretics were negatively associated with falls. There were no differences between fallers and non-fallers in blood pressure in supine and standing positions, although one-third of residents had orthostatic hypertension. These risk factors could be used to identify those at high risk of falling, who can then be targeted for monitoring, specific treatment and prevention strategies. (RH)

ISSN: 14406381


Falls and fall-related injury is expected to worsen with an increasingly ageing population. This article summarises some of the statistics and introduces literature on exercise intervention strategies to prevent falls. One type of exercise identified in studies as being particularly effective in reducing falls risk and preventing falls is Tai Chi. The Tai Chi for Health and Falls Injury Prevention Program is a recent innovation in Australia; the objectives and benefits are outlined. (RH)

ISSN: 10165177
From: http://www.inia.org.mt

Fear of falling limiting activity in young-old women is associated with reduced functional mobility rather than psychological factors; by Finbarr C Martin, Deborah Hart, Tim Spector (et al).


The authors use data from the Chingford 1000 Women study for 713 community-dwelling women, mean age 64.2. Of these, 70 women (10.1%) reported fear of falling limiting activity (FoF-LA), of whom only 21 had fallen in the previous year. Women reporting FoF-LA had higher prevalence of adverse functional and clinical characteristics. FoF-LA was independently associated with reduced functional capabilities, but not with psychological factors among young-old women. FoF-LA may identify individuals at risk of subsequent functional decline. (RH)

ISSN: 00020729
From: http://www.ageing.oupjournals.org

Incontinence and falls in older people: is there a link?: by Shankar Loharuka, James Barrett, Brenda Roe.


Incontinence and falls are both common in older patients and account for many hospital admissions. Patients who need frequent toileting are at risk of falling. The authors suggest that while there appears to be evidence to support an association between continence and falls, this relationship has hardly been studied, so there are still a number of unanswered questions. (KJ/RH)
Involving older people in research: methodological issues; by Fiona Ross, Sheila Donovan, Sally Brearley (et al).
The policy imperative to increase public participation in health and social care research, planning and service delivery raises significant questions about optimum approaches, methods and the extent to which policy can influence changes in practice. This paper highlights the key policy literature on user involvement and participatory research methods to establish the context for a partnership research project exploring perceptions of risk in relation to falls from the perspectives of older people, carers, and health and social care professionals. The paper reports the methods used in developing user involvement in the research at a number of levels, including project management, and a consumer panel working alongside the research team and influencing the dissemination in local falls prevention strategies. The authors draw out the issues related to the context and method of involvement, and discuss the impact on research quality and local service development in health and social care. (RH)

Patients with recurrent falls attending Accident & Emergency benefit from multifactorial intervention: a randomised controlled trial; by John Davison, John Bond, Pamela Dawson (et al).
Of 313 cognitively intact men and women aged 65+ presenting to Accident & Emergency (A&E) in Newcastle-upon-Tyne and North Tyneside with a fall or fall-related injury and at least one additional fall in the preceding year, 159 were randomised for assessment and intervention, and 154 to conventional care. There were 36% fewer falls in the intervention group. The proportion of subjects continuing to fall (65%, 94/144) compared with 68% (102/149) in the conventional care group. The number of fall-related attendances and hospital admissions did not differ between the groups. Duration of hospital admission was reduced and falls efficacy was better in the intervention group. While multifactorial intervention is effective in reducing the fall burden in cognitively intact older people with recurrent falls attending A&E, it has not reduced the proportion of subjects still falling. (RH)

Despite consistent numbers of older people experiencing falls, there is little awareness among older people that strategies exist to prevent falling. This study explores older people's beliefs and perceptions about falls injury prevention services. The study also identifies incentives and barriers to attending falls injury prevention services, including programmes targeting physical activity. 75 people age 60+, members of community groups, completed a 23-item postal survey. 28% of respondents had fallen within the previous 6 months, yet just over half (54%) were aware that there were strategies to prevent falling, despite the majority of the sample being physically active (81%), and at least reasonably confident about walking (84%). The features that were considered most desirable for alls injury prevention service were group exercise programmes (61%), educational talks about health issues (57%), and eyesight testing (52%). The most commonly reported incentives for attending a physical activity group included having a doctor to advise them to attend (61%) or having a friend who attended the group (55%). The most common barrier to attendance was transport (43%). It appears that motivating people to participate in physical activity with the aim of falls prevention will largely depend on the encouragement of their doctor or their peers. (RH)

Secondary prevention of falls and osteoporotic fractures in older people: a comprehensive integrated service is still some way off in the UK; by David Oliver, Marion E T McMurdo, Sanjeev Patel.
Recommendations in the National Service Framework for Older People (NSF) and guidelines from NICE (National Institute for Clinical Excellence) provide the impetus for integrated effective services for older people with falls and fractures. The authors note, however, that there are few "comprehensive, integrated" services for
such common and ultimately costly problems, and that clinicians should lobby for change to a "whole system" approach to service provision for older people. (RH)
ISSN: 09598138
From: http://www.bmj.com
2004
Can flooring and underlay materials reduce hip fractures in older people?; by Julian Minns, Farhad Nabhani, James Stuart Bamford. Nursing Older People, vol 16, no 5, July 2004, pp 16-20. Many care homes and hospitals have totally inappropriate flooring and floor coverings that do little to reduce the risk of patients fracturing their hips after falling on these surfaces. This article outlines the results of another study that tested the impact of hip protectors and the shock absorbancy of different underlays. The authors suggest the sorts of information that should be included in future studies. (RH)
ISSN: 14720795
From: http://www.nursingolderpeople.co.uk
Consequences of falling in older men and women and risk factors for health service use and functional decline; by Vianda S Stel, Johannes H Smit, Saskia M F Pluijm (et al). Age and Ageing, vol 33, no 1, January 2004, pp 58-64. The current study was conducted within a sub-sample of the Longitudinal Aging Study Amsterdam (LASA). In 1998/99, potential risk factors were assessed during the third data collection. In 1999/2000, 204 community-dwelling people aged 65+ who reported at least one fall in the year before interview were asked about the consequences of their last fall, including physical injury, health service use, treatment and functional decline (including decline in social and physical activities). Almost 70% of the respondents suffered physical injury, a quarter needed medical help, and more than a third suffered functional decline after falling. No risk factors were found for health service use needed after falling. Female gender, higher medication use, depression and falls inside were significantly associated with a decline in the level of functioning as a consequence of the last fall. Some of the identified risk factors might be modifiable and can be used as intervention strategies. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org
Development and preliminary examination of the predictive validity of the Falls Risk Assessment Tool (FRAT) for use in primary care; by Sudip Nandy, Suzanne Parsons, Colin Cryer (et al). Journal of Public Health, vol 26, no 2, June 2004, pp 138-143. The aim was to develop a two-part tool for use in primary care or in the community. Part 1 includes a rapid assessment of the individual's risk of falling for administration by clinical or non-clinical staff. Part 2 (for clinical staff) includes guidance on further assessment, referral and interventions. The tool was developed by an expert panel following the updating of an existing systematic review of community-based prospective studies identifying risk factors for falling, and modified in accordance with the feedback from extensive piloting. Predictive validity was assessed by a questionnaire survey sent at baseline and 6 months to a random sample of 1000 people aged 65+ in one primary care group (PCG) area. Five items were included in Part 1: history of any fall in the previous year; 4 or more prescribed medications; diagnosis of stroke or Parkinson's disease; reported problems with balance; and inability to rise from a chair without using arms. The presence of three or more risk factors had a positive predictive value for a fall in the next 6 months of 0.57. The tool may be useful for identifying people who would benefit from further assessment of their risk of falling and appropriate intervention. (RH)
ISSN: 17413842
From: http://www.jpubhealth.oupjournals.org
Fall detectors: do they work or reduce the fear of falling?; by S Brownsell, M Hawley. Housing, Care and Support, vol 7, no 1, February 2004, pp 18-24. Older people's fear of falling can affect their health, well-being, care needs and quality of life. Fall monitoring equipment that can automatically raise a call for assistance is increasingly being developed, and may reduce the fear of falling. This study sought to discover the views of users and providers on technology of this type, and to quantify the impact that fall detectors have on the fear of falling. The results of this study suggest that fall monitoring equipment is not considered routinely as part of a care package, and that knowledge of devices is poor. A trial of automatic fall detectors provided indicated that they may reduce fear of falling for certain users and so should be considered in falls management, but that more evidence and understanding are required to appreciate both the benefits and shortfalls of providing equipment of this sort. (RH)
Falls: the assessment and prevention of falls in older people: developed by the National Collaborating Centre for Nursing and Supportive Care; by National Collaborating Centre for Nursing and Supportive Care - NCC-NSC; National Institute for Clinical Excellence - NICE. London: NICE - National Institute for Clinical Excellence, November 2004, 29 pp (Clinical guideline 21).
This guideline is of relevance to those older people who have fallen or are at risk of falling; families and carers of older people; healthcare professionals who share in caring for those who are vulnerable or at risk of falling; and those responsible for service delivery. Its guidance is evidence based, and uses a grading scheme. Also available from the NICE website or via the NHS Response Line is an abridged version (a "quick reference guide", reference number N0760) and Information for the Public (reference number N0761). (RH)
ISBN: 1842578294

A falls prevention exercise programme in a primary care trust; by Linda Dobrzanska, Debbie Crossland, Maggie Domanski (et al).
The Falls Exercise Prevention Programme for older people was introduced as a new project for North Bradford Primary Care Trust in 2002. The introduction of this new service was in response to an identified need to help reduce the incidence of falls, reduce serious injuries as a result of falling, and help improve and maintain the quality of life for those older people who had been identified as having had a fall or having a high risk of falling. The service was not established to be a front line service, but to be incorporated into the falls referral pathway. The exercises undertaken are all evidence based and proven to be effective with this population. However, the Group promotes other aspects of quality of life for older people, and promotes a holistic approach, including health promotion and education. The group has now expanded to incorporate a "Walking for Health" project, a "Walk from Home" project, and a "Buddy-Up" system. The Group is continually growing, and future plans are to incorporate a "Walks for Fallers". Evaluation of the service provides information to continually improve and extend the service on offer. (RH)
ISSN: 14717794
From: http://www.pavpub.com

Falls prevention in residential care homes: a randomised controlled trial; by Christopher A E Dyer, Gordon J Taylor, Mary Reed (et al).
196 residents aged 60+ in 20 residential care homes in West Wiltshire were enrolled, 102 of whom were assigned to a multifactorial falls prevention programme including 3 months gait and balance training, medication review, podiatry and optometry. In the intervention group, there was a mean of 2.2 falls per resident per year, compared with 4.1 for the 94 in the control group. While a modest reduction in falls was demonstrated, the result was not statistically significant. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

Fear-related avoidance of activities, falls and physical frailty: a prospective community-based cohort study; by Kim Delbaere, Geert Crombez, Guy Vanderstraeten (et al).
Mobility tasks such as walking and reaching are more often avoided by those older people with fear of falling. Fear-related avoidance of activities is correlated with physical performance, including general physical frailty, postural control and maximal muscle strength. Fear-related evidence of activities is predictive of future falls. This article reports findings of a Belgian study of 225 community-living older people (94 men and 131 women) aged 61-92. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

Footwear style and risk of falls in older adults; by Thomas D Koepsell, Marsha E Wolf, David M Buchner (et al).
1,371 Americans aged 65+ were monitored for falls over a 2-year period; 327 qualifying cases were compared with 327 controls matched by age and sex. Standardised in-person examinations before fall occurrence,
interviews about fall risk factors after the fall occurred, and direct examination of footwear were conducted. Questions for controls referred to the last time they engaged in an activity broadly similar to what the case was doing at the time of the fall. Athletic and canvas shoes (sneakers) were the styles of footwear associated with lowest risk of a fall. Going barefoot or in stocking feet was associated with sharply increased risk, even after controlling for measures of health status. Relative to athletic/canvas shoes, other footwear was associated with a 1.3-fold increase in the risk of a fall, varying somewhat by style. Contrary to findings from gait laboratory studies, athletic shoes were associated with relatively low risk of a fall for older people during everyday activities. Fall risk was markedly increased when participants were not wearing shoes.

Gender and the negotiation between older people and their carers in the prevention of falls; by Khim Horton, Sara Arber.

Ageing and Society, vol 24, part 1, January 2004, pp 75-94.

The actions taken by relatives to prevent future falls were examined by in-depth interviews with 35 older people who had had recurrent falls, and separately with an identified key family member. Actions were classified as protective, coercive, negotiating, engaging, and "reflective of mutual respect". It was found that sons caring for older mothers took only "protective" and "coercive" actions, resulting in mothers having passive and submissive roles. In contrast, daughters who were caring for their fathers most often undertook "engaging" and some "negotiating" actions, which empowered the fathers in their decision making. Daughters had a "peer-like" relationship with the mothers whom they supported and cared for, and undertook primarily "negotiating" as well as "engaging" actions. The two men who cared for older men took no specific actions, but maintained mutual respect for each other. The findings demonstrate several ways in which the gender of dyad members influences the nature of the negotiation between close relatives, and throws light on the factors that influence the autonomy and dependence of older people.

Interventions for preventing falls and fall related injuries in older people: a mapping exercise ... on behalf of the Innovation Forum, Hertfordshire; by Frances Bunn, Karen Windle, Angela Dickinson, Centre for Research in Primary and Community Care (CRIPACC), University of Hertfordshire, Hatfield: Centre for Research in Primary and Community Care, University of Hertfordshire, October 2004, 22 pp.

The prevention of falls is currently high on the health policy agenda in the UK, which has led to the establishment of many falls prevention services. This mapping exercise was carried out to identify interventions to prevent falls and fractures in people aged 75 and over. Selected papers for this analysis were systematic reviews of interventions to prevent falls or fall related fractures. 23 systematic reviews and two sets of evidence based guidelines that met inclusion criteria were found. These were categorised by the type of intervention. Fall prevention programmes were most effective when they were multifactorial, multidisciplinary interventions. There is mixed evidence on the effectiveness of exercise programmes, although strength and balance training seems to be promising. Risk assessment and home hazard reduction are most beneficial when targeted at high-risk individuals. Only two reviews looked at the effect on hospital admissions and no significant differences were found. At present, there is insufficient evidence to assess the effects of fall and fracture prevention interventions on hospital admissions.


The National Service Framework for Older People (NSF) may have set standards for older people's healthcare. However, the author contends that the evidence base for it is lacking, and some of the interventions are ineffective or damaging. The dangers of the NSF becoming "a secular mysticism" are evident in the falls section (Standard 6), where "a parade of incorrect treasured beliefs are trotted out". In this article, the literature base on falls is used to sort the sensible suggestions from the rhetoric.
Care home residents are at high risk of falling. Experience suggests that falls can be reduced by 50% when an individual's risks of falling are assessed and action taken to reduce them. This document gives examples of what care homes are doing to reduce the risk of falls and injuries. The aim is to support care home managers in responding to regulations and standards, and to protect the interests of older people in remaining independent, active and safe. Help the Aged was funded by the Department of Health (DH) in this work. (RH)
Price: FOC
From: Help the Aged, 207-221 Pentonville Road, London N1 9UZ.
http://www.helptheaged.org.uk/slipstripsemail: info@helptheaged.org.uk

Prevention of falls in older people: the Weymouth and Portland project; by Eileen Mitchell. 
Nursing Older People, vol 16, no 2, April 2004, pp 14-16. 
South West Dorset Primary Care Trust (PCT) has been allocated funding since 1999/2000 to promote a prevention of falls programme. The author, as falls adviser, describes how the assessment of pre- and post-intervention outcome measures helped to prove the project's effectiveness, and enabling older people to maintain their independence. (RH) 
ISSN: 14720795
From: http://www.nursingolderpeople.co.uk

Risk factors and risk assessment tools for falls in hospital in-patients: a systematic review; by David Oliver, Fergus Daly, Finbarr C Martin. 
Accurate assessment of risk is important in designing interventions to prevent falls in inpatients. 28 papers on risk factors were identified in this literature review, with 15 excluded from further analysis. Despite the identification of 47 papers purporting to describe falls risk assessment tools, only six papers were identified where risk assessment tools had been subjected to prospective validation, and only two where validation had been performed in two or more patient cohorts. A small number of readily identifiable and potentially reversible risk factors for inpatient falls had been repeatedly identifiable in studies. Risk assessment tools with useful operational characteristics and widespread validation are few. Even the best will fail to classify a high percentage of fallers. Perhaps the key is to look for reversible fall risk factors in all patients. (RH) 
ISSN: 00020729
From: http://www.ageing.oupjournals.org

The role of exercise in falls prevention for older patients; by Terry Hainsworth. 
The prevention and management of falls in older people is a key target in the National Service Framework for Older People (NSF). While this will be familiar to nurses working with older people, the suggestion that t'ai chi should be used as an intervention may be new to many. The evidence supporting t'ai chi and many other forms of exercise has been evaluated within the National Institute for Clinical Excellence (NICE) falls guidance. This should enable nurses to look at the prevention interventions that are currently recommended, and question the evidence for or against their effectiveness. Nurses should also be able to identify factors that may present as barriers to participation. (RH)
ISSN: 09547762
From: http://www.nursingtimes.net

Self-reported alcohol consumption and falls in older adults: cross-sectional and longitudinal analyses of the Cardiovascular Health Study; by Kenneth J Mukamal, Murray A Mittleman, W T Longstreth (et al). 
Consumption of 14 or more drinks per week is associated with an increased risk of subsequent falls in older people. Cross-sectional studies may fail to identify this risk of heavier drinking, perhaps because older people at risk for falls decrease their alcohol use over time, or because heavier drinkers at risk for falls tend not to enrol in cohort studies. The study reported on here had 5,184 participants aged 65+. They were enrolled in the US Cardiovascular Health Study, which relies on annual reporting of falls. Cross-sectional analysis indicated an apparent inverse association between alcohol consumption and risk of frequent falls, but longitudinal analysis indicated a similar 4-year risk of falls in abstainers and light to moderate drinkers. Further prospective studies should be conducted to confirm these findings. (RH)
ISSN: 00028614
From: http://www.americangeriatrics.orghttp://www.blackwellpublishing.com
Using targeted risk factor reduction to prevent falls in older in-patients: randomised controlled trial; by Frances Healey, Andrew Monro, Angela Cockram (et al).

There is evidence that identifying and tackling individual risk factors can reduce the incidence of falls in the community. This study tested the efficacy of a targeted risk factor care reduction core plan in reducing risk of falling in 8 care wards and associated community units of a district hospital in the North of England. Matched pairs of wards were randomly allocated to intervention or control groups. Staff in intervention wards used a pre-printed care plan for patients identified as at risk of falling, and introduced appropriate remedial measures. After introduction of the care plan, there was a significant reduction in the relative risk of recorded falls on intervention wards but not on control wards. (RH)
ISSN: 00020729
From: http://www.ageing.oupjournals.org

2003

Association between falls in elderly women and chronic diseases and drug use: cross sectional study; by Debbie A Lawlor, Rita Patel, Shah Ebrahim.

Although the independent associations of particular diseases and types of drug are unclear, a number of chronic diseases, use of tranquillizers and antidepressants, and polypharmacy are associated with an increased risk of falling. Participants in this cross-sectional survey were 4050 women aged 60-79 in the British Women's Heart and Health Study. The prevalence of falling in the previous 12 months increased with increasing numbers of simultaneously occurring chronic diseases. However, no such relation was found in the fully adjusted data for the number of drugs taken. Circulatory disease, chronic obstructive pulmonary disease, depression and arthritis were all associated with increased odds of falling. The fully adjusted population attributable risk of falling associated with having at least one chronic disease was 32.2%. Only two classes of drugs (hypnotics and anxiolytics, and antidepressants) were independently associated with an increased odds of falling. Each class was associated with an increase of about 50% in the odds of falling, and each had a population attributable risk of <5%. (RH)
ISSN: 09598138

Breaking the fall: [measures to address the health costs of falls at home]; by Mike George.
Care and Health Magazine, issue 48, 5 November 2003, pp 30-32.

Four out of ten admissions of older people to nursing homes are the result of a fall, and the problem costs health and social care services £1 billion a year. Standard 6 of the National Service Framework for Older People (NSF) relates to falls, and local authority organisations are required to have a specialised and integrated falls service in place by April 2005. The Department of Health (DH) has also issued a guide, "How can we help older people not fall again?". The author reports on examples of how the problem is being tackled. The London Borough of Hackney has a Community Falls Network for older people at risk, which offers exercise classes and t’ai chi. Other initiatives - such as the Northampton Healthy Communities Collaborative, and a pilot site in the Wirral - come under the National Falls Collaborative. (RH)
ISSN: 14779994
From: http://www.careandhealth.com

Community-based group exercise improves balance and reduces falls in at-risk older people: a randomised controlled trial; by Anne Barnett, Ben Smith, Stephen R Lord (et al).

Recent studies have found that moderate intensity exercise is an effective intervention strategy for preventing falls in older people. This Australian study aimed to determine whether participation in a weekly group exercise programme with ancillary home exercises over one year improves balance, muscle strength, reaction time, physical functioning, health status and prevents fall in at-risk community-dwelling older people. The sample comprised 163 residents of Sydney aged 65+ identified as at risk from falling. Subjects were randomised into either an exercise intervention group or a control group. The intervention subjects attended a median 23 exercise classes over the year, and most undertook home exercise sessions at least weekly. At retest, the exercise group performed significantly better on three of six balance measures: postural sway on the floor with eyes open and eyes closed, and coordinated stability. The groups did not differ on measures of strength, reaction time and walking speed or on Short Form 36 (SF-36), Physical Activity Scale for the Elderly, or fear of falling scales. Overall, within the 12-month period, the rate of falls in the intervention group was 40% lower than that of the control group. (RH)
The concept of risk and older people: implications for practice; by Johanna Clarke.
Nursing Older People, vol 15, no 7, October 2003, pp 14, 16, 18.
The author explores risk-taking, and what it means for nurses in relation to their care of older people. She uses falls and accidents in the home as examples to illustrate how older people's rights, risks and responsibilities combine. (RH)
ISSN: 14720795

Dementia as a risk factor for falls and fall injuries among nursing home residents; by Carol van Doorn, Ann L Gruber-Baldini, Sheryl Zimmerman (et al).
Participants were 2,015 residents admitted to 59 randomly selected nursing homes in Maryland. In the 2 years after their admission, these residents had fall data collected from nursing home charts and hospital discharge summaries. The unadjusted fall rate for residents with dementia was 4.05 per year, compared with 2.33 per year for residents without dementia. The effect of dementia on the rate of falling persisted when known risk factors were taken into account. Among fall events, those occurring to residents with dementia were no more likely to result in injury than falls of residents without dementia. However, given the markedly higher rates of falling by residents with dementia, their rate of injurious falls was higher than for residents without dementia. Dementia is an independent risk factor for falling. Although most falls do not result in injury, the fact that residents with dementia fall more often than their counterparts without dementia leaves them with higher overall risk of sustaining injurious falls over time. (RH)
ISSN: 00028614

Depression in older people after fall-related injuries: a prospective study; by Winnie Scaf-Klomp, Robbert Sanderman, Johan Ormel, (et al).
159 participants in the Groningen Longitudinal Ageing Study (GLAS) who had sustained various kinds of fall-related injuries to limbs were assessed post-injury at 8 weeks, 5 months and 1 year. Pre- and post-injury levels of depression were compared using Student's t-test and effect size indices. Hierarchical multiple regression analysis was used to examine the contribution of change in physical functioning between baseline and 1 year post-injury to depression 1 year post-injury. Severity of injury was not associated with depression. The findings also suggest that recovery appears to plateau 5 months after the injury, but that levels of depression did not increase until 5 months post-injury. Depressive reactions did not occur as long as patients experience improvement of physical functions. No significant differences in this respect were found between hip fracture patients and patients with other injuries. (RH)
ISSN: 00020729

The development of fear of falling among community-living older women: predisposing factors and subsequent fall events; by Susan L Murphy, Joel A Dubin, Thomas M Gill.
Journals of Gerontology: Series A, Biological Sciences and Medical Sciences, vol 58A, no 10, October 2003, pp 943-947.
Fear of falling is a common and potentially modifiable health problem in older people. The participants evaluated in this study were 313 women aged 72+, members of the Project Safety cohort living in New Haven CT, and who had a fear of falling. They underwent a comprehensive in-home assessment, and were reassessed for fear of falling 1 year later. 84 participants (27%) developed a fear of falling at 1 year, and 77 (25%) experienced at least one fall event. The predisposing factors for developing a fear of falling included: age 80 years or older; visual impairment; a sedentary lifestyle; and no available emotional support. The occurrence of a subsequent fall event was also significantly associated with developing a fear of falling, although this effect was observed only in participants who had at least one predisposing factor. Since many of the predisposing factors are related to fall risk, preventive efforts to reduce fear of falling may also decrease the likelihood of falling. (RH)
ISSN: 10795006
From: www.geron.org

Effects of physical training on the physical capacity of frail, demented patients with a history of falling: a randomised controlled trial; by Claire Toullette, Claudine Fabre, Benedictie Dangremont, (et al).
The balance of frail, demented older patients with a history of falling can be improved by training, as evidenced by this French study undertaken with 20 such older people. Their average age was 81, and had Mini Mental
State Examination (MMSE) scores of 16.3 (±6.5). They had all passed "get up and go", "chair sit and reach", walking speed and static balance tests. They were assigned to a control group or a training group, the latter being trained with two sessions a week for 16 weeks. Walking, mobility, flexibility and static balance were significantly improved in the training group, but not in the controls. Whereas the controls suffered a relapse, the trained subjects did not, there being an absence of falls in that group. (RH)

ISSN: 00020729


Home Improvement Agencies (HIAs) are small, locally-based, not-for-profit organisations that can assist older, disabled or vulnerable homeowners or private sector tenants to repair, maintain or adapt their homes. Standard Six of the National Service Framework for Older People (NSF) concerns falls. This booklet provides evidence that HIAs can help local authorities and health services in tackling falls prevention in a cost-effective, client-focused way. (RH)

From: Foundations, Bleaklow House, Howard Town Mill, Glossop, SK13 8HT.
http://www.foundations.uk.com

Falls and bone health services for older people; by Jacqueline C T Close, Marion E T McMurdo, British Geriatrics Society Falls and Bone Health Section - BGS.
Age and Ageing, vol 32, no 5, September 2003, pp 494-496.
The evidence base for prevention of falls in older people continues to grow, yet implementation of successful strategies has been slow. Moreover, despite a reasonable knowledge base, non-evidence-based services are being developed and receiving funding. Excellent guidelines exist to inform commissioners and service providers alike. This paper serves to provide simple and digestible guidance on the key components of a comprehensive falls service as derived from the existing evidence base. (RH)

ISSN: 00020729

Fear of falling: links between imbalance and anxiety; by Lucy Yardley.
This review examines the relationship between unsteadiness, falling and anxiety, and their combined impact on the lives of older people. It draws on the literature regarding the link between anxiety and balance disorders to suggest possible explanations for observed patterns of association between older people's physical and psychological balance-related problems. The paper thus considers various ways in which unsteadiness, falling and anxiety may be connected. It then reviews what is known about fear of falling, including the causes, consequences and assessment of falling-related fears. Lastly, the implications of therapy are considered. (RH)

ISSN: 09592598
From: http://journals.cambridge.org

The impact of falls on quality of life: empowering older women to address falls prevention; by Lori E Weeks, Karen A Roberto.
Although older women are at disproportionate risk of falling and being injured, little is known about the effect of falling on their quality of life. This qualitative study examined the perceived causes of falling in older women, identified how older women's perceived quality of life is influenced by falls, and explored how women can be empowered to prevent falls from happening. Women who participated in focus groups indicated that the consequences of falling ranged in severity and duration, and encompassed physical and psychosocial domains. The women took ownership in preventing falls in their lives, and believed that falls were caused by factors in the physical environment, and personal health factors and practices. The results allow us to gain insight into the consequences of falls on older women's lives, and that older women can influence change by preventing falls from occurring and affecting their lives. (RH)

ISSN: 14717794
From: www.pavpub.com

Incidence and costs of unintentional falls in older people in the United Kingdom; by P Scuffham, S Chaplin, R Legood.
Unintentional falls impose a substantial burden on health and social services. The Home Accident Surveillance System (HASS), the Leisure Accident Surveillance System (LASS) and Hospital Episode Statistics (HES) data were used to identify numbers of admissions to hospital for fall-related injuries in England and Wales for 1999.
There were 647,721 accident and emergency (A&E) attendances and 204,424 admissions to hospital for fall-related injuries in people aged 60+. Attendance rates per 100,000 population were: 275.3 (ages 60-64), 287.3 (65-69), 367.9 (70-74) and 946.3 (age 75+); and hospital rates of admission per 10,000 population were 34.5, 52, 91.9 and 368.6 respectively. The cost per 10,000 population was £300,000 in the 60-64 age group, rising to £1,500,000 in those aged 75+. These bills cost the UK government £981 million, of which the NHS incurred 59.2%. Most of the costs (66%) were attributable to falls in those aged 75+. The major cost driver was inpatient admission, accounting for 49.4% of total cost of falls. Long-term care costs were the second highest, accounting for 41%, primarily in those age 75+. (OFFPRINT) (RH)

ISSN: 0143005X

Intense Tai Chi exercise training and fall occurrences in older, transitionally frail adults: a randomized, controlled trial; by Steven L Wolf, Richard W Sattin, Michael Kutner (et al).


291 women and 20 men aged 70-97 took part in this 48 week randomised controlled trial conducted in 20 congregate living facilities in Atlanta, Georgia, in which the aim was to determine whether intense t’ai chi (TC) could reduce the risk of falls more than a wellness education (WE) programme. The risk ratio (RR) of falling was found not to be statistically different between those in the TC or WE groups. Over the 48 weeks of the intervention, 46% of the participants did not fall: the percentage of those falling at least once was 47.6% for the TC group, while the percentage for the WE group was 60.3%. Overall, the authors conclude that TC did not reduce the RR of falling in transitionally frail older people, but the direction of effect observed in this study, together with positive findings seen previously in more robust older people suggests that TC may be clinically important, and should be evaluated further in this high-risk population. (RH)

ISSN: 00028614

From: http://www.american geriatrics.orghttp://www.blackwellpublishing.com

Is a fall just a fall: correlates of falling in healthy older persons: the Health, Aging and Body Composition Study; by Nathalie de Rekeneire, Marjolein Visser, Rita Peila (et al).


3,075 high functioning black and white older Americans aged 70 to 79 living in the community and enrolled to the Health ABC Study in 1997-98 were assessed for physical function using self-report and performance measures. Almost a quarter (24.1%) of women and 18.3% of men reported at least one fall within the year before the baseline examination. Fallers were more likely to be female and white; report more chronic diseases and medications; have poorer balance and leg strength; slower 400 metre walk time; and lower muscle mass. In men, multivariate regression models showed white race, slower 6 metre walk speed, poor standing balance, inability to do 5 chair stands, report of urinary incontinence, and mid-quintile of leg muscle strength to be independently associated with report of falling. In women, benzodiazepine use and reported difficulty in rising from a chair were associated with past falls. Falls history needs to be screened in healthy older people, as specific correlates of falling can be identified to define those at risk. (RH)

ISSN: 00028614

From: http://www.american geriatrics.orghttp://www.blackwellpublishing.com

Is social integration associated with the risk of falling in older community-dwelling women?; by Kimberly A Faulkner, Jane A Cauley, Joseph M Zmuda (et al).

Journals of Gerontology: Series A, Biological Sciences and Medical Sciences, vol 58A, no 10, October 2003, pp 954-959.

Social integration may lead to social support, which may in turn protect older people living in the community from falls. The authors examined incident falls over 3 years across quartiles of social integration scores for 6,692 white women (mean age 77) enrolled in the US Study of Osteoporotic Fractures (SOF). Social integration was assessed using family networks, friendship networks and interdependence scores. A total of 11,863 falls were reported, or 600 falls per 1000 women per year. In age-adjusted analysis, the average incidence rate of falls correlated inversely with family networks and interdependence. In multivariate analysis, increasing family networks were inversely associated with fall risk. Thus, strong family networks may protect against the risk of falls in older people living in the community. (RH)

ISSN: 10795006

From: www.geron.org

Medication use and falls in community-dwelling older persons; by Kaven D Kelly, Will Pickett, N Yiannakoulias (et al).


The association between injurious falls requiring a visit to the emergency department and various classes of medications was examined in a Canadian population-based study of community living people aged 66+ in
greater Edmonton, Alberta in 1998. During the study year, there were 2,405 falls reported by 2,278 individuals to six regional emergency departments, giving a crude fall rate of 31.6 per 1,000 population per year. The initial analysis identified 7 medication classes that were associated with an increased risk of an injurious fall, while controlling for age, gender and income. However, with further analyses controlling for the additional effects of comorbid disease, narcotic pain-killers, anti-convulsants and antidepressants were significant independent predictors of sustaining an injurious fall. (RH)

ISSN: 00020729

Preventing falls in older people: a multi-agency approach; by Tony Luxton, Jackie Riglin.
Falls among older people are common, disabling and often fatal. An inter-agency approach, in which nurses play an important role, can help identify risk factors and prevent falls occurring. This article includes a description of the "Walk Tall, Don't Fall" health promotion campaign which targets groups of older people, for example, in sheltered housing, church groups and luncheon clubs in South Cambridgeshire. (RH)

ISSN: 14720795

Preventing fractures in elderly people; by Anthony D Woolf, Kristina Akesson.
Prevention of fractures includes reducing the number of falls, reducing the trauma associated with falls, and maximising bone strength at all ages. This article reviews the literature, and describes the factors contributing to fracture and interventions to prevent fracture. It notes that previous fracture and low bone density are strong risk factors for future fracture; those at highest risk can be identified by combining these with other risk factors. Pharmacological treatment is most clinically effective and cost effective when targeted at those who are at highest risk. Reasons for previous falls and unsteadiness in older patients should be investigated. (RH)

ISSN: 09598138

The role of perceived control in the process of older people's recovery of physical functions after fall-related injuries: a prospective study; by Gertrudis J M Kempen, Johan Ormel, Winnie Scaf-Klomp (et al).
The severity of an injury following a fall is the predominant contributor to disability in the short term, but becomes insignificant over time, whereas the influence of age on recovery becomes more important. 165 older people from the Groningen Longitudinal Aging Study (GLAS) were assessed at baseline for two indicators of perceived control: mastery and self-efficacy expectations. Follow-up assessments of functioning were made at 8 weeks, 5 months and 12 months. Physical functioning referred to self-reported difficulties with activities of daily living (ADLs). Covariates included age, gender, level of education, pre-injury levels of social support and disability, and additionally, the severity of the injury sustained in a fall. Although significant at 8 weeks and of borderline significance at 5 months post-injury, the predictive role of perceived control appeared to be comparatively small. Pre-injury levels of disability were highly predictive for disability at all three post-injury assessments. (RH)

ISSN: 10795014

Steady As You Go (SAYGO): a falls prevention program for seniors living in the community; by Ellie Robson, Joy Edwards, Elaine Gallagher (et al).
Designed in the Capital Health region of Alberta, the Steady As You Go (SAYGO) falls prevention programme integrated the knowledge gained from successful falls prevention research into a brief community intervention. SAYGO included a multifactorial, risk abatement approach, as well as a cognitive behavioural and environmental focus. 660 relatively healthy and mobile community-dwelling older people were the target population; and the randomised community trial was conducted in urban and rural areas of Alberta. Those who completed the program made significant reductions in 8 of the 9 risk factors tackled by the program. In a 4-month follow-up, the proportion of those who fell was lower in the treatment group (17%) than in the control group (23%). Among those who had fallen in the previous year, a significantly lower proportion of those in the treatment group experienced a fall in the follow-up period (20%), as compared to the 35% in the control group. (RH)

ISSN: 07149808
"Stops walking to talk": a simple measure of predicting falls in the frail elderly; by Jennifer C Nitz, Karen J Thompson.
12 frail residents of care facilities were assessed for falls likelihood with the Timed Up-and-Go (TUG) and the Berg Balance Scale (BBS) tests, and then observed in walking to determine whether they needed to stop walking to talk. These results were compared with the number of falls subjects had experienced in the previous 6 months. Eight were deemed at risk of falling by the TUG, and seven by the BBS. Four of these had fallen in the previous 6 months. Three subjects needed to stop walking to talk on at least one occasion, and were deemed at risk of falling by the TUG and BBS. One of these had fallen in the previous 6 months. A future study with a larger sample size and incorporating memory recall in the conversation should be used to confirm these results. (RH)
ISSN: 14406381

The use of balance training in elderly people with falls; by P W Overstall.
The strongest evidence for reducing falls in at-risk older people is combined balance and strength training and regular walking. This article reviews the literature to discuss factors associated with falls, the importance of postural control, and whether balance training is more effective on its own or when combined with muscle-strengthening exercises. (RH)
ISSN: 09592598
From : journals.cambridge.org

Visual factors should be assessed in older people presenting with falls or hip fracture; by Ahmed H Abdelhafiz, Christopher A Austin.
Visual impairment - although not routinely assessed - is an important risk factor for falls and hip fracture in older people. Impaired vision is highly prevalent and commonly unreported in the older population, particularly in women and those living in nursing homes. Measurement of visual functions such as visual acuity, contrast sensitivity, and depth perception may identify older people at risk of falls and hip fracture. Visual loss in older people is correctable in most cases. Intervention strategies - for example, change of glasses or cataract extraction - may have the potential of improving visual function and preventing falls in older people. The authors explore the relationship between visual impairment and risk factors for falls and hip fractures through a MEDLINE review of relevant literature since 1966. (RH)
ISSN: 00020729

2002

Blood pressure changes on upright tilting predict falls in older people; by Edward Heitterachi, Stephen R Lord, Phillip Meyerkort (et al).
Orthostatic hypotension may be an important risk factor for falls, though this has not yet been demonstrated in prospective studies. This may be because conventional methods for measuring blood pressure changes are too imprecise and not optimally timed. 14 men and 56 women aged 62-92 from two retirement villages in Sydney, Australia participated in this study. Their blood pressure, medication use, and symptoms of dizziness were recorded at the start and followed up for 12 months to determine the incidence of falls. Those who fell in the follow-up period had significantly greater decrease in systolic blood pressure when tilted than those who did not fall. Symptoms of dizziness and anti-hypertensive and antidepressant drug use were not significantly associated with systolic blood pressure drops or falls. The findings indicate that both the decrease in blood pressure and the unstable nature of the blood pressure response following upright tilt are useful predictors of falls in older people. (RH)
ISSN: 00020729

Characteristics associated with fear of falling and activity restriction in community-living older persons; by Susan L Murphy, Christianna S Williams, Thomas M Gill.
Of 1,064 community-living people aged 72+ from the Project Safety cohort living in New Haven, CT in 1989, 57% reported fear of falling, 24% reported falling alone, and 19% reported restricting activity. The proportion of those with poor health, slow timed physical performance, activities of daily living (ADL) disability, and poor psychosocial function was highest in those with activity restriction, intermediate in those falling alone, and lowest in those with no fear of falling. Of those with a fear of falling, characteristics independently associated
with activity restriction were history of an injurious fall, slow timed physical performance, two or more chronic conditions, and depressive symptoms. (RH)

The construction of the risk of falling among and by older people; by Claire Ballinger, Sheila Payne.


Risk is prominent in explanations of health and illness, but its construction is often constrained by a rationalist perspective focusing on physical causes and functional outcomes, and presenting risk as external to the self and as predictable. This paper describes an empirical study of the ways in which risk was realised and managed in a day hospital for older people. An ethnographic approach, with participant observation and semi-structured interviews, and discourse analysis were used to explore these issues with staff and 15 users. Whilst service providers were orientated to managing physical risk, through medication and attention to risk reduction in the physical environment, service users were more concerned with the risk to their personal and social identities, and they more frequently described its manifestations in interpersonal exchanges, sometimes as infantilisation and stereotyping. This understanding of the potential for falls among older people to elucidate a broader interpretation of risk is developed, revealing that it is commonly constructed as a challenge to a person's self-image and identity. Such constructions help to explain older people's responses to complex health problems, and to the services and treatments that attempt to solve them. (KJ/RH)

Continuity of care and health decline associated with a hip fracture; by Marilyn Cree, Qian Yang, Anne Sclater (et al).


Pre-fracture and post-fracture information was obtained from 607 residents aged 65+ from the Edmonton area of Alberta, Canada, who had fractured a hip between July 1996 and August 1997. Fracture patients were likely to have been admitted to hospital and have had low continuity of care. Patients making frequent visits to their general practitioner (GP) were at increased risk of both pre-fracture hospital admission and post-fracture health decline. Pre-fracture hospitalisation was less likely for patients with high physical function; and patients of high mental status were less likely to experience post-fracture health decline. (KJ/RH)

Dao Yin Yang Sheng Gong: reducing the risk of falls; by Mary Dupoy, Tina Borfiga, Mike Richardson.


The Dao Yin Yang Sheng Gong (Duo Yin) initiative was set up in 1996 to provide safe, effective exercise for frail older people in Jersey, to improve their mobility and reduce their risk of falling. As a person's mobility becomes impaired, falling and fear of falling can have a radical effect on one's independence and quality of life. Duo Yin offered a new opportunity for people at risk, by providing an activity that counters the effects of instability and frailty, and which has shown to be effective. (RH)

Evaluation of a nurse-led falls prevention programme versus usual care: a randomized controlled trial; by Elizabeth Lightbody, Caroline Watkins, Michael Leathley (et al).


A fifth of those attending Accident and Emergency Departments (A&E) do so with a fall. 348 consecutive patients attending A&E at University Hospital Aintree, Liverpool with a fall were randomised to the nurse intervention or "usual care". The nurse intervention included a home assessment to deal with easily modifiable risk factors for falls, and assessments of medication, ECG, blood pressure, cognition, visual acuity, hearing, vestibular dysfunction, balance, mobility, feet and footwear. All patients were given advice and education about general safety in the home. Although differences between the two groups were not significant, patients in the intervention group had fewer falls and hospital attendances, and spent less time in hospital. The single assessment of risk factors for falls with appropriate intervention increased long term independence. Falls prevention programmes should focus not only on falls, but also on independence. (RH)

Falls; by N Colledge.


Falls cause substantial morbidity and mortality in old age, with disease, disability and drugs being important as causing falls. The author reviews literature on the risk factors and prevention of falls, concluding that further work is needed to find effective ways of delivering preventive programmes to older people. (RH)
Going, going, gone: reducing falls; by Lorna Easterbrook, Khim Horton, Sara Arber (et al).

Reducing falls amongst older people in the UK has been a government target for at least a decade. It now features as part of the National Service Framework for Older People (NSF). In 2001, the authors reviewed a range of UK and overseas studies aimed at reducing falls. This article is based on their report, “International review of interventions in falls among older people” published by the Department of Trade and Industry in November 2001. It forms part of the DTI’s campaign to reduce falls in older people, "Avoiding slips, trips and broken hips", which began in 1999. (RH)

The influence of outside temperature and season on the incidence of hip fractures in patients over the age of 65; by Timothy J S Chesser, Isobel Howlett, Anthony J Ward (et al).

It is often assumed that hip fractures occur more commonly in winter, but there is conflicting evidence. This issue needs to be clarified to aid planning of health resources, and understanding of the aetiology of these fractures in older people. 818 patients aged 65+ presenting with hip fractures at a district hospital were studied over a 5-year period. No significant difference was found in the incidence of fractures with different temperatures, changes in temperature, season or month (as measured at Bristol Weather Centre). Although patients presenting in winter months had significantly longer hospital stays, there was no significant difference in characteristics of patients presenting in different seasons or temperature ranges. It could be that there may be no extra demand on resources to treat hip fractures during the winter months in southern England. (RH)

Intensive physical training in geriatric patients after severe falls and hip surgery; by Klaus Hauer, Norbert Specht, Mathias Schuler (et al).

Progressive resistance training and progressive functional training are safe and effective methods to increase strength and functional performance during rehabilitation in patients after hip surgery and a history of injurious falls. The authors report a study of a 3-month training intervention and 3-month follow-up of 28 German older patients admitted to acute care or inpatient rehabilitation because of fall-related hip fracture or hip replacement. No training-related medical problems occurred in the study group (15 intervention, 13 control). 24 patients (86%) completed all assessments during the intervention and follow-up. Training significantly increased strength, functional motor performance and balance, and reduced fall-related behavioural and emotional problems. Some improvements in strength persisted during the follow-up, while other strength variables and functional performances were lost after cessation of training. Patients in the control group showed no change in strength, functional performance and emotional state over the 6 months. (RH)

A multidisciplinary practice guideline for hip fracture prevention in residential aged care; by Samuel Scherer, Catherine Jennings, Mindy Smeaton (et al).


There were more than 15,000 hip fractures in Australia in 1996; and some 40% of hip fractures in Australia and New Zealand occur among older people living in institutions. The authors have developed and implemented a pilot multidisciplinary practice guideline integrating fall prevention, hip protectors and osteoporosis management in a group of 50 residents at very high risk of hip fracture. They describe the characteristics of those residents, and report the outcome of this observational study, which resulted in an implementation rate of between 50% and 86% for six individually considered interventions at 6-month follow-up. (RH)

Prevalence and risk factors for falls in an older community-dwelling population; by Matteo Cesari, Francesco Landi, Sergio Torre (et al).


Falls are responsible for considerable morbidity, immobility and mortality in older people. This study aims to determine the prevalence of falls and related intrinsic and extrinsic risk factors. It is based on an observational study of 5,570 older Italian patients admitted from 1997 to 2001 to home care programmes participating in the National Silver Home Care project, under the aegis of the Italian Geriatrics Society. Evaluation used the Minimum Data Set - Home Care (MDS-HC) instrument. A 35.9% prevalence of falls was found within 90 days
of the patient assessment. Those affected by depression were more likely to fall. Those who lived in an unsafe place with environmental hazards had an increased risk of falling. Rate of falls among frail older people living in the community is very high, and frequently correlates with potentially reversible factors. Home care staff and general practitioners (GPs) could use the MDS-HC assessment tool to identify those with higher falling risk. (RH)

ISSN: 10795006

To accompany the first in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials concerning safer environments in hospitals and care homes; by Centre for Policy on Ageing - CPA, 2002, various (Framework into practice - making it happen). From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

To accompany the second in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials concerning safer environments in hospitals and care homes; in particular, risk assessment and risk management. (RH) From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

To accompany the third in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials. The theme of reducing falls through a safer environment was examined in a series of case studies: putting together a local falls prevention strategy and programme; building a community response to falls; falls and the local HImp; and building safer communities - the partnership response to falls. (RH) From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

To accompany the fourth in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials on falls services in East Cambridge and Essex. (RH) From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

To accompany the last in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials. Sessions included: the contributions of exercise physiology to falls prevention and individual well-being; nutrition and post-fall care; and developing a cross-agency service response. (RH) From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

The prevention and management of falls (NSF Standard 6): Information pack on a series of five practical workshops supporting the development and implementation of the National Service Framework; by Centre for Policy on Ageing - CPA; Gray's Inn Communications; Health and Social Care Quality Network. London: Centre for Policy on Ageing - CPA, 2002, various (Framework into practice - making it happen).
To accompany the CPA Conference which was a conclusion to the five workshops on the prevention and management of falls, held between November 2001 and February 2002. This information pack comprises speakers' materials and the workshops covered: Clinical issues; Safer care environments; Reducing falls through a safer environment; Service response; and Falls and the individual. (KJ) From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

A prospective study of the relationship between feared consequences of falling and avoidance of activity in community-living older people; by Lucy Yardley, Helen Smith. The Gerontologist, vol 42, no 1, February 2002, pp 17-23. The most common beliefs concerning negative and feared consequences of falling are identified using a questionnaire, completed by 224 participants aged 75+ from the Wessex Fracture Prevention Trial. Beliefs about the consequences of falling were related to demographic characteristics, falling history, and avoidance of activity. The questionnaires were completed again by 166 participants 6 months later. Commonly feared consequences of falling were loss of functional independence and damage to identity. These fears were correlated with avoidance of activity (after adjusting for age, sex and recent falling history) and predicted
avoidance in activity 6 months later (after adjusting for baseline levels of avoidance). Concerns about damage to social identity, as well as functional incapacity, are common and motivate avoidance of activity. (RH)

ISSN: 00169013


A weekly exercise programme focusing on balance, plus exercise at home, can help to prevent falls, as evidenced in this study of 1,090 Australians aged 70+ living at home and in good health. Three interventions (group based exercise, home hazard management, and vision improvement) were delivered to eight groups defined by the presence or absence of each intervention. An 18-month falls calendar ascertained the time to first fall. The number of people needed to be treated to prevent one fall a year ranged from 32 for home hazard management, to 7 for all three interventions combined. The study finds that home hazard management and vision screening and referral are not markedly effective in reducing falls when used alone, but do add value when combined with the exercise programme. (RH)

ISSN: 09598138


1,500 older Australian women aged 70-85 selected at random from the electoral roll participated in this study. Subjects had low levels of physical and cognitive impairments. 24.1% of the group was obese (body mass index, BMI >30). 26% of the women did not participate in recreational physical activity; 39% participated in sufficient activity to gain probable health benefits. Although those women who did not participate in recreational activities were most likely to report fear of falling (45.5%), it was common in the group as a whole (33.9%), including the most active women (27%). Subgroup analysis suggested that fear of falls affected activity levels at a pre-disability stage in women with mildly impaired mobility. Fear of falling is an important psychological barrier that may need to be overcome in programmes that attempt to improve activity levels in older women. (RH)

ISSN: 00028614


In a study of 228 patients who fell during their stay in a US acute care hospital and 228 controls matched by nursing unit and length of stay, those with orders for restraint were more likely to fall than those without orders. Because orders for restraint use may not reflect actual restraint use at the time of a fall, observational studies relating use of restraints to the risk of falls should be interpreted with caution. Despite this caveat, the authors could find no evidence that restraints protect hospital patients from falling. (RH)

ISSN: 00028614


The factors associated with falling are examined for some 3,100 individuals aged 65+ who participated in Canada's 1994 National Population Health Survey (NPHS). The intent of the NPHS is to monitor the health of Canadians and the risk factors that affect their health. Several factors were identified as increasing the risk of falling, such as advanced age, being female, certain medical conditions, medication use, and impaired mobility. The results from this larger, national survey confirm the findings of many studies using smaller samples within individual communities. Continuation of the NPHS will assist in offering longitudinal data with respect to falls, and allow for establishing a temporal order prior to the fall event, in order to provide more definitive evidence with regard to risk factors for falls. (RH)

ISSN: 07149808


The purpose of this study was to examine whether vigorous physical activity - defined as sports, heavy housework, or a job that involves physical labour - is associated with falls, falls with a serious injury, broken hip, and fall frequency. The study uses the Health and Retirement Study (HRS) database survey developed by the University of Michigan, to examine the relationship of key attribute variables associated with falls. The sample consisted of 11,226 older Americans aged 65 to 106. A Logit and Tobit regression analysis indicated
that vigorous physical activity is negatively associated with falls and falls with a serious injury, broken hip, and fall frequency. Although the study does not differentiate between components of vigorous physical activity, it does indicate that those who participate in these activities are less likely to be associated with fall-related consequences. (KJ/RH)

ISSN: 02703181


2001

Adherence to a fall prevention program among community dwelling older adults; by C Lambert, K A Sterbenz, D E Womack (et al).
The purpose of this study was to determine whether older adults participating in a fall prevention programme make recommended environmental and personal changes to reduce falls, and to identify factors affecting adherence to the programme. Thirty of 84 community-dwelling older people completed the programme which consisted of three sessions. Pre-survey results indicated the majority of participants were in the maintenance stage of change. Post-survey results indicated change from pre-contemplative and action stages to the maintenance stage. Knowing participants' stage of change can guide selection of more effective fall prevention programmes. Recommendations to design community-based fall prevention programme are presented. (KJ/RH)

ISSN: 02703181


Associations of demographic, functional and behavioral characteristics with activity-related fear of falling among older adults transitioning to frailty; by Reto W Kressig, Steven L Wolf, Richard W Sattin (et al).
17 male and 270 female Americans aged 70+ who had fallen in the previous year were assessed for activity-related fear of falling with the Falls Efficacy Scale (FES) and Activities-Specific Balance Confidence Scale (ABC) and depression as measured by the Center for Epidemiological Studies Depression Scale (CES-D). Functional measurements included 360 degree turn, functional reach test, 10 metre walk test, single limb stands, picking up an object, and three chair stands. Activity-related fear of falling was present in almost half of this sample of older people in the transition to frailty. The significant association of activity-related fear of falling with demographic, functional and behavioural characteristics emphasises the need for multidimensional intervention strategies for this population. (RH)

ISSN: 00028614

Choice stepping reaction time: a composite measure of falls risk in older people; by Stephen R Lord, Richard C Fitzpatrick.
The neuropsychological, sensorimotor, speed and balance contributions to a new test of choice stepping reaction time (CSRT) were investigated, and determined whether this new test is an important predictor of falls in older people. 477 retirement village residents in Sydney, Australia aged 62 to 95 took the test, which required them to step into one of four panels that were illuminated in random order. Multiple regression analysis revealed that poor performance in Part B of the Trail Making Test (TMT, a neuropsychological test) and impaired quadriceps strength, simple reaction time, sway with eyes open on a complaint surface, and maximal balance range were the best predictors of increased CSRT. Those with a history of falls had a significantly increased CSRT compared with non-fallers. Impaired CSRT was a significant and independent predictor of falls, as were two complementary sensory measures (visual contrast sensitivity and lower limb proprioception). Of these measures, CSRT was the most important in predicting falls. The inclusion of CSRT in the model excluded measures of strength, central processing speed and balance, because these could not provide non-redundant information for the prediction of falls. (RH)

ISSN: 10795006


63 people with Parkinson's disease were recruited through general practices, of whom 40 (64%) had fallen in the previous 12 months. Many factors associated with falling in the general population were associated with Parkinson's disease fallers (e.g. use of multiple medication and greater physical disability). Fallers were more likely to be depressed and anxious than non-fallers. Condition-specific factors associated with falling included greater disease severity, and more marked response to levodopa treatment, including more dyskinesia and on-off phenomena. Fallers took more steps to complete a test of mobility. They also had a shorter functional reach and greater postural sway while completing a dual task than non-fallers. The study confirms the high risk of falling with Parkinson's disease. (RH)

ISSN: 00020729

The contribution of foot problems to mobility impairment and falls in community dwelling older people; by Hylton B Menz, Stephen R Lord.


Foot problems are common in older people and are associated with impaired balance and performance in functional tests. Furthermore, older people with a history of multiple falls have a greater foot impairment than non- or once-only fallers. This Australian study of 135 community-dwelling men and women aged 75-93 found that 87% of the sample had at least one foot problem. The findings also suggest that the cumulative effect of multiple foot problems is more important in increasing falls risk than the presence or absence of individual foot conditions. (RH)

ISSN: 00028614

Dao Yin Yang Sheng Gong: reducing the risk of falls: project run by Health Promotion for Older People Rehabilitation and Services for Older People; by Mary Dupoy, Tina Borfiga, Mike Richardson, Health Promotion for Older People Rehabilitation and Services for Older People, Jersey.

The Dao Yin Yang Sheng Gong (Dao Yin) initiative was set up in 1996 to provide safe, effective exercise for frail older people in Jersey, to improve their mobility and reduce their risk of falling. As a person's mobility becomes impaired, falling and fear of falling can have a radical effect on one's independence and quality of life. Dao Yin is one of the oldest forms of therapeutic exercises used in China (also known as Chi Kung) and was found by the tutor to be more easily adapted for older people's abilities than Tai Chi, which is a martial art. Dao Yin offered a new opportunity for people at risk, by providing an activity that counters the effects of instability and frailty, and which has shown to be effective. This report was prepared for entry to the Quality Awards 2001 scheme held in Jersey. (KJ/RH)

Epidemiology of falls; by Tahir Masud, Robert O Morris.


Falls in older people are a major public health concern in terms of morbidity, mortality and the cost to health and social services. This epidemiological review concentrates on: different ways of defining and classifying falls and fallers; the occurrence, including the prevalence, time and place of falls; the causes (risk factors) for falling; and the impact (consequences) of falls in the older population. (RH)

ISSN: 00020729

Evaluating the effectiveness of a home-based fall risk reduction program for rural community-dwelling older adults; by Shawna M Yates, Tim A Dunnagan.


The scheme's objective was to provide health care workers and communities with a primary prevention tool that can be used to teach older people about fall-related risk, with the long-term aim of reducing the incidence of falling in older people living at home. Complete data were collected on 37 people aged 67 to 90 over the 10 week fall risk reduction programme. An intervention group received fall risk education, home based exercise programming, nutrition counselling, and environmental hazard education. Both groups completed a variety of physiological, psychometric, and environmental fall-related risk assessments before and after the intervention period. The intervention group showed significant improvement in balance, biceps endurance, lower extremity power, reduction of environmental hazards, falls efficacy, and nutritious food behaviour during the study period. (RH)

ISSN: 10795006
Exercise training for rehabilitation and secondary prevention of falls in geriatric patients with a history of injurious falls; by Klaus Hauer, Brenda Rost, Kirstin Rüschle (et al).  
The authors hypothesised that physical training covering strength, co-ordination, and functional performance would be safe and effective in the rehabilitation of geriatric patients with a history of injurious falls, and could lead to secondary prevention of falls. 57 German female geriatric patients aged 75 to 90 in a 12-week trial were assigned either to lower extremity strength and balance training, or to a motor placebo activity. Both groups received an identical physiotherapy treatment. Those in the intervention group increased strength, functional motor performance and balance significantly; and fall-related behavioural and emotional restrictions were reduced significantly. No changes could be documented in the control group. Fall incidence was reduced non-significantly by 25% in the intervention group compared with the control group. Progressive resistance and functional training are safe and effective methods of increasing strength and functional performance and reducing fall-related behavioural and emotional restrictions for those with a history of injurious falls. (RH)  
ISSN: 00028614

Falls and postural stability; by Tahir Masud (ed).  
This Age and Ageing supplement comprises review articles on some of the topics discussed at the first United Kingdom National Conference on Falls and Postural Stability held in September 2000. The epidemiology of falls is discussed, with emphasis on problems created by the differing definitions of falls and fallers. Other papers consider: fall preventative strategies; cardiovascular causes of falls; visual problems; the relationship between falls and fractures; the effects of physical activity and exercise on postural stability; and the importance of older people keeping themselves as physically fit as possible. (RH)  
ISSN: 00020729

Falls in late life and their consequences: implementing effective services; by Cameron G Swift.  
Falls are often a sensitive signal of unidentified and unmet health risk and health care need for many older people. The basis for and implications of inclusion in the National Service Framework for older people of a defined service model for falls and their consequences is considered. The risk factors for fall and osteoporotic fractures, and the standards for early identification and preventive management for those at high risk are outlined. This is the last in a series of four articles on care of older people. (RH)  
ISSN: 09598138

Falls in older people: is there a functional decline?; by Jeremy Marwick, Jamie Layland, Julian Mahadanaarachchi (et al).  
Falls are common in older people, and can cause serious morbidity. This study examines whether older people who have fallen experience a functional decline, and evaluates the effect of other factors on their prognosis. Semi-structured interviews were conducted with 31 in-patients admitted because of falls to three hospitals in South Birmingham in March and April 1999; interviews were repeated after 4 weeks. The assessments included the Extended Activities of Daily Living Scale (EADL), life-space diameter, accommodation type, and walking aid provision. 23 subjects suffered a decline in function following a fall. Although not achieving formal statistical significance, fracture appeared to be particularly closely associated with functional decline. The study emphasises the importance of falls in increasing victims' dependence, and as a public health problem affecting social and health services, and the families of those concerned. (RH)  
ISSN: 13649752

Falls risk among older adults in long-term care facilities: a focused literature review; by Joseph Basante, Elizabeth Bentz, Jayne Heck-Hackley (et al).  
Twenty-one research articles published between 1990 and 1999 were reviewed by random assignment by a research team. A matrix was developed to allow for easy identification of risk factors and study designs. It was found that the rate of falls among older adults residing in long term care facilities is substantially increased by the use of certain medications, deconditioning, physical restraints, or any combination of these factors. (KJ/RH)  
ISSN: 02703181  
This guideline was developed and written under the auspices of the American Geriatrics Society (AGS) Panel on Falls in Older Persons and approved by the AGS Board of Directors on 5 April 2001. The guideline's aim is to assist health professionals in their assessment of fall risk, and in their management of older patients who are at risk of falling and those who have fallen. Recommendations are made on interventions to prevent falls. The guideline also identifies issues related to falls prevention that should be given high priority for future research and analysis. (RH)
ISSN: 00028614

Interdisciplinary practice in the prevention of falls: a review of working models of care; by Jacqueline C T Close.
One third of over 65s fall each year, rising to 50% of women aged 85+. Falls are also mentioned as a contributing factor in 40% of admissions to nursing homes. This article reviews studies on prevention which incorporate a medical component, exercise and balance, or a home/environmental assessment. It also provides a summary of randomised controlled trials (RCTs) in the prevention of falls in older people. (RH)
ISSN: 00020729

Older people and falls: a randomized controlled trial of a health visitor (HV) intervention; by Paul Kingston, Mary Jones, Frank Lally (et al).
A number of approaches have been found to be effective in preventing falls, including exercise and the combination of geriatric medicine and occupational therapy (OT) interventions. This paper tests a hypothesis that use of a health visitor (HV) intervention within five days of attending an accident and emergency department (A&E) with a fall would improve the medium-term self-reported functional status of older women who had fallen. Patients were selected from women aged 65 to 79 attending North Staffordshire NHS Hospital Trust A&E who were subsequently discharged to home. Whilst most made a good recovery after their fall, the authors question how results of this study can be compared with other trials. (RH)
ISSN: 09592598

Practical implementation of an exercise-based falls prevention programme; by Melinda M Gardner, David M Buchner, M Clare Robertson (et al).
Age and Ageing, vol 30, no 1, January 2001, pp 77-84.
Muscle weakness and impaired balance are risk factors underlying many falls and fall injuries experienced by older people. Full prevention strategies have included exercise programmes that lower the risk of falling by improving strength and balance. The authors have developed an individually tailored, home-based, strength and balance retraining programme, which has proved successful in reducing falls and moderate fall injuries in people aged 80 and over. They describe a simple assessment of strength and balance, and how a falls prevention exercise programme is delivered. (RH)
ISSN: 00020729

Preventing falls in older people: impact of an intervention to reduce environmental hazards in the home; by Margaret Stevens, C D'Arcy J Holman, Nicole Bennett.
Fall hazards are ubiquitous in the homes of older people. Registered nurses delivered this intervention to 570 community-based over 70s in Perth, Western Australia. The intervention consisted of a home hazard assessment, an educational strategy on general fall hazard reduction and ways to reduce identified home hazards, and the free installation of safety devices: grab rails, non-slip strips on steps, and double-sided tape for floor rugs and mats. All homes had at least one fall hazard. The intervention resulted in a small reduction in the mean number of hazards per house, with many study subjects taking action, but removing only a few hazards. The impact of the intervention in achieving self-reported action to reduce hazards was high. (RH)
ISSN: 00028614

Preventing falls in older people: outcome evaluation of a randomized controlled trial; by Margaret Stevens, C D'Arcy J Holman, Nicole Bennett (et al).
As part of a community-based domestic safety study of 1,829 over 70s in Perth Western Australia, this article evaluates trial results over one year. 570 intervention subjects were offered a home hazard assessment,
information on hazard reduction, and the installation of safety devices, whereas 1,167 controls did not. The intervention failed to achieve a reduction in the occurrence of falls. This was most likely because the strategies had a limited effect on the number of hazards in intervention subjects' homes. The study provides evidence that a one-time intervention programme of education, hazard assessment and home modifications to reduce fall hazards in the homes of healthy older people is not an effective strategy for the prevention of falls for older people in general. (RH)

ISSN: 00028614


To accompany the first in a series of five workshops on the prevention and management of falls, this dossier comprises speakers' materials on the clinical issues discussed: quality of care; developing a local falls service; integrated care; and effective discharge of patients into the community. (RH)

From: Centre for Policy on Ageing, 19-23 Ironmonger Row, London EC1V 3QP.

A prospective study of falls following hip fracture in community dwelling older adults; by Sonj E Hall, Janice A Williams, R Arthur Criddle.


An Australian study of 60 women and 32 men (mean age 76) who had had hip fractures was designed to determine whether the rate of falls, subsequent injuries and use of health and social services was higher over one year than age- and gender-matched controls. Functional and quality of life measures were assessed as potential predictors of falls; and data on falls, trips and stumbles and their circumstances were collected by monthly telephone surveillance. The incident rate for both falls and events were similar for the two groups. The distribution of type of event differed: the fracture group experienced more falls and stumbles, the controls more trips. The fracture group had more significant injuries, including fractures, and was more likely to have sought medical attention. The Berg Balance Scale, Frenchay Activities of Daily Living and the physical function domain of the SF-36 were negatively predictive of falls. Hip fracture patients, living in the community 6-12 months later, are no more likely to fall than their age and gender counterparts. The fracture group was noted as being less active, indicating that they may have made lifestyle modifications, which may decrease their risk of falls. (RH)

ISSN: 07264240

Recovery of physical function after limb injuries in independent older people living at home; by Winnie Scaf-Klomp, Eric van Sonderen, Robbert Sanderman (et al).


Changes in physical functioning after fall-related injuries to the limbs in 171 Dutch independently living older people (aged 57+) have been examined as part of the Groningen Longitudinal Aging Study. One year after injury, older patients with fall-related injuries had not generally regained their pre-injury levels of physical functioning. Not only hip fractures, but also wrist fractures threaten chances of remaining independent. Prospects of further recovery are minimal 5 or 6 months after the injury. (RH)

ISSN: 00020729

Recurrent falls are associated with increased length of stay in elderly psychiatric inpatients; by Elaine Greene, Conal J Cunningham, Andrew Eustace (et al).


A random sample of 150 Irish patients aged 65+ who had been discharged from a private psychiatric hospital over a 3-year period were selected for this case note study of factors affecting length of stay. Experiencing recurrent falls whilst an inpatient is associated with prolonged stay. Implementing procedures to reduce fall risk at ward level may in turn reduce length of stay. (RH)

ISSN: 08856230

Risk factors for falling in a psychogeriatric unit; by A John de Carle, Robert Kohn.


Of 1834 men and women representing all admissions to a psychogeriatric in-patient unit in Providence, Rhode Island (RI) between 1992 and 1995, a total of 175 falls were recorded over the period, giving a fall rate of 9.5%. Using a logistic regression model, six variables were found to be independently associated with an increased risk of falling: female gender, electroconvulsive therapy (ECT), mood stabilizers, cardiac arrhythmias, Parkinson's syndrome, and dementias. Falls and ECT were associated with longer hospital stay, when adjusting
for confounders including ECT. These findings support previous results and identify ECT as a possible risk factor for falling in a hospital setting. (RH)
ISSN: 08856230

Visual problems and falls; by Rowan H Harwood.
Visual impairment is a risk factor for falls, on average approximately doubling falls risk in a wide variety of studies. Falls risk increases as visual impairment worsens. This article reviews studies on the role of the balance system; and considers visual acuity, depth perception, contrast sensitivity and visual problems. Visual impairment is remediable for 70% or more of older people with relatively simple interventions such as correcting refractive errors and cataract surgery. However, no intervention has yet been proven to reduce falls risk in a randomised controlled trial (RCT). (RH)
ISSN: 00020729

What do older people know about safety on stairs?; by Roger A Haslam, Joanne Sloane, L Denise Hill (et al).
Findings are reported from three focus groups, involving 24 people, aged 65 to 79 years (20 women, 4 men), concerning their knowledge of safety on stairs. Findings indicate that older people use their stairs as and when necessary, but tend to avoid stair use when it becomes more difficult. The location of essential facilities in some homes (e.g. lavatory), may lead to increased use of stairs for some. Despite recognition of hazardous behaviour, participants reported that they continued to engage in activities which may increase risk of falling, e.g. leaving objects on stairs and using stairs in the dark. Cleaning stairs presents problems in some cases, due to difficulties with access or the need to use heavy and awkward equipment. Focus group participants recognised that medications and use of alcohol may increase the risk of falling, but it seems that people may not always appreciate when they are personally at increased risk. Most participants indicated they had given only limited thought to stair safety prior to the focus groups. Possibilities for prevention are reviewed, including modifications and equipment design, coupled with safety education, to raise awareness of risks and strategies for dealing with these. (KJ/RH)
ISSN: 0144686X

2000

Avoiding slips, trips and broken hips: step up to safety: containing: leaflets for older people, poster, new research on stairs, regional statistics research ...; by Department of Trade and Industry - DTI; National Assembly for Wales. London: Department of Trade and Industry, 2000, information pack (Our healthier nation). Published as part of the "Our Healthier Nation" strategy, this resource pack focuses on falls on stairs, and includes the following pamphlets: Information for older people on how to use the stairs safely; Falls on stairs in the home involving older people: statistics; and How do older people use their stairs? Also included is Health Education Authority (HEA) Fact sheet 4, Promoting the health of older people: evaluating approaches and methods. (RH)
Price: FOC
From: DTI Publications Order Line, Admail 528, London SW1W 8YT. Tel 0870 1502 500. Email: dtipubs@echristian.co.uk Website: http://www.preventinghomefalls.gov.uk

Can the control of bodily orientation be significantly improved in a group of older adults with a history of falls?; by Debra J Rose, Sean Clark.
Several research investigations have been conducted to determine whether age-associated deterioration in balance abilities can be reversed, or at least slowed. In this study, 45 older people (aged 72-85; 28 women and 13 men) with a history of falls were assigned to a control (n=21) or intervention group (n=24). Impairments in multiple dimensions of balance were measured before and after an 8-week balance intervention using the 100% Limits of Stability Test (LOS) and Sensory Organisation Test (SOT). More functional limitations in balance and/or mobility were measured using two clinical tests, Berg Balance Scale (BBS) and Timed Up and Go test (TUG). Repeated measures of multivariate analysis and follow-up indicated significant improvements in the dynamic balance and sensory integration capabilities only in the intervention group. Significant improvements were also observed in the two clinical measures of balance and mobility evaluated before and after the intervention for the intervention group only. While the short-term benefits seem to be confirmed, the long-term benefits of this type of balance training also need to be determined. (RH)
ISSN: 00028614

In older people, clinical measures have been used to assess fall risk based on the ability to maintain stance or to complete a task. However, in an impending fall situation, a stepping response is often used when strategies to maintain stance are inadequate. The authors tested 32 women - 12 young (mean age 21), 12 unimpaired old (mean age 69) and 10 balance impaired (mean age 77) - for their ability to take a maximal step (Maximal Step Length or MSL), and in their ability to take rapid steps in three directions (front, side and back), termed the Rapid Step Test (RST). Substantial declines were found in the ability of both unimpaired and balance-impaired older women to step maximally and to step rapidly. The young women generally performed better and with fewer errors on both tests. Stepping performance is closely related to other measures of balance and fall risk and might be considered in future studies as a predictor of falls and fall-related injuries. (RH)


The authors comment on the findings of Salkeld et al's article, "Quality of life related to fear of falling and hip fracture in older women" in this issue of the British Medical Journal (BMJ). The article affirms the need for rehabilitation programmes to focus not only on enhancing patients' mobility and functional activities, but also to optimise the ability to live independently, and to participate in social and other aspects of community life. More particularly, older people need to be active participants in decision-making around priorities for the prevention and management of falls and hip fracture. (RH)

ISSN: 09598138


There is a lack of consensus among gait analysts as to what gait parameters should be tracked to predict falls. The aim of this study was to utilise the interaction of gait parameters in the velocity field diagram (VFD) to explore causes of falls in older persons during walking. The VFD is a graph of numerical values of gait parameters versus speed numbers derived by serially numbering the five speeds of walking from very slow to very fast. Findings showed that the interaction pattern of the parameters of gait as shown in the VFD of older persons informs on their gait characteristics, and can identify those at risk of falls. (AKM)

ISSN: 0304324X


While there is encouraging data that exercise can improve strength, gait, balance, and perhaps decrease falls among healthy non-impaired older people, those most at risk from falls have been excluded from most exercise studies. 59 men living in the community aged 70 and over with specific fall risk factors (e.g. leg weakness, impaired gait or balance, previous falls) were randomly assigned to a control group of 28, the remainder to a 12-week exercise programme. 90 minute exercise sessions three times a week focused on increasing strength and endurance, and improving mobility and balance. Exercisers showed significant improvement in measures of endurance and gait. Isokinetic endurance increased 21% for right knee flexion and 26% for extension. Exercisers had a 10% increase in distance walked in 6 minutes, and improved scores on an observational gait scale. Isokinetic strength only improved for right knee flexion. Exercise achieved no significant effect on hip or ankle strength, balance, self-reported physical functioning or number of falls. Activity levels increased within the exercise group. Exercisers had a lower 3 month fall rate than non-exercisers (6 falls per 1000 hrs of activity vs 16.2/1000hrs). (RH)

ISSN: 10795006


Six general practices in Hoensbroek, the Netherlands with 316 people aged 70 and over living in the community, with moderate impairments in mobility or a history of recent falls were involved in this randomised controlled trial. Five home visits were made to the patients over a period of one year by a community nurse. Visits consisted of screening for medical, environmental and behavioural factors causing falls and impairments in mobility, followed by specific advice, referrals and other actions aimed at dealing with the observed habits.
No differences were found in falls and mobility outcomes between the intervention and usual care groups. Multifactorial home visits had no effects on falls and impairments in mobility in older people at risk who were living in the community. Because falls and impairments in mobility remain a serious problem among older people, alternative strategies should be developed and evaluated. (RH)

ISSN: 09598138


Fall risks factors for 144 hospitalised psychogeriatric residents (84 fallers and 60 non-fallers) were examined. A logistic regression analysis using 26 intrinsic predictor variables correctly classified 74% of fallers and non-fallers. Three significant fall predictor variables were cardiovascular disorder, psychotic disorder, and antipsychotic medication. An examination of 349 total and 84 representative falls revealed a larger percentage of falls taking place during the evening and in the bedroom, hallway, dining room, day room, outside, and bathroom. Most falls occurred while residents were walking or standing. (RH)

ISSN: 07317115
From: http://www.tandfonline.com


In the past 20 years, there has been a great deal of international, specialised research activity focused on risk factors and prevention strategies for falls in older people. This book provides material published in journal articles, to provide health workers with a detailed analysis of recent developments. The book is organised in three parts: risk factors, prevention strategies, and future research directions. Coverage includes: epidemiology; critical appraisal of the roles of exercise, environment, footwear, and medication; evidence-based risk assessment; and targeted and individually tailored falls prevention strategies. (RH)

ISBN: 0521589649
Price: £29.95 ($49.95)
From: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.


Given that 90% of hip fractures result from a fall, individuals who fall frequently are more likely to be at greater risk of fracture than those who fall only once. The authors used the Get Up and Go and Tandem Gait tests to establish the possibility of distinguishing between frequent fallers, one-time fallers, and non-fallers. Get Up and Go is found to be very effective in both discriminating between fallers and non-fallers, and is associated with lower extremity strength and power. Prevention strategies should focus on improving both functional mobility and lower extremity strength and power. (RH)

ISSN: 10795006


The guidelines discussed are based on literature reviews updating previous systematic reviews. To test the acceptability of the guidelines to potential users and their feasibility in different care settings, the authors piloted them in two general practices, a residential home, and a general hospital. Changes were made to the presentation of the guidelines after the pilot. As prevention of falls is an active research area, it is recommended that the guidelines are revised by March 2001. Concerning the content of the guidelines, home assessment of older people at risk of falls without referral or direct intervention is not recommended. Assessment of high risk residents in nursing homes with relevant referral is effective. This article notes research is needed on hip protectors, validation of risk assessment, and evaluations trials of intervention programmes for falls. (RH)

ISSN: 09598138


In this Australian study of older women living at home who had fallen in the previous year, 57% were afraid of further falls. The use of hip protectors improved falls self-efficacy (subjects’ belief in their own ability to avoid falling). As users of hip protectors feel more confident that they can complete tasks safely, they may become more physically active and require less assistance with activities of daily living. (RH)
The impact of legislation on psychotropic drug use in nursing homes: a cross-national perspective; by Carmel M Hughes, Kate L Lapane, Vincent Mor (et al).
Nursing home data from five countries with no psychotropic drug use legislation (Denmark, Iceland, Italy, Japan and Sweden) was compared with data from five US states. The occurrence of falls was evaluated similarly. Prevalence of antipsychotic and/or anti-anxiety hypnotic use varied substantially across countries. Nursing home residents in Denmark, Italy and Sweden were at least twice as likely to receive these drugs; in Iceland, the risk increased to greater than 6 times that of the US. Residents were less likely to fall in Italy, Iceland and Japan compared with the US, despite more extensive use of psychotropic medication, whereas residents in Sweden and Denmark were more likely to fall. Policy has an impact on the prescribing of psychotropic medication in US nursing homes compared with other countries, but it is unclear if this is translated into better outcomes for residents. (RH)

Incidence and types of preventable adverse events in elderly patients: population based review of medical records; by Eric J Thomas, Troyen A Brennan.
An adverse event is defined as an injury caused by medical management (rather than the disease process) resulting in either prolonged hospital stay or disability at discharge. Medical records of some 15,000 patients in the US states of Utah and Colorado discharged from hospital in 1992 were reviewed for incidence of preventable adverse events. Patients aged 65 and over experienced more preventable adverse events than under 65s. Preventable adverse drug events, falls, and events related to medical procedure were more common in older patients, probably because of the clinical complexity of their care rather than age based discrimination. Such preventable adverse events should be targets of efforts to prevent errors. (RH)

The management of falls in older people: from research to practice; by Jed Rowe.
Research into falls has gone through several distinct phases. Initially the problem was characterised and quantified, and the risk factors elucidated. In the 1990s, the first successful intervention studies appeared, and this article provides a brief review of the literature. (RH)

Prevalence of geriatric 'syndromes' in a tertiary hospital; by B Nair, I O'Dea, L Lim (et al).
Older people are more likely to be admitted to hospital and to consume more health resources. Old age is associated with the "syndromes" of confusion, incontinence, immobility, falls and polypharmacy. Prevalence of these syndromes in an Australian hospital setting are not available. An assessment of 100 patients aged 70+ and 50 doctors and nurses found a high prevalence of these syndromes. 29% had cognitive impairment, 54% had had falls, 37% had poor mobility, 40% had urinary incontinence, and 43% took five or more medications. Health professionals underestimated the prevalence of these conditions in an inpatient setting, stating that they did not routinely look for them. (RH)

Quality of life related to fear of falling and hip fracture in older women: a time trade off study; by G Salkeld, I D Cameron, R G Cumming (et al).
The time trade-off technique asks respondents their preferences between two alternatives: a longer but lower quality of life, or a shorter time in full health. 194 women aged 75 and over in Sydney, Australia who refused to take part in a trial of external hip protectors instead completed a quality of life interview. Of those surveyed, 80% would rather be dead than experience loss of independence and quality of life resulting from a bad hip fracture and subsequent admission to a nursing home. Among older women who have exceeded average life expectancy, quality of life is profoundly threatened by falls and hip fractures. Older women place a very high marginal value on their health; and any loss of ability to live independently in the community has a considerable detrimental effect on their quality of life. (RH)

Falls are a major cause of morbidity in older age. A small number of fall prevention trials in cognitively intact community-dwelling older people have been effective. This study set out to examine the preventability of falls in 133 older people living in residential care homes. Residents were divided into two groups, one of which received a 6-month falls risk factor assessment/modification and seated balance exercise programme, and one which received 6 months of reminiscence therapy. The risk factors targeted were postural hypotension, polypharmacy, visual acuity, and ambient lighting levels. Findings showed that the prevalence of all risk factors were reduced in the intervention group. There was no difference between the groups in the number of falls sustained, the risk of falling, or in the risk of recurrent falling. No significant differences were found with regard to change in other outcome measures. (AKM)

ISSN: 0304324X


Of the 971 women and 335 men aged 64-99 in this California study to determine whether sleep problems are associated with falling, 284 (19%; 20% of the women and 14% of the men) reported falling in the previous 12 months. A number of risk factors for falls were identified, but nighttime sleep problem variables remained significant risk factors. Behavioural research focusing on the effectiveness on insomnia treatment in old age should not only examine typical sleep-related outcomes (e.g. total time asleep, number of awakenings) but also the occurrence of falls. (RH)

ISSN: 0028614


National Seniors clubs provide a forum for active, community-dwelling Australians aged 50 and over to participate in policy, personnel development and recreation. 252 members of the National Seniors Association in the Brisbane district participated, and were randomly assigned to one of four interventions. Prevention strategies included education and awareness raising of falls risk factors, exercise sessions to improve strength and balance, home safety advice to modify environmental hazards, and medical assessment to optimise health. The first intervention group receiving the information session only was regarded as the control. The occurrence of slips, trips or falls were monitored prospectively using a daily calendar diary. Compared with the control, the other groups had significantly reduced risks of falls and trips. The study demonstrates that effective, sustainable, low cost programmes can be introduced through community-based organisations to reduce the incidence of slips, trips and falls in well, older people. (RH)

ISSN: 0143005X

Walsall Falls Prevention and Management Programme; by Mary Thomas, Barnabas Panayiotou. Ageing & Health; the Journal of the Institute of Ageing and Health (West Midlands), no 6, 2000, pp 14-16.

The risk of falls increases with age, and falls are the major cause of death from injury among older people. Walsall has taken a lead in involving both local and statutory agencies in accident prevention initiatives. A teaching and resource pack, "Falls: a positive approach", developed for use by Dartmouth House Rehabilitation Unit in Walsall has served as a model for other health authorities. This article outlines the development of further training materials by Walsall Health Authority. (RH)

ISSN: 13649752


The frequency of environmental hazards in the home and care environments of patients with dementia and their association with falls was assessed in 65 dementia patients from Tyneside, using carer diaries and a safety assessment carried out by an occupational therapist using a home hazard checklist. Hazards were found in 20 (95%) of patients' own homes and 31 (74%) of residential or nursing home environments (care environments). Patients' homes had a mean of 5.4 hazards, compared to a mean of 1.8 hazards in care environments, with two or more hazards in 90% of patients' homes and 52% of care environments. Common hazards included low chairs, an absence of grab rails (toilet area), toilets too low, and a missing second bannister on the stairs. There was no significant association between the number of hazards and the number of falls, although 13 (10%) of falls could
be attributed to a specific hazard. Rigorous assessment of the patients' environment revealed multiple rectifiable risks that were contributory to a significant minority of falls. (RH)

ISSN: 08856230

1999

Falls and injuries from falls are common in older patients in institutions, and there is only limited evidence to support interventions that reduce the rate of falls and injuries. The authors undertook an education programme at their hospital in Christchurch, New Zealand, introducing a policy aimed at reducing the use of bedrails, and a "before" and "after" study was undertaken. They hypothesised that bedrails are not effective at preventing falls, and may themselves cause significant injuries. Data was collected for all patients admitted to any one of five assessment, treatment, and rehabilitation wards during 1994. There was a significant reduction in the number of beds with bedrails attached after the policy introduction, but the fall rate (either total or around the bed) did not change significantly. Serious injuries were significantly less common after the bedrail policy was introduced, with fewer head injuries. Although reducing the use of bedrails did not alter patient fall rates significantly, it was associated with a reduction in serious injuries. Unless it can be shown that bedrails are beneficial, their continued use in older patients must be brought into question. (RH)

ISSN: 00028614

Physical and occupational therapists working with older people will commonly encounter those who have a history of falls or the potential for falls. Therapists need strong clinical reasoning skills to work effectively with these older people, due to the complexity of balance problems. This paper reviews concepts concerning balance or falls in the context of a clinical reasoning process. Use of clinical reasoning for balance assessments and treatment is considered. (RH)

ISSN: 02703181
From: Haworth Document Delivery Service, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904-1580, USA.

Unintentional injuries are one of the major causes of death and ill health among older adults in Canada. This study describes the prevalence and characteristics of self-reported unintentional injuries among Canadians aged 55 years and older. Based on the cross-sectional data from the 1994 National Population Health Survey (NPHS), approximately 10 per cent of older adults experienced unintentional injuries serious enough to limit their normal daily activities. Consistent with hospitalisation and mortality data, unintentional falls and motor vehicle crashes were reported as the major causes of injury. However, the other predominant causes of unintentional injuries were environmental incidents and being struck by an object. The most common types of injuries were sprains/strains and broken/fractured bones; the greatest number of injuries was to the lower limbs; and the majority of injuries occurred in the home and surrounding area. The study concluded that unintentional injuries represent a significant health threat among older adults, and that self-reported data serve as a complementary source of information. (AKM)

ISSN: 07149808

Previous studies have reported that the incidence of falls among Japanese women is about half of that of white women. The difference in incidence may result from differences in neuromuscular performance, such as muscle strength, mobility and balance. This hypothesis was tested by comparing two populations: Japanese women in the Hawaii Osteoporosis Study (HOS), and Caucasian women in the Study of Osteoporotic Fractures (SOF). Neuromuscular performance was assessed for women in the two groups using standardised procedures. Falls were monitored longitudinally by postal surveys every 4 months. The Japanese and white women differed substantially in their neuromuscular performance. The Japanese women had faster walking speeds and chair stands, and performed better on a series of balance tests. White women had greater strength, particularly at the
quadriceps, and faster hand and foot reaction times. They also reported fewer functional disabilities, including fewer difficulties in climbing steps, doing heavy housework and grocery shopping. The Japanese and white women had different advantages and limitations in neuromuscular performance. However, these differences did not explain the lower risk of falls among Japanese women. (RH)

ISSN: 10795006

Effects of age on balance assessment using voluntary and involuntary step tasks; by Carl W Luchies, Dennis Wallace, Ryan Pazdur (et al).

Taking a step while standing and modifying a step while walking are strategies often used to maintain balance when balance disturbances are encountered in activities of daily living (ADLs). This US study investigated whether performance on an involuntary step task (assumed to be a surrogate for fall recovery abilities) was comparable to performance of a voluntary step task. Performance of voluntary and involuntary steps tasks was measured in healthy young adult (mean age 21) and healthy older (mean age 68) women. Subjects stepped as fast as possible in the direction of a minimally destabilising lateral waist pull (voluntary step task), or responded naturally to a large destabilising lateral waist pull (involuntary step task). In the voluntary step task, older adults required significantly more time to lift their foot (young, 307 msec; older 424 msec). In the involuntary step task, older women were as quick as the young in lifting their foot (young, 322 msec; older, 335 msec). The young lifted their foot at about the same time for the two tasks. The study found that a voluntary step task underestimates the ability of healthy older adults to respond quickly when large destabilising balance disturbances are encountered. (RH)

ISSN: 10795006

Elderly fallers: a baseline audit of admissions to a day hospital for elderly people; by Anne McIntyre.

Falls in older people are a major problem for health and social services, because of the incidence of injury and the fear of falling as a disabling consequence. It seemed that many admissions to a South Buckinghamshire day hospital for older people were as a result of falls. A retrospective and concurrent caseload audit was carried out of medical and occupational therapy notes, the aim being to establish the incidence of falls among the day hospital population, with a view to improving the quality of the service. 56 of 196 people admitted over the 12-month period had fallen at least once. Of these, 73% had no apparent predisposing factor for their fall, and 39% were not carrying out any obvious activity at the time. 59% had an increase in social support due to decreased confidence and mobility after the fall. A multidisciplinary team approach was reinforced, and the management of patients' problems on an individual basis was to be continued. The adoption of the audit data collection form as a checklist to facilitate future assessment was recommended. (RH)

ISSN: 03080226

A falls intervention database: describing and evaluating falls prevention programs nationally; by Belinda Gilsenan, Keith D Hill, Ngaire Kerse.

Falls affect one in three people over the age of 65 at least once every year. They can result in death, fracture, other major and minor injuries and a loss of confidence in mobility. One of the responses to this public health concern has been a proliferation of falls prevention programmes. This article describes a comprehensive national (Australian) database of community based falls prevention programmes, which aims to facilitate the exchange of information concerning falls interventions. Falls prevention programmes have been identified and critically appraised by an interdisciplinary team using evaluation guidelines based on published findings and reviewed by a reference group. It is envisaged that the Falls Intervention Database will be a valuable resource for those planning and developing future falls prevention programmes. (AKM)

ISSN: 07264240

Falls prevention over 2 years: a randomized controlled trial in women 80 years and older; by A John Campbell, M Clare Robertson, Melinda M Gardner (et al).

Falls and injuries can be reduced by an individually tailored exercise programme in the home, as was the authors' aim in assessing the effectiveness of the programme developed by general practices in Dunedin, New Zealand. After 1 year of this programme of strength and balance retraining exercises, women completing the trial from both exercise (71%, or 69%) and control (81%, or 74%) groups agreed to to continue for a further year. After 2 years, the rate of falls remained significantly lower in the exercise group than in the control group. Those complying with the exercise programme at 2 years had a higher level of physical capacity at baseline,
were more likely to have reported falling in the year before the study, and had remained more confident in the first year about not falling compared with the rest of the exercise group. (RH)
ISSN: 00020729

Falls self-efficacy and occupational adaptation among elders; by E Peterson, J Howland, G Kielhofner (et al).
This study examines a specific, yet widespread phenomenon of older life, the fear of falling. To understand the dynamics and consequences more clearly, and to relate it to other aspects of ageing, the authors have conceptualised the fear of falling within the Model of Human Occupation. According to this model, four main factors influence older people's adaptation: motivation, life roles and habits, capacities, and environmental contexts. 270 randomly selected residents aged 62 and over living in the community were interviewed in their homes to collect information on demographics, fall history, fall risk factors, fear of falling, and measures of adaptation. The response rate was 63%. 55% of respondents expressed fear of falling during the next year. Falls self-efficacy related to falling independently contributed to 5 out of 6 measures of occupational adaptation. Results suggest that falls self-efficacy significantly influences occupational adaptation among older people living in the community, independent of the actual risk and history of falls. Although further verification is needed, results of this study suggest use of interventions designed to increase falls self-efficacy for fallers and non-fallers. (RH)
ISSN: 02703181
From: Haworth Document Delivery Service, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904-1580, USA.

Mortality trends of elderly people in Taiwan from 1974 to 1994; by Kai-Kuen Leung, Li-Yu Tang, Wei-Chu Chie (et al).
The hypothesis that disability and death will eventually be compressed to a period late in life was examined, by comparing life expectancy, causes of death, and probability of death for people at birth, at age 65, and at age 85 for both sexes from 1974 to 1994 using data from Taiwan government statistics. In the past 20 years, there has been a substantial gain in life expectancy, especially for men aged 85 and over. Mortality due to stroke, ischaemic heart disease, hypertension and chronic pulmonary disease has declined. There has been a steep increase in cancer deaths and deaths associated with diabetes mellitus. Tuberculosis and injury-related deaths have declined, but pneumonia deaths have increased. For older people, the probability of dying from cancer and ischaemic heart disease has increased with time. However, the probability of dying from stroke has decreased. Although there was a decrease in probability of deaths associated with falls, there was an increase of deaths due to “frailty” (as judged by falls, pneumonia and septicaemia). This implies that the expanding older population in Taiwan has been suffering from poorer health in the later stages of life. (RH)
ISSN: 00020729

The nature of falling among community dwelling seniors; by Elaine M Gallagher, Mike Hunter, Victoria J Scott.
This paper analyses data on falls from a 1995 random survey of 1,285 older people living in the Capital Regional District of British Columbia. In the preceding six months, 16.5% reported falling at least once. The overall rate for women was 18.6% compared with 13.3% for men. The study also examined relationships between falling and an array of demographic, health, psychological and psychosocial variables. The likelihood of falling increased directly with age and chronic illness, as well as indirectly with age, socioeconomic status, and gender via chronic illness. In turn, falling was directly related to increased dependence, and through it indirectly related to health satisfaction, mental health and a measure of life satisfaction. (AKM)
ISSN: 07149808

Preventing falls and fall-related injuries among older people; by Robyn Norton.
Deaths and disability from falls are important contributors to the global burden of disease and injury. Consequently, there is a need to identify and implement strategies that have been shown to be effective in preventing falls and falls-related injuries. This paper looks at how to identify effective interventions for the prevention of falls and fall-related injuries, and gives an overview of known effective or promising interventions. Known effective interventions include risk assessment and targeted multifactorial interventions, physical activity and, possibly, reductions in psychotropic medication as well as the use of hip protective underwear, vitamin D and calcium, and alendronate. The paper concludes that further progress will be made if large-scale randomised controlled trials are conducted, that can both confirm the effectiveness of these interventions and examine other interventions suggested from observational studies. (AKM)
Preventing osteoporosis, falls and fractures among elderly people: promotion of lifelong physical activity is essential; by Pekka Kannus.  
Although the effect of exercise in preventing falls and fractures in older people has not yet been proved, epidemiological studies consistently show that both past and current physical activity does protect against hip fracture. This short article puts the case for exercise: not only does it improve bone strength, it can also improve gait, balance, co-ordination, reaction time, and muscle strength - even in the frail and very old. Overall, the evidence strongly suggests that regular physical activity, especially if started in childhood and adolescence, is the only cheap, safe, readily available, and largely acceptable way of both improving bone strength and reducing the propensity to fall. (RH)

The prognosis of falls in elderly people living at home; by Ian P Donald, Christopher J Bulpitt.  
In an observational longitudinal study of disability in 1815 subjects aged 75 and over living in Gloucestershire, the authors identified fallers and non-fallers during routine health check interviews in primary care. The prevalence of fallers, the mortality and morbidity in fallers and non-fallers, falling in later years, and admission to residential and nursing care is reported. Risk of death was increased at 1 year and 3 years for recurrent fallers, but not single fallers. Risk of admission to long-term care over 1 year was markedly increased both for single fallers and recurrent fallers. Functional decline was not related to faller status, the latter being very variable from one year to the next. The stronger relationship between falling and admission to long-term care rather than mortality supports the hypothesis that the perceived risks for those who fall only once are exaggerated. (RH)

The relationship between serious injuries and restraint use in nursing homes has not been widely studied in the United States. This 2-year prospective study examined how removing physical restraints affected injuries in nursing home settings, following an educational intervention for nursing home staff. Results showed that serious injuries declined significantly among the residents restrained initially when restraint orders were discontinued. During the educational intervention period, physical restraint use among residents decreased by 90%. The study concluded that although minor injuries and falls increased, restraint-free care is safe when a comprehensive assessment is carried out and restraint alternatives are used. (AKM)

Risk factors associated with falls in the elderly rehabilitation client; by J Barr, P Brown, G Perry.  
Falls are the main cause of death due to injury in older people. This study examined the risk factors associated with falls in an elderly rehabilitation group. The study involved retrospective analysis of incident reports/medical files over four years of 87 clients who had fallen in the rehabilitation unit under study. A comparison group was chosen of 87 randomly selected older clients who did not fall during their rehabilitation programme. Factors involved were analysed using a logistic regression equation to develop a model of those at risk of falling. The factors that were associated with falls in the subjects included confusion, primary diagnosis of stroke, lower limb amputation and sleep disturbances. (AKM)

Risk factors for falls and for serious injuries on falling among older Japanese women in Hawaii; by James W Davis, Philip D Ross, Michael C Nevitt (et al).  
705 older Japanese women from the Hawaii Osteoporosis Study were included in this study evaluating if similar constellations of factors underlie risks of falls and injuries on falling for Japanese women as for predominantly white populations. In multivariable models, four subject characteristics were associated with having a fall: having a fall in the past year, slow chair stands, a short height, and difficulties with five or more activities of daily living (ADLs). Two characteristics were negatively associated with having a fall: ability to perform a full tandem balance with eyes closed, and having a long functional reach. Long times for chair stands were positively associated with having a serious injury among women who had a fall. Among the same women, taking part in an activity they did frequently and slow foot reaction times were associated negatively with
serious injury. The results for this Japanese cohort support the conclusion that women at high risk of falling and serious fall injuries can be identified using a questionnaire and simple, performance-based tests of neuromuscular function. Risk factors from falling overlapped, but were distinct from those for suffering a serious injury once a fall had occurred. (RH)

ISSN: 00028614

The sex and age of older adults influence the outcome of induced trips; by Michael J Pavol, Tammy M owings, Kevin T Foley (et al).
Falls are a significant source of morbidity and mortality in older people, with up to 55% of these falls due to tripping. If falls are to be prevented, there is a need to identify factors that determine whether a trip is recoverable, and those factors that increase an older person's risk of falling. Trips were induced in 79 healthy, community-dwelling, safety-harnessed older Americans (50 of them women), using a concealed, mechanical obstacle. Most of the trip outcomes (39) were classified as recoveries, 10 as falls, 12 as rope assists, and 10 as misses. Women fell four times as frequently as men; and women under 70s fell more than three times as frequently as those older. Trip outcomes in men were essentially unaffected by age. The foot obstructed to induce the trip did not affect the trip outcome. The presence of the safety harness had almost no effect on gait. The length of stride preceding a trip did not differ from normal. (RH)

ISSN: 10795006

1998

The 'balance' meter: investigation of an apparatus to measure postural sway; by Emma K Stokes, Ann M Finn, R J Ronald Kirkham (et al).
Postural sway was measured in a group of older subjects using a 'balance meter', in order to establish the reliability of the apparatus, to investigate whether the meter could identify those subjects who had an alteration in balance, and to compare the association between this objective measure of balance and a functional scale. Two groups of subjects were sampled - one consisted of healthy, active older people with no history of falls, and the other of people who were attending a day hospital and had a history of falls. Both groups were assessed using the 'balance meter' and Tinetti's functional scale of Performance-Oriented Assessment of Balance. Reliability was demonstrated, as was the ability of the meter to differentiate between a group of fallers and non-fallers. The correlation coefficient for lateral sway and the Performance-Oriented Assessment was low, and the correlation coefficient for anteroposterior sway and the assessment was slightly higher but not significant. Further tests to establish the validity if the balance meter is needed before it can be used as a clinical measurement of postural sway. (AKM)

ISSN: 13587390

Aging and time to instability in posture; by Semyon M Slobounov, Sarah A Moss, Elena S Slobounova (et al).
Two experiments are reported that were set up to examine the spatial-temporal boundaries of postural instability in upright stance as a function of age (60-96 years) and postural conditions. Subjects stood on a force platform under different experimental conditions (vision or no vision, and arms up or down), so that effect of age on key dynamic properties of postural stability could be determined. The findings showed that the ratio of the area of the motion of the centre of the pressure to the area within the stability boundary increased with age. Also, the virtual time-to-contact with the postural stability boundary decreased with age. Collectively, the findings show that the margins to the spatial-temporal boundaries of postural stability decrease with advancing age in older people. These reduced margins of dynamic stability may be a factor contributing to the progressive instability of posture with ageing in older people. (RH)

ISSN: 10795006

Assessing recurrent fall risk of community-dwelling, frail older veterans using specific tests of mobility and the Physical Performance Test of function; by Jessie M VanSwearingen, Karen A Paschal, Paula Bonino (et al).
This US study aimed to determine if older people at risk of recurrent falls are best identified by mobility or functional assessments. 84 frail male veterans, mean age 75.5 years and living in the community, participated. The history of recurrent falls was determined by self or proxy report in a clinical interview. Mobility
assessments included the Modified Gait Abnormality Rating Scale (GARS-M), stride length, and walking speed. Functional performance was determined using the Physical Performance Test (PPT). The clinical usefulness of the measures was determined by the sensitivity and specificity of each measure using the history of recurrent falls as a standard. Stepwise logistic regression analysis of the data indicated that the GARS-M and the PPT were the most important predictors of recurrent fall risk. The sensitivity and specificity of the measures used were: GARS-M 62.3% and 87.1%; PPT 79.3% and 71.1%; walking speed 71.7% and 74.2%; and stride length 63.2% and 77.4%. Together the GARS-M and PPT demonstrated the highest sensitivity of 90.6% and the highest specificity of 87.1% based on a subject testing positive on at least one test. Both measures are clinically useful in screening for risk of recurrent falls. (RH)

ISSN: 10795006

Balance and gait performance in an urban and a rural population; by Karin A M Ringsberg, Per Gärdsell, Olof Johnell (et al).
The differences in standing balance and gait performance between an urban and rural population in Sweden were investigated in this study. Participants were 570 individuals from the urban community and 391 from the rural community. Information about workload, housing, leisure time activities, medication, and illness during different decades of life was gathered using two questionnaires. Findings revealed that the urban subjects had significantly impaired balance compared with rural subjects. This difference increased with increasing age. The urban subjects walked faster than the rural subjects, and the urban subjects used fewer steps than their rural counterparts. Leisure time activities had a significant influence on the tests, but, except for gait velocity, workload was of minor importance according to analysis of co-variance. (AKM)

ISSN: 00028614

Can falls in patients with dementia be prevented?; by Fiona E Shaw, Rose Anne Kenny.
Falls cause substantial morbidity and mortality in patients with dementia. Impairments of gait and balance, medication, cardiovascular problems and the environment can all contribute to falls in this patient group. Treatment of these conditions reduces falls in cognitively normal older people. While multidisciplinary intervention to modify these risk factors for falls is feasible for patients with dementia, data on effectiveness in preventing falls are not yet available. Even so, work to prevent falls in patients with cognitive impairment and dementia and research related to such work should be encouraged. (RH)

ISSN: 00020729

Causal attributions of falls in older adults; by Martha R Hinman.
Attribution theory was used in the design of an 8-item interview to assess 25 older adults' perceptions of the cause, stability, and controllability of their falls. In addition to frequency analysis, phi coefficients were calculated to determine the nature of the relationship between causal attributes and the perceived benefits of intervention. Results indicated that most subjects believed their falls were related to intrinsic factors such as dizziness, weakness, or poor balance, as opposed to extrinsic factors such as poor lighting or loose objects on the floor. Most perceived their falls to be an occasional (unstable) occurrence resulting from careless behaviours. Likewise, most subjects felt that their falls were controllable (preventable); however, the perceived benefits of a therapeutic exercise programmes (internal intervention) were greater than the perceived benefits of environmental modifications (external intervention). The author concludes that fall prevention programmes may be more successful if intrinsic rather than extrinsic risk factors are tackled. (RH)

ISSN: 02703181

From: Haworth Document Delivery Center, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904-1580, USA.

Comparison of functional reach in fallers and nonfallers in an independent retirement community; by Holly Franzen, Heather Hunter, Christina Landreth (et al).
Balance disorders and postural control changes have been found to contribute to falls sustained by older people. Functional Reach (FR) has been proposed as a simple balance assessment tool that is valid, reliable, and sensitive to changes in balance. The aim of this study was to compare the FR of fallers and non-fallers living independently in a US retirement community, 52 subjects were divided into three age groups and categorised by fall status. The first three correctly performed FR trials were measured and recorded. FR significantly decreases after the age of 84. There were no significant differences in the FR between fallers and non-fallers among older people living in the community. A simple standardised balance assessment tool needs to be
developed to identify those older people at risk for falling. FR has the potential to be such a tool; however FR needs to be standardised according to the age and activity level of the population being tested. (RH)

ISSN: 02703181

From: Haworth Document Delivery Center, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904-1580, USA.

Covariates of fear of falling and associated activity curtailment; by Jonathan Howland, Margie E Lachman, Elizabeth Walker Peterson (et al).
With a sample survey of 266 American older people living in six housing developments in Massachusetts, the authors used logistic regression to identify co-variates of fear of falling among all subjects, and to identify co-variates of activity curtailment among those affected. 55% of respondents were afraid of falling; of these, 56% had curtailed activity due to this fear. Factors associated with fear of falling were: being female; having had previous falls; and having fewer social contacts. Factors associated with activity curtailment among those who were afraid were: not communicating about falls; having less social support; and knowing someone who had fallen. Falls history appears an important contributor to fear of falling, whereas the impact of this fear on activities appears more a function of social support. These findings suggest different strategies for the primary and secondary prevention of fear of falling. (RH)

Disorders of hearing and balance; by Linda M Luxon.
Reviews in Clinical Gerontology, vol 8, no 1, February 1998, pp 31-44.
A working knowledge of disorders of both hearing and balance is useful in the practice of geriatric medicine, given that some 40% of people in the UK in their 60s - rising to 60% in their 70s - have significant hearing impairment. This article outlines the anatomy and pathophysiology, investigation, and management of hearing impairment. It also explains tinnitus, vertigo, and falls. (RH)

ISSN: 09592598

The effect of falls and fall injuries on functioning in community-dwelling older persons; by Mary E Tinetti, Christianna S Williams.
Several preventive strategies have proved effective at reducing the occurrence and rate of falling; but to what extent are falls and/or fall injuries independent determinants of adverse functional outcomes in older people? 957 over 71s who participated in at least one follow-up interview while living in the community were included in this 3-year study. Outcome measures included 1- and 3-year change in basic and instrumental activities of daily living (BADLs and IADLs), and social and physical activities. Based on daily calendars and hospital surveillance, participants were assigned to one of the following: no falls; one fall without serious injury; at least two falls without serious injury; and one or more falls with serious injury. One or more non-injurious fall, or at least one injurious fall were each associated with decline in BADL or IADL function over 3 years. Experiencing two or more non-injurious falls was associated with decline in social activities, while experiencing at least one injurious fall was associated with decline in physical activity. Thus falls and fall injuries appear to be independent determinants of functional decline in older people living at home. (RH)

ISSN: 10795006

Enhancing the health of older people in long-term care; by Research Unit, Royal College of Physicians; British Geriatrics Society - BGS; Royal Surgical Aid Society - AgeCare. London: Royal College of Physicians, 1998, 70 pp.
This report contains clinical guidelines for improving the quality of health care of older people in long-term care. It updates two previous publications by the Royal College of Physicians: 'High quality long-term care for elderly people' (1992) and 'Standardised assessment scales for elderly people' (1992). Guidelines are presented for the following areas: positive care for people with dementia; detecting and managing depression; overcoming disability; preserving autonomy; promoting urinary and faecal incontinence; optimising medication; preventing and managing falls; and preventing and managing pressure sores. Advice for providers and commissioners/purchasers are included. (AKM)
ISBN: 186016076X
Price: £17.00 (£20.00 overseas)
From: Publications Department, Royal College of Physicians of London, 11 St Andrews Place, Regent's Park, London NW1 4LE.
Falls and psychotropic drug consumption in long-term care residents: is there an obvious association?; by Harald A Nygaard.
People qualifying for long-term care must exhibit a high degree of dependency, caused by physical and/or mental impairment; falls may be a factor. This study investigated fallers in three local long-term care facilities in Bergen, Norway. 118 residents were observed for 6-months with respect to fall episodes. Prior to the study, gender, age, mental capacity, mobility, the ability to go to the toilet, to eat, and to communicate, and all drugs prescribed on a regular schedule were recorded. Subsequently the various elements were compared for fallers and non-fallers. There were 49 fallers. There was no difference between the two groups regarding gender, age or drug use. Mental impairment and restricted mobility were independently associated with risk of falling. Falling was also associated with the degree of mental impairment. A stratified Mantel-Haenzel test showed a significant higher tendency to fall among residents using antipsychotics. Those with restricted mobility using anxiolytics/hypnotics or antidepressants had a lower tendency to fall than non-users, and were less prone to fall repeatedly. Anxiety and depressive states may possibly contribute to falling. (RH)
ISSN: 0304324X

Falls in the elderly; by V S Natarajan.: HelpAge India, June 1998, pp 22-25.
The prevalence, risk factors, causes, and clinical management of falls are outlined. Health care workers have a responsibility to promote the reduction of falls, by focusing on identifying and minimising the risk factors commonly encountered by older people. (RH)
ISSN: 09720227

Falls of elderly rural home health clients; by Fred Isberner, Dale Ritzel, Paul Sarvela (et al).
Factors related to falls among older home health care clients living in rural southern Illinois were examined in this study. Forty-five clients who fell were demographically matched with 45 controls. Logistic regression analysis revealed that previous falls, frailty, physical inactivity, balance problems, absence of handrails, and uneven floors were related to falls in this sample. Medications commonly taken by clients were not found to be related to a fall, whereas environmental factors appeared to contribute to a fall. Older home health care clients need information and support services to recognise risk of falling and encourage preventive measures such as physical therapy and environmental modifications. (AKM)
ISSN: 01621424
From: http://www.tandfonline.com

Fear of falling and activity restriction: the Survey of Activities and Fear of Falling in the Elderly (SAFE); by Margie E Lachman, Jonathan Howland, Sharon Tennstedt (et al).
This article reports on the development of a new instrument which assesses fear of falling during performance of 11 activities, and gathers information about participation in these activities as well as the extent to which fear is a source of activity restriction. The Survey of Activities and Fear of Falling in the Elderly (SAFE) was tested among a sample of community-dwelling older people in Massachusetts, United States (US). Results showed that the instrument demonstrated good internal consistency reliability and showed convergent validity with other fear of falling measures. Concurrent (empirical) validity was demonstrated in that the scale was effective in differentiating among those who were expected to be afraid versus not afraid of falling. Fear of falling was shown to be related to lower quality of life, even when controlling for related background factors. One advantage of this measure is the possibility of differentiating fear of falling that leads to activity restriction from fear of falling that accompanies activity. This may provide useful information for those interested in treating fear of falling or promoting activity among older people.
ISSN: 10795014

Fear of imbalance and falling; by Lucy Yardley.
This review examines the relationship between dysequilibrium, falling and anxiety, and their combined impact on the lives of older people. More than one in four people aged over 69 fall each year, and a higher proportion of those over 74. The results of existing research in mixed age population are extrapolated, to suggest possible explanations for observed patterns of co-varying physical and psychological balance-related problems in older people. Review of the literature on imbalance, falling, and fear of falling is supplemented by analysis of the correlations between these variables in a sub-sample of older people assessed prior to participation in a trial of
rehabilitation for dizziness. The first half of the review considers various ways in which imbalance, falling and anxiety are connected, while the second half discusses how these three factors may relate to restriction of activity and handicap. (RH)
ISSN: 09592598

Home environmental hazards and the risk of fall injury events among community-dwelling older persons; by Richard W Sattin, Juan G Rodriguez, Carolee A DeVito (et al).
To determine if home environmental hazards increase the risk of fall injury events in the home, a case control study was conducted among 270 older persons who had injuries resulting from falls in the home and 691 controls. The home environment of each person was assessed directly by interviewers using a standardised instrument. Results showed that environmental hazards were present in nearly all homes. After adjusting for important confounding factors, most of these hazards were not associated with an increased risk of fall injury events among most older persons. Increasing numbers of tripping hazards or total hazards in the home did not increase the risk of fall injury events. (AKM)
ISSN: 00028614

Identifying nursing home residents at risk for falling; by Dan K Kiely, Douglas P Kiel, Adam B Burrows (et al).
Falls are common among older people, but particularly so among nursing home residents. The aim of this US study was to develop a fall risk model that may be used to identify prospectively nursing home residents at risk for falling, and to determine whether the nursing home environment independently influenced the development of falls. A total of 18,855 residents in 272 nursing homes participated in the study. Findings showed that fall history, wandering behaviour, use of a cane or walker, deterioration of activities of daily living (ADL) performance, age greater than 87 years, unsteady gait, transfer independence, wheelchair independence, and male gender were the factors associated independently with falling. Nursing home residents with a fall history were more than three times as likely to fall during the follow-up period than residents without a fall history. Residents in homes with the highest tertile of fall rates were more than twice as likely to fall compared with residents of homes in the lowest tertile, independent of resident-specific risk factors. (AKM)
ISSN: 00028614

Increased prevalence of fall risk factors in older people following hip fracture; by Catherine Sherrington, Stephen R Lord.
This Australian case control study involved a hip fracture group of 44 people aged 64-94 years, assessed on average 7 months following a fall-related hip fracture, and an age- and sex-matched control group (older people who had not fallen in the previous 12 months) drawn randomly from community samples. Compared with the control group, the hip fracture group had marked reduced quadriceps strength and increased body sway when tested on firm and compliant (foam rubber) surfaces. Patients in the hip fracture group also had higher prevalence rates of poor vision, arthritis and stroke, were taking more medications, were less physically active, and perceived themselves to be at greater risk than the control group. No significant differences were apparent for cardiovascular conditions, subjective health status and psychoactive medication use between the groups. Multivariate analysis identified quadriceps strength and body sway on the compliant surface as the most important distinguishing variable between the two groups, being correctly classified in 92% of cases. The findings identify an increased prevalence of certain fall risk factors among older people who have suffered a hip fracture. (RH)
ISSN: 0304324X

Inefficient postural responses to unexpected slips during walking in older adults; by Pei-Fang Tang, Marjorie H Woollacott.
Slips account for a high percentage of falls and subsequent injuries in older people. This study tested the hypothesis that active and healthy older adults use a less effective reactive balance strategy than young adults when experiencing an unexpected forward slip occurring at heel strike during walking. This less effective balance strategy would be manifested by slower and smaller postural responses, altered temporal and spatial organisation of the postural responses, and greater upper body instability after the slip. 33 young adults aged 19-34 and 32 older adults aged 70-87 participated in the test simulating a forward slip. Although the predominant postural muscles and the activation sequence of these muscles were similar between the age groups, the posture responses of older people were of longer onset latencies, smaller magnitudes, and longer burst durations -
resulting in an inefficient balance strategy. Older adults needed secondary compensatory adjustments, including a lengthened response duration and use of the arms, to fully regain balance and prevent a fall. Shorter stride length and earlier contralateral foot strike after a slip indicate older people use a more conservative balance strategy. (RH)
ISSN: 10795006

Fear of falling is common in older people and is associated with restricted activity. To help inform design interventions, the authors examined the correlations of this fear in a sample of 392 older people who had reported being afraid of having a fall. In a multivariate model, lower levels of fear of falling and hurting oneself in the next year were related to being younger, having higher levels of dysfunction, and having lower levels of perceived ability to manage falls, with the last two remaining significant even after controlling for generalised fearfulness. When analysing specific domains of dysfunction, higher levels of fear of falling and hurting oneself in the next year were associated with higher levels of physical dysfunction. The findings lend support to the increasing awareness that fear of falling may negatively affect quality of life, and suggest the importance of interventions aimed at enhancing ability to manage falls. (AKM)
ISSN: 08982643

The five most frequently cited scales of balance - Performance Oriented Assessment of Balance (POAB), "Get Up and Go" (GUGT), Berg Balance Scale (BBS), Functional Reach (FR), and Falls Efficacy Scale (FES) - were reviewed, compared and contrasted. A MEDLINE literature search was conducted for the years 1986-1996. Scales were reviewed based on six selected criteria: purpose of the scale; target population; scale reliability and validity; ease of use, mode and time needed for administration and scoring; and clinical usefulness for practitioners. The GUGT and FES were identified as screening tools, while the BBS, POAB and FR were suggested for more in-depth evaluation. A summary of the information on each scale was compiled into several tables, which may help clinicians in selecting an appropriate scale for use with patients or in clinical research studies. (RH)
ISSN: 02703181
From: Haworth Document Delivery Center, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904-1580, USA.

Multidimensional correlates of falls in older women; by Diane L Gill, Kathleen Williams, Lavon Williams (et al).
A group of 63 older women who had fallen in the previous year was compared with a group of 67 older women who had not fallen on several psychological and motor measures. Both fallers and non-fallers demonstrated high levels of functioning. Discriminant analysis indicated that a combination of variables, including physical activity and both psychological (general well-being, self-efficacy) and motor (functional reach, mobility) measures differentiated fallers and non-fallers. Results suggest that falling is a multidimensional phenomenon, that small declines on multiple factors may increase risk of falls, and that multi-faceted interventions may help maintain high levels of functioning and prevent declines often associated with increased age. (AKM)
ISSN: 00914150

Notation of previous falls in admission record of hospitalized elderly; by H K Edelberg, K Lyman, J Y Wei.
To test the hypothesis that a history of falling is under-reported by physicians and nurses, the authors assessed the extent to which previous falls are noted in the admission medical history. 168 community-dwelling and institutionalised over 70s were evaluated in the emergency ward of a teaching hospital and admitted to a general medical ward. Admission notes were reviewed for the inclusion of 'falls'. Within 72 hours of admission, the information provided or omitted in the medical record was confirmed or refuted by face-to-face interview. Follow-up data were gleaned from computer-based records. The sample population consisted of 113 patients, 56% female, mean age 80.7 years. 76 patients had fallen within the past ten years; of these, 32 (42%) were recent fallers, and 44 (58%) were multiple fallers. Review of the medical records revealed that 56 (74%) of the 74 fallers were not noted to have fallen by the medical staff; and 15 of the recent fallers and 28 of the multiple fallers were missed. Examination of nursing notes yielded similar results. To conclude, older patients fall more
frequently than recognised; and physicians and/or nurses should include a question regarding falls as part of the routine medical history. (RH)

Osteoarthritis in older adults; by Shari Miura Ling, Joan M Bathon. 
This review highlights the clinical and pathophysiological features of osteoarthritis (OA) of the peripheral joint, and discusses the current and future management options for this common but potentially disabling disease. It also examines the contribution of OA to falls and functional impairment in older people. OA is the most prevalent articular disease in older adults. Disease markers that will detect early disease and allow early intervention with pharmacological agents that modify, if not halt, disease progression are much needed, but they are currently unavailable. Current management should include safe and adequate pain relief using systemic and local therapies, and should also include medical and rehabilitative interventions to prevent, or at least compensate for, functional deficits. Although OA can result in impaired mobility and lower extremity function, its contribution as a cause of recurrent falls or impaired self-care, relative to other comorbid conditions, remains ill-defined. Further analysis of the determinants of disability, loss of mobility and falls in older patients with OA is needed. (RH)

Prevention of falls in people over 65; by Marion Bateman. 
Falls are common in older people, resulting both in injuries and loss of confidence. The author of this article, who was the winner in the community category of the 1997 Nursing Times Nursing and the Older Person Award, describes a nurse-led health promotion and fall prevention programme called Mind Your Step. Older residents in sheltered housing were invited to participate in the 8-week programme, and the success of the programme will be assessed at 3-month follow-up. (AKM)

Prospective evaluation of unexplained syncope, dizziness, and falls among community-dwelling elderly adults; by Denis O’Mahony, Chris Foote. 
This UK study evaluated a diagnostic algorithm in the assessment of symptoms of unexplained syncope (fainting), dizziness and falls in a cohort of older people living in the community. 54 consecutive patients aged 61-91 were assessed systematically for 12 months using the algorithm, followed up until a diagnosis was made, and appropriate preventive therapy or advice given. Diagnoses were obtained in 41 patients (75.9%) Of 33 patients with syncope, cause was identified in 23: 12 vasovagal, 5 arrhythmia, 3 hypotensive drugs, 2 orthostatic hypotension, and 1 major anxiety with hypoventilation; in 10, cause remained uncertain. Of 10 patients with non-syncopal falls, 3 had drop attacks with associated knee osteoarthritis or quadriceps muscle weakness, 2 orthostatic hypotension, and single cases of cerebellar ataxia, Parkinson's disease, otologic vertigo, and vertebrobasilar insufficiency. Of 11 patients with dizziness, 4 had vasovagal syncope, 2 orthostatic hypotension, 2 otologic vertigo, 1 carotid sinus syndrome; in 2, the cause remained obscure. 19 of the 41 patients had at least one other abnormality also contributing to their symptoms. 5 of the 13 with no clearcut diagnosis had cardiovascular or balance abnormalities. (RH)

A prospective study of posturography in normal older people; by Robert W Baloh, Sonia Corona, Kathleen M Jacobson (et al). 
This study followed posturographic measurements in a group of 72 older people (age range 79-91 years) living in the community, to see if sway increases with age, and if sway is greater in those with deteriorating balance and experiencing falls. Velocity of sway on dynamic tests increased significantly during a three-year follow-up. Subjects with low Tinetti gait and balance scores had higher sway amplitude and velocity, particularly on dynamic tests, but no measure of sway was significantly different in those who reported falls compared with those who did not report falls. Sway therefore increases in normal subjects over time, and is greater in older subjects with deteriorating balance compared with those with normal balance. Sway was not greater in those who fell compared with those who did not fall, probably because falls are highly dependent on individual behaviour. (RH)

ISSN: 03949532

ISSN: 00028614

ISSN: 00028614

ISSN: 10795006

ISSN: 00028614

A sample of 434 people aged 60 and over and living in the community in the Boston metropolitan area, who reported fear of falling and associated activity restriction, were recruited for this US study. Data were collected at baseline, and at 6-week, 6-month and 12-month follow-ups. Compared with 218 contact control subjects, the 216 assigned to the intervention group reported increased levels of intended activity and greater mobility control immediately after the intervention. Effects at 12 months included improved social function and mobility range. The intervention had immediate but modest beneficial effects, but these diminished over time without the benefit of further booster sessions. (RH) ISSN: 10795014


A major reason cited for continued restraint use in American nursing homes is the widely held belief that restraint reduction will lead to fall-related incidents and injuries. This study analyses data from a clinical trial of interventions aimed at restraint reduction in nursing homes. Two different designs were used to test the relationship between restraint reduction and falls/injuries. First, multiple logistic regression was used to compare fall/injury rates in 38 subjects who had restraints removed, to 88 who continued to be restrained. No indication of increased risk was found. Moreover, restraint removal significantly reduced the chance of minor injuries due to falls. Second, survival analysis tested the relationship between physical restraint removal and falls/injuries at the institutional level, by comparing fall/injury rates among three nursing homes (n=633) with varying rates of restraint reduction. Nursing homes with the least restraint reduction had a 50% higher rate of falls, and more than twice the rate of fall-related minor injuries, compared to homes with 23% and 56% restraint reduction, respectively. Physical restraint removal does not lead to increases in falls or subsequent fall-related injury. (RH) ISSN: 10795006


The medical and nursing notes of patients in acute geriatric wards at Broadgreen Hospital Liverpool were examined on death or discharge over a 6-month period to identify those admitted with a fall. Important risk factors were listed (poor vision, inappropriate medication, postural hypotension, condition of feet, or inappropriate footwear), and a self-auditing ‘penless’ clinic for fallers was subsequently set up to generate reports for medical notes and letters for general practitioners (GPs). Risk factor identification improved after the insertion of the checklist, but remained relatively poor. A dedicated clinic allowed almost complete identification of risk factors. Of the first 112 patients (median age 82) seen in the clinic, 75 (67%) were housebound. Removable risk factors - e.g. inappropriate medication (67%), unsatisfactory footwear (59%), and postural hypotension (17%) - were found in most. 33 patients had difficulty with alarm raising. Ward-based intervention showed limited capacity to identify risk factor for falls; a dedicated clinic was more successful. The authors suggest that use of a portable computer with a programme to screen fallers is worth considering. (RH) ISSN: 00020729


Falling is one of the major factors leading to disabilities in older people. This study aimed to describe the physical, social and psychosocial factors related to major injurious falls in older people in five rural northern municipalities in Finland. The risk factors were analysed separately in a disabled group and an independent group of community-dwelling people aged 70 years and over, initially 979 persons, over a 2-year period. Findings revealed that 30% of the subjects having fallen sustained a major injury. The following variables were found to be related to a high risk for major injurious falls in the disabled group: divorced, widowed or unmarried marital status; low body mass index; incomplete step continuity; poor distant visual acuity; and the use of long-acting benzodiazepines. In the independent group, the risk of a fall resulting in major injury was high among the subjects who had peripheral neuropathy or were suffering from insomnia. The study concluded that preventive measures should be targeted according to the disabilities of the population. (AKM)
A survey of accidents amongst elderly in-patients: practical measures and policy considerations; by James J H Harrison.

The accidents with the highest mortality rates among older people are falls, particularly for over 85s. This paper reports the findings from a survey of patient accidents within the elderly services facilities of a Midlands NHS trust. It describes the nature of accidents and associated injuries, and circumstances of victims. It follows that any attempt to meet 'Health of the nation' accident targets for older people must also include those in hospital. Some tentative measures for preventing and managing accidents in this population and in the purchasing of services are proposed, which service purchasers and providers may wish to consider.

ISSN: 13649752

A two-year longitudinal study of falls in 482 community-dwelling elderly adults; by Bruno J Vellas, Sharon J Wayne, Philip J Garry (et al).
Falls are common in older people, including relatively healthy, community-dwelling men and women. Although some risk factors for falls have been identified, further research is needed. In this study, risk factors and consequences of falls were analysed in a 24-month prospective study of 482 older men and women living independently in the community. Falls and injurious falls were ascertained by telephone and by a bimonthly postcard follow-up. Predictor variables were obtained from a baseline assessment and follow-up questionnaire. Results showed that 61% of the participants reported one or more falls during the 2-year follow-up. Age, history of fracture, low physical health, and low or high mobility level were risk factors for injurious falls in both sexes. The inability to balance unsupported on one leg was associated with injurious falls in women. Self-reported cognitive, physical health, and mobility impairments were greater in female fallers compared to the non-fallers.

(AKM)
ISSN: 10795006

Visual impairment and falls in older adults: the Blue Mountains eye study; by Rebecca Q Ivers, Robert G Cumming, Paul Mitchell (et al).
The relationship between visual impairment and falls in older people was examined in this Australian study. All people aged 49 years and over in two areas in the Blue Mountains were invited to participate; a total of 3299 had eye examinations and answered questions about health and vision status, use of medication, and number of falls in the previous 12 months. Results revealed that visual impairment was strongly associated with two or more falls in older adults. In addition to poor visual acuity, visual factors such as reduced visual field, impaired contrast sensitivity, and the presence of cataracts may explain this association. (AKM)
ISSN: 00020729

Will elderly rest home residents wear hip protectors?; by M Tracey A Villar, Prim Hill, Hazel Inskip (et al).
Hip fracture is a common cause of morbidity and mortality in older people, for whom osteoporosis, the risk of falling and direct trauma to the hip during the fall are the major risk factors. External hip protectors have been developed which reduce the risk of hip fracture after a fall. However, compliance with their use is uncertain, which is investigated over a 3-month period in a sample of 101 women aged 64 to 98 resident in rest homes in Dorset. 44% had reported a fall in the preceding 12 months. Each subject was fitted with three pairs of protector pads (Sahvatex, Denmark) sewn into specially designed undergarments. Randomly timed fortnightly visits were made to assess compliance over the 12 weeks (only 30%). Compliance could be increased substantially if the pads and undergarments were modified to enhance their fit and to reduce the discomfort associated with their use. (RH)
ISSN: 00020729
Accidents: the main causes and methods of prevention; by South East Institute of Public Health (SEIPH). Tunbridge Wells
Seiph Briefing, no 1, June 1997.
This briefing outlines those areas with either high numbers or rates of injury death or hospitalisation in South Thames (East), and effective interventions to reduce them. It covers road vehicle accidents, fires, falls, sport, and accidents in residential institutions. (AKM)

Price: FOC
From: Seiph, Broomhill House, David Salomons' Estate, Broomhill Road, Tunbridge Wells, Kent TN3 0XT.

Age-related changes in postural control associated with location of the center of gravity and foot pressure; by Toshiaki Tanaka, Hidekatsu Takeda, Takashi Izumi (et al).
The purpose of this study was to assess the limitations of the head and lumbar movements in relation to the change of the base of support to understand how the ability to maintain standing balance relates to ageing. The 22 subjects of the study were divided into two groups: one with younger people and one with older people. The instruments for measuring lumbar and head movements and the centre of pressure were a three-dimensional motion analysis system and a force plate. In addition, the peak foot pressure was measured during standing using the F-scan system. Results showed that the subjects in the younger group mainly used the forefoot area to maintain balance in the maximal displacement of posterior sway, whereas the older subjects used the heel area for the same sway. The study concluded that measuring the maximal displacement of the lumbar position is useful in clinical evaluation of postural instability.
ISSN: 02703181
From: Haworth Document Delivery Center, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904, USA.

The assessment of falls in older people has moved from disease-oriented approaches, which try to identify single causative factors, to performance-oriented evaluations of functional deficits. This study investigated the abilities of older fallers and non-fallers to perform various functional activities. In addition, it assessed the balance control components of sensory input: vision, vestibular function, and proprioception; the central processing control components: mental status, selective attention, perceptual style, and simple and choice reaction time; and the effector system: isometric strength. Results showed that fallers exhibited reduced static balance, walking and stair descent performance, and lower selective attention abilities and increased choice resisted reaction times.
ISSN: 10795006

Association of postprandial hypotension with incidence of falls, syncope, coronary events, stroke, and total mortality at 29-month follow-up in 499 older nursing home residents; by Wilbert S Aronow, Chul Ahn.
A US study of 499 nursing home residents aged 62 and older, at 29-month mean follow-up, examined the correlation of maximal reduction in post-prandial systolic blood pressure with the incidence of falls, syncope (fainting), new coronary events, new stroke, and total mortality. At follow-up, falls had occurred in 199 people (40%), syncope in 72 (14%), new coronary events in 139 (28%), new stroke in 61 (12%), and total mortality in 199 (40%). Maximal decrease in post-prandial systolic blood pressure was an independent risk factor for falls, syncope, new coronary events, new stroke, and total mortality. Age was an independent risk factor for new coronary events and for total mortality. Male sex was an independent risk factor for syncope, new coronary events, stroke, and total mortality. Prior falls was an independent risk factor for new falls. Prior syncope was an independent risk factor for new syncope. Prior stroke was an independent factor for new stroke. A marked reduction in post-prandial systolic blood pressure in older nursing home residents was associated at long-term follow-up with a higher incidence of falls, syncope, new coronary events, new stroke, and total mortality. (RH)
ISSN: 00028614

In this study of 96 male and female volunteers aged 60 to 88 in Oxford, Ohio, 50 participants fell during the one-year monitoring period, amassing 91 falls. Trips and slips were the most prevalent causes. Falls most often
occurred in the afternoon - walking on level or uneven surfaces. Fallers most commonly attributed falls to hurrying too much. Fractures resulted from five of the falls; eight others resulted in soft tissue injuries requiring treatment. There were no differences between one-time and recurrent fallers in the circumstances and consequences of falls. Falls by men most often resulted from slips, whereas falls by women most often resulted from trips. Time of year was also significant: men fell most often in winter, whereas women fell more in summer.

ISSN: 00020729

Circumstances of falls resulting in hip fractures among older people; by Robyn Norton, A John Campbell, Trevor Lee-Joe (et al).
This cross-sectional survey of 911 people aged 60 and over with fracture of the proximal femur in two hospitals in Auckland, New Zealand, aimed to determine whether circumstances of hip fracture differ by gender, age, and residential status. 77% were women, 66% aged 80 and over, and 58% were living in private homes at the time of fracture. 96% of fractures were associated with a fall, with fewer than 2% of subjects reporting that their fracture occurred spontaneously before a fall. 16% of fractures were associated with an acute medical or physical condition. Although 85% of the fractures involving a fall occurred at home, only about 25% of these were associated with an environmental hazard, and only a proportion of these were likely to have been amenable to modification. The circumstances of falls differed significantly by age and residential status. Strategies aimed at preventing fall-related hip fractures among the old old and among institutionalised individuals should focus primarily on the modification of intrinsic factors. Modification of environmental hazards has the greatest potential for prevention among the young old and those living in private homes. (RH)
ISSN: 00028614

A comparison of the effects of three types of endurance training on balance and other fall risk factors in older adults; by D M Buchner, M E Cress, B J de Lateur (et al).
In this study, part of the US National Institute on Aging's FICSIT (Frailty and Injuries: Cooperative Studies of Intervention Techniques) initiative, the authors hypothesised that short-term endurance training improves balance in older adults, if training involves movements that `stress' balance. Subjects with mild deficits in balance attended supervised exercise classes three times a week for three months, divided into three different exercise groups: stationary cycle (i.e. exercise bike - low movement), walking (medium movement) and aerobic movement (high movement). Only walking exercise improved gait speed. Leg strength improved significantly in all groups. The study hypothesis was supported for only one balance measure (distance walked on a 6 metre narrow balance beam). Only walking improved at least one measure of all major outcomes (endurance, strength, gait, balance, health status), suggesting that walking is most useful for fall prevention. Cycle exercise appeared least useful. (RH)
ISSN: 03949532

Controlled trial of weight bearing exercise in older women in relation to bone density and falls; by Marion E T McMurdo, Patricia A Mole, Colin R Peterson.
Studies of the effects of different exercise programmes on bone in postmenopausal women have produced different conclusions, but few have targeted elderly women specifically. The authors report on a controlled trial of weight bearing exercise in older women.
ISSN: 09598138

Development and evaluation of evidence based risk assessment tool (STRATIFY) to predict which elderly inpatients will fall: case-control and cohort studies; by D Oliver, M Britton, P Seed (et al).
This study reports on a prospective case control study to identify clinical characteristics of elderly inpatients that predict their chance of falling. This phase and phase 2, an investigation of STRATIFY (St Thomas's risk assessment tool in falling elderly inpatients) were carried out at St Thomas's Hospital elderly care unit. STRATIFY measured five factors significantly associated with falls, and which showed high sensitivity and specificity in predicting falls. Its local validity was further tested at Kent and Canterbury Hospital, and was found to predict with clinically useful sensitivity and specificity a high percentage of falls among elderly hospital inpatients. The authors conclude that further study is needed to determine whether falls of inpatients identified as high risk can be prevented by a targeted intervention.
ISSN: 09598138
Differences in muscle endurance and recovery between fallers and nonfallers, and between young and older women; by Kristen I Schwendner, Alan E Mikesky, Worthe S Holt (et al).
Ageing involves changes in muscular function, which may relate to the increase in falls in older people. This study tested the hypothesis that older women with a history of falls demonstrate decreased muscle endurance and longer recovery times than either younger women or older women who have not had falls. The three groups of women performed knee extensions and the quadriceps muscle strength was assessed, as was recovery time between exercises. Findings revealed that older women with a history of falls showed decreased muscular endurance when compared to younger women and non-fallers, and increased time to recover from exercise when compared to young women.
ISSN: 10795006

The effect of strength and endurance training on gait, balance, fall risk, and health services use in community living older adults; by David M Buchner, M Elaine Cress, Barbara J de Lateur (et al).
The importance of regular physical exercise in the prevention of injurious falls in older people is unclear. The aim of this study, part of the National Institute of Aging's FICSIT (Frailty and Injuries: Cooperative Studies of Intervention Techniques) initiative, was to determine if strength and endurance training can modify risk factors for falls. It also tested the effect of the training on gait, balance, physical health status and health service use. A sample of older people aged between 68 and 85 participated in supervised exercise sessions three times per week for 24-26 weeks, followed by self-supervised exercise. The study found that exercise had a protective effect on risk of falling, but no effect on gait, balance or physical health status.
ISSN: 10795006

The effects of two types of cognitive tasks on postural stability in older adults with and without a history of falls; by Anne Shumway-Cook, Marjorie Woollacott, Kimberly A Kerns (et al).
Several studies have suggested that decreased balance control due to injury or ageing may increase the attentional requirements associated with maintaining stability. However, little is known about the mechanism by which declining postural control requires increased attentional resources, and the effect on the ability to maintain stability during the concurrent performance of postural and cognitive tasks. This study examined the effects of two different types of cognitive tasks on stability in young and older people with and without a history of falls. During the performance of the tasks decrements were found in postural stability measures rather than in the cognitive measures for all groups. Postural stability in older individuals with a history of falls was significantly affected by both cognitive tasks. The study concluded that when postural stability is impaired even simple cognitive tasks can further impact balance.
ISSN: 10795006

Environmental hazards in the homes of older people; by Susan E Carter, Elizabeth M Campbell, Rob W Sanson-Fisher (et al).
This Australian study was carried out as part of the Seniors' Injury Prevention (SIP) Project. Participants were asked about home safety issues. Home safety inspections indicated that 80% of homes had at least one hazard; 39% had more than five. The bathroom was identified as the most hazardous room. Hazards relating to floor surfaces and absence of grab or hand rails were prevalent. 80% of participants identified falls as the most common cause of injury, and 87% were able to name at least one safety measure. Logistic regression analysis identified one variable - contact with healthcare service providers - as predictive of hazard level: older people who were never visited by service providers were twice as likely to have more than 5 hazards as those who were visited weekly or more often. As yet, no causal link has been established between the presence of environmental hazards and falls in older people.
ISSN: 00020729

Factors predicting fractures during falling impacts among home-dwelling older adults; by Heikki Luukinen, Keijo Koski, Pekka Laippala (et al).
The prevention of falls in older people has proven to be difficult, however, preventive interventions focusing on the actual falling episode has shown to lower the risk of fractures and injuries. This study investigated the
predictors of fractures during falling impacts in a population of home-dwelling older people in five rural areas in northern Finland. All falls in the population were recorded during a 4-year follow-up period. Risk factors for fractures were determined according to the number and severity of previous falls, disease history, use of medication, symptoms, clinical examinations and tests, nutritional status, functional abilities and social and health behaviour. Results indicated that impaired perception, muscle strength, psychological functioning, and fear of falling were risk factors for falls resulting in a fracture.

ISSN: 00028614

Falls; by Nicki Colledge.
Falls and funny turns are very common in older people, and are the cause of substantial morbidity and mortality. In recent years, there have been important advances in our understanding of the causes of falls and how best to manage these in vulnerable older people. Given the magnitude of the problem, it is important that such research finds its way into clinical practice. Slowing of central integration is the most likely explanation for the increase in postural sway in older people, but disease, disability and drugs are more important in causing falls. Risk reduction and balance training can prevent falls, and further work is needed to find effective ways of dealing with this problem, as this article outlines. (RH)

ISSN: 09592598

Fear of falling and restriction of mobility in elderly fallers; by Bruno J Vellas, Sharon J Wayne, Linda J Romero (et al).
This study of people aged 60 and over living in the community was part of the New Mexico Aging Process Study. It aimed to identify the characteristics of those who develop a fear of falling after experiencing a fall, and to investigate the association of this fear with changes in health status over time. 32% of those who experienced a fall in the 2 year study period reported a fear of falling: women were more likely than men to report fear of falling (74% vs 26%). Fallers who were afraid of falling again had significantly more balance and gait disorders at the start of the study. Gait abnormalities and poor self-perception of physical health, cognitive status and economic resources were significantly associated with fear of falling. The study indicated that about one-third of older people develop a fear of falling after a fall, and this issue should be considered in rehabilitation programmes.

ISSN: 00020729

Foot position awareness in younger and older men: the influence of footwear sole properties; by Steven Robbins, Edward Waked, Paul Allard (et al).
In this Canadian study, a random sample of 13 healthy men (mean age 72.58 years) was compared with a younger control group of 13 men (mean age 28.13) on their stability and foot position awareness. The following measurements were used: balance failure frequency, defined as falls per 100 metres of beam walking; rearfoot angle in degrees, measured via an optical position measurement system; perceived maximum supination when walking, in degrees, estimated by subjects using a ratio scale; foot position error, in degrees, defined as the rearfoot angle minus maximum supination. The study concludes that foot position awareness is related causally to stability; and shoes with thin, hard soles provide better stability for men than those with thick, soft midsoles. Foot position awareness declines - and therefore errors increase - with advancing years. (RH)

ISSN: 00028614

Gait changes in older adults: predictors of falls or indicators of fear?; by Brian E Maki.
Research has shown that a large number of falls in older people occur during walking, and several studies have demonstrated associations between changes in gait and risk of falling. In particular, it has been reported that older people who fall tend to walk more slowly, to have a shorter stride length, to adopt a wider base and to use double leg support frequently. This study examined whether spatial-temporal measures of foot placement during gait can predict the likelihood of future falls or whether such measures are more likely to be indicative of adaptations associated with pre-existing fear of falling, in a group of ambulatory older adults. Results showed that stride-to-stride variability in the control of gait is an independent risk factor of falling, whereas changes in gait previously cited as risk factors may be stabilising adaptations related to fear of falling.

ISSN: 00028614
This book presents a multidisciplinary approach to the management of gait disorders, covering the clinical and research tools available to evaluate gait and balance; the classification of gait disorders from physiological and descriptive perspectives, and an aetiologic classification. Special consideration is given to falls, focusing on risk factors and prevention. The book also includes practical information about diagnostic and therapeutic interventions for the various disorders.
ISBN: 0316549150
Price: £61.00
From: Lippincott-Raven Publishers, c/o Plymbridge Distributors Ltd., Estover, Plymouth PL6 7PY.

Influence of visual control, conduction, and central integration on static and dynamic balance in healthy older adults; by Philippe P Perrin, Claude Jeandel, Claude A Perrin (et al).
Ageing is associated with changes in the control of balance, resulting in an increased risk of falls. In order to appreciate the visual, somatosensory, and central signals involved in balance control, methods of posturography assessment have been developed, using static and dynamic tests, eventually associated with electromyographic measurements. This study applied such methods to a population of healthy older people and healthy younger people in order to assess the respective importance of each of the sensorial inputs in ageing individuals. Results indicated that visual input remains a major component of posture control in older people, although physiological ageing of nervous conduction and central integration can contribute to their decreased control of balance.
ISSN: 0304324X

The performance of simple instruments in detecting geriatric conditions and selecting community-dwelling older people for geriatric assessment; by Rose C Maly, Susan H Hirsch, David B Reuben.
Comprehensive geriatric assessment (CGA) appears to be less effective when performed in out-patient clinics than in hospital settings. The effectiveness of out-patient CGA might be improved by selectively targeting frailer community-dwelling older people. This study evaluated the clinical performance of rapidly-administered standard screening measures for geriatric syndromes in selecting community-dwelling older people for out-patient CGA. In the study sample screened for CGA, 81.3% of subjects received at least one major recommendation for further medical intervention; most were for a target-related condition (functional impairment, depression, urinary incontinence), and the remainder dealt with another significant medical condition. Simple screening instruments used in community settings have variable degrees of accuracy, but may be markers of frailty. Such screening instruments can thus identify older people likely to benefit from geriatric assessment.
ISSN: 00020729

Randomised controlled trial of a general practice programme of home based exercise to prevent falls in elderly women; by A John Campbell, M Clare Robertson, Melinda M Gardner (et al).
Modifiable risk factors for falls in elderly people have been well defined: they include loss of muscle strength and impaired balance. A programme to improve strength and balance in women aged 80 and over can be set up safely with four home visits from a a physiotherapist. In the randomised controlled trial reported, this programme reduced falls and moderate injuries appreciably over the subsequent year in Dunedin, New Zealand. The benefit was most noticeable in those who fell often.
ISSN: 09598138

Receptivity to protective garments among the elderly; by Zachary Zimmer, Ann Myers.
Hip fractures among older people resulting from falls are a growing concern as the proportion of older people increases and health care costs mount. A recent innovation is the development of an undergarment worn to protect against hip injuries. This study attempted to determine whether a community population of older people in Canada would be receptive to wearing such a garment and the characteristics of those who would and would not be receptive. It was assumed that receptivity can be predicted by variables that have been shown to relate to risks of falling. Predictor characteristics represent three domains: demographic/predisposition, health/mobility, and social support. A logistic regression procedure was employed to determine the probability and odds of receptivity among older people given a profile of specific characteristics. Results were interpreted with reference to past research on risks of falling. (AKM)
The relationship between fear of falling and gait abilities in elderly adults in a subacute rehabilitation facility; by Jennifer Manning, Maureen E Neistadt, Sandra Parker.


Several studies have suggested that fear of falling in older people results in self-imposed activity restriction and subsequent functional decline. The aim of this study was to examine if fear of falling in older patients in a rehabilitation centre in New Hampshire, United States (US) was related to actual balance and gait abilities. Spearman rank order correlations were used to compare scores on the Tinetti Falls Efficacy Scale (FES), a measure of fear of falling, and Gait Evaluation (Balance and Gait), a measure of balance and gait. Analyses of the associations between subjects’ scores on individual activities on the FES and their Balance and Gait sub-test scores indicated significant positive associations between balance and/or gait scores and four activities: climbing stairs, shopping, walking around the neighbourhood, and running for the telephone. The associations found suggest that the subjects’ fear of falling was an accurate indicator of gait and balance ability. Balance may be especially important in these activities because most are carried out in unpredictable environments or circumstances.

From: Haworth Document Delivery Center, Haworth Press, Inc., 10 Alice Street, Binghamton, NY 13904, USA.

Rising from the floor in older adults; by Neil B Alexander, Jessica Ulbrich, Aarti Raheja (et al).


Difficulty in rising from the floor after a fall is common in older people, and is associated with substantial morbidity, even when the falls are not associated with serious injury. The aim of this study was to determine the ability of older people to rise from the floor, and to examine how rise ability might differ according to initial body positions and with or without an assistive device. Using a sample of healthy older people, older people in congregate housing (similar to sheltered housing) and young adult controls, the study videotaped and timed rising from the floor. Results showed that older people, in particular those who lived in sheltered housing, had more difficulty in rising from the floor than younger adults.

Risks of care at home for the frail aged; by Sireen Gopal.


Frailty is a state of reduced physiological reserve associated with increased susceptibility to disability. Care of frail older people at home by health care providers should be aimed toward maintaining health, by screening for and assessing factors for risk of illness. The following high-risk problems are discussed: falls, injuries and environmental causes; malnutrition; alcohol, drug dependency and polypharmacy; depression and isolation; and sleep disorders. (RH)

Age differences in postural stability are increased by additional cognitive demands; by Elizabeth A Maylor, Alan M Wing.


Reports on an investigation into standing balance in older people, which explored the effect of age on balance while performing certain cognitive tasks.

Balance evaluation, training and rehabilitation of frail fallers; by Ming Hsia-Hu, Marjorie H Woollacott.


Explains how to evaluate balance in older people, and looks at the role of balance training in reducing the risk of falls.

1996
Case-control study of hazards in the home and risk of falls and hip fractures; by Lindy Clemson, Robert G Cumming, Maryanne Roland.
Presents the findings from a case-control study of older patients referred to a hospital occupational therapy department, which examined whether the prevalence of various environmental hazards was greater in the homes of people with recurrent falls or a recent hip fracture, than in the home of other older people. Concludes with a recommendation that randomised trials should be used to determine whether the removal of hazards reduces the risk of falls and fractures.
ISSN: 00020729

Effectiveness of water exercise on postural mobility in the well elderly: an experimental study on balance enhancement; by Valerie Simmons, Paul D Hansen.
Many older people may limit their activity due to fear of falling. In this study, four groups of older people aged 74 to 86 were placed into four groups - water exercisers, land exercisers, water sitters and land sitters - and met twice a week for 45 minutes for 5 weeks of simple exercises or socializing in the designated medium. Data from this study showed that postural capabilities, as measured by distance reached (functional reach, or FR), were enhanced by movement errors in water, suggesting the ability to experience a wider range of movement without an increase in the risk of injury due to a fall.
ISSN: 10795006

Environmental hazards and hip fractures; by Martyn J Parker, Thomas R Twemlow, Glyn A Pryor.
Reports on a study which aimed to determine the types of environmental hazard associated with falls resulting in hip fracture, for a consecutive series of patients over a period of three years. Findings revealed a variety of hazards, and the article concludes that measures to reduce the risk of falls due to these factors are unlikely to result in a significant reduction in hip fractures.
ISSN: 00020729

Presents findings from a study which investigated in-patient falls in mixed acute and rehabilitation elderly care wards. Three significant risk factors were identified: a previous history of falls; confusion; and incontinence.
ISSN: 0304324X

Exercise in frail elderly men decreases natural killer cell activity; by H G Rincón, G F Solomon, D Benton, L Z Rubenstein.
Six frail male outpatients 70 years and older deemed at risk for fall, but not suffering from serious medical problems nor receiving immune altering drugs, received an exercise intervention of increasing strenuousness for 60 minutes three times a week for three months, in comparison with seven controls having no intervention. Psychosocial and immunologic assessments were made at the start (Time 1), and after 6 (Time 2) and 12 (Time 3) weeks of physical conditioning. Cytotoxic activity of natural killer (NK) cells significantly decreased during the course of the study, in spite of transient exercise-induced increases at Times 2 and 3. Despite the many known benefits of exercise, this report suggests its possible adverse effects on NK cell cytotoxicity in the very frail elderly. Mild overexertion in frail old people may be clinically significant in view of the now recognized role of NK cells in the prevention of metastasis.
ISSN: 03949532

Falling trend; by Graham Cannard.
Describes a method of development to reduce the incidence of falls in a Nursing development Unit.
ISSN: 09547762
Falls leading to femoral neck fractures in lucid older people; by Lars Nyberg, Yngve Gustafson, Diana Berghgren (et al).
ISSN: 00028614

Falls presenting to the accident and emergency department: types of presentation and risk factor profile; by A J Davies, R A Kenny.
Age and Ageing, vol 25, no 5, September 1996, pp 362-366. Falls are a common presenting complaint in older people attending the Accident and Emergency Department. In this study, falls resulted in hospital admission in over one third of patients. Those with no apparent explanation for falls constitute one-third of all cases and have many risk factors, both cardiac and non-cardiac, which might be amenable to intervention. A rapid access post-fall intervention strategy would identify modifiable risk factors and might reduce hospital admission from the Accident and Emergency Department.
ISSN: 00020729

Gait disorders in older adults; by Neil B Alexander.
Journal of the American Geriatrics Society, vol 44, no 4, April 1996, pp 434-451. Discusses the evaluation and treatment of gait disorders in older people, and outlines the factors influencing gait, including age-related factors, gender, disease, leg function, activity levels, and falls.
ISSN: 00028614

Gerontology on the move: is professional education keeping pace?: proceedings of the 4th National Symposium on Gerontological Education, Research and Practice; by Jocelyn Angus (ed), Lincoln Gerontology Centre, Australia. Bundoora, Victoria: Lincoln Gerontology Centre, 1996, 95 pp. This symposium brought practitioners, educators, advocates and consumers together, who were concerned with dealing with attitudes towards ageing and challenging orthodox ways of thinking about education and practice. A major concern was that graduates from the health professions regarded working with older people - the main users of health services - as low on their list of preferences. Innovative approaches to gerontological practice were examined in three workshop sessions: falls prevention and balance; mental health issues and older people; and maintaining health and well-being in the retirement years. These sessions aimed to identify innovative and collaborative models of multi-professional practice, and to use the topics as the context for examining the relevance of current educational curricula to the needs of practitioners.
ISBN: 1864462019
From: Lincoln Gerontology Centre, Faculty of Health Sciences, La Trobe University, Bundoora, Victoria 3083, Australia.

Head over heels: impact of a health promotion program to reduce falls in the elderly; by Elaine M Gallagher, Howard Brunt.
Canadian Journal on Aging, vol 15, no 1, Spring 1996, pp 84-96. The purposes of the Fit (Falls Intervention Trials) Project in the Capital District of Victoria, British Columbia, were to describe the nature of falls among older people, and to develop and evaluate a programme designed to reduce the number of falls. The Fit Project consisted of a comprehensive falls risk assessment, individualised risk counselling, and a video/print educational package. This paper presents a brief literature review, and outlines the goals, intervention and selected six-month outcomes of the Project.
ISSN: 07149808

Imbalance in an older population: an epidemiological analysis; by William A Satariano, Gerald N DeLorenze, Dwayne Reed (et al).
Journal of Aging and Health, vol 8, no 3, August 1996, pp 334-358. Despite the growing public health significance of imbalance in older people, few epidemiological studies of imbalance in the general population have been conducted. In this study, imbalance, defined as the inability to maintain a full-tandem stand for 10 seconds, was assessed as part of an interview with 2018 residents of Marin County, California, aged 55 years and older. Results showed that the likelihood of imbalance was greater in women, those aged 85 years and over, and those with less than 12 years of education. It was also associated with specific chronic conditions, including hypertension, stroke and cataracts. After adjusting for those conditions, imbalance was associated with reduced lower-body strength, poor short term memory, abstention from alcohol, and current smoking. The study concluded that with the oldest old comprising the fastest growing age group in developed nations, imbalance may become a major public health problem.

Presents findings from a study which investigated the circumstances of, incidence of, and risk factor for falls resulting in serious injuries in chairbound and bedridden nursing home residents.

ISSN: 00028614


A comparative analysis (in French) of injury mortality in 24 developed countries during the period 1985-1989 shows the importance of this cause of death among older people. One in four men, and one in two women who dies from injury is aged 65 and over. There is an over-representation of the elderly among injury-related deaths, and such risk of death increases after age 65. Some differences can be noted for older people as compared to other age groups: a lower male excess mortality ratio and a much larger proportion of violent deaths related to accidental falls. There is a wide variation in age group and cause-specific patterns of mortality, but such patterns are similar for countries in the same geographical region.

ISSN: 07149808


Falls are the leading cause of injury and illness for those aged over 65. The North Coast "Stay On Your Feet" (SOYF) Programme in Australia is a 4-year multi-strategic, community-based intervention for tackling this problem among 80,000 older residents. This paper presents key results of the Programme's first 18 months, demonstrates the potential achievements of this type of intervention, and examines some barriers. Programme effect was measured by monitoring indicators of awareness, knowledge, attitudes and risk factors. The intervention was found to be significantly associated with: raised awareness both of the problem of falling and its preventability; improved knowledge of the risk factors for falling; and a higher self-rated risk of falling. As expected, there is as yet no population change in fall rate. Continued intervention is required to change behavioural risk factor profiles and the likelihood of an older person falling. (RH)

ISSN: 09574824


Presents findings from a study which investigated the relationship between restraint use and falls in nursing home residents.

ISSN: 00028614


This study identified physiological factors and medications as risk factors of fall injuries in a rural home-dwelling population aged 70+ in northern Finland. (RH)

ISSN: 00020729


Reports on a study which tested balance behaviour of younger and older adults with and without balance problems in response to visual flow from a moving visual surround.

ISSN: 10795006
Predictors of fall-related injuries among community-dwelling elderly people with dementia; by Takashi Asada, Tetsuhiko Kariya, Toru Kinoshita, Akio Asaka (et al).
This study investigated the annual incidence of fall-related injuries among community-dwelling older people with dementia, and identified the factors predicting those likely to sustain such injuries.
ISSN: 00020729

Preventing falls and subsequent injury in older people; by Nuffield Institute for Health, University of Leeds; NHS Centre for Reviews and Dissemination, University of York.: NHS Centre for Reviews and Dissemination; Nuffield Institute, April 1996, 16 pp.
The risk of falls increases with age, and often result in injury and death. This newsletter is based on a systematic review and synthesis of research on the clinical effectiveness, cost-effectiveness and acceptability of health service interventions to prevent falls in older people. Thirty-six randomised controlled trials are identified which evaluated interventions to prevent falls (exercise, home assessment, type of shoe, interventions in institutional settings), and interventions to reduce the likelihood of an injury resulting from a fall (nutritional supplementation and hip protectors). (AKM)
ISSN: 09650288
From: Subscriptions Department, Pearson Professional, PO Box 77, Fourth Avenue, Harlow CM19 5BQ.

Prevention of falls in the elderly; by A H Myers, Y Young, J A Langlois.
Bone, vol 18, no 1, supplement, January 1996, pp 875-1015.
Two symposium presentations are combined: "The role of physical activity in the prevention of falls", and "The prevention of hip fractures through the prevention of falls". To develop preventive strategies, the risk factors associated with falls must be identified. A Medline literature search from 1976 to 1994 identified 52 studies examining risk factors for falls, recurrent falls, and/or falls resulting in injury. Physical activity-related risk factors for falls include: limitations in general functioning; difficulty or dependence in activities of daily living (ADLs); and exposures to risk of falls as indicated by the nature and frequency of daily activities. Other risk factors for falls - such as cognitive impairment, visual deficits and medication use - may combine with physical activity-related risk factors to increase the risk of falls. Intervention studies directed at nursing home populations did not prevent falls, but had other statistically and clinically significant outcomes. Studies of those living in the community - particularly with an exercise component - reported reductions in falls and in onset of new disabilities. (RH)
ISSN: 09563282

Psychological factors of rehabilitation; by Ron Bracey.
Elderly Care, vol 8, issue 1, February - March 1996, pp 16-17.
Examines some of the psychological factors involved in the rehabilitation of older patients recovering from a hip fracture following a fall. Suggests that the treatment process should include the following components: analysis of the fear of falling; identification of psychological consequences of the injury and assessment of the rehabilitation process.
ISSN: 09568115

Psychological indicators of balance confidence: relationship to actual and perceived abilities; by Anita M Myers, Lynda E Powell, Brian E Maki, Pamela J Holliday (et al).
This study compares various psychological indicators of balance-related confidence, such as expressed fear of falling, activity avoidance, and perceived need for assistance, to actual physical performance.
ISSN: 10795006

Reducing frailty and falls in older persons: an investigation of Tai Chi and computerized balance training; by Steven L Wolf, Huiman X Barnhart, Nancy G Kutner, Elizabeth McNeely (et al).
Reports on an evaluation of the effects of two exercise approaches on frailty and falls in older people.
ISSN: 00028614

Presents findings from a study which investigated the relationship between falls and gait function in older people with dementia. ISSN: 0304324X


This cross-sectional study investigated the occurrence of and correlates of falls (in the previous 12 months) in a group of Hong Kong Chinese aged 70 and over. Logistic regression analysis was used to test the effect of each independent variable. Previous white-collar employment, poor self-perceived health, dizziness, slow gait velocity, difficulties in activities of daily living (ADL), non-practice of 'morning walk', body mass index in the range 20-24, use of local skin preparation, and presence of cerebrovascular disease were independently associated with falls. Smokers were found to have an independent decreased risk of falls. Neither age nor sex was significantly associated with falls after adjusting for other explanatory variables. Data from this study will form the basis for further studies on the risk factors and preventive strategies for falls in this population. ISSN: 10795006


Describes some environmental interventions to prevent falls and injuries in older people with dementia. ISSN: 09547762


Investigates the major sensory and motor factors involved in postural control, and presents findings from a study of community-dwelling women aged 22-99 years, which examined whether sensori-motor and balance measures can explain age-associated changes in walking speed and related parameters, and whether those gait parameters differ in older fallers and non-fallers. ISSN: 00020729


Reports on a one-year prospective study which examined whether a combined assessment of physiological and clinical measures discriminates between older fallers and non-fallers. ISSN: 0304324X


The authors describe and analyse the risk factors for recurrent falling among an elderly home-dwelling population, based on a population study in the Oulu area of Finland, and linked to variables mentioned in the title. Women are particularly a target group for prevention of falls among the elderly. Urinary urgency, urinary incontinence, fear of falling, dizziness and changes in housing conditions should be inquired about to identify those at risk from falling and to take preventive interventions. As well as testing blood pressure changes after standing up, changes in pulse rate should be determined to identify and treat those with orthostatic conditions. ISSN: 00333506


Reports on a study which examined whether dividing attention affects older people more than younger people in their abilities to avoid obstacles under time-critical conditions.
ISSN: 10795006

A textbook on the prevalence, causes, assessment, management and consequences of syncope, or fainting, in older people. Topics covered include epilepsy, falls, drop attacks, and syncope and driving.
ISBN: 0412568101
Price: £65.00
From: International Thomson Publishing Services Ltd., Cheriton House, North Way, Andover, Hampshire SP10 5BE.

1995

The contribution of predisposing and situational risk factors to serious fall injuries; by Mary E Tinetti, John T Doucette, Elizabeth B Claus.
Identifies environmental and behavioural risk factors associated with suffering a serious fall injury.
ISSN: 00028614

Dependence in activities of daily living as a risk factor for fall injury events among older people living in the community; by Jean Ann Langlois, Gordon S Smith, David E Nelson, Richard W Sattin (et al).
Examines the association between different levels of ADL dependence and the risk of fall injuries.
ISSN: 00028614

Dynamic balance in older persons: effects of reduced visual and proprioceptive input; by James O Judge, Mary B King, Robert Whipple, Jonathan Clive (et al).
Examines the contribution of visual input to balance performance in older people.
ISSN: 10795006

The effect of a 12-month exercise trial on balance, strength, and falls in older women: a randomized controlled trial; by Stephen R Lord, John A Ward, Philippa Williams, Maureen Strudwick.
Reports on a study which examined whether physical exercise has a positive impact on balance, strength and the rate of falling in older women.
ISSN: 00028614

The effects of exercise on falls in elderly patients: a preplanned meta-analysis of the FICSIT trials; by Michael A Province, Evan C Hadley, Mark C Hornbrook (et al).
FICSIT (Frailty and Injuries: Cooperative Studies of Intervention Techniques) are independent, randomised, controlled clinical trials, and include an exercise component for 10 to 36 weeks. This study, based on two nursing homes and five community-dwelling sites in the US, aimed to determine if short-term exercise reduced falls and fall-related injuries. Exercise components varied across studies in character, duration, frequency and intensity. Training was performed in one area or more of endurance, flexibility, balance platform, Tai Chi (dynamic balance) and resistance. Some non-exercise components - such as behavioural components, medication changes, education, functional activity, or nutritional supplements - were also included. Using the Andersen-Gill extension of the Cox model that allows multiple fall outcomes, the adjusted fall incidence ratio where general exercise was included was 0.90 (95% confidence level, CL, 0.81, 0.99) and for those including balance 0.83 ((95% CL, 0.70, 0.98). No exercise component was significant for injurious falls, but power was low to detect this outcome. Treatments including exercise for older people reduce the risk of falls. (RH)
ISSN: 0393554X

An epidemiologic study of fall-related fractures among institutionalized older people; by Clorinda M Cali, Douglas P Kiel.
This study assessed the incidence of fall-related fractures, and the circumstances surrounding the falls, during a period of five years among residents of a long-term care facility.
Falls among older people: relationship to medication use and orthostatic hypotension; by Barbara A Liu, Anne K Topper, Richard A Reeves, Cyril Gryfe (et al).
Evaluates the risks of prescribed medications and orthostatic symptoms for subsequent falls in older people.
ISSN: 00028614

Falls in community-dwelling older persons; by Mary B King, Mary E Tinetti.
Reviews the incidence and causes of falls among older people living in the community, and looks at some interventions to reduce the risk of falls and injury.
ISSN: 00028614

Falls, a community care perspective; by Chris van Weel, Harry Vermeulen, Wil van den Bosch.
Examines the frequency, circumstances and consequences of falls in older people living in the community, and discusses ways of prevention.
ISSN: 01406736

Incidence and consequences of falls due to stroke: a systematic inquiry; by Anne Forster, John Young.
Investigates the incidence and consequences of falls in a group of older patients with stroke.
ISSN: 09598138

Incidence of injury-causing falls among older adults by place of residence: a population-based study; by Heikki Luukinen, Keijo Koski, Risto Honkanen, Sirkka-Liisa Kivelä.
Investigates the incidence of falls among older people living at home and in long-term care institutions.
ISSN: 00028614

Increased fall rates in nursing home residents after relocation to a new facility; by Susan M Friedman, Jeff D Williamson, Ben H Lee, Michael A Ankrom (et al).
Examines the change in fall rates after relocation of nursing home residents to a new facility.
ISSN: 00028614

Aimed at physical therapists in nursing homes, day care centres and long-term care institutions, this book describes an approach to maintaining older people's functional status through a programme of physical exercise.
ISBN: 0750695684
Price: £14.99
From: Butterworth Heinemann, Linacre House, Jordan Hill, Oxford OX2 8DP.

Predictors of fear of falling in dizzy and nondizzy elderly; by Eileen J Burker, Henry Wong, Philip D Sloane, Diane Mattingly (et al).
Investigates the interrelationships among demographic factors, psychological status, physical health and fear of falling in older people.
ISSN: 08827974

Prevalence of low vision in elderly patients admitted to an acute geriatric unit in Liverpool: elderly people who fall are more likely to have low vision; by C I A Jack, T Smith, C Neoh, M Lye (et al).
Examines the prevalence of impaired vision and common eye disorders in frail older people.
ISSN: 0304324X
Prognosis of falls among elderly nursing home residents; by P O Jäntti, I Pyykkö, P Laippala.
This study investigated whether falls among nursing home residents were related to increased mortality and disability.
ISSN: 03949532

Reasons for poor detection of frequent falls in elderly people by general practitioners; by N J Vetter, P A Lewis.
Frequent falls in old people are an important marker for other serious diseases, but are poorly detected by general practitioners. This paper examines the reasons for this in 603 people aged 65 and over from a random sample of those living at home in Cardiff. Poor detection appears to be a combination of a reluctance on the part of older people to report the problem, and the relative inability of GPs to manage the problem successfully.
ISSN: 03949532

This review identifies interventions for the prevention of falls, their recurrence, and injury, disability and death resulting from falls. It recommends evaluation of these interventions for their effectiveness and cost of implementation: exercise; medical and pharmaceutical assessment of those most at risk from falling; home safety checks with environmental modification; vitamin D and calcium supplementation; and external hip protectors for frail nursing home residents. Advice about accident prevention should be disseminated to older people - for example through old people's clubs - and to those working with older people in health and social services, and the independent and voluntary sectors.
Price: £10.00
From: Social Science Research Unit, Institute of Education, University of London, 20 Bedford Way, London WC1H OAL.

Site-specific relative risk of fractures in the institutionalized elderly; by P Visentin, R Ciravegna, L Uscello, M Molaschi (et al).
Presents findings from a study which evaluated the effect of bone mass and other risk factors on the incidence of fractures in older people.
ISSN: 0304324X

Special review: accidents involving older people: a review of the literature; by J M Lilley, T Arie, C E D Chilvers.
Reviews the incidence and prevalence of accidents among older people, including falls, road accidents and burns.
ISSN: 00020729

1994

The epidemiology of adverse and unexpected events in the long-term care setting; by J Gurwitz, M Sanchez-Cross, M Eckler, J Matulis.
A review of incidents reported by staff of a large long-term care facility over a 1 year period. Examines patterns in fall and non- fall-related injuries and medication related events.
ISSN: 00028614

Factors associated with falling in elderly hospital patients; by R Salgado, S R Lord, J Packer, F Ehrlich.
Assesses falling and non-falling patients in an acute hospital ward for the importance of various factors such as age, sex, patient type and primary diagnosis.
ISSN: 0304324X
Falls: a strategy for prevention; by John Cleland. 
Geriatric Medicine, vol 24, no 9, September 1994, pp 15-16. 
Looks at the causes, outcome and prevention of falls in older people. 
ISSN: 0268201X

Falls among community-dwelling psychogeriatric patients; by Takashi Asada, Tetsuhiko Kariya, Eiji Kitajima, Tatsuyuki Kakuma, Mitsuru Yoshioka. 
This study investigated incidences of falling among psychogeriatric out-patients and found depression to be a contributory factor. 
ISSN: 08856230

Falls among nursing home residents: an examination of incident reports before and after restraint reduction programs; by F Eijaz, J Jones, M Rose. 
Examines changes in the rate of falling in a group of restrained subjects who underwent restraint reduction, and compares their falling with subjects who had no restraint order. 
ISSN: 00028614

Falls and fractures: an institutional problem; by Mike Stone. 
Geriatric Medicine, vol 24, no 10, October 1994, pp 15-17. 
Examines the special problems of falls and hip fractures in older people living in long-term care institutions. 
Looks at prevention strategies, including impact-absorbing flooring, vitamin supplements and physical exercise. 
ISSN: 0268201X

Fear of falling and fall-related efficacy in relationship to functioning among community-living elders; by Mary E Tinetti, Carlos F Mendes de Leon, John T Doucette (et al). 
Looks at the relationship between fear of falling, physical functioning and actual falling, and suggests that clinical programmes should attempt to improve both physical skills and confidence. 
ISSN: 00221422

Fear of falling in nursing home patients; by S Franzoni, S Boffelli, R Rozzini, G B Frisoni, M Trabucchi. 
Gerontology, vol 40, no 1, Jan-Feb 1994, pp 38-44. 
Findings suggest that in mobile patients, the fear of falling can be a clinically important predictor of functional decline. 
ISSN: 0304324X

An impairment and disability assessment and treatment protocol for community-living elderly persons; by Marie Koch, Margaret Gottschalk, Dorothy I Baker (et al). 
Falls and immobility are common among older people living at home, and result from the accumulated effect of multiple impairments and disabilities as well as environmental hazards. The authors developed and tested a simple assessment and intervention protocol for use in prevention and treatment programmes. This article presents the components of the assessment; the criteria for intervening on diagnosed impairments contributing to falls and immobility; and the recommended treatments, environmental adaptations, training and exercise programmes targeting the diagnosed problems. Appendices provide descriptions of the assessment and intervention protocols, and a list of the balance exercises. Jane F Hopp and Alvar Svanborg provide an invited commentary, to which the authors also respond. (RH) 
ISSN: 00319023

Medications and falls in the elderly; by D K Y Chan, T Gibian. 
A review of the recent literature. 
ISSN: 07264240
The authors studied 301 men and women aged at least 70, living in the community, and who had at least one of the following risk factors for falling: postural hypotension; use of sedatives; use of at least four prescription medicines; and impairment in arm or leg strength or range of motion, balance, ability to move safely from bed to chair to bath or toilet (transfer skills); or gait. Subjects were given either a combination of adjustment in their medications, behavioural instructions, and exercise programmes aimed at modifying their risk factors (intervention group, 153 subjects) or usual health care plus social visits (control group, 148 subjects). During a year of follow-up, 35% of the intervention group fell, as compared with 47% of the control group. Among those who had a particular risk factor at baseline, a smaller percentage in those in the intervention group than those in the control group still had the risk factor at the time of reassessment: prescription medications 63% vs 86%; balance impairment 21% vs 46%; transfer skills impairment 49% vs 65%; and gait impairment 45% vs 62%. The intervention strategy resulted in a significant reduction in risk of falling. (RH)

Assesses incidences of sleep disturbance, falls and urinary incontinence, and their inter-relationships with depression, ambulatory problems and perceived functioning and well-being.

Examines the relationships between impaired vision, muscle strength, reaction time and balance, and falls in older women.

Investigates the influence of attitudinal, social and environmental factors in falls of the elderly, assuming that these are only relevant for people with limited mobility.

This article reports on a randomised controlled trial to evaluate the effects of a modest preventive intervention targeting risk factors for disabilities and falls among non-disabled older people. The main aim was to reduce the days of restricted activity due to illness. Risk factors focused on included physical inactivity, alcohol or prescription drug misuse, home safety hazards, and sensory impairment. Those in the intervention group reported a significantly lower incidence disability or falls, as compared with those receiving general health promotion visits, or 'usual care'. Benefits after two years indicated a narrowing of differences between the groups. The mechanisms by which the intervention may have improved outcomes requires further investigation.

Older people are more likely to fall, but this should not be seen just as a sign of ageing. This article explains why it is important to look for the cause and take steps to prevent future falls.

Study to determine the risk of falls after hospital discharge, and the risk factors associated with falls during this period.
Safety assessment for the frail elderly: a comparison of restrained and unrestrained nursing home residents; by J Schnelle, P Mac Rae, S Simmons, G Uman (et al).
Describes a safety assessment for frail elderly patients which measures behavioural factors associated with falls, in order to identify those at risk, and those who might benefit from a restraint reduction programme.
ISSN: 00028614

A survey of in-patients' footwear; by Timothy Kwok.
Care of the Elderly, vol 6, no 3, March 1994, pp 118-119.
Findings from this survey demonstrated the importance of well-fitting footwear to improve mobility and prevent falls.
ISSN: 09554262

Visual acuity, visual disabilities and falling in the elderly; by Cynthia L Arfken, Helen W Lach, Sarah McGee, Stanley J Birge, J Philip Miller.
This study assessed the link between poor vision and falling, and concluded that visual impairment played only a limited role in predicting falls in the elderly.
ISSN: 08982643

1993

Are elderly people at risk of falling taught how to get up again?; by J M Simpson, S Salkin.
Age and Ageing, vol 22, no 4, July 1993, pp 294-296.
Investigates the reasons why occupational therapists and physiotherapists do not teach older people at risk of falling how to get up from the floor.
ISSN: 00020729

Clinical parameters associated with falls in an elderly population; by R D Clark, S R Lord, I W Webster.
Gerontology, vol 39, no 2, March-April 1993, pp 117-123.
Identifies the clinical conditions associated with susceptibility to falling.
ISSN: 0304324X

The effect of a 12-week dynamic resistance strength training program on gait velocity and balance of older adults; by Robert Topp, Alan Mikesky.
The Gerontologist, vol 33, no 4, August 1993, pp 501-506.
Reviews research into the relationship between poor balance, abnormalities of gait and falling, and into the potential of exercise to improve balance and gait. The results of the experiment conducted for this report show some connection.
ISSN: 00169013

Falls: an example of three reporting methods in nursing homes; by D Kanten, C Mulrow, M Gerety, M Lichtenstein (et al).
Assesses the method used for monitoring falls and fallers in nursing homes, and recommends a standard method.
ISSN: 00028614

Falls in dementia patients; by Pieter T M van Dijk, Oda G R M Meulenberg, Herbert J van de Sande, J Dik F Habbema.
The Gerontologist, vol 33, no 2, April 1993, pp 200-204.
Analyses the number and nature of falls including patient characteristics and various risk factors.
ISSN: 00169013

Concentrates on the epidemiology, causes, prevention and management of the at-risk elder and the faller. Related areas include fractures and orthogeriatric liaison, nursing techniques, balance, dizziness and eyesight problems.
Fear of falling represents a common and potentially modifiable cause of physical dependence and functional decline among elderly persons.
ISSN: 00221422

Risk factors for hip fractures: a review; by Jes Bruun Lauritzen, Peter A McNair, Bjarne Lund.
Danish Medical Bulletin, vol 40, no 4, September 1993, pp 479-485.
Risk factors for hip fracture have been reviewed based on case-control and prospective follow-up studies. Falls with impact to the hip, the capacity of energy absorption in soft tissue, and bone strength are all closely linked to the risk of hip fracture. Consistently documented factors are age, sex, race, low bone mass, low body weight, oestrogen deficiency and earlier fracture. Other risk factors are: tendency to fall; disability and immobilisation; low physical activity; use of psychotropic, anxiolytic or hypnotic drugs; use of corticosteroid; low calcium intake; osteomalacia; thyrotoxicosis; cigarette smoking; chronic alcoholism; diabetes mellitus; insufficient sunlight exposure; and a protective effect from thiazide diuretics. Evidence is lacking from risk factors such as heredity, nutrition and medical conditions. No information is available on the combined effects of different risk factors. Risk estimation should focus on the risk of falls, the capacity of energy absorption, and bone strength. Recent studies suggest that prevention of hip fractures is realistic, even in older people, and in the osteoporotic population taking vitamin D and calcium supplements or wearing hip protectors. (RH)
ISSN: 00116092

Disturbed sleep and insomnia are common in older people. This volume contains papers on various aspects of sleep and sleep disorders in older age. Specific topics covered include: epidemiological overviews of sleep disorders in older people; movement disorders in older people; sleep in Alzheimer's disease; sleep loss in ageing; circadian rhythm modifications in ageing; sleep disorders and falls; noise and predictors of sleep in a nursing home environment; insomnia; nocturnal agitation; clinical assessment of insomnia; pharmacological treatments; iatrogenic insomnia; polysomnographic assessment of hypnotic efficacy; ambulatory recording of the sleep-wake cycle; and efficacy and the rebound of five hypnotics in elderly people. (AKM)
ISBN: 0826181716

1992

Alcohol as a risk factor for fall injury events among elderly persons living in the community; by D Nelson, R Sattin, J Langlois, C DeVito (et al).
Assesses whether alcohol use is a risk factor for fall injuries among community-dwelling older people.
ISSN: 00028614

Falling and the fear of it; by A Spano, H Forstl.
Summarises recent literature on falls and falling and highlights the particular responsibility of old age psychiatrists in this field.
ISSN: 08856230

Age and Ageing, vol 21, no 4, July 1992, pp 242-244.
Describes a device for monitoring gait and the results of a field trial which illustrate its' potential in the investigation of falls.
ISSN: 00020729
Describes the impact of falls among older black people in an urban community, and examines predictors of poor recovery from falls.
ISSN: 00028614

Physiological factors associated with injurious falls in older people living in the community; by S R Lord, D McLean, G Stathers.
Assesses the performance in tests of stability, body sway, tactile sensitivity, visual contrast sensitivity and quadriceps strength of people admitted to hospital because of a fall.
ISSN: 0304324X

1991

Dark adaptation and falls in the elderly; by Marion E T McMurdo, Alan Gaskell.
Impaired adaptation to the dark due to reduced retinal sensitivity was found among a group of elderly fallers, and lighting in the home was found to be inadequate.
ISSN: 0304324X

Examines existing services for the treatment and prevention of falls to older people in Britain, and investigates innovative or special services in Britain and abroad.
ISBN: 1872342558
From: Age Concern Institute of Gerontology, King's College London, Cornwall House, Waterloo Road, London SE1 8TX.

Falls and injuries in frail and vigorous community elderly persons; by Mark Speechley, Mary Tinetti.
Prevalence and type of fall was noted to be different for frail and vigorous people, but it is concluded that injury prevention should still be directed at all elderly persons, tailored to expected differences in fall circumstances.
ISSN: 00028614

Falls to elderly people: housing and other environmental risk factors; by Anthea Tinker (et al).
The effects of housing conditions on falls of older people.
ISSN: 00186651

Pack includes - video cassette, card game, training notes and exercises, falls poster.
Price: £19.50
From: Age Concern Scotland, 54a Fountainbridge, Edinburgh EH3 9PT

Medication and multiple falls in elderly people: the St Louis OASIS study; by R G Cumming, J P Miller, J L Kelsey, (et al).
Study to identify whether there are any associations between commonly taken medications and the occurrence of falls in the elderly living in the community.
ISSN: 00020729

Preventing falls at home in old age: a broad approach; by C Walker, D Boldy, J Spickett, M Stevenson.
Looks at health related and environmental factors which contribute to the incidence of falls amongst the elderly. Discusses injury control theory and the strategies to reduce falls which have been developed from it.
Consider the relationship between aggressive, non-aggressive and verbal behaviours and falls amongst nursing home residents.
ISSN: 07334648

An epidemiological study of falls in the elderly living at home
ISBN: 0885623087

A review of research on falls among elderly people; by Janet Askham, Edward Glucksman, Patricia Owens (et al), Department of Trade and Industry - DTI; Age Concern Institute of Gerontology - ACIOG. London: Age Concern Institute of Gerontology, 1990, 83 pp (Home and leisure accident research).
Looks at risk factors, outcomes, intervention, and makes some recommendations
Price: FOC
From: Consumer Safety Unit, Dept. of Trade and Industry, 10-18 Victoria Street, London SW1H 0NN

Is post-fall assessment, coupled with referrals for specific treatment and preventive interventions, a beneficial strategy to use with frail, institutionalised older people who have fallen? In this US clinical trial, 160 ambulatory subjects (mean age 87) in long-term residential care, were randomly assigned to receive either a comprehensive post-fall assessment (intervention group, n=79) or usual care (control group, n=81). The post-fall assessment included: a detailed physical examination and environmental assessment by a nurse practitioner; laboratory tests; electrocardiogram; and 24-hour Holter monitoring. Probable cause or causes for the fall, identified risk factors, and therapeutic recommendations were given to the patient's primary physician. Through use of assessment, many remediable problems (e.g. weakness, environmental hazards, orthostatic hypotension, drug side effects, gait dysfunction) were detected. At the end of a 2-year follow-up, the intervention group had 26% fewer hospitalisations, 52% reduction in hospital days, 9% fewer falls, and 17% fewer deaths than controls. However, these trends were not statistically significant. Post-fall assessment can lead to reductions in disability and costs. (RH)
ISSN: 00034819

In the present study 674 over-70s, living at home, were interviewed in order to ascertain their annual prevalence of falls, their general physical state, their use of medications and their degree of neuroticism, based on standard scores. Frequent falls were related to physical state and medicine usage and anxiety and depression scores. The article shows that falls per se have a relationship with the mental state of elderly people but that the major part of that relationship is mediated through other variables. (KJ)
ISSN: 08856230

The phenomenon of falling - causes and management.
Price: £20.57

Falls in old age: address to Age Concern Scotland's Annual General Meeting, 14 October 1988; by J Williamson, Age Concern Scotland. Edinburgh: Age Concern Scotland, 1989, 10 pp (Focus on falls).
Covers a range of aspects concerning falls amongst the elderly.
1988

Falls, elderly women and the cold; by A J Campbell (et al).
A study of falls in New Zealand.
ISSN: 0304324X

1986

Falls and staffing in a residential home for elderly people; by C Blake, J M Morfitt.
Assesses the relationship between falls in residential homes and staff morale, training and working practices.
Suggests that the keyworker system may be used to eliminate shortcomings in the quality of care.
ISSN: 00333506

1984

Paper presented to a 3 nation seminar (UK, USA, and Denmark) organised by the University of Michigan, Institute of Gerontology.

Falls in the elderly; by Robert G. Mitchell.
The causes, effects and prevention of falls.
ISSN: 09547762

Problems of instability in old age; by Julius Sim.
Falls in the elderly are of major significance both as a cause of morbidity and as an indicator of latent disease.
ISSN: 02640325

1983

Falls and disability in old people's homes; by P R Woodhouse, R S Briggs, D Ward.
A survey of the frequency of falls and factors associated with them in 5 local authority homes in Southampton
ISSN: 01921193

Gait and balance in senile dementia of Alzheimer's type; by Henriet Visser.
The findings of a study in gait and balance may help to explain the increased incidence of falls in patients with brain failure.
ISSN: 00020729

1982

Old folk's falls; by Trevor H. Howell.
Extrinsic and intrinsic causes of falls and how best to recognise them.
ISSN: 0268201X

1981

Description, classification and prevention of falls in old people at home; by D Wild, U S L Nayak, B Isaacs.
Report of a survey giving detailed histories of 125 elderly people who fell at home.
Facts on falling; by Deidre Wild, Laxman Nayak, Bernard Isaacs.
The Department of Geriatric Medicine at the University of Birmingham studied the plight of a group of older people who fell. This article examines their home backgrounds and circumstances which increased the risk of falling and lying undetected on the floor. (RH)
ISSN: 09522271

Falls in the elderly in hospital; by E V Morris, B Isaacs, W Brislen.
The routine filling in of forms in case of non-injurious falls fulfils no useful purpose.
ISSN: 09547762

How dangerous are falls in old people at home?; by Deirdre Wild, U. S. L. Nayak, B. Isaacs.
A survey shows that falls at home in old age are often indicative of the presence of severe ill health.
ISSN: 02670623

Make or break; by Elaine Godina.
Prolonged immobilisation after a fall should be avoided.

Risk comes before a fall; by William Brislen, Bernard Isaacs, Laxman Nayak, Deidre Wild.
A study of 125 older people, identifying those at most risk of falling at home. The authors worked at the Department of Geriatric Medicine at the University of Birmingham when this article was written. (RH)

Why do the elderly fall?; by Bernard Isaacs.
From a survey of reported falls, several risk factors were identified including impaired balance and consumption of certain drugs.
ISSN: 0268201X

1980

Characteristics of old people who fell at home; by D Wild, U S L Nayak, B Isaacs.
Research shows that falls are not a normal feature of ageing but usually the result of ill health.
ISSN: 01921193

1979

"Fallen women"; by Bernard Isaacs.
Paper given at the BASE workshop, Nottingham, 24 September 1978, on the causes and prevention of falls in elderly women.
ISSN: 09640185

1978

Are falls a manifestation of brain failure?; by B Isaacs.
IN: Neurological and mental disturbances in the elderly, supplement to Age and Ageing, vol 7, no 4, 1978, pp 97-111.
A classification of falls and their possible relation to brain failure.
ISSN: 00020729

Falls; by Martin H Garland.
Hospital Update, April 1978, pp 241-244.
Causes and management of falls.
Recent advances in prevention of accidents among the elderly; by Peter Overstall.
Looks at some of the causes of falls among older people, including drop attacks, hypertension and cardiac arrhythmias, and discusses ways of preventing falls.

1977

Falls: accident or old age; by Janice Cave.
Care in the Home, October 1977, pp 22-23.
Suggestions on prevention of falls in old age.

A longitudinal study of falls in an elderly population: 1. Incidence and morbidity; by C. I. Gryfe (et al).
A five year study of residents of an old peoples' home.
ISSN: 00020729

A longitudinal study of falls in an elderly population: 2. Some circumstances of falling; by M J Ashley (et al).
A five year study of residents of an old peoples home.
ISSN: 00020729

1974

A prospective study of accidental falls and resulting injuries in the home among elderly people; by Ulf Lucht.
Reproduced and privately circulated by British Standards Institute. Presents an analysis of falls in the home among older people, and examines whether it is possible to prevent such falls.