

Safety Literature 13th July 2020**"I remember the fall": memory of falls in older adults**

Gallouj K, Altintas E, El Haj M. Clin. Gerontol. 2020; ePub(ePub): ePub.

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Abstract

OBJECTIVES: While there is a large body of research on falls and their consequences in older adults, little is known about how older adults remember them. We addressed this gap by inviting older adults to remember falls and control memories.

METHODS: We analyzed specificity of memories and invited participants to rate emotional valence, mental time travel, visual imagery, importance, and rehearsal, as experienced during retrieval.

RESULTS: Although analysis demonstrated no significant differences between memories of falls and control memories regarding specificity, participants rated memories of falls as more negative than control memories. Furthermore, they rated memories of falls as triggering higher mental time travel, higher visual imagery, higher importance, and higher rehearsal than control memories.

CONCLUSIONS: The negative emotional valence of memories of falls, as well as their ability to trigger significant levels of mental time travel, visual imagery, importance, and rehearsal, demonstrate how these memories are different from other memories in older adults.

CLINICAL IMPLICATIONS: The findings demonstrate how falls can modulate memory of personal events in older adults.

Language: en

Keywords

memory; falls; aging; autobiographical memory; memory of falls

A randomized trial of a multifactorial strategy to prevent serious fall injuries

Bhasin S, Gill TM, Reuben DB, Latham NK, Ganz DA, Greene EJ, Dziura J, Basaria S, Gurwitz JH, Dykes PC, McMahon S, Storer TW, Gazarian P, Miller ME, Trivison TG, Esserman D, Carnie MB, Goehring L, Fagan M, Greenspan SL, Alexander N, Wiggins J, Ko F, Siu AL, Volpi E, Wu AW, Rich J, Waring SC, Wallace RB, Casteel C, Resnick NM, Magaziner J, Charpentier P, Lu C, Araujo K, Rajeevan H, Meng C, Allore H, Brawley BF, Eder R, McGloin JM, Skokos EA, Duncan PW, Baker D, Boulton C, Correa-De-Araujo R, Peduzzi P, STRIDE Trial Investigators. *New Engl. J. Med.* 2020; 383(2): 129-140.

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Abstract

BACKGROUND: Injuries from falls are major contributors to complications and death in older adults. Despite evidence from efficacy trials that many falls can be prevented, rates of falls resulting in injury have not declined.

METHODS: We conducted a pragmatic, cluster-randomized trial to evaluate the effectiveness of a multifactorial intervention that included risk assessment and individualized plans, administered by specially trained nurses, to prevent fall injuries. A total of 86 primary care practices across 10 health care systems were randomly assigned to the intervention or to enhanced usual care (the control) (43 practices each). The participants were community-dwelling adults, 70 years of age or older, who were at increased risk for fall injuries. The primary outcome, assessed in a time-to-event analysis, was the first serious fall injury, adjudicated with the use of participant report, electronic health records, and claims data. We hypothesized that the event rate would be lower by 20% in the intervention group than in the control group.

RESULTS: The demographic and baseline characteristics of the participants were similar in the intervention group (2802 participants) and the control group (2649 participants); the mean age was 80 years, and 62.0% of the participants were women. The rate of a first adjudicated serious fall injury did not differ significantly between the groups, as assessed in a time-to-first-event analysis (events per 100 person-years of follow-up, 4.9 in the intervention group and 5.3 in the control group; hazard ratio, 0.92; 95% confidence interval [CI], 0.80 to 1.06; $P = 0.25$). The rate of a first participant-reported fall injury was 25.6 events per 100 person-years of follow-up in the intervention group and 28.6 events per 100 person-years of follow-up in the control group (hazard ratio, 0.90; 95% CI, 0.83 to 0.99; $P = 0.004$). The rates of hospitalization or death were similar in the two groups.

CONCLUSIONS: A multifactorial intervention, administered by nurses, did not result in a significantly lower rate of a first adjudicated serious fall injury than enhanced usual care. (Funded by the Patient-Centered Outcomes Research Institute and others; STRIDE ClinicalTrials.gov number, NCT02475850.)

Language: en

An agent-based simulation framework for analysing fall risk among older adults in the evacuation procedures

Du X, Chen Y, Bouferguene A, Al-Hussein M. *Safety Sci.* 2020; 129: e104790.

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Abstract

Poor performance during an emergency evacuation from a residential building can lead to serious injuries (even death) and loss of property. As a result, it is paramount that evacuation plans are designed to account for both the physical (or geometrical) limitations of the space, such as the stairway designs, and, more importantly, the physical condition of those living in the building. Generally, when egress planning is considered or modelled during the design phase of a building, it is assumed that its residents are sampled from an average population with an average mobility condition. As a result, older adults tend to be ignored or regarded as part of the average population in the evacuation simulations. Due to their vulnerability, it is common to see older adults suffer from falls, which may result in serious trauma, such as fractures, from which older adults often do not fully recover. Moreover, many of the adverse effects that can occur during an evacuation, including the risk of falling, is compounded when a larger number of individuals try to exit a building within a short time interval given the geometric constraints of the built environment and the (limited) physical capacity of the residents. To analyse the risk of falling among older adults in evacuation procedures, this paper proposes an agent-based simulation framework, which consists of three primary components: agent-based modelling, fall risk index establishment, and fall risk assessment for older adults in an evacuation scenario. A case study of an apartment-style seniors' residence in Edmonton, Canada is provided to demonstrate the applicability of the framework in evaluating fall risk among older adults. Furthermore, a sensitivity analysis is conducted to better understand how the number of evacuees and different designs of the built environment influence both the fall risk of individuals and the fall risk attributable to the built environment.

Language: en

Keywords

Agent-based models; Crowd safety; Evacuation; Fall risk; Human behaviour; Older adult

Association between statin use and balance in older adults

Langeard A, Saillant K, Charlebois Cloutier E, Gayda M, Lesage F, Nigam A, Bherer L, Fraser SA. *Int. J. Environ. Res. Public Health* 2020; 17(13): e4662.

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Abstract

BACKGROUND: Several medications have been associated with an increased risk of balance deficits and greater likelihood to sustain a fall, representing a large health and economic issue. Statins are regularly prescribed to prevent strokes and heart attacks, but their impact on balance is unknown. The aim of this paper was to determine whether statin use is associated with poorer balance performances in older adults.

METHODS: All participants, one group taking statins ($n = 34$), and the other group not taking statins ($n = 31$), completed a balance assessment with their eyes closed and their eyes opened on a MatScan Pressure Sensing Mat. Center of Pressure (CoP) velocity, peak-to-peak distance, and standard deviation were collected in both anteroposterior (AP) and mediolateral (ML) directions. Multiple linear regression analyses were performed for each balance outcome, testing the statin use status as a predictor and controlling for appropriate factors including participants characteristics, lipid profile, and cardiovascular disease.

RESULTS: After controlling for confounding factors, statin use significantly predicted both CoP ML-Amplitude ($\beta = 0.638$, $p = 0.004$) and ML-Velocity ($\beta = 0.653$, $p = 0.002$) in the eyes-opened condition.

CONCLUSIONS: The present study detected a negative association between statin use and balance control in the ML direction, suggesting that caution should be taken when prescribing statins in older adults, as this could decrease ML stability and ultimately increase fall and fracture risks.

Language: en

Keywords

falls; balance; cardiovascular; static; statin

Barriers and facilitators to older adults participating in fall-prevention strategies after transitioning home from acute hospitalization: a scoping review

Tzeng HM, Okpalauwaekwe U, Lyons EJ. Clin. Interv. Aging 2020; 15: 971-989.

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Abstract

PURPOSE: Approximately, 14% of older adults aged 65 years and over experience a fall within 1 month post-hospital discharge. Adequate self-management may minimize the impact of these falls; however, research is lacking on why some older adults engage in self-management to prevent falls while others do not.

Methods: We conducted a scoping review to identify barriers and facilitators to older adults participating in fall-prevention strategies after transitioning home from acute hospitalization. Eligibility criteria were peer-reviewed journal articles published during 2009-2019 which were written in English and contained any of the following keywords or their synonyms: "fall-prevention," "older adults," "post-discharge" and "transition care." We systematically and selectively summarized the findings of these articles using the Joanna Briggs Institute guidelines and the PRISMA-ScR reporting guidelines. Seven bibliographic databases were searched: PubMed/MEDLINE, ERIC, CINAHL, Cochrane Library, Scopus, PsycINFO, and Web of Science. We used the Capability-Opportunity-Motivation-Behavior (COM-B) model of health behavior change as a framework to guide the content, thematic analysis, and descriptive results.

Results: Seventeen articles were finally selected. The most frequently mentioned barriers and facilitators for each COM-B dimension differed. Motivation factors include such as older adults lacking inner drive and self-denial of being at risk for falls (barriers) and following-up with older adults and correcting inaccurate perceptions of falls and fall-prevention strategies (facilitators).

Conclusion: This scoping review revealed gaps and future research areas in fall prevention relative to behavioral changes. These findings may enable tailoring feasible fall-prevention interventions for older adults after transitioning home from acute hospitalization.

Language: en

Keywords

falls; older adults; falls with injury; patient-centered care; post-discharge care; transition care

Effect of holding objects on the occurrence of head impact in falls by older adults: evidence from real-life falls in long-term care

Komisar V, Shishov N, Yang Y, Robinovitch SN. *J. Gerontol. A Biol. Sci. Med. Sci.* 2020; ePub(ePub): ePub.

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Abstract

BACKGROUND: Falls cause approximately 80% of traumatic brain injuries in older adults, and nearly one-third of falls by residents in long-term care (LTC) result in head impact. Holding objects during falls, such as mobility aids, may affect the ability of LTC residents to avoid head impact by arresting the fall with their upper limbs. We examined the prevalence of holding objects and their effect on risk for head impact during real-life falls in older adults living in LTC.

METHODS: We analysed videos of 1105 real-life falls from standing height by 425 LTC residents, using a validated questionnaire to characterize the occurrence of head impact and whether the resident held objects during descent and impact. We classified objects as either "weight-bearing" (via contact to the fixed environment, e.g., chairs, walkers), or "non-weight-bearing" (e.g., cups), and tested their effect on odds for head impact with Generalized Estimating Equations.

RESULTS: Residents held objects in over 60% of falls. The odds for head impact were reduced for falls where weight-bearing objects were held or grasped during descent (odds ratio=0.52; 95% confidence interval=0.39-0.70), or maintained throughout the fall (0.34; 0.23-0.49). The most common held objects were chairs/wheelchairs (23% of cases), tables/counters (10% of cases), and walkers/rollators (22% of cases); all reduced the odds of head impact when held during descent. Holding non-weight-bearing objects did not affect the odds of head impact (1.00; 0.64-1.55).

CONCLUSION: Our results show that older adults in LTC use held, weight-bearing objects to reduce their risk for head impact during falls.

Language: en

Keywords

Falls; Injury Prevention; Long-Term Care; Mobility Aids; Traumatic Brain Injury

Fear of falling in community-dwelling older adults presenting to the emergency department for minor injuries: impact on return to the ED and future falls

Lanoue MP, Sirois MJ, Perry JJ, Lee J, Daoust R, Worster A, Hegg S, Carmichael PH, Brousseau-Turcotte AA, Emond M. CJEM 2020; ePub(ePub): ePub.

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Abstract

OBJECTIVES: 1) To characterize mild, moderate, and severe fear of falling in older emergency department (ED) patients for minor injuries, and 2) to assess whether fear of falling could predict falls and returns to the ED within 6 months of the initial ED visit.

METHODS: This study was part of the Canadian Emergency and Trauma Initiative (CETI) prospective cohort (2011-2016). Patients ages ≥ 65 , who were independent in their basic daily activities and who were discharged from the ED after consulting for a minor injury, were included. Fear of falling was measured by the Short Falls Efficacy Scale International (SFES-I) in order to stratify fear of falling as mild (SFES-I = 7-8/28), moderate (SFES-I = 9-13/28), or severe (SFES-I = 14-28/28). Many other physical and psychological characteristics were collected. Research assistants conducted follow-up phone interviews at 3 and 6 months' post-ED visit, in which patients were asked to report returns to the ED.

RESULTS: A total of 2,899 patients were enrolled and 2,009 had complete data at 6 months. Patients with moderate to severe fear of falling were more likely to be of ages ≥ 75 , female, frailer with multiple comorbidities, and decreased mobility. Higher baseline fear of falling increased the risk of falling at 3 and 6 months (odds ratio [OR]-moderate-fear of falling: 1.63, $p < 0.05$, OR-severe-fear of falling 2.37, $p < 0.05$). Fear of falling positive predictive values for return to the ED or future falls were 7.7% to 17%.

CONCLUSION: Although a high fear of falling is associated with increased risk of falling within 6 months of a minor injury in older patients, fear of falling considered alone was not shown to be a strong predictor of return to the ED and future falls.

Language: en

Keywords

fall; fear of falling; Community-dwelling elderly; emergency

Health, functional and nutritional determinants of falls experienced in the previous year—a cross-sectional study in a geriatric ward

Magnuszewski L, Swietek M, Kasiukiewicz A, Kuprjanowicz B, Baczek J, Beata Wojszel Z. *Int. J. Environ. Res. Public Health* 2020; 17(13): e4768.

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Abstract

Falls are a serious health problem in older adults. A limited number of studies assessed their multifactorial nature in geriatric ward patients. The aim of this study is to explore health, functional and nutritional correlates of experiencing fall(s) in the previous year by older inpatients. A cross-sectional study of patients admitted to the department of geriatrics was conducted. A "faller status" was defined based on positive history of falls in the previous 12 months. Health, functional and nutritional factors associated with falls were evaluated, and multivariable logistic regression analysis models were built. A total of 358 patients (median age 82 (IQR 76-86) years, 77.9% women) were recruited, 43.9% of whom reported falls. The "fallers" presented with a significantly higher number of chronic diseases, higher prevalence of Parkinson's disease, peripheral arterial disease, chronic osteoarthritis, more frequently reported urinary incontinence and were dependent on others for daily living activities. They had significantly worse results for the assessment of gait, balance and frailty status. The Mini Nutritional Assessment-Short Form scores and the mean value of serum albumin were significantly lower in the fallers' group. Parkinson's disease (OR = 2.82, CI-1.07-7.45; $p = 0.04$) and osteoarthritis (OR = 2.08, CI-1.02-4.23; $p = 0.04$) were the main variables for the outcome prediction, according to the direct multivariable logistic regression analysis. Our findings suggest that Parkinson's disease and osteoarthritis are the main predictors independently associated with a history of falls in patients admitted to the geriatric ward, although the influence of some factors may be underestimated due to the tendency of not taking the history of falls in very frail, functionally dependent and bedridden individuals.

Language: en

Keywords

geriatrics; fall detection; fall epidemiology; fall risk factors; older patients

Perturbation in public transport as a basic concept for perturbation-based balance training for fall prevention

Lindemann U, Sczuka K, Becker C, Klenk J. Z. Gerontol. 2020; ePub(ePub): ePub.

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Abstract

INTRODUCTION: The aim of the study was to collect real-world sensor data on acceleration and deceleration while riding a bus or tram. With respect to the risk of suffering fall-related injuries while using public transportation, our interest was to understand the amplitude of real-world perturbations to translate them to innovative reactive balance training programs.

METHODS: Acceleration and deceleration data were collected during 12 days in buses and trams in a German city. A sensor, which was fixed to a vertical bar in the vehicle, measured the acceleration signals. Additionally, extreme values of deceleration during full braking were collected in a driving school bus.

RESULTS: For the incident type acceleration from standing extreme values of acceleration and jerking were higher in buses compared to trams with a maximum acceleration of 3.37 m/s² and 1.80 m/s², respectively, and extreme jerking of 13.30 m/s³ and -5.56 m/s³, respectively. Similarly, for the incident type deceleration approaching a stop extreme values of deceleration and jerking were higher in buses compared to trams with maximum deceleration of -3.12 m/s² and -2.31 m/s², respectively, and extreme jerking of -19.19 m/s³ and -10.83 m/s³, respectively. Extreme values for maximum deceleration and extreme jerking as simulated at the driving school were not reached during real-world measurements. The duration of incidents in acceleration from standing and deceleration approaching a stop was shorter for buses than for trams.

CONCLUSION: Acceleration and jerking values were higher in buses compared to trams. Based on this study, laboratory simulation paradigms can be developed to study balance responses in older persons and to design fall prevention interventions which are ecologically valid.

Language: en

Keywords

Acceleration; Older persons; Deceleration; Bus; Tram

Prevalence of falls, physical performance, and dual-task cost while walking in older adults at high risk of falling with and without cognitive impairment

Li F, Harmer P. Clin. Interv. Aging 2020; 15: 945-952.

(Copyright © 2020, Dove Press)

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Abstract

PURPOSE: To compare the prevalence of falls, physical performance, and dual-task cost during walking between cognitively healthy and impaired older adults at high risk of falling.

Methods: A cross-sectional analysis of 670 community-dwelling older adults who were considered at high risk of falling, operationalized as 1) having fallen at least once in the preceding 12 months and having a health-care practitioner's referral indicating that the participant was at risk of falls or 2) having impaired mobility as evidenced by a Timed Up and Go (TUG) result ≥ 13.5 s. Participants (mean age = 77.7 years, SD = 5.6) were divided into cognitively healthy (n = 461) or cognitively impaired (n = 209) groups using a cutoff score of < 23 on the Montreal Cognitive Assessment test. Assessment included self-reported number of falls over the previous 12 months, functional reach, TUG, Short Physical Performance Battery (SPPB), and single- and dual-task walk performance. Data were analyzed using Poisson regression to estimate the prevalence ratios of falls and analysis of variance to examine between-group differences on physical performance and dual-task cost during walking performance.

Results: In the analysis, 82.3% of older adults with cognitive impairment and 69.4% of unimpaired older adults reported 1 or more falls in the previous 12 months. Compared with cognitively healthy participants, those with cognitive impairment were 2.57 (95% confidence interval [CI] = 2.17 to 3.05) times more likely to have any fall and 2.33 (95% CI = 1.95 to 2.78) times more likely to have multiple falls. Older adults with cognitive impairment performed worse on functional reach (mean difference [MD] = -2.33 cm, 95% CI = -3.21 to -1.46), TUG (MD = 3.05 s, 95% CI = 2.22 to 3.88), and SPPB (MD = -1.24 points, 95% CI = -1.55 to -0.92) and showed increase in dual-task costs (MD = 6.59%, 95% CI = 4.19 to 9.03) compared to those without cognitive impairment.

Conclusion: Older adults at high risk for falls and who have cognitive impairment are associated with a greater risk for falls and decrements in physical and dual-task performance.

Language: en

Keywords

elderly; falls; cognitive impairment; dual-task; physical performance

Fall definitions, faller classifications and outcomes used in falls research among people with multiple sclerosis: a systematic review

O'Malley N, Clifford AM, Comber L, Coote S. *Disabil. Rehabil.* 2020; ePub(ePub): ePub.

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DOI 10.1080/09638288.2020.1786173 **PMID** 32628889

Abstract

PURPOSE: To identify the definitions of a fall, faller classifications and outcomes used in prospectively-recorded falls research among people with Multiple Sclerosis (MS).

Methods: A systematic review of peer-reviewed journal articles was conducted using electronic databases. Relevant data were extracted by one reviewer and verified by a second independent reviewer.

Results: Twenty-six papers met the inclusion criteria. A relative degree of heterogeneity existed amongst studies for the outcomes of interest to this review. Thirteen different fall definitions were identified. Fourteen different falls outcomes were used across the included studies, with six of these reported by only one study each. Data regarding injurious falls were presented by only eight papers. The majority (n = 17) of papers classified individuals as a faller if they fell at least once.

Conclusions: This review highlights the large variation in fall definitions, faller classifications and outcomes used in this research field. This hinders cross-comparison and pooling of data, thereby preventing researchers and clinicians from drawing conclusive findings from existing literature. The creation of an international standard for the definition of a fall, faller classification and falls outcomes would allow for transparent and coordinated falls research for people with MS, facilitating progression in this research field. Implications for rehabilitation Falls are a common occurrence among people with Multiple Sclerosis (MS) resulting in numerous negative consequences. There is large heterogeneity in the definitions, methods and outcomes used in falls research for people with MS. This lack of standardisation prevents the accurate cross-comparison and pooling of data, impeding the identification of falls risk factors and effective falls prevention interventions for people with MS. Consequently, clinicians should interpret the outcomes of falls research for people with MS with caution, particularly when comparing studies regarding falls risk assessments and falls prevention interventions for use in clinical practice.

Language: en

Keywords

systematic review; falls; outcomes; Multiple Sclerosis; methodology; definitions

Hand grip strength can predict clinical outcomes and risk of falls after decompression and instrumented posterolateral fusion for lumbar spinal stenosis

Kwon JW, Lee BH, Lee SB, Sung S, Lee CU, Yang JH, Park MS, Byun J, Lee HM, Moon SH. Spine J. 2020; ePub(ePub): ePub.

(Copyright © 2020, Elsevier Publishing)

DOI 10.1016/j.spinee.2020.06.022 PMID 32622937

Abstract

BACKGROUND CONTEXT: There has been limited research on the association between hand grip strength (HGS) as one of the diagnostic criteria for sarcopenia and surgical outcomes of lumbar spinal stenosis (LSS).

PURPOSE: We aimed to determine the effect of HGS on surgical outcomes and risk of fall in patients with LSS.

STUDY DESIGN: This is a retrospective observational study.

PATIENT SAMPLE: We included 200 patients who underwent spinal surgery for LSS.

OUTCOME MEASURES: We recorded clinical outcome parameters, including Oswestry Disability Index (ODI), Euro-QOL (EQ-5D), and visual analog scale (VAS) scores for back or leg pain. To assess the risk of fall we used HGS and four functional mobility tests (alternative step test, six-meter walk test, timed up and go test, sit-to-stand test).

MATERIALS AND METHODS: Oswestry Disability Index, EQ-5D, and VAS scores for back and leg pain were assessed preoperatively and 1 year after surgery. The four functional mobility tests were assessed at each time point during the 1-year follow-up period to assess the risk of fall in patients with LSS. We divided the patient cohort according to sex and allocated them into two different groups based on HGS: high HGS (≥ 26 kg for men, $n = 26$; ≥ 18 kg for women, $n = 35$), and low HGS (< 26 kg for men, $n = 48$; < 18 kg for women, $n = 91$). The pre- and postoperative ODI, EQ-5D, and VAS scores for back and leg pain, as well as the functional mobility test results, and demographic data were compared between the two groups using independent t-tests. Correlations between HGS and clinical outcome parameters were analyzed using Pearson correlation.

RESULTS: In women and men, HGS correlated with the preoperative/postoperative ODI ($r_1 = -0.217/r_2 = -0.345$ in women, and $r_1 = -0.384/r_2 = -0.411$ in men) and EQ-5D scores ($r_1 = 0.190/r_2 = 0.309$ in women, and $r_1 = 0.373/r_2 = 0.467$ in men). HGS also correlated with the four postoperative results for the functional mobility tests: alternative step test ($r = -0.238$ in women, $r = -0.431$ in men), six-meter walk test ($r = -0.232$ in women, $r = -0.282$ in men), timed up and go test ($r = -0.285$ in women, $r = -0.359$ in men) and sit-to-stand test ($r = -0.238$ in women, $r = -0.251$ in men). The preoperative and postoperative ODI and EQ-5D scores in the high HGS group were superior to those in the low HGS group. Among the four functional mobility tests, preoperative and postoperative six-meter walk test results showed improvements in the high HGS group.

CONCLUSION: Considering the multi-factorial nature of falls, HGS may be a useful surrogate marker for predicting the risk of falls and clinical outcomes in patients with LSS.

Language: en

Keywords

sarcopenia; surgery; clinical outcomes; degenerative lumbar spinal stenosis; Hand grip strength; risk of fall

Impact of urinary incontinence on falls in the older population: 2017 national survey of older Koreans

Moon S, Chung HS, Yu JM, Na HR, Kim SJ, Ko KJ, Choi DK, Kwon O, Lee YG, Cho ST. Arch. Gerontol. Geriatr. 2020; 90: e104158.

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DOI 10.1016/j.archger.2020.104158 PMID 32622241

Abstract

OBJECTIVES: To investigate the association and influence of urinary incontinence (UI) on falls in older adults using the 2017 National Survey of Older Koreans data.

METHODS: We retrospectively analyzed the 2017 National Survey of Older Koreans, which was conducted on 10,299 adults aged 65 and older in 2017 by the Korea Institute for Health and Social Affairs.

RESULTS: This study included a total of 6,134 women aged 65-106, with a mean age of 74.8. In total, 1,152 women experienced at least 1 fall in the past 1 year and 382 experienced 2 or more recurrent falls; 281 women were diagnosed with UI. UI and falls (odds ratio, 1.329; 95 % confidence interval, 1.003-1.762) and recurrent falls (odds ratio=,1.703; 95% confidence interval=,1.145-2.534) were significantly associated. Older individuals with UI were more likely to fall at least once per year (odds ratio=,1.52; 95 % confidence interval=,1.15-2.20, odds ratio=,1.49; 95 % confidence interval=,1.09-2.04) than those without and were also linked to higher odds of recurrent falls (odds ratio=,2.16; 95 % confidence interval=,1.47-3.16, odds ratio=,2.13; 95 % confidence interval=,1.41-3.22) in those with at least 1 cognitive impairment, body functional impairment, or activity limitation.

CONCLUSION: Our findings showed a possible increased risk of falls and recurrent falls in older individuals with UI compared to those without, especially in people with cognitive and functional impairment.

Language: en

Keywords

Fall; Geriatric syndrome; Urinary incontinence

Low-impact (compliant) flooring and staff injuries

Hanger HC, Wilkinson TJ. *Disabil. Rehabil.* 2020; ePub(ePub): ePub.

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Abstract

INTRODUCTION: Low impact flooring (LIF) has shown potential for reducing fall-related injuries for older people in residential care or hospital environments. However, the increased rolling resistance when moving equipment on these floors has raised concerns that staff injuries may increase.

Methods: LIF was trialled on one Older Persons Health ward for 2.5 years. Reported staff injuries were monitored during and following the trial. Numbers of staff injured on the LIF ward were compared with three other similar and adjacent OPH wards without LIF for the duration of the trial ('concurrent control' evaluation). At the trial conclusion the LIF ward moved to a different hospital that had standard flooring. This enabled a further 'during and after' evaluation where numbers of staff injured from the LIF ward during the trial were compared with those reported afterwards by the same ward staff without LIF.

Results: There was no difference in the numbers of staff injured in the LIF ward compared with the concurrent control wards (28 LIF vs 30 control; $p = 0.44$). The number of staff with injuries in the LIF ward also did not significantly alter when those staff moved to a new ward without LIF (45 after vs 28 before; $p = 0.11$).

Conclusion: There was no change in the numbers of staff with injuries during the LIF trial in an Older Persons Health ward. This small study suggests LIF appears safe for both patients and staff. Implications for rehabilitation Falls in hospital are common with patient injuries occurring in approximately 20-30% of falls. Low impact (compliant) flooring may reduce fall-related injuries in hospitals and residential care. Low impact flooring has an increased rolling resistance, which has the potential to increase staff injuries when moving equipment. This study found no change in the number of staff injured during a low impact flooring trial providing some reassurance that these floors are safe for staff.

Language: en

Keywords

Falls; compliant flooring; flooring; low impact flooring; staff injuries