

Safety Literature 29th March 2020

A home-based exercise program focused on proprioception to reduce falls in frail and pre-frail community-dwelling older adults

Pérez-Ros P, Vila-Candel R, Martínez-Arnau FM. *Geriatr. Nurs.* 2020; ePub(ePub): ePub.

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DOI 10.1016/j.gerinurse.2020.01.017 **PMID** 32199736

Abstract

Frailty and falls are closely associated with each other as well as with disability, hospitalization, and death. Exercise can reduce these risks in both robust and frail older people. This before-after, non-randomized intervention study assessed a one-year proprioception training program with individual daily home exercises in 564 community-dwelling people aged 70 years and over, with different frailty phenotypes. After the exercise program, we observed a moderate reduction in the mean number of falls, fear of falls, body mass index and body fat percentage in frail and pre-frail participants. These results suggest that a home proprioception program may be a viable alternative to complex multicomponent exercise programs in settings where these are not feasible, since home proprioception can reach a larger population at a lower cost, and it affords clear benefits.

Language: en

Keywords

Community dwelling; Falls; Frail; Older people; Proprioception exercises

A multi-level analyses of charges and cost of fall-related hospitalizations among older adults: individual, hospital, and geospatial variation

Towne SD, Smith ML, Li Y, Dowdy D, Ahn S, Lee S, Yoshikawa A, Jiang L. J. Aging Soc. Policy 2020; ePub(ePub): ePub.

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Abstract

The growing population of older adults has attracted concern from policymakers due in part to the fact that they are at higher risk of costly and potentially injurious falls. Responding to this concern, this study investigated fall-related hospitalizations among those aged 65 and older. Hospitalizations rose from 49,299 to 58,931, with charges and costs (estimated based on charges) increasing from \$2.5 billion to \$3.6 billion and under \$900 million to over \$1.1 billion, respectively. The intraclass correlation coefficients from linear mixed-effect models (with charges and costs serving as dependent variables) indicated differences in hospitals accounted for nearly half or more of medical cost variation among older adults suffering a fall-related hospitalization. Nonmetropolitan residence, being aged 65-69 (versus older), and higher risk-of-mortality on admission indicated higher costs. Identifying trends of fall-related hospitalizations over time allows for key stakeholders to not only track the burden of falls among older adults but to also use this information to attract funding for fall prevention strategies from policy makers at various levels (e.g., locally, at the state). Further, identifying characteristics of individuals (e.g., age, race, sex) and places (e.g., rural areas) that carry a higher relative cost can serve to inform the targeted allocation of finite resources including local, state, or federal funding, but also existing evidence-based practices such as community and clinical interventions.

Language: en

Keywords

Aging in place; disparity; health

A simple screening test to assess risk of falls in Japanese patients with rheumatoid arthritis: results from the IORRA cohort study

Oh K, Furuya T, Inoue E, Tanaka E, Ikari K, Taniguchi A, Yamanaka H, Okazaki K, Harigai M. *Mod. Rheumatol.* 2020; ePub(ePub): ePub.

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DOI 10.1080/14397595.2020.1746016 **PMID** 32202187

Abstract

[Abstract unavailable]

Language: en

Association between falls and nutritional status of community-dwelling elderly people in Korea

Jo AR, Park MJ, Lee BG, Seo YG, Song HJ, Paek YJ, Park KH, Noh HM. Korean J. Fam. Med. 2020; 41(2): 111-118.

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(Copyright © 2020, Korean Academy of Family Medicine)

DOI 10.4082/kjfm.18.0112 PMID 32208403

Abstract

BACKGROUND: Malnutrition is a well-known risk factor of falls, although studies examining the association between nutritional status and falls are rare. We aimed to investigate the association between nutritional status and falls according to gender among Korean older adults.

METHODS: The study included 10,675 participants (4,605 men and 6,070 women) aged 65 years and older and used data from the 2011 Survey of Living Conditions and Welfare Needs of Korean Older Persons. Nutritional status of the participants was assessed using the Nutritional Screening Initiative checklist, and the participants were categorized into the following groups: "good," "moderate nutritional risk," and "high nutritional risk." Odds ratios (OR) of fall risk in the above groups based on gender were evaluated using multivariate logistic regression analyses.

RESULTS: Fallers in both genders showed significant association with older age, lower household income, inadequate exercise, and poor nutritional status compared with non-fallers. Considering the good nutritional status group as the reference group, the high nutritional risk group showed a higher risk of falls in men (OR, 1.59; 95% confidence interval [CI], 1.26-1.99); both moderate and high nutritional risk groups showed a higher risk of falls after adjusting for confounding factors in women (OR, 1.39; 95% CI, 1.19-1.62 and OR, 1.90; 95% CI, 1.61-2.24, respectively).

CONCLUSION: The risk of falls was associated with poor nutritional status, and statistical significance of the association between nutritional status and falls was stronger in women than in men.

Language: en

Keywords

Accidental Falls; Aged; Female; Nutritional Status

Clinical correlates of sarcopenia and falls in Parkinson's disease

Lima DP, de Almeida SB, Bonfadini JC, de Luna JRG, de Alencar MS, Pinheiro-Neto EB, Viana-Júnior AB, Veras SRO, Sobreira-Neto MA, Roriz-Filho JS, Braga-Neto P. PLoS One 2020; 15(3): e0227238.

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DOI 10.1371/journal.pone.0227238 PMID 32191713

Abstract

BACKGROUND: Sarcopenia is a complex and multifactorial geriatric condition seen in several chronic degenerative diseases. This study aimed to screen for sarcopenia and fall risk in a sample of Parkinson's disease (PD) patients and to investigate demographic and clinical factors associated.

METHODS: This is a cross-sectional study. We evaluated 218 PD patients at the Movement Disorders Clinic in Fortaleza, Brazil, and collected clinical data including experiencing falls in the six months prior to their medical visit. Probable sarcopenia diagnosis was confirmed by using a sarcopenia screening tool (SARC-F questionnaire) and the presence of low muscle strength.

RESULTS: One hundred and twenty-one patients (55.5%) were screened positive for sarcopenia using the SARC-F and 103 (47.4%) met the criteria for probable sarcopenia. Disease duration, modified Hoehn and Yahr stage, Schwab and England Activities of Daily Living Scale score, levodopa equivalent dose, probable sarcopenia and positive SARC-F screening were all associated with experiencing falls. Disease duration, lower quality of life and female gender were independently associated with sarcopenia. Experiencing falls was significantly more frequent among patients screened positive in the SARC-F compared to those screened negative.

CONCLUSIONS: Sarcopenia and PD share common pathways and may affect each other's prognosis and patients' quality of life. Since sarcopenia is associated with lower quality of life and increased risk of falls, active case finding, diagnosis and proper management of sarcopenia in PD patients is essential.

Language: en

Clinical osteoarthritis of the hip and knee and fall risk: the role of low physical functioning and pain medication

van Schoor NM, Dennison E, Castell MV, Cooper C, Edwards MH, Maggi S, Pedersen NL, van der Pas S, Rijnhart JJM, Lips P, Deeg DJH. *Semin Arthritis Rheum* 2020; ePub(ePub): ePub.

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Abstract

OBJECTIVE: Several studies have found an increased fall risk in persons with osteoarthritis (OA). However, most prospective studies did not use a clinical definition of OA. In addition, it is not clear which factors explain this risk. Our objectives were: (1) to confirm the prospective association between clinical OA of the hip and knee and falls; (2) to examine the modifying effect of sex; and (3) to examine whether low physical performance, low physical activity and use of pain medication are mediating these relationships.

METHODS: Baseline and 1-year follow-up data from the European Project on OsteoArthritis (EPOSA) were used involving pre-harmonized data from five European population-based cohort studies (ages 65-85, n = 2535). Clinical OA was defined according to American College of Rheumatology (ACR) criteria. Falls were assessed using self-report.

RESULTS: Over the follow-up period, 27.7% of the participants fell once or more (defined as faller), and 9.8% fell twice or more (recurrent faller). After adjustment for confounding, clinical knee OA was associated with the risk of becoming a recurrent faller (relative risk=1.55; 95% confidence interval: 1.10-2.18), but not with the risk of becoming a faller. No associations between clinical hip OA and (recurrent) falls were observed after adjustment for confounding. Use of opioids and analgesics mediated the associations between clinical OA and (recurrent) falls, while physical performance and physical activity did not.

CONCLUSION: Individuals with clinical knee OA were at increased risk for recurrent falls. This relationship was mediated by pain medication, particularly opioids. The fall risk needs to be considered when discussing the risk benefit ratio of prescribing these medications.

Language: en

Keywords

Elderly; Hip; Knee; Medication; Osteoarthritis

Comparison of two fall-risk assessment tools used in a long-term care facility

Glass A, Mendelson G, Ben Natan M. *Int. J. Health Care Qual. Assur.* 2020; ePub(ePub): ePub.

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Abstract

PURPOSE: The purpose of this paper is to compare the ability of the Morse Fall Scale (MFS) and Farmer's fall-risk assessment tool (FFAT) to identify correlations between risk factors and falls among older adult long-term care (LTC) facility residents.

DESIGN/METHODOLOGY/APPROACH: This was a correlational retrospective study. 200 medical records of older adults hospitalized in a LTC facility in central Israel, from January 2017 to January 2018, were examined.

FINDINGS: Of all the residents, 75% and 99.5% of the residents were identified as having a high fall risk according to the MFS and FFAT, respectively. Only 12.5% of residents actually fell. MFS score was weakly correlated with actual falls (odds ratio = 1.035). It was also found that all fallers fell during their first week at the facility. **RESEARCH**

LIMITATIONS/IMPLICATIONS: Future research should explore the ability of the tools to capture changes in the fall risk by repeat assessments, as this has not been examined in the present study. **PRACTICAL IMPLICATIONS:** The MFS and FFAT tool may have little value in assessing fall risk in older adult LTC facility residents. Therefore, nurses should perform a clinical evaluation of each individual patient. In addition, nurses should place a particular emphasis on fall risk and prevention during the first week following admission.

ORIGINALITY/VALUE: The findings of the present study raise doubts regarding the utility of the common practice of assessing fall risk in older adult LTC facility residents using the tools MFS and the FFAT, thus emphasizing the need to adopt a different approach.

Language: en

Keywords

Falls; Long-term care; Risk assessment

Construct validity and reliability of the Brazilian version of the Falls Efficacy Scale in patients with COPD

Scremim CF, Simões BFPMC, de Barros JA, Valderramas S. Pulmonology 2020; ePub(ePub): ePub.

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Abstract

INTRODUCTION AND OBJECTIVE: The Brazilian version of Falls Efficacy Scale (FES-BR) used to assess the fear of falling, has not yet been validated in patients with Chronic Obstructive Pulmonary Disease (COPD). The aim of the present study was to investigate the construct validity and reliability of the (FES-BR) in patients with COPD.

METHODS: A cross-sectional study involving subjects with COPD, aged between 48 and 83 years. Data were collected by two independent and blind assessors. Construct validity was assessed using the Spearman's rank correlation coefficient between FES-BR and Berg Balance Scale, Downton fall risk index, Timed Up and Go Test (TUG), hand-grip strength (HGS), Five Times Sit to Stand Test (FTSST) and 6-Minute Walk Test (6MWT). Reliability was measured by the Cronbach's alpha coefficient, Intraclass Correlation Coefficient (ICC), and Bland-Altman plot.

RESULTS: The study included 60 subjects aged 68.3 ± 9.9 years and FEV1 56.0 ± 19.3 . The correlations were significantly strong between FES-BR and the Berg Balance Scale ($r = -0.66$), TUG ($r = 0.64$), HGS ($r = 0.61$) and FTSST ($r = 0.62$); and moderate between FES-BR and the Downton fall risk index ($r = 0.38$) and the 6MWT ($r = -0.48$). All correlations had $p < 0.001$. Intra-rater [ICC = 0.94, (95% CI = 0.91-0.96)] and inter-rater [0.97, (95% CI = 0.97-0.98)] reliability were considered excellent.

CONCLUSIONS: The Brazilian version of FES was valid and reliable in assess fear of falling in subjects with COPD.

Language: en

Keywords

Accidental falls; COPD; Validity and reliability

Effect of the environment on gait and gaze behavior in older adult fallers compared to older adult non-fallers

Zukowski LA, Iyigun G, Giuliani CA, Plummer P. PLoS One 2020; 15(3): e0230479.

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DOI 10.1371/journal.pone.0230479 PMID 32196529

Abstract

INTRODUCTION: Compared to controlled laboratory settings, the real world is highly distracting with constant demands on visual attention to avoid hazards and falling. Fall-risk assessments do not adequately take into account the potential role of everyday distractions and environmental hazards. The purpose of this project was to identify the effect of the environment on gait and gaze behavior during walking in older adult fallers relative to non-fallers.

METHODS: Thirteen older adult fallers (76.8±9.4 years, 3.2±2.3 falls in last year) and 13 age-matched non-fallers (78.3±7.3 years, 0 falls in last year) participated. Participants walked in a real-world and lab setting while gait and gaze were recorded. Gait variables were stride length variability, stride duration variability, and stride velocity. Gaze was analyzed for percentage of time fixating and average fixation duration coded across 6 areas of interest (AOIs) in the visual surroundings.

RESULTS: Non-fallers walked faster than fallers, but there were no other group or environment effects on gait. For gaze behavior, fallers had shorter fixation durations on the near environment than non-fallers, but only in the real world. In the real world relative to the lab, fallers decreased fixation durations on the near environment but increased durations on near people. In the real world, participants spent a greater proportion of time fixating on people than on the walking path or the near environment compared to the lab. After adjusting for baseline gait speed, fallers had shorter fixation durations than non-fallers in both environments.

CONCLUSIONS: Our results indicate that in a busy environment, older adults concentrate most of their overt visual attention on people when navigating their walking path. Fallers in particular focus longer on people near to them and have overall shorter fixations than non-fallers. Visual focus while walking in a busy environment should be further explored as a fall-risk factor.

Language: en

Examining fall risk assessment in geriatric rehabilitation settings using translational research

Rivers CA, Roher H, Boissonault BA, Klinger CA, Mirza RM, Foty R. Rehabil. Nurs. 2020; ePub(ePub): ePub.

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DOI 10.1097/rnj.0000000000000259 **PMID** 32195764

Abstract

PURPOSE: The objective of this study was to identify gaps in and to improve the falls prevention strategy (FPS) of an inpatient rehabilitation facility (IRF) in Toronto, Canada.

DESIGN: A modified version of the Stanford Biodesign Methodology was used.

METHODS: Chart reviews, a focus group (n = 8), and semistructured interviews (n = 8) were conducted to evaluate the FPS.

FINDINGS: Admission Functional Independence Measure score, age, and gender significantly correlated with risk for a fall. The tool used at this IRF was not effectively capturing patients who were at high risk for falls. All healthcare providers interviewed were knowledgeable of fall risks; however, a patient's fall risk status was rarely discussed as a team.

CONCLUSIONS: The findings informed recommendations to improve the overall FPS at this IRF. **CLINICAL RELEVANCE:** Staff may require more coaching for implementing preventative measures/ensuring accountability and evaluating whether current strategies work. These insights can guide improvement initiatives at similar facilities elsewhere.

Language: en

Gait and balance as predictors and/or mediators of falls in glaucoma

Mihailovic A, De Luna RM, West SK, Friedman DS, Gitlin LN, Ramulu PY. Invest. Ophthalmol. Vis. Sci. 2020; 61(3): e30.

(Copyright © 2020, Association for Research in Vision and Ophthalmology)

DOI 10.1167/iovs.61.3.30 PMID 32186671

Abstract

PURPOSE: To investigate the association between balance and gait measures with fall rates in glaucoma patients.

METHODS: Balance and gait were measured for 239 participants with glaucoma or suspected glaucoma. Daily falls were evaluated over 24 months. Annual accelerometer trials captured average daily steps. Multivariable negative binomial models evaluated balance and gait associations with average daily steps and rates of falls per time or step, as well as whether balance and gait parameters mediated the association between integrated visual field (IVF) sensitivity and falls.

RESULTS: Average age was 70.5 years (SD = 7.6), and 22% of the participants had moderate to severe visual field damage. Over the first 12 months of the follow-up, the cumulative probability of falling one or more times was 44.8%, and the cumulative probability of falling two or more times was 17.7%. Gait deficits were associated with fewer daily steps ($P < 0.03$), but no balance parameters were ($P > 0.19$). Worse balance was associated with a higher rate of falls per year and step ($P < 0.03$). No gait measures were associated with the rate of falls per year ($P > 0.17$). More time in double support and greater swing time variability were associated with higher falls per step, and higher velocity and faster cadence were associated with fewer falls per step ($P < 0.05$ for all). Neither gait nor balance measures mediated the relationship between visual field damage and fall rates. IVF remained an independent predictor of falls per step (rate ratio = 1.36 to 1.48; $P < 0.001$ to $P < 0.005$) in multivariable models including individual balance/gait parameters.

CONCLUSIONS: Although balance and gait measures are associated with fall rates, they do not explain why persons with greater visual field damage fall more frequently, suggesting the importance of other potential factors such as hazard perception.

Language: en

Identification of elders at higher risk for fall with statewide electronic health records and a machine learning algorithm

Ye C, Li J, Hao S, Liu M, Jin H, Zheng L, Xia M, Jin B, Zhu C, Alfreds ST, Stearns F, Kanov L, Sylvester KG, Widen E, McElhinney D, Ling XB. *Int. J. Med. Inform.* 2020; 137: e104105.

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DOI 10.1016/j.ijmedinf.2020.104105 PMID 32193089

Abstract

OBJECTIVE: Predicting the risk of falls in advance can benefit the quality of care and potentially reduce mortality and morbidity in the older population. The aim of this study was to construct and validate an electronic health record-based fall risk predictive tool to identify elders at a higher risk of falls.

METHODS: The one-year fall prediction model was developed using the machine-learning-based algorithm, XGBoost, and tested on an independent validation cohort. The data were collected from electronic health records (EHR) of Maine from 2016 to 2018, comprising 265,225 older patients (≥ 65 years of age).

RESULTS: This model attained a validated C-statistic of 0.807, where 50 % of the identified high-risk true positives were confirmed to fall during the first 94 days of next year. The model also captured in advance 58.01 % and 54.93 % of falls that happened within the first 30 and 30-60 days of next year. The identified high-risk patients of fall showed conditions of severe disease comorbidities, an enrichment of fall-increasing cardiovascular and mental medication prescriptions and increased historical clinical utilization, revealing the complexity of the underlying fall etiology. The XGBoost algorithm captured 157 impactful predictors into the final predictive model, where cognitive disorders, abnormalities of gait and balance, Parkinson's disease, fall history and osteoporosis were identified as the top-5 strongest predictors of the future fall event.

CONCLUSIONS: By using the EHR data, this risk assessment tool attained an improved discriminative ability and can be immediately deployed in the health system to provide automatic early warnings to older adults with increased fall risk and identify their personalized risk factors to facilitate customized fall interventions.

Language: en

Keywords

Accidental falls; Aged; Electronic health records; Supervised machine learning

Low falls causing major injury: a retrospective study

Lesko K, Deasy C. Ir. J. Med. Sci. 2020; ePub(ePub): ePub.

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DOI 10.1007/s11845-020-02212-8 PMID 32185749

Abstract

BACKGROUND: Falling from a height of under 2 m (low fall) is the most common mechanism of injury causing major trauma in Ireland. This presentation encompasses a wide patient cohort, from paediatric sport injuries to elderly falls. **AIMS:** Our aim is to characterise major trauma resulting from a low fall, and its various sub-populations, to identify preventative strategies and care pathways to improve outcomes for patients.

METHODS: The Trauma Audit and Research Network (TARN) which is used to provide Major Trauma Audit was used to retrospectively identify patients presenting to the Cork University Hospital Emergency Department with trauma resulting from a low fall from January 2015 to June 2018.

RESULTS: The database returned 1066 qualifying cases (49.3% of cases in the time period), with a mean age of 67.3 years (SD = 21) and a median age of 71.3 years (IQR = 23); 44% were male. 'Mechanical falls' accounted for n = 513 (48%) of low-fall injuries, followed by 'stationary falls' n = 265 (25%). Injuries occurred most often at home n = 515 (48%), followed by public places n = 208 (19.5%). The most severely injured body region was the limbs n = 526 (49.3%), followed by the head n = 253 (23.7%). A number of patients with Glasgow Outcome Scores of 4 (moderate disability) and 5 (good recovery) were n = 488 (45.8%) and n = 390 (36.6%).

CONCLUSIONS: Low falls occur in patients over 55 years of age; many do not return to independent living. Wait times to initial assessment, length of hospital stay and mortality increase with age. Mechanical falls at home are the most common cause of low-fall major trauma.

Language: en

Keywords

Cohort; Low fall; Major trauma; Mechanical fall

The effectiveness of motor-cognitive dual-task training in reducing risk falls on elderly

Purnamasari N, Bachtiar F, Puspitha R A. *Enferm. Clin.* 2020; 30(Suppl 2): 317-321.

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DOI 10.1016/j.enfcli.2019.07.110 **PMID** 32204176

Abstract

OBJECTIVE: The aging process causes a setback of various aspects of the body that makes the elderly vulnerable to fall. The dual-task exercise amalgamates physical and cognitive training together and induces synergistic effects. This study aims to determine the effect of dual-task training on the risk of falls on elderly.

METHOD: The method used was pre-experimental design with 3 times a week intervention for 4 weeks. Before and after treatment, respondents measured the level of balance and risk of falling using the Berg Balance Scale (BBS), Timed-Up-and-Go test (TUGT), and Tinetti Balance Assessment Tool.

RESULTS: The results showed an increase in the balance after 12 times of exercises. The risk of falls seems to decline after 12 treatments, and the highest reduction occurred after the first 6 treatments.

CONCLUSION: It can be concluded that dual-task motor-cognitive training is significantly influential in reducing risk falls on elderly.

Language: es

Keywords

Cognitive; Dual-task training; Elderly; Motoric; Risk of falling

Fall prevention implementation strategies in use at 60 United States hospitals: a descriptive study

Turner K, Staggs V, Potter C, Cramer E, Shorr R, Mion LC. *BMJ Qual. Saf.* 2020; ePub(ePub): ePub.

Affiliation

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DOI 10.1136/bmjqs-2019-010642 PMID 32188712

Abstract

BACKGROUND: To guide fall prevention efforts, United States organisations, such as the Joint Commission and the Agency for Healthcare Research and Quality, have recommended organisational-level implementation strategies: leadership support, interdisciplinary falls committees, electronic health record tools, and staff, family and patient education. It is unclear whether hospitals adhere to such strategies or how these strategies are operationalised.

OBJECTIVE: To identify and describe the prevalence of specific hospital fall prevention implementation strategies.

METHODS: In 2017, we surveyed 80 US hospitals participating in the National Database of Nursing Quality Indicators who volunteered for the study. We conducted descriptive statistics by calculating percentages for categorical variables and the median and IQR for count variables.

RESULTS: A total of 60/80 (75%) of hospitals completed the survey. The majority of hospitals were not-for-profit (98%) and urban (90%); more than half were Magnet (53%), small (53%) and teaching (52%). Hospitals were more likely to use leadership strategies, such as updating fall policies in the past 3 years (98%) but less likely to reward staff (40%). Hospitals commonly used interdisciplinary falls committees (83%) but membership rarely included physicians. Hospitals lacked access to electronic health record tools, such as high-risk medication warnings (27%). Education strategies were commonly used; 100% of hospitals provided fall education at staff orientation, but only 22% educated all employees (not just nursing staff).

CONCLUSIONS: Our study is the first to our knowledge to examine which expert-recommended implementation strategies are being used and how they are being operationalised in US hospitals. Future studies are needed to document fall prevention implementation strategies in detail and to test which implementation strategies are most effective at reducing falls. Additionally, research is needed to evaluate the quality of implementation (eg, fidelity) of fall prevention interventions.

Language: en

Keywords

Fall prevention; hospital falls; implementation strategies

Intellectual disability, falls and gait disturbances: a misdiagnosis

Lorenzo Villalba N, Díaz Nicolas S, Alonso Ortiz MB, Cordoba Sosa Z, Suárez Ortega S, Zulfiqar AA. Eur. J. Case Rep. Intern. Med. 2020; 7(3): e001488.

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DOI 10.12890/2020_001488 PMID 32206646

Abstract

We report the case of a 27-year-old man presenting with slowly progressive extrapyramidal dysfunction and learning disability considered to have a syndromic intellectual disability. The re-evaluation of the clinical features and the investigations performed led to the diagnosis of atypical pantothenate kinase-associated neurodegeneration (PKAN). **LEARNING POINTS:** Patients with an intellectual disability should be carefully evaluated. In the evaluation of a patient with extrapyramidal dysfunction for several years, with gradual progression, spasticity and psychiatric disturbances, PKAN should be considered.

Language: en

Keywords

Neurodegeneration with brain iron accumulation; magnetic resonance imaging; pantothenate kinase-associated neurodegeneration

Pilot outcomes of a multicomponent fall risk program integrated into daily lives of community-dwelling older adults

Szanton SL, Clemson L, Liu M, Gitlin LN, Hladek MD, LaFave SE, Roth DL, Marx KA, Felix C, Okoye SM, Zhang X, Bautista S, Granbom M. *J. Appl. Gerontol.* 2020; ePub(ePub): ePub.

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DOI 10.1177/0733464820912664 **PMID** 32193981

Abstract

Objectives: To evaluate whether a fall prevention intervention reduces fall risk in older adults who have previously fallen. **Design:** Randomized controlled pilot trial. **Setting:** Participants' homes. **Intervention:** LIVE-LiFE, adapted from Lifestyle-Intervention Functional Exercise (LiFE) integrates strength and balance training into daily habits in eight visits over 12 weeks. The adaptations to LiFE were to also provide (a) US\$500 in home safety changes, (b) vision contrast screening and referral, and (c) medication recommendations. **Control condition** consisted of fall prevention materials and individualized fall risk summary. **Measurement:** Timed Up and Go (TUG) and Tandem stand. **Falls efficacy, feasibility, and acceptability** of the intervention. **Results:** Sample (N = 37) was 65% female, 65% White, and average 77 years. Compared with the control group, each outcome improved in the intervention. The LIVE-LiFE intervention had a large effect (1.1) for tandem stand, moderate (0.5) in falls efficacy, and small (0.1) in the TUG. **Conclusion:** Simultaneously addressing preventable fall risk factors is feasible.

Language: en

Keywords

accidental falls; community-dwelling; home hazards; lifestyle-integrated exercise; medication review