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Prévention des chutes

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BONNE PRATIQUES

Lawton, A., N. Tripodi et al. (2026). "Role of allied health professions in falls prevention for community-dwelling older adults: a scoping review." BMJ Open 16(5): e113943.
https://dx.doi.org/10.1136/bmjopen-2025-113943

OBJECTIVE: Falls among community-dwelling older adults are prevalent and have serious individual, societal and economic consequences. Allied health professionals provide key falls prevention interventions yet their representation in current clinical practice guidelines is inconsistent. Increased recognition of allied health roles and delivering context-specific guidelines for falls care could help to address workforce gaps and optimise care approaches. This scoping review explored the roles of the allied health professions in falls prevention screening, assessment and intervention for community-dwelling older adults. DESIGN: Scoping review, using the Joanna Briggs Institute methodology for scoping reviews. DATA SOURCES: PubMed, CINAHL, Scopus, Cochrane, Web of Science and Allied and Complementary Medicine Database databases. The initial search was completed in November 2023, with a secondary search performed in July 2025. ELIGIBILITY CRITERIA: Sources were eligible if they identified or described a specific role of at least one allied health professional in falls prevention care for older adults. No restrictions were placed on publication type or date. Study protocols and conference abstracts were excluded, and only English-language sources were included. DATA EXTRACTION AND SYNTHESIS: ChatGPT-4o was used for initial data extraction. Authors then cross-checked and updated inaccuracies as required. A numerical descriptive analysis, and a qualitative content analysis were performed to answer the research questions. RESULTS: The search identified 442 relevant sources from 34 countries. The roles of 17 allied health professions in falls prevention for community-dwelling older adults were discussed. Screening, assessment and intervention roles were identified spanning medical, physical capacity, environmental, education and behavioural-psychological domains. Profession-specific interventions closely aligned with their primary scope of practice, and notable areas of overlap between professions were highlighted. CONCLUSION: This review highlights the diverse and overlapping contributions of allied health professionals to falls prevention in community-dwelling older adults. Varying levels of evidence are available across the professions and evidence gaps were highlighted for smaller allied health professions, indicating a need for foundational research to substantiate their roles and facilitate their inclusion in future practice guidelines. TRIAL REGISTRATION DETAILS: https://doi.org/10.17605/OSF.IO/7SV3F.

Tynan, A., A. Pighills et al. (2023). "Implementing best practice occupational therapist-led environmental assessment and modification to prevent falls: A qualitative study of two regional and rural public health services in Australia." Australian Occupational Therapy Journal 70(2): 202-217.
https://dx.doi.org/10.1111/1440-1630.12849

BACKGROUND: Occupational therapist-led environmental assessment and modification (EAM) is effective in reducing falls for populations at high risk. Two regional and rural public health services in Queensland devised an implementation strategy to embed best practice occupational therapist-led EAM. METHODS: A qualitative study was conducted to compare the determinants of implementation success across the different health services, using the COM-B model of behaviour change. Six semi-structured interviews were completed with occupational therapists involved at each site, following 12 months of implementation. Interview data were triangulated with minutes from three combined site steering committee meetings, eight local steering committee meetings, and field notes. Thematic analysis was completed to compare barriers and facilitators to best practice uptake of EAM and differences in outcomes between the two sites. RESULTS: Both sites commenced implementation with similar states of capability and motivation. After 12 months, one

site considered that practice change had been embedded as noted in steering committee minutes and comments; however, the other site observed limited progress. According to the COM-B analysis, opportunity (the factors that lie outside the individual's control) had a significant influence on how both sites were able to respond to the practice change and navigate some of the unexpected challenges that emerged, including the COVID-19 pandemic. Existing team structure, multiple responsibilities of key stakeholders, differences in access to resources, and lack of connection between complementary services meant that COVID-19 disruptions were only a catalyst for unveiling other systemic issues. CONCLUSION: This study highlights the power of external factors on influencing behaviour change for best practice implementation. Learnings from the study will provide deeper understanding of completing implementation projects in regional and rural contexts and support the future implementation of EAM in occupational therapy clinical settings.

Vandervelde, S., E. Vlaeyen et al. (2023). "Strategies to implement multifactorial falls prevention interventions in community-dwelling older persons: a systematic review." Implementation Science 18(1): 4. https://dx.doi.org/10.1186/s13012-022-01257-w

BACKGROUND: One-third of the community-dwelling older persons fall annually. Guidelines recommend the use of multifactorial falls prevention interventions. However, these interventions are difficult to implement into the community. This systematic review aimed to explore strategies used to implement multifactorial falls prevention interventions into the community. METHODS: A systematic search in PubMed (including MEDLINE), CINAHL (EBSCO), Embase, Web of Science (core collection), and Cochrane Library was performed and updated on the 25th of August, 2022. Studies reporting on the evaluation of implementation strategies for multifactorial falls prevention interventions in the community setting were included. Two reviewers independently performed the search, screening, data extraction, and synthesis process (PRISMA flow diagram). The quality of the included reports was appraised by means of a sensitivity analysis, assessing the relevance to the research question and the methodological quality (Mixed Method Appraisal Tool). Implementation strategies were reported according to Proctor et al.'s (2013) guideline for specifying and reporting implementation strategies and the Taxonomy of Behavioral Change Methods of Kok et al. (2016). RESULTS: Twenty-three reports (eighteen studies) met the inclusion criteria, of which fourteen reports scored high and nine moderate on the sensitivity analysis. All studies combined implementation strategies, addressing different determinants. The most frequently used implementation strategies at individual level were "tailoring," "active learning," "personalize risk," "individualization," "consciousness raising," and "participation." At environmental level, the most often described strategies were "technical assistance," "use of lay health workers, peer education," "increasing stakeholder influence," and "forming coalitions." The included studies did not describe the implementation strategies in detail, and a variety of labels for implementation strategies were used. Twelve studies used implementation theories, models, and frameworks; no studies described neither the use of a determinant framework nor how the implementation strategy targeted influencing factors. CONCLUSIONS: This review highlights gaps in the detailed description of implementation strategies and the effective use of implementation frameworks, models, and theories. The review found that studies mainly focused on implementation strategies at the level of the older person and healthcare professional, emphasizing the importance of "tailoring," "consciousness raising," and "participation" in the implementation process. Studies describing implementation strategies at the level of the organization, community, and policy/society show that "technical assistance," "actively involving stakeholders," and "forming coalitions" are important strategies. TRIAL REGISTRATION: PROSPERO CRD42020187450.

Blain, H., T. Bichet et al. (2022). "Comment évaluer le risque de chute chez le sujet âgé ?" La Revue du praticien 72(3): 299-304. https://www.larevuedupraticien.fr/article/comment-evaluer-le-risque-de-chute-chez-le-sujet-age

Les chutes des personnes âgées de 65 ans ou plus constituent un important problème de santé publique. Leur prévention passe par un dépistage des sujets à risque modéré ou élevé de chute puis une correction des facteurs concourant à ce risque.

Duc, M., A.-G. Mittaz Hager et al. (2022). "Current practices of physiotherapists in Switzerland regarding fall risk-assessment for community-dwelling older adults: A national cross-sectional survey." F1000Research 11: 513. https://dx.doi.org/10.12688/f1000research.73636.2

Background: Falls can strongly impact older people's quality of life, health, and lifestyle. Multifactorial assessment can determine an individual's risk of falling as the first step for fall prevention intervention. Physiotherapists have an essential role to play in assessing fall risk by older adults living in the community. In the absence of published data on this topic in Switzerland, this study investigated the current practices of physiotherapists to determine whether those are in line with recommendations. Methods: An anonymous cross-sectional survey was undertaken among physiotherapists practising in Switzerland between the 21st of November and the 31st of December 2020. A priori and exploratory hypotheses were tested. Responses to open-ended questions were grouped into themes for analysis. Results: A total of 938 questionnaires from all three language regions of Switzerland was analysed. Participants worked in different settings, with a higher representation of private practice self-employees (56%). Standardised fall risk assessments or instruments were used by 580 (62%) participants, while 235 (25%) preferred subjective assessment of fall risk only. Differences in fall risk assessment were observed according to the workplace setting (adjusted OR 1.93, 95% CI 1.37 to 2.7) and education level (trend test, $p<0.001$). The standardised assessments most frequently employed were the Berg Balance Scale (58%), the Timed-Up-and-Go (57%) and the Tinetti Balance Assessment tool (47%). Risk factors for falls were frequently queried, particularly history of falls (88%), home hazards (84%), and functional ability (81%). Technical resources (40%), knowledge (30%), and time (22%) were common barriers to implement a systematic fall risk assessment. Conclusions: This study provides an overview of the current practices of physiotherapists in Switzerland in fall risk assessment. There is still room to optimise the standardisation and systematisation of this assessment to implement a best practice strategy and prevent avoidable falls.

Ebihara, S., Y. Otsubo et al. (2021). "Role of physical therapists and aromatherapy for fall prevention in older people: A narrative review." Geriatrics & gerontology international 21(6): 445-450. https://dx.doi.org/10.1111/ggi.14165

Falls among older people are usually the result of several causes combined. Identifying all the fall-related factors that apply to a particular individual and providing comprehensive multifactorial intervention is recommended for the prevention of falls among older people. However, the overall net benefit of multifactorial intervention in preventing falls is small, and it does not appear to improve fall-related outcomes, such as the number of fall-related injuries. Therefore, we might require new perspectives to overcome this situation. Here, we raise two novel strategies for fall prevention among older people. One is using physical therapists more actively. The other is using aromatherapy for stabilization of older people. Physical therapists should carry out detailed gait assessment and caregiver education. Aromatherapy is effective in improving balance and mental stability in older people. To overcome refractory geriatric syndrome, there is no choice but to eliminate all preconceived ideas before choosing the best fall prevention strategies.

Tiedemann, A., D. L. Sturnieks et al. (2021). "Impact of a fall prevention education program for health and exercise professionals: a randomised controlled trial." Public Health Research & Practice 31(3). https://dx.doi.org/10.17061/phrp30342013

Objectives and importance of study: Exercise prevents falls among community-dwelling older adults. Therefore, it is crucial that health and exercise professionals have the knowledge and skills to prescribe appropriate fall prevention exercise. This study evaluated the effect of a fall prevention education program, compared with a waitlist control group, on health and exercise professionals' fall prevention knowledge and behaviour, and their confidence to prescribe fall prevention exercises for older people. STUDY TYPE: Randomised controlled trial. METHODS: Participants were 200 health and exercise professionals recruited in New South Wales (NSW), Australia. The intervention group participated in a 1-day face-to-face education workshop on exercise to prevent falls in older age. The waitlist control group received the education intervention after completion of the 3-month follow-up. Primary outcomes were self-reported fall prevention knowledge, and change in prescribing behaviour for fall prevention exercise. Secondary outcomes were: confidence to prescribe fall prevention exercise; proportion of people aged 60 years and older seen in the past month who were prescribed fall prevention exercise; and proportion of fall prevention exercises prescribed in the past month that were evidence based. Data were analysed using analysis of covariance models for continuously scored outcomes and the differences in proportions between groups (relative risk [RR]). RESULTS: The intervention significantly improved knowledge (between-group difference [BGD] 0.27 points out of a possible 6; 95% confidence interval [CI] 0.03, 0.51; p = 0.03), perceived clinical behaviour (RR 5.58; 95% CI 3.25, 9.59; p < 0.001), confidence (BGD 1.02/10 points; 95% CI 0.65, 1.39; p < 0.001) and the proportion of evidence-based exercise prescribed, in both the number of exercises (BGD 0.36; 95% CI 0.03, 0.68; p = 0.03) and percentage of participants who prescribed at least 2 hours/week of fall prevention exercise (RR 1.53; 95% CI 1.08, 2.15; p = 0.015). CONCLUSION: The education workshop significantly improved participants' knowledge, confidence and behaviour regarding fall prevention exercise prescription.

Desramault, F. et E. Allard-Cools (2020). "Diffuser du savoir et entretenir une culture de la prévention des chutes " La revue de l'infirmière 69(258): 40-42. https://dx.doi.org/10.1016/j.revinf.2020.01.012

Le vieillissement de la population se traduit par un nombre croissant de personnes vulnérables, exposées au risque de chute. Afin de sensibiliser les patients et leurs proches ainsi que les soignants à la prévention des facteurs environnemental et comportemental du risque de chute, un établissement de santé normand a développé un atelier pédagogique sous la forme d'une chambre des erreurs. Il est le fruit d'une collaboration étroite entre les équipes de rééducation et les autres soignants.

Haute autorité de santé. (2020). Le patient à risque de chutes. Outil n°3 : 4 p.
https://www.has-sante.fr/upload/docs/application/pdf/2020-12/pied_de_la_personne_agee_-_fiche_outil_n3_patient_a_risque_de_chutes.pdf

Ce document est extrait de la recommandation de bonne pratique « Le pied de la personne âgée : approche médicale et prise en charge en pédicurie-podologie ». Ces recommandations peuvent s'appliquer à tous les patients, quel que soit leur âge.

Shaw, L., D. Kiegaldie et al. (2020). "Education interventions for health professionals on falls prevention in health care settings: a 10-year scoping review." BMC Geriatrics 20(1): 460. https://dx.doi.org/10.1186/s12877-020-01819-x

BACKGROUND: Falls in hospitals are a major risk to patient safety. Health professional education has the potential to be an important aspect of falls prevention interventions. This scoping review

was designed to investigate the extent of falls prevention education interventions available for health professionals, and to determine the quality of reporting. METHOD: A five stage scoping review process was followed based on Arksey and O'Malley's framework and refined by the Joanna Briggs Institute Methodology for JBI Scoping Reviews. Five online databases identified papers published from January 2008 until May 2019. Papers were independently screened by two reviewers, and data extracted and analysed using a quality reporting framework. RESULTS: Thirty-nine publications were included. Interventions included formal methods of educational delivery (for example, didactic lectures, video presentations), interactive learning activities, experiential learning, supported learning such as coaching, and written learning material. Few studies employed comprehensive education design principles. None used a reporting framework to plan, evaluate, and document the outcomes of educational interventions. CONCLUSIONS: Although health professional education is recognised as important for falls prevention, no uniform education design principles have been utilised in research published to date, despite commonly reported program objectives. Standardised reporting of education programs has the potential to improve the quality of clinical practice and allow studies to be compared and evaluated for effectiveness across healthcare settings.

FACTEURS DE RISQUE

Kim, E., D. Wi et al. (2026). "Social Determinants of Health and Falls Among Community-Dwelling Older Adults: A Zero-Inflated Negative Binomial Regression Analysis." Journal of Nursing Scholarship 58(1): e70065. https://dx.doi.org/10.1111/jnu.70065

INTRODUCTION: Falls among older adults represent a major public health challenge, yet research examining the role of social determinants of health (SDOH) in fall risk remains limited. This study aimed to identify factors associated with fall occurrence and fall frequency among community-dwelling older adults in Korea, with particular emphasis on SDOH. DESIGN: A cross-sectional study design. METHODS: We used a large nationwide sample (n = 9746) from the 2023 National Survey of Older Koreans. The number of falls in the past year served as the dependent variable. Independent variables included a range of socioeconomic and environmental variables as SDOH, alongside biological and behavioral variables. A zero-inflated negative binomial (ZINB) regression analysis was employed to address excess zeros and overdispersion in fall count data. RESULTS: Among participants, 94.8% experienced no falls, 3.2% reported a single fall, and 1.9% reported recurrent falls. In the logit model for fall occurrence, higher household income level, absence of age-friendly housing, higher access to parks, and lower access to welfare centers were associated with higher risk of fall occurrence. In the count model for fall frequency, higher education level, presence of age-friendly housing, and outdoor mobility barriers were associated with higher fall frequency within the at-risk group. CONCLUSIONS: The findings provide empirical evidence on the critical roles of SDOH in falls among community-dwelling older adults. Specifically, a ZINB regression analysis identified distinct sets of SDOH associated with fall occurrence versus fall frequency, highlighting the complex and multifaceted nature of fall patterns among older adults. CLINICAL RELEVANCE: Healthcare providers and policymakers seeking to reduce falls should implement tailored, SDOH-integrated strategies by addressing the different mechanisms underlying fall occurrence and fall frequency.

Oh, S.-E., J.-P. Choe et al. (2026). "Physical Activity Patterns and Their Impact on Fall Risk in Older Adults: A Latent Class Analysis." Journal of Aging & Physical Activity 34(3): 291-300. https://dx.doi.org/10.1123/japa.2024-0354

Falls are a significant risk for older adults, often leading to severe injuries. Physical activity (PA) can reduce fall risk, but most studies focus on individual PA types rather than combined patterns. This study uses Latent Class Analysis to explore PA patterns among older adults and their relationship with falls, considering sex differences. Data were drawn from the 2023 Korean Community Health Survey (N = 68,996, aged >=65 years). Participants' engagement in vigorous PA, moderate PA, walking, and flexibility exercises was used to classify latent subgroups separately by sex. Logistic regression examined associations between PA subgroups and fall experience, reporting adjusted odds ratios (aOR) and 95% confidence intervals (CIs). Four PA subgroups were identified for each sex. Among males, no significant differences in fall risk were observed across PA subgroups after adjusting for confounders (all aORs, p > .05). Among females, those engaging only in walking or walking plus flexibility exercises showed a significantly higher fall risk compared to the most active group (moderate PA, walking, and flexibility exercises). Specifically, the Walk-only group had an aOR of 1.13 (95% CI [1.00, 1.27]), and the Walk/Flex group had an aOR of 1.09 (95% CI [1.01, 1.16]). Participation in multiple types and intensities of PA was associated with a lower risk of falls, particularly among women. Sex-specific differences in PA patterns should inform **fall prevention** strategies. Encouraging older adults to engage in combinations of moderate-intensity PA, walking, and flexibility exercises may reduce falls and support healthy aging.

Roden-Foreman, J. W., I. V. Calderon et al. (2026). "Identifying older adults at risk for future falls using physical and occupational therapy assessments: A case-control study of patients admitted for injurious falls." Geriatric Nursing 69: 103928. https://dx.doi.org/10.1016/j.gerinurse.2026.103928

PURPOSE: To investigate the ability of physical and occupational therapy assessments to predict subsequent fall admissions in older patients who were initially admitted for a fall. METHODS: This retrospective matched case-control study examined patients aged >=65 years admitted for a fall 2015-2019. Cases were those with a second fall admission within one year of discharge and matched 1:1 with controls. Predictors were tested in a Bayesian conditional logistic regression. RESULTS: There were 208 patients. Mean age at index was 82 +/- 8 years and 69 % were female. Patients with any toileting deficits at discharge (OR = 2.86), with recommended discharge to skilled nursing (OR = 3.06), needing minimal assistance during gait evaluation (OR = 4.66), or using a rolling walker or rollator before injury (OR = 2.21) were at increased risk. Patients referred to outpatient occupational therapy were at decreased risk (OR = 0.26). CONCLUSION: Higher functioning patients with minimal deficits may warrant additional consideration during the discharge process.

Sun, M., X. Hu et al. (2026). "The Worse the Physical Function, the More Probable the Concerns about Falling." Journal of Applied Gerontology 45(6): 1180-1187. https://dx.doi.org/10.1177/07334648251360096

Few studies have explored the impact of poor physical function on concerns about falling (CaF) in older adults, often with low sensitivity due to fragmented assessments. The functional continuum (FC), which covers the full range from robust function to disability, may better capture the relationship between physical function and CaF risk. Using data from NHATS (Rounds 1-10), a proportional hazards model examined CaF risk stratification by FC categories. Among 6,547 participants, 30.1% reported CaF. CaF risk increased progressively with worsening FC, showing a significant dose-response relationship (HR 1.13, 95% CI: 1.10-1.16). While FC categories 2-3 showed no significant difference from category 1, risk increased at category 4 (HR 1.35, 95% CI: 1.11-1.65) and doubled at categories 6-8. CaF risk increases with worsening physical function. FC can

complement existing risk tools to identify high-risk older populations and guide the design of targeted interventions to prevent CaF.

Alkhamis, B. A., B. H. Elrefaey et al. (2025). "Cognition, fear, and falls: psychological predictors of balance impairment in community-dwelling older adults." Frontiers in psychiatry Frontiers Research Foundation 16: 1610894. https://dx.doi.org/10.3389/fpsyt.2025.1610894

Objective: This study aimed to (1) assess the associations among cognitive function, fear of falling, and balance in community-dwelling older adults; (2) identify key predictors of balance performance; and (3) examine implications for fall prevention strategies. Methods: Eighty-four older adults (>=65 years) residing independently in the community were recruited during outpatient visits. Cognitive function was assessed using the Saint Louis University Mental Status (SLUMS), fear of falling was measured with the Falls Efficacy Scale-International (FES-I), and balance performance was evaluated using the Berg Balance Scale (BBS). Physical activity, demographic factors, and fall history were also recorded. Results: Bivariate correlations showed that higher cognitive function was associated with better balance ($r = 0.45$, $p = 0.014$), while greater fear of falling was linked to poorer balance ($r = -0.52$, $p = 0.003$). A hierarchical regression model revealed that cognitive function (beta = 0.32, $p = 0.002$) and fear of falling (beta = -0.44, $p < 0.001$) were significant predictors of balance performance, even after controlling for age, gender, **physical** activity, and fall history. Exploratory logistic regression showed that fear of falling (OR = 1.12, $p = 0.002$) and balance performance (OR = 0.91, $p = 0.008$) were significant predictors of fall history. Conclusion: Cognitive function and fear of falling are independent and meaningful predictors of balance performance in older adults. These findings support the integration of cognitive and psychological assessments into exercise-based fall prevention strategies.

Lage, I., F. Braga et al. (2022). "Falls in older persons living alone: the role of individual, social and environmental factors." Enfermeria Clinica 32(6): 396-404.
https://dx.doi.org/10.1016/j.enfcle.2022.04.003

OBJECTIVE: To identify the prevalence and the risk factors of falling in older people (65+) living alone. METHOD: This is a descriptive and transversal study which included 186 participants, aged 65+ living alone in community-dwelling. RESULTS: The prevalence of falls was 80.1% (95% CI 74.1-85.8). Considering the last 3 months, the prevalence of falls reduced to 22.2% (95% CI 17.5-29.9) and the number of falls reported was 2.4 (sd=2.1). Most falls were accidental (n=74, 59.7%), followed by dizziness (n=15, 12.1%) and almost 50% occurred in the morning (n=53, 45.3%). Considering the local where the falls occurred, 70 (57.4%) were at home (36.1% inside and 21.3% outside), 41 on the street (33.6%) and only 11 (9.0%) in a public place (4.1% inside and 4.9% outside). After the fall, 30.9% of the participants changed daily life after an event. CONCLUSIONS: Falls among older adults is a multifactorial problem that requires integrated and multiprofessional interventions. Older age, living alone in an urban area, with insufficient resources, reduced physical activity and a poor self-perception are factors associated with a higher risk of falling. Similarly, older people who have difficulty standing, sitting and rising from a chair, as well as being hypertensive and taking a high number of medications are associated with a high risk of falling. Future research should develop and emphasize more national studies to confirm these results.

Byun, M., J. Kim et al. (2021). "Physical and Psychological Factors Contributing to Incidental Falls in Older Adults Who Perceive Themselves as Unhealthy: A Cross-Sectional Study." International Journal of Environmental Research & Public Health [Electronic Resource] 18(7).
https://dx.doi.org/10.3390/ijerph18073738

Falls have become one of the common causes of morbidity and mortality in the elderly. Advanced

age is a strong predictor of falls. Additionally, those who perceive themselves as unhealthy are more likely to suffer from incidental falls in accordance with aging. We aimed to compare individual, physical, and psychological factors between older adults with and without a fall history. Then, we tried to identify physical and psychological variables associated with falls by controlling for individual characteristics. We analyzed public data from the 2017 National Survey of Older Persons in South Korea. Seniors aged 65 years and over who considered themselves in poor health status were eligible. A total of 2765 women and 1280 men (n = 4045) were enrolled, and 940 adults suffered a fall within a year (the average number of falls was 2.5). We applied individual variable-adjusted models and discovered that hearing discomfort (odds ratio (OR) 1.30, 95% confidence interval (CI) 1.09-1.55), limited activities of daily living (ADL) (OR 1.40, 95% CI 1.13-1.74), limited instrumental activities of daily living (IADL) (OR 1.34, 95% CI 1.13-1.61), and depression (OR 1.44, 95% CI 1.23-1.69) significantly increased risk for falls on multivariate logistic regression. Our findings suggest that hearing discomfort, limited ADL/IADL, and depression need to be addressed observantly to prevent falls in the elderly who consider themselves unhealthy.

Xue, L., R. M. Boudreau et al. (2021). "Persistent polypharmacy and fall injury risk: the Health, Aging and Body Composition Study." BMC Geriatrics 21(1): 710. https://dx.doi.org/10.1186/s12877-021-02695-9

BACKGROUND: Older adults receive treatment for fall injuries in both inpatient and outpatient settings. The effect of persistent polypharmacy (i.e. using multiple medications over a long period) on fall injuries is understudied, particularly for outpatient injuries. We examined the association between persistent polypharmacy and treated fall injury risk from inpatient and outpatient settings in community-dwelling older adults. METHODS: The Health, Aging and Body Composition Study included 1764 community-dwelling adults (age 73.6 +/- 2.9 years; 52% women; 38% black) with Medicare Fee-For-Service (FFS) claims at or within 6 months after 1998/99 clinic visit. Incident fall injuries (N = 545 in 4.6 +/- 2.9 years) were defined as the initial claim with an ICD-9 fall E-code and non-fracture injury, or fracture code with/without a fall code from 1998/99 clinic visit to 12/31/08. Those without fall injury (N = 1219) were followed for 8.1 +/- 2.6 years. Stepwise Cox models of fall injury risk with a time-varying variable for persistent polypharmacy (defined as >=6 prescription medications at the two most recent consecutive clinic visits) were adjusted for demographics, lifestyle characteristics, chronic conditions, and functional ability. Sensitivity analyses explored if persistent polypharmacy both with and without fall risk increasing drugs (FRID) use were similarly associated with fall injury risk. RESULTS: Among 1764 participants, 636 (36%) had persistent polypharmacy over the follow-up period, and 1128 (64%) did not. Fall injury incidence was 38 per 1000 person-years. Persistent polypharmacy increased fall injury risk (hazard ratio [HR]: 1.31 [1.06, 1.63]) after adjusting for covariates. Persistent polypharmacy with FRID use was associated with a 48% increase in fall injury risk (95%CI: 1.10, 2.00) vs. those who had non-persistent polypharmacy without FRID use. Risks for persistent polypharmacy without FRID use (HR: 1.22 [0.93, 1.60]) and non-persistent polypharmacy with FRID use (HR: 1.08 [0.77, 1.51]) did not significantly increase compared to non-persistent polypharmacy without FRID use. CONCLUSIONS: Persistent polypharmacy, particularly combined with FRID use, was associated with increased risk for treated fall injuries from inpatient and outpatient settings. Clinicians may need to consider medication management for FRID and other fall prevention strategies in community-dwelling older adults with persistent polypharmacy to reduce fall injury risk.

Petersen, N., H.-H. Konig et al. (2020). "The link between falls, social isolation and loneliness: A systematic review." Archives of Gerontology & Geriatrics 88: 104020.
https://dx.doi.org/10.1016/j.archger.2020.104020

BACKGROUND: The chances of experiencing a fall among those aged 60 years and older increase as risk factors accumulate. In the last few decades, several studies have identified different risk factors for falls in older people, including the role of social isolation and loneliness. This systematic review provides an overview of published literature that analyzes the bidirectional relation between falls and social isolation or loneliness. MATERIAL AND METHODS: Two databases (PubMed and Europe PMC) were used to search for publications investigating the relationship between falls, social isolation and/or loneliness in older people. Similar articles and references were screened against the inclusion criteria. RESULTS: 17 studies met the inclusion criteria and were included. Only a few studies assessed the association between falls and social isolation/loneliness among older people. Therefore, articles examining the association between falls and living alone status among people aged 60 and older were included as well. In all studies loneliness, social isolation, and living alone were significantly associated with falls in older people. CONCLUSIONS: The findings emphasize the importance of the relationship between falls and social isolation, loneliness and living alone among older people. As there are only a few studies assessing the relationship between falls and loneliness or social isolation, further research in this field should be conducted. In particular, longitudinal studies that utilize standardized measurement instruments should be carried out.

Torres, M., G. Pédrono et al. (2020). Chutes des personnes âgées à domicile. Caractéristiques des chuteurs et des circonstances de la chute. Volet « Hospitalisation » de l'enquête ChuPADom, Santé publique France : 139 p.
https://www.santepubliquefrance.fr/traumatismes/chute/enquetesetudes/chutes-des-personnes-agees-a-domicile-caracteristiques-des-chuteurs-et-des-circonstances-de-la-chute

Les chutes sont à l'origine d'une morbidité et d'une mortalité importantes, représentant ainsi un problème de santé publique majeur. ChuPADom est une enquête prospective multicentrique composée de deux volets. Le volet " Hospitalisation " avait pour objectifs de décrire les caractéristiques et les circonstances des chutes à domicile chez les personnes âgées de 65 ans et plus hospitalisées et d'identifier des profils de chuteurs. Après une description de l'échantillon, des profils de chuteurs ont été identifiés à partir d'une ACM et d'une classification ascendante hiérarchique. L'échantillon est composé de 1467 patients dont 69% de femmes. L'âge moyen est 84,5 ans. Près de 80% des patients ont chuté durant la journée. Les activités réalisées au moment de la chute les plus fréquemment citées étaient l'hygiène/la toilette (15%) et la marche (14%) ; le lieu de survenue de la chute était pour 20% la chambre et la chute était pour 43% des cas de leur hauteur ou de faible hauteur. Plus de la moitié des patients avaient déjà été victimes d'une chute lors des 12 mois précédent l'enquête. Près de 45% des patients de l'échantillon souffraient d'une fracture à la suite de la chute et 26% présentait une plaie. Environ 16% ont eu un traumatisme crânien, 14% présentaient une rhabdomyolyse et seulement 4% un syndrome post-chute. Cinq profils de chuteurs ont été identifiés : séniors jeunes prenant des risques chutant de grande hauteur ; séniors vivant dans une maison chutant dans les escaliers ; personnes âgées autonomes chutant lors d'une perte d'équilibre ou de leur hauteur ; personnes âgées dépendantes chutant lors d'activité à faible intensité ; et personnes très âgées, limitées dans les activités de la vie quotidienne dont les informations déclarées sont souvent manquantes.Ces résultats pourront contribuer à la mise en place d'action de prévention ciblée et seront enrichis par le volet " Séquelles " qui consistera à décrire les conséquences un an après la chute en fonction des profils.

Parachute (2026). Guide de prévention des chutes pour les personnes aidantes : 50 p.
https://parachute.ca/fr/sujet-blessure/chutes-chez-les-aines/guide-de-prevention-des-chutes-pour-les-personnes-aidantes/

Contenu du guide. Comprendre les risques : apprenez-en plus sur les facteurs qui peuvent avoir une incidence sur le risque de chute d'une personne, notamment l'âge, les difficultés de mobilité, les problèmes de santé, la prise de médicaments et les dangers présents à la maison. Stratégies de prévention : des conseils pratiques pour agir sur la santé de la vue et de l'ouïe, le choix de chaussures appropriées, les modifications à apporter à la maison, la santé mentale, l'activité physique et l'hydratation. Que faire en cas de chute : des instructions claires, étape par étape, pour aider une personne de façon sécuritaire après une chute, savoir quand consulter un professionnel de la santé et apprendre à consigner les chutes afin d'en prévenir d'autres. Outils et ressources : comprend une évaluation personnelle des risques de chute, des rappels quotidiens, mensuels et annuels, ainsi qu'un plan d'action en cas de chute pour la personne aidée. Guide de conversation : des conseils pour aborder la prévention avec la personne que vous accompagnez, enrichis par l'expérience d'autres personnes aidantes. Bâtir votre équipe de soins : de l'information sur les professionnels et les organismes de soins pouvant offrir du soutien, de l'éducation et des ressources.

Aidoud, A., J.-A. Nkodo et al. (2025). "A Comprehensive, Home-Based, Fall Prevention Initiative: Preliminary Data From the Raise'Age Program." Journal of the American Geriatrics Society 73(6): 1895-1905. https://dx.doi.org/10.1111/jgs.19350

BACKGROUND: Although falls among older adults pose substantial health risks and are often preventable, many fallers do not seek medical care. The Raise'Age program addresses this challenge by offering proactive fall prevention for older adults who require "lift assistance" but are not taken to hospital. The program includes (i) screening by emergency medical services (EMSs), (ii) referrals for a comprehensive geriatric assessment, (iii) in-home evaluations by a mobile geriatric team (MGT), and (iv) referrals to primary care physicians (PCPs). Here, we outline the program's design, development, and implementation. METHODS: The program's activity in 2023 was assessed with regard to the number of EMS fall reports, the reports' completeness, the program's eligibility, and acceptance by physicians and patients, in-home assessments, adherence to geriatric follow-up programs, and coordination delays. RESULTS: In 2023, the Raise'Age program received 959 reports, accounting for 48% of lift assistances by paramedics. Of these, 37% of the reports were reviewed for eligibility. Reports were often archived due to irrelevance, a recent hospital stay, or difficulty contacting PCPs. Among eligible reports, 77% were approved for in-home evaluations, and the remainder were referred to a geriatrician or scheduled for hospital admission. The median processing time was 26 days. Of 228 patients eligible for home visits, 150 accepted the intervention. Visit acceptance rates were higher when a PCP endorsed the program. Follow-up was provided to 36% of the patients- primarily via teleconsultation. Finally, 15.6% of the patients for whom a lift assistance report was sent to the MGT completed the Raise'Age program. CONCLUSIONS: The Raise'Age program demonstrates that EMS screening and collaboration with MGTs are feasible, although some patients may decline the services offered. Continuous evaluations and interventions by MGTs and referrals to community-based medical and social services effectively address the needs of older adults.

Hasegawa, A., T. Yamaga et al. (2025). "Preventing Falls Among Older Adults Through Technology-Based Home Safety Assessment." Cureus 17(7): e89005. https://dx.doi.org/10.7759/cureus.89005

Falls among older adults are a serious public health concern. In addition to exercise interventions, evaluating and modifying the home environment is essential for effective fall prevention. However, home assessments conducted via in-person visits are not frequently implemented due to constraints related to time and human resources. Recently, the use of Information and Communication Technology (ICT) in remote medical care has gained increasing attention, raising the possibility of its application in home evaluations. Nonetheless, there have been no prior reports evaluating the effectiveness of ICT-based home assessments as an alternative to traditional in-person visits. This report presents the case of an older adult female with bilateral knee osteoarthritis and mild cognitive impairments who had experienced recurrent falls. Concerned about her safety, the individual's family consulted an occupational therapist to conduct a home assessment. The Japanese version of the Westmead Home Safety Assessment was used for both in-person and online assessments. The results of both assessments were found to be highly consistent. After implementing countermeasures based on the hazards identified during the online assessment, the individual did not experience any falls over the subsequent six months. The individual's family members reported high levels of satisfaction with the assessment process and its outcomes. This case suggests that online home assessments utilizing ICT may serve as a viable alternative or supplementary method to traditional home visits.

Ambrens, M., R. Macniven et al. (2024). "How Perceptions of Aging Influence Physical Activity and Exercise in Older Age: Exploring the Behavior of People Aged 70+ Years Engaged in Fall Prevention Activities." Journal of Applied Gerontology 43(10): 1386-1396.
https://dx.doi.org/10.1177/07334648241238315

For older people, physical inactivity increases fall risk as well as other preventable health conditions. Despite the well-documented benefits of physical activity, uptake and adherence continue to challenge efforts aimed at increasing physical activity and reducing falls. Nested within a randomized controlled trial, this study reports on the factors influencing the physical activity behavior of people, aged between 70 and 90 years, engaged in StandingTall, a home-based balance exercise program proven to reduce falls in the community. The perception of aging, physical activity in older age, and the delivery of exercise were identified as major themes, with the perception of aging an overarching theme influencing both preferences for physical activity in older age and exercise delivery. Findings demonstrate the importance of considering the role of aging, the influence aging has on physical activity and exercise behavior, and how aging influences the delivery and design of exercise programs including falls prevention activities for older people.

Zinyemba, V. (2024). "Exercise as a falls prevention strategy in the care of older people." Nursing Older People 36(2): 35-42. https://dx.doi.org/10.7748/nop.2024.e1452

Older people who sustain a fall may experience a range of adverse outcomes, such as distress, injury and loss of independence. Falls increase the risk of frailty and frailty increases the risk of falls. Regular exercise is a pillar of falls prevention and can have extensive benefits for older people's health, well-being and ability to undertake activities they enjoy. As part of the multidisciplinary team, nurses have a pivotal role in implementing exercise-based falls prevention strategies for older people and in encouraging their patients to exercise. This article discusses exercise as a falls prevention strategy in hospital and in the community and supports nurses to develop their knowledge and confidence in promoting exercise in older people.

Clemson, L., S. Stark et al. (2023). "Environmental interventions for preventing falls in older people living in the community." Cochrane Database Syst Rev 3(3): CD013258.
https://doi.org/10.1002/14651858.cd013258.pub2

BACKGROUND: Falls and fall-related injuries are common. A third of community-dwelling people aged over 65 years fall each year. Falls can have serious consequences including restricting activity or institutionalisation. This review updates the previous evidence for environmental interventions in fall prevention. OBJECTIVES: To assess the effects (benefits and harms) of environmental interventions (such as fall-hazard reduction, assistive technology, home modifications, and education) for preventing falls in older people living in the community. SEARCH METHODS: We searched CENTRAL, MEDLINE, Embase, other databases, trial registers, and reference lists of systematic reviews to January 2021. We contacted researchers in the field to identify additional studies. SELECTION CRITERIA: We included randomised controlled trials evaluating the effects of environmental interventions (such as reduction of fall hazards in the home, assistive devices) on falls in community-residing people aged 60 years and over. DATA COLLECTION AND ANALYSIS: We used standard methodological procedures expected by Cochrane. Our primary outcome was rate of falls. MAIN RESULTS: We included 22 studies from 10 countries involving 8463 community-residing older people. Participants were on average 78 years old, and 65% were women. For fall outcomes, five studies had high risk of bias and most studies had unclear risk of bias for one or more risk of bias domains. For other outcomes (e.g. fractures), most studies were at high risk of detection bias. We downgraded the certainty of the evidence for high risk of bias, imprecision, and/or inconsistency. Home fall-hazard reduction (14 studies, 5830 participants) These interventions aim to reduce falls by assessing fall hazards and making environmental safety adaptations (e.g. non-slip strips on steps) or behavioural strategies (e.g. avoiding clutter). Home fall-hazard interventions probably reduce the overall rate of falls by 26% (rate ratio (RaR) 0.74, 95% confidence interval (CI) 0.61 to 0.91; 12 studies, 5293 participants; moderate-certainty evidence); based on a control group risk of 1319 falls per 1000 people a year, this is 343 (95% CI 118 to 514) fewer falls. However, these interventions were more effective in people who are selected for higher risk of falling, with a reduction of 38% (RaR 0.62, 95% CI 0.56 to 0.70; 9 studies, 1513 participants; 702 (95% CI 554 to 812) fewer falls based on a control risk of 1847 falls per 1000 people; high-certainty evidence). We found no evidence of a reduction in rate of falls when people were not selected for fall risk (RaR 1.05, 95% CI 0.96 to 1.16; 6 studies, 3780 participants; high-certainty evidence). Findings were similar for the number of people experiencing one or more falls. These interventions probably reduce the overall risk by 11% (risk ratio (RR) 0.89, 95% CI 0.82 to 0.97; 12 studies, 5253 participants; moderate-certainty evidence); based on a risk of 519 per 1000 people per year, this is 57 (95% CI 15 to 93) fewer fallers. However, for people at higher risk of falling, we found a 26% decrease in risk (RR 0.74, 95% CI 0.65 to 0.85; 9 studies, 1473 participants), but no decrease for unselected populations (RR 0.99, 95% CI 0.92 to 1.07; 6 studies, 3780 participants) (high-certainty evidence). These interventions probably make little or no important difference to health-related quality of life (HRQoL) (standardised mean difference 0.09, 95% CI -0.10 to 0.27; 5 studies, 1848 participants; moderate-certainty evidence). They may make little or no difference to the risk of fall-related fractures (RR 1.00, 95% 0.98 to 1.02; 2 studies, 1668 participants), fall-related hospitalisations (RR 0.96, 95% CI 0.87 to 1.06; 3 studies, 325 participants), or in the rate of falls requiring medical attention (RaR 0.91, 95% CI 0.58 to 1.43; 3 studies, 946 participants) (low-certainty evidence). The evidence for number of fallers requiring medical attention was unclear (2 studies, 216 participants; very low-certainty evidence). Two studies reported no adverse events. Assistive technology Vision improvement interventions may make little or no difference to the rate of falls (RaR 1.12, 95% CI 0.84 to 1.50; 3 studies, 1489 participants) or people experiencing one or more falls (RR 1.09, 95% CI 0.79 to 1.50) (low-certainty evidence). We are unsure of the evidence

for fall-related fractures (2 studies, 976 participants) and falls requiring medical attention (1 study, 276 participants) because the certainty of the evidence is very low. There may be little or no difference in HRQoL (mean difference 0.40, 95% CI -1.12 to 1.92) or adverse events (falls while switching glasses; RR 1.00, 95% CI 0.98 to 1.02) (1 study, 597 participants; low-certainty evidence). Results for other assistive technology - footwear and foot devices, and self-care and assistive devices (5 studies, 651 participants) - were not pooled due to the diversity of interventions and contexts. Education We are uncertain whether an education intervention to reduce home fall hazards reduces the rate of falls or the number of people experiencing one or more falls (1 study; very low-certainty evidence). These interventions may make little or no difference to the risk of fall-related fractures (RR 1.02, 95% CI 0.96 to 1.08; 1 study, 110 participants; low-certainty evidence). Home modifications We found no trials of home modifications that measured falls as an outcome for task enablement and functional independence. AUTHORS' CONCLUSIONS: We found high-certainty evidence that home fall-hazard interventions are effective in reducing the rate of falls and the number of fallers when targeted to people at higher risk of falling, such as having had a fall in the past year and recently hospitalised or needing support with daily activities. There was evidence of no effect when interventions were targeted to people not selected for risk of falling. Further research is needed to examine the impact of intervention components, the effect of awareness raising, and participant-interventionist engagement on decision-making and adherence. Vision improvement interventions may or may not impact the rate of falls. Further research is needed to answer clinical questions such as whether people should be given advice or take additional precautions when changing eye prescriptions, or whether the intervention is more effective when targeting people at higher risk of falls. There was insufficient evidence to determine whether education interventions impact falls.

Ministère chargé de l'Autonomie (2022). Plan antichute des personnes âgées : 36 p.
https://sante.gouv.fr/IMG/pdf/dp_plan-antichute-accessible28-02-2022.pdf

Un repérage des risques de chutes essentiel. Une phase préalable essentielle dans la réduction des chutes est celle du repérage massif et du dépistage, à domicile comme en établissement. Des outils de repérage permettent d'identifier les risques de chutes à la fois sur le volet de l'altération des capacités intrinsèques des individus et sur celui des risques liés au logement. Cette première étape de repérage pourra être réalisée au sein des structures organisant des bilans ou des examens de prévention. Au plus près du terrain, les communautés professionnelles territoriales de santé et des protocoles de coopération, qui relèvent d'une démarche volontaire des acteurs d'un territoire pour travailler ensemble, sont une opportunité pour favoriser le repérage des risques de chutes. La formation des intervenants, des évaluateurs, des équipes mobiles destinées à intervenir à domicile pour repérer les risques liés au logement complètent les moyens pour prendre en charge la population des personnes âgées dans une dynamique de « l'aller-vers ». Des aides concrètes pour prévenir les chutes. Parallèlement, l'objectif du plan est de faciliter le recours pour les personnes âgées aux aides concrètes, favorisant la mobilité ou l'adaptation du logement, en facilitant l'accès et en réduisant le reste à charge. Il s'agit par ailleurs de diffuser le formulaire commun de demande d'aide à l'autonomie à domicile conçu et mis en ligne par la Caisse nationale d'assurance vieillesse (Cnav) et la Caisse nationale de solidarité pour l'autonomie (CNSA) sur un portail unique pour simplifier le parcours et les démarches des demandeurs. De même, le futur dispositif « Ma Prime Adapt' » permettra de simplifier et d'harmoniser les trois aides nationales d'aide à l'aménagement du logement (Agence nationale de l'habitat, Cnav et crédit d'impôt) tout en donnant aux collectivités locales la possibilité de compléter le financement.

Campani, D., S. Caristia et al. (2021). "Home and environmental hazards modification for fall prevention among the elderly." Public Health Nursing 38(3): 493-501. https://dx.doi.org/10.1111/phn.12852

The aim of this study is to develop an implementation tool for effective, sustainable, and transferable home assessments and modification interventions to prevent falls and fall-related injuries in community-dwelling older people.

Caristia, S., D. Campani et al. (2021). "Physical exercise and fall prevention: A systematic review and meta-analysis of experimental studies included in Cochrane reviews." Geriatric Nursing 42(6): 1275-1286. https://dx.doi.org/10.1016/j.gerinurse.2021.06.001

The aim of this systematic review (SR) and meta-analysis was to assess what type of exercise is associated with fall risk reduction among apparently healthy adults aged 50 and older. We conducted a SR by searching for randomized controlled trials (RCTs) included in Cochrane SRs published until October 2019. Five SRs that compared exercise versus any type of control included 32 RCTs. The outcomes examined were falls, fallers, fractures, and fear of falling. A random effects-based meta-analysis by type of exercise was performed. Almost all the interventions were effective for fall rate reduction, with a major effect for three-dimensional exercise, strength/resistance exercises, and mixed exercises. The number of fallers was reduced by three-dimensional exercise and mixed exercises. Fall-related fractures were generally reduced by all types of exercises considered all together, but none singly resulted in statistically effective fracture prevention. Fear of falling was slightly decreased with endurance exercises.

Senderovich, H., N. Bayeva et al. (2021). "Managing Fall Prevention through Exercise in Older Adults Afflicted by Cognitive and Strength Impairment." Dementia & Geriatric Cognitive Disorders 50(6): 507-518. https://dx.doi.org/10.1159/000521140

INTRODUCTION: A growing trend in medicine is older adults and increased need for geriatric services. Falls contribute heavily to hospitalizations and worsening of overall health in this frail demographic. There are numerous biological and physical culprits which, if targeted, can prevent falls. The objective was to review benefits of different types of exercises for fall prevention for older persons who are community-dwelling or living in long-term care facilities. METHODS: A systematic review was conducted to determine the different types of exercises for fall prevention. Data extraction via a standardized protocol was performed to assess study design, outcomes, limitations, and author's conclusions. Corroborative themes were identified and the authors responsible for the contributing research were cited as they came up. Nineteen randomized controlled trials were identified, between 1990 and 2018, using MEDLINE, PubMed, Cochrane, CINAHL, and Web of Science databases. Studies involving adults greater than age 60 in high-risk community or nursing home populations in the English language with a duration longer than or equal to 6 weeks with focuses on either low-risk balance, strength, or combination of both and whole-body vibration. RESULTS: Balance exercise training increased balance at 6 and 12-month intervals involving balance, strength, and cognitive training. DISCUSSION: Insignificant results were seen in whole-body vibration and differing results existed for Tai Chi. It is important to recognize that although exercises help reduce the risk of falling and play a significant role in improving mobility safely, there will always be a risk of falls.