

INPLASY PROTOCOL

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Risk factors for falls among community-dwelling older adults: A systematic review and meta-analysis

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Review question / Objective: P: community-dwelling older adults; I: falls; O: Risk factors.

Condition being studied: The prevalence of falls among older adults living in the community is ~30% each year. The impacts of falls are not only confined to the individual but also affect families and the community. Injury from a fall also imposes a heavy financial burden on patients and their families. Currently, there are different reports on the risk factors for falls among older adults in the community. A retrospective analysis was used in this study to identify risk factors for falls in community-dwelling older adults. This research aimed to collect published studies to find risk factors for falls in community-dwelling older adults.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 December 2022 and was last updated on 19 December 2022 (registration number INPLASY2022120080).

INTRODUCTION

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of falls are not only confined to the individual but also affect families and the community. Injury from a fall also imposes a heavy financial burden on patients and their families. Currently, there are different reports on the risk factors for falls among older adults in the community. A retrospective analysis was used in this study to identify risk factors for falls in

community-dwelling older adults. This research aimed to collect published studies to find risk factors for falls in community-dwelling older adults.

METHODS

Participant or population: community-dwelling older adults.

Intervention: NA.

Comparator: NA.

Study designs to be included: Data on fall risk factors in community-dwelling older adults with 95% confidence intervals (95% CI) or odds ratios were some of the outcome types (ORs).

Eligibility criteria: (1) the study was an observational study that could be a cross-sectional, cohort, or case-control study; (2) the older adults in the community were in fact the research participants; (3) data on fall risk factors in community-dwelling older adults with 95% confidence intervals (95% CI) or odds ratios were some of the outcome types (ORs); (4) the study which met the fall definition: an unexpected event in which the participant rests on the ground, floor, or lower level; and (5) types of comparison: comparisons of fall risk factors among community-dwelling older adults.

Information sources: In PubMed, Web of Science, Embase, Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Data database, and Chinese Periodical database (VIP).

Main outcome(s): Risk factors for falls among community-dwelling older adults.

Quality assessment / Risk of bias analysis: To evaluate the quality of case-control studies and cohort studies, we used Quality Assessment Scale for Non-Experimental Studies (33), based on prospective cohort studies and retrospective case-control studies, using an adapted Newcastle-Ottawa Scale (34) (the Newcastle-Ottawa Scale, NOS),

including study population selection (comparability, exposure, or outcomes); cross-sectional studies were assessed using the AHRQ-recommended quality evaluation criteria (35).

Strategy of data synthesis: Two researchers independently screened the literature and extracted data according to the inclusion and exclusion criteria. In disagreements, the two parties discussed and resolved them or consulted experts. Data extraction contents included author, year, study type, number of cases and control groups, relevant risk factors, and so on.

Subgroup analysis: NA.

Sensitivity analysis: Review Manager 5.3 was used for statistical analysis. $I^2 > 50\%$ or a $P < 0.1$ was considered significant for heterogeneity. For homogeneous data ($I^2 \leq 0.05$), the fixed-effects model was used to calculate the 95% CI and pooled ORs. The random-effects model was used in all other cases. Sensitivity analysis was carried out by eliminating one study at a time. When at least three study samples examined the same outcome measure, data were pooled and analyzed in random-effects meta-analysis models (32).

Country(ies) involved: China.

Keywords: community, older adults, risk factors, meta-analysis, systematic review.

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