

# INPLASY

## The epidemiology of falls in geriatric psychiatric patients: A meta-analysis of prevalence and associated risk factors

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### ADMINISTRATIVE INFORMATION

**Support** - No support.

**Review Stage at time of this submission** - Completed but not published.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202660123

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 June 2026 and was last updated on 26 June 2026.

### INTRODUCTION

**Review question / Objective** To systematically evaluate the prevalence of falls and identify associated risk factors in older adults with mental disorders through a meta-analysis.

**Condition being studied** Falls are a leading cause of injury, disability, and mortality among older adults, and individuals with mental disorders may face an elevated risk due to disease-related factors, cognitive impairment, and psychotropic medication use.

### METHODS

**Search strategy** PubMed:

("fall"[MeSH Terms] OR "accidental falls"[MeSH Terms] OR fall[Title/Abstract] OR falls[Title/Abstract] OR "accidental fall"[Title/Abstract]) AND ("epidemiology"[Subheading] OR "cross-sectional"[Title/Abstract] OR "prevalence"[MeSH

Terms] OR "prevalence"[Title/Abstract] OR "rate"[Title/Abstract]) AND ("mental disorders"[MeSH Terms] OR "mental disorders"[Title/Abstract] OR psychiatr\*[Title/Abstract] OR insanity[Title/Abstract]) AND ("old\*" [Title/Abstract] OR elderly[Title/Abstract] OR aged[MeSH Terms])

EmBase:

('fall'/exp OR 'accidental fall'/exp OR fall:ab,ti OR falls:ab,ti OR 'accidental fall':ab,ti) AND ('epidemiology'/exp OR 'cross-sectional':ab,ti OR 'prevalence'/exp OR prevalence:ab,ti OR rate:ab,ti) AND ('mental disease'/exp OR 'mental disorder':ab,ti OR psychiatr\*:ab,ti OR insanity:ab,ti) AND ('old\*':ab,ti OR elderly:ab,ti OR 'aged'/exp)

Web of Science:

TS=("fall" OR "falls" OR "accidental fall" OR "accidental falls") AND TS=("epidemiology" OR "cross-sectional" OR "prevalence" OR "rate")

AND TS=("mental disorders" OR "psychiatr\*" OR "insanity")  
 AND TS=("old\*" OR "elderly" OR "aged")

Cochrane Library:

("fall" or "falls" or "accidental fall" or "accidental falls") and ("epidemiology" or "cross-sectional" or "prevalence" or "rate") and ("mental disorders" or "psychiatr\*" or "insanity") and ("old\*" or "elderly").

**Participant or population** Participants were aged  $\geq 60$  years with mental disorders, including both functional and organic psychiatric disorders.

**Intervention** The exposure (mental disorder) was diagnosed according to the International Classification of Diseases (ICD) or the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria, or confirmed by a certified psychiatrist based on clinical assessment.

**Comparator** Not applicable.

**Study designs to be included** Study designs were cross-sectional, cohort, or case-control studies conducted in psychiatric settings.

**Eligibility criteria** Studies were eligible for inclusion if they met the following criteria: (1) participants were aged  $\geq 60$  years with mental disorders, including both functional and organic psychiatric disorders; (2) the exposure (mental disorder) was diagnosed according to the International Classification of Diseases (ICD) or the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria, or confirmed by a certified psychiatrist based on clinical assessment; (3) outcome measures included fall prevalence/incidence and at least one fall-related risk factor with effect estimates (odds ratio [OR], risk ratio [RR], or hazard ratio [HR]) and their corresponding 95% confidence intervals (CIs), or provided raw data sufficient for calculating these estimates; and (4) study designs were cross-sectional, cohort, or case-control studies conducted in psychiatric settings.

**Information sources** PubMed, Embase, Web of Science, and the Cochrane Library.

**Main outcome(s)** Fall prevalence/incidence and at least one fall-related risk factor with effect estimates (odds ratio [OR], risk ratio [RR], or hazard ratio [HR]) and their corresponding 95% confidence intervals (CIs), or provided raw data sufficient for calculating these estimates.

## Quality assessment / Risk of bias analysis

Newcastle–Ottawa Scale (NOS).

**Strategy of data synthesis** All meta-analyses were performed using random-effects models based on the DerSimonian–Laird method.

**Subgroup analysis** Subgroup analyses for fall prevalence stratified by publication year, study design, geographic region, sample size, study duration, and study quality were performed.

**Sensitivity analysis** To evaluate the robustness of the pooled results, we conducted leave-one-out sensitivity analyses by sequentially excluding one study at a time and recalculating the summary estimates.

**Language restriction** No restriction.

**Country(ies) involved** China.

**Keywords** Accidental falls; Aged; Mental disorders; Prevalence; Risk factors; Meta-analysis.

## Contributions of each author

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