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# Facilitators and barriers to the implementation of exercise for elderly patients with frail: a qualitative meta-synthesis

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# **ADMINISTRATIVE INFORMATION**

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024100038

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 October 2024 and was last updated on 10 October 2024.

# **INTRODUCTION**

Review question / Objective Our objectives is to systematically review research findings on barriers to and facilitation of the implementation of exercise interventions for frail older adults.

Condition being studied Frailty is a geriatric syndrome in which older adults are susceptible to adverse events in the face of smaller stimuli due to a reduced physiological reserve capacity and a decreased ability to maintain their homeostasis, as evidenced by weight loss, reduced grip strength, slower walking speeds, reduced activity levels and fatigue. Frailty has a significant impact on the health of older adults, mainly in the form of an increased risk of falls, disability, hospitalisation and death. The effectiveness of exercise as a cost-effective and safe intervention for use in frail older adults has been widely demonstrated, with benefits in diverse domains such as somatic function, cognition, and psychology, and is

considered to be the current preferred option for the prevention and treatment of frailty. However, the average adherence to exercise interventions in older adults is 70% and even lower in the frail population. Adherence to a prescribed exercise programme is important to achieve optimal exercise outcomes. Understanding the facilitators and impediments to exercise and exercise in frail older adults can help to develop and implement strategies with high levels of participation and adherence, leading to effective interventions.

# **METHODS**

Participant or population Inclusion criteria: (1) Study subjects (population, P): frail older people/family carers/health professionals. Frail older people who have been assessed as frail/pre-frail by frailty assessment tools, with the views of family carers and healthcare professionals included in order to gain a full understanding of relevant factors.

**Intervention** Inclusion criteria: (1) Phenomenon of interest (I): facilitators and impediments to exercise implementation in frail older adults.

**Comparator** No control or comparator in this study.

**Study designs to be included** (1) Study design (S): the part of qualitative research in qualitative research or mixed research, using groundedtheory, phenomenology, ethnography and other research methods.

Eligibility criteria Inclusion criteria: (1) context (Co): community, nursing homes, hospitals, etc. Exclusion criteria: (1) Duplicate publications; (2) The full text or incomplete data cannot be obtained through various means; (3) Non-Chinese and English literature; (4) A mixed-methods design was used, in which qualitative data could not be separated; (5) The quality evaluation was grade C.

**Information sources** CNKI, Wanfang Database, VIP Database, China Biomedical Literature Database, PubMed, Web of Science, Embase, Cochrane Library and CINAHL.

Main outcome(s) The main objective is to understand the facilitation and barriers to the implementation of a exercise intervention among older adults with frail.

#### Additional outcome(s) None.

**Data management** Study selection: Two investigators will independently assess the included studies. The lead reviewer will assess 10% of the sample at the title and abstract screening level. If eligibility cannot be determined based on titles and abstracts, the full text of the study will be obtained. Disagreements will be resolved through group discussion.

Data Extraction: Data will be extracted from the selected list of full-text articles into a Microsoft Excel spreadsheet. Extracted data will include participant demographics (e.g., age, gender), study design type, sample size, data collection methods (e.g., interviews or focus groups), and outcomes (e.g., primary and secondary themes). Any missing data will be excluded.

7 try missing data will be excluded.

**Quality assessment / Risk of bias analysis**Joanna Briggs Institute's critical appraisal tool.

**Strategy of data synthesis** The research adopted the aggregative integration method of JBI Evidence-Based Health Care Center. Researchers who understood the philosophy and methodology

of qualitative research repeatedly read the included literature, collected the research results, repeatedly analyzed and interpreted the meaning of each research result, and further integrated and summarized similar results according to its meaning to form a new category. Then the categories are summarized into integrated concepts and explanations, and in case of disagreement, the third researcher will negotiate and discuss together.

Subgroup analysis Qualitative study.

Sensitivity analysis None.

**Language restriction** Chinese-Simplified and English.

Country(ies) involved China.

**Keywords** Frailty; Aged; Exercise; Promoting and Hindering Factors; Qualitative Research; Meta Synthesis; Evidence-Based Nursing.

#### Contributions of each author

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