

Empowerment-based comprehensive nursing to improve recovery after hip fracture surgery in older adults

Submission date 05/03/2026	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 13/03/2026	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 11/03/2026	Condition category Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Hip fracture is common in older adults and often leads to loss of independence, poor quality of life, and medical complications after surgery. Although enhanced recovery after surgery (ERAS) programs improve perioperative care, many older patients still experience delayed recovery and complications after discharge. This study aims to evaluate whether an empowerment-based comprehensive nursing program can improve recovery outcomes in older patients undergoing hip fracture surgery.

Who can participate?

Patients aged 65 years and above, diagnosed with hip fracture through radiological examination, planning to undergo surgical treatment, able to communicate or having a fixed caregiver, and who can be followed up for 3 months.

What does the study involve?

Participants are randomly assigned to one of two groups. The control group receives standard ERAS-based nursing care. The intervention group receives the same standard care plus an empowerment-based comprehensive nursing program (EBCN), including individualized goal setting, daily review of recovery goals, structured education on complication prevention, a discharge checklist, home exercise guidance, and follow-up support after discharge. Patients are assessed for hip function, quality of life, self-efficacy, rehabilitation progress, and complications during hospitalization and up to 90 days after surgery.

What are the possible benefits and risks of participating?

Participants may benefit from improved rehabilitation support and postoperative recovery. Risks are minimal because all treatments are based on standard clinical care, and the intervention mainly involves nursing guidance and education.

Where is the study run from?

Jinzhou Medical University (China)

When is the study starting and how long is it expected to run for?
April 2024 to July 2025

Who is funding the study?
Jinzhou Medical University (China)

Who is the main contact?
Mr Jinxia Wang, 1174439915@qq.com

Contact information

Type(s)

Public, Principal investigator, Scientific

Contact name

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Study information

Scientific Title

Effects of empowerment-based comprehensive nursing on postoperative functional recovery, quality of life, and complications in older adults with hip fracture within an ERAS framework: a randomized controlled trial

Acronym

EBCN-HIP

Study objectives

To evaluate whether empowerment-based comprehensive nursing (EBCN), delivered within a standardized Enhanced Recovery After Surgery (ERAS) framework, improves postoperative functional recovery at 90 days in older adults undergoing hip fracture surgery.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 10/04/2024, Ethics Committee, Jinzhou Medical University (Junhe Jincheng Residence, Kundulun District, Baotou, 014010, China; +86 (0)4163675056; kjcA@jzmu.edu.cn), ref: JZNULL2025472

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Blinded (masking used)

Control

Active

Assignment

Parallel

Purpose

Treatment

Study type(s)

Health condition(s) or problem(s) studied

Hip fracture in older adults

Interventions

Participants were randomly allocated in a 1:1 ratio to either the control group or the intervention group using a computer-generated random sequence table. Simple randomisation was applied, and group allocation was determined according to the generated random sequence. The control group will receive standard ERAS-based nursing care. The intervention group will receive the same standard care plus an empowerment-based nursing program designed to enhance self-efficacy, encourage active participation in rehabilitation, and improve continuity of care after discharge.

The intervention includes:

1. Individualized and quantifiable functional goal-setting
2. Daily goal review during hospitalization
3. Pain–activity linkage strategy to guide mobilization
4. Structured education on prevention and early recognition of postoperative complications
5. Discharge checklist and family role assignment plan
6. Standardized home exercise prescription
7. Structured follow-up and self-monitoring during the 6-month post-discharge period

Participants will be followed for up to 90 days after surgery.

Intervention Type

Behavioural

Primary outcome(s)

1. Hip function measured using the Modified Harris Hip Score (mHHS) at baseline, at discharge, and at the 90-day follow-up

Key secondary outcome(s)

1. Health-related quality of life measured using the 36-Item Short Form Health Survey (SF-36) at discharge and 90 days after surgery

2. Rehabilitation efficiency measured using time to first ambulation after surgery (hours) and length of hospital stay (days) at discharge

3. Self-efficacy measured using the General Self-Efficacy Scale (GSES) at discharge and at 90 days

4. Postoperative complications measured using delirium, venous thromboembolism, infection, falls, readmission, reoperation, and mortality recorded at hospitalization to 90 days after surgery

Completion date

30/07/2025

Eligibility

Key inclusion criteria

1. Age ≥ 65 years
2. Radiologically confirmed hip fracture
3. Scheduled to undergo surgical treatment
4. Ability to communicate effectively or availability of a regular caregiver
5. Willingness and feasibility to complete at least 6 months of follow-up

Healthy volunteers allowed

No

Age group

Senior

Lower age limit

65 years

Upper age limit

120 years

Sex

All

Total final enrolment

130

Key exclusion criteria

1. Bedridden status prior to injury or baseline functional status not assessable using the Harris Hip Score
2. Severe psychiatric or neurological disorders interfering with cooperation
3. Advanced malignant disease

4. Severe hepatic or renal dysfunction
5. Planned transfer to another institution
6. Participation in other clinical studies that could interfere with this trial

Date of first enrolment

20/04/2024

Date of final enrolment

20/04/2025

Locations

Countries of recruitment

China

Sponsor information

Organisation

Jinzhou Medical University

ROR

<https://ror.org/02yd1yr68>

Funder(s)

Funder type**Funder Name**

Jinzhou Medical University

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not expected to be made available