

P2.297: Key Factors Influencing the Implementation of Home-Based Exercise Programs for Postoperative Lung Cancer Patients: Aqualitative Study

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INTRODUCTION

Why this study matters

- Home-based exercise can extend rehabilitation beyond hospital settings.
- Implementation barriers are rarely examined from both patient and provider perspectives.

Objective

- To explore key factors influence implementation of home-based exercise for postoperative lung cancer patients.

METHODS

Design and framework

- Qualitative descriptive study using semi-structured interviews.
- PRECEDE-PROCEED diagnostic domains: predisposing, enabling, and reinforcing factors.
- Reporting followed COREQ guidance.

Participants and data collection

- Purposive maximum-variation sampling from three hospitals, February-June 2025.
- 20 patients of postoperative NSCLC , 1-6 months after surgery, 10 healthcare providers .
- Interviews lasted 30-60 minutes; recordings were transcribed verbatim and anonymized.

Analysis

- Thematic analysis combined deductive coding from PRECEDE-PROCEED from transcripts.
- Two researchers compared coding, refined themes, and used NVivo 12 to manage data.
- Ethical approval: No. SCCHEC-02-2025-091.

DISCUSSION & CONCLUSION

Main conclusion

- Successful implementation depends on more than prescribing exercise.
- Patients need confidence, practical resources, professional guidance, and reinforcement.

Actionable messages

- Correct misconceptions that rest is always safer than activity.
- Keep plans simple, progressive, and adaptable to home space, equipment, symptoms, and goals.
- Create fast feedback channels so discomfort or uncertainty does not lead to withdrawal.
- Invite family and peer communities into the support system.

Future direction

- Develop a tailored home exercise intervention using these eight factors as design targets.
- Test digital monitoring, telehealth guidance, and feedback incentives in a larger, diverse sample.

REF. & ACKNOWLEDGEMENTS

Critical references

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RESULTS

Thirty interviews identified eight themes in three PRECEDE diagnostic domains.

Patients (n=20)

- Mean age 62.5 years
- 75% lobectomy
- 55% 1-3 months post-surgery

Providers (n=10)

- Mean age 41.2 years
- 7 nurses
- 3 surgeons

Setting

- Single cancer hospital
- Semi-structured interviews
- 30-60 minutes each

Predisposing

Knowledge, beliefs, attitudes

- Patient fears about wound rupture, coughing, fatigue, and the idea that rest is safer.
- Patients who understood benefits showed stronger motivation.
- Providers valued rehabilitation, but questioned feasibility without supervision.

Enabling

Resources and plan fit

- Videos, social media, and written materials improved access to exercise guidance.
- Equipment costs and limited home space created barriers.
- Simple, appropriately challenging plans were easier to remember and sustain.

Reinforcing

Support and motivation

- Family companionship and peer groups strengthened adherence.
- Feedback on exercise records reassured patients and enabled adjustment.
- Perceived improvements in breathing, energy, and mood sustained behavior.

Diagnosis informs a tailored home-based exercise implementation strategy

Representative implementation barriers and levers

Barrier examples

- Fear that exercise may worsen cough, symptoms, or incision healing.
- Complex plans that could not remember.
- Delayed response when patients felt discomfort.

Implementation levers

- Targeted education and expectation-setting.
- Low-cost, home-compatible prescriptions.
- Family/peer support plus visible progress feedback.

Sample quotes of patient and provider voices

- "I'm always afraid that exercising will make me cough violently. What if the incision splits open?" (Patient P09)  
- "I thought exercising would make me feel better right away, but it hasn't. I'm losing motivation." (Patient P08)  
- "We don't know if they are really doing it as required... so the effectiveness might be compromised." (Nurse N06)  
- "It's difficult for us to provide real-time guidance to patients right now. ....it might affect their confidence in exercising." (Surgeon S03)