

Exploring the Effectiveness, Feasibility, and Acceptability of Integrating Functional Exercise Into Daily Life of Older Adults: A Mixed-Method Systematic Review

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Purpose: This systematic review aimed to evaluate the effectiveness and acceptability of the lifestyle integrating functional exercise (LiFE) programme and its modified versions for older adults as a fall prevention intervention. This programme integrates evidence-based balance and strength exercises into daily routines (e.g. doing one-leg stands while brushing teeth) for falls prevention.

Methods: A systematic search of multiple databases was conducted. Falls, balance, and strength are primary outcomes. Data from quantitative studies were analysed to evaluate the effectiveness of LiFE and its modified versions in preventing falls. Qualitative and quantitative data relevant to acceptability were extracted for thematic synthesis. A synthesis matrix was developed to evaluate how effectively quantitative interventions aligned with themes identified in the qualitative analysis. The Cochrane risk-of-bias (RoB-2) tool was used to assess risk of bias in RCTs, and Joanna Briggs Institute (JBI) Critical Appraisal Tools for other study designs. Three independent researchers selected studies, extracted data, and assessed quality.

Results: This review included 14 papers. Quantitative findings indicate a 41.7% reduction in the number of falls, improvement in balance and strength in the LiFE programme and its modified format. Qualitative findings demonstrated high acceptability as a falls prevention intervention among participants and partners. Preliminary themes identified included programme and content, behavioural change, reviewing the programme, and challenges with implementation.

Conclusion: Preliminary outcomes have shown that the LiFE programme and its modified versions are effective and highly accepted as fall prevention interventions.

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