

INPLASY

The Role Of Functional Strength Training On Functional Outcomes in Older Adults-A Narrative review

INPLASY2024110088

doi: 10.37766/inplasy2024.11.0088

Received: 20 November 2024

Published: 20 November 2024

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ADMINISTRATIVE INFORMATION

Support - This research did not receive a specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024110088

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 November 2024 and was last updated on 20 November 2024.

INTRODUCTION

Review question / Objective Functional strength training, which focuses on exercise that mirror everyday activities, help older person with muscles strength, balance, and mobility. Better performance in like walking, using stairs, and lowering the chance of falling results from this, improving and quality of life all around.

Rationale To find out latest evidence of the role of functional strength training on functional outcomes in older adults.

Condition being studied Functional strength training effect on functional outcomes being studied in older adults.

METHODS

Search strategy An electronic search on different database- Google scholar, Scopus, Research-

Gate, SciELO, PEDro, MEDLINE, CINHALL. Scientific Electronic Library Online (SciELO), Medical Literature Analysis and Retrieval System Online (MEDLINE), Physiotherapy Evidence Database (PEDro), Cumulative Index to Nursing and Allied Health Literature (CINHALL), will be conducted for research published during time period (2017-2024) using Medical Subject Headings (MeSH) For Functional Strength Training On Functional Outcomes In Older Adults, The 'OR' Search terms used for (MeSH) Keyword and were combined with 'AND' and search in 'All Field'.

Participant or population Older Adults.

Intervention Functional strength training is a type of exercise that focuses on improving strength and endurance in movements that mimic everyday activities or sports-related tasks. Unlike traditional strength training, which often targets specific muscles in isolation (e.g., bicep curls or leg presses), functional strength training works

multiple muscle groups simultaneously, emphasizing coordination, balance, and stability. The goal is to enhance strength in a way that transfers to real-life situations, making the body more capable of handling day-to-day tasks, like lifting, pushing, pulling, squatting, or bending, and reducing the risk of injury. Exercises often involve bodyweight movements, free weights, kettlebells, resistance bands, or other equipment that challenges the body in dynamic, multi-planar ways (moving in different directions).

Comparator Control group, Conventional physiotherapy, Strength Training, Activities of daily living, Strengthening Exercise.

Study designs to be included RCT AND NON RCT.

Eligibility criteria Published in English
Types of Intervention – interventions based on the following types of exercise: Functional outcomes, strength training, ADLs.(e.g., Sit to stand, walking, climbing stairs, balance issues).
Age Range: 60 Years and Above.
Full text articles will be included.

Information sources Google Scholar, Scopus, Research Gate, SciELO, PEDro, MEDLINE, CINAHL, Web of Science.

Main outcome(s) Functional Outcomes of the older adults.

Additional outcome(s) NIL.

Data management selection; the selected articles important information will be extracted by the fourth author. The information about the type of the study, study participant population, the kind and length of the intervention, the outcomes will be assessed. The accuracy and consistency of the data will be examined.

Quality assessment / Risk of bias analysis PEDro scoring will be done for included articles after identification, screening, and fulfillment of eligibility criteria.

Strategy of data synthesis Reviewers will screen the titles and abstract records. Full-text articles will be obtained for potentially eligible records.

Subgroup analysis It will be done by group analysis to explore heterogeneity.

Sensitivity analysis It will be done to assess the stability of the results and not by chance.

Language restriction English.

Country(ies) involved India.

Other relevant information N/A.

Keywords Functional strength training, Functional, outcomes, older adults. elderly.

Dissemination plans The findings of this narrative review will be disseminated through multiple channels to reach a broad audience of researchers, clinicians, and policymakers. The review will be submitted for publication in a peer reviewed journal focused on rehabilitation or physiotherapy. Additionally, results will be presented at relevant national and international conferences to engage with the professional community. To enhance accessibility, summaries and key findings will be shared through institutional platforms, social media, and open-access repositories, ensuring wide reach and impact across healthcare and academic sectors.

Contributions of each author

Author 1 - Zoya Siddique - Conception, Methodology, Data extraction and writing initial draft.

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Author 2 - Sachin Gupta - Supervision, Development of the selection criteria, Revision of the draft, Approval of the final manuscript.

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