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Exercise Program for Dementia: Protocol for a Randomized Control Trial

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We use this protocol and it's working

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Abstract

This protocol outlines a randomized controlled trial (RCT) designed to evaluate the effects of a 12-week physiotherapist-led structured exercise program on cognitive and physical functioning in community-dwelling older adults with dementia in Bangladesh. Participants will be randomly assigned to either an intervention group receiving a structured exercise regimen or a control group receiving conventional care.

The expected results include improvements in cognitive function (measured by MMSE, GDS) and physical performance (measured by the Senior Fitness Test, Berg Balance Scale, and handgrip test, Timed Up to Go (TUG), Berg

Balance Scale (BBS) and Chair-Stand Test (CST) and other tools) at both post-intervention (12 weeks) and follow-up (36 weeks). This is the original version of the protocol and aims to provide evidence for implementing exercise as a non-pharmacological dementia intervention in low-resource settings.

Attachments



[Protocol Summery.doc...](#)

25KB



[Intervention Details...](#)

15KB

Materials

Primary Outcome Measures Mini-Mental State Examination (MMSE):

A widely used 30-point questionnaire that assesses cognitive impairment. It evaluates orientation, registration, attention and calculation, recall, and language abilities. Scores below 24 generally indicate cognitive decline or dementia.

Geriatric Depression Scale (GDS):

A self-report tool designed to screen for depression in older adults. The short form consists of 15 yes/no questions that assess mood, energy levels, and interest in activities. Higher scores suggest more severe depressive symptoms.

Functional Rating Scale for Symptoms of Dementia (FRSSD):

A caregiver-rated scale that evaluates functional abilities in people with dementia. It covers daily activities such as eating, dressing, bathing, and managing finances. Higher scores indicate greater functional impairment.

SF-36 Short Edition (Short Form Health Survey):

A validated questionnaire that measures health-related quality of life across multiple domains, including physical functioning, mental health, social functioning, and general health perception. The short edition offers a concise overview of well-being.

Likert Scale for Sociodemographic Questions:

A common rating scale (e.g., 1 to 5 or 1 to 7) used to capture subjective responses about sociodemographic factors such as education, income, satisfaction, and lifestyle. Respondents indicate the degree of agreement or frequency.

Secondary Outcome Measures

1. Handgrip Strength Test:

A simple and reliable test to assess upper body muscle strength using a dynamometer. It reflects overall muscle function and is associated with mobility and frailty.

2. Timed Up and Go (TUG) Test:

Measures the time it takes for a person to stand up from a chair, walk three meters, turn around, walk back, and sit down. It assesses mobility, balance, and fall risk.

3. Berg Balance Scale (BBS):

A 14-item scale used to evaluate balance and risk of falling in older adults. Tasks include standing on one foot, reaching forward, and turning 360 degrees. Scores below 45 suggest a higher fall risk.

4. Chair-Stand Test (CST):

Assesses lower body strength and endurance by counting how many times a person can rise from a seated position to standing in 30 seconds. It's a key indicator of functional leg strength.

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