

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparative effects of AI generated vs therapist designed exercise on physical fitness and quality of life among post CABG patients

Protocol summary

Study aim

To evaluate the comparative effects of AI-generated exercise programs versus therapist-designed exercise programs on physical fitness among post-CABG patients.

Design

Two groups, single blind Randomized Clinical Trial, 8 week , 50 participants

Settings and conduct

Post CABG patients from Aziz Bhatti Teaching Hospital Gujrat , accessor is blind

Participants/Inclusion and exclusion criteria

Post CABG patients, Inclusion criteria: both male or females whose age lies between 35-60 and had recent undergone surgery in last 3-6 months and cleared by Cleared by their cardiologist to participate in structures exercise program Exclusion criteria: pregnant females or patients with severe musculoskeletal conditions which can affect their exercise or patients with acute systemic illness or fever will be not include in this study.

Intervention groups

Group A- (AI generated exercise plan) Group B- (Cardiopulmonary therapist designed plan) For group A Artificial intelligence (CHAT-GPT) tool will be used for exercise plan whereas for Group 2 Cardiopulmonary therapist will designed the plan of protocol. 8th weeks session will be taken , different weeks have different protocols with different frequencies, durations and intensities. Individuals' physical fitness levels were evaluated using the Senior Fitness Test protocol, and their quality of life was evaluated using the Short Form-36.

Main outcome variables

Quality of life , Physical fitness

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20221111056468N1**

Registration date: **2025-03-18, 1403/12/28**

Registration timing: **registered_while_recruiting**

Last update: **2025-03-18, 1403/12/28**

Update count: **0**

Registration date

2025-03-18, 1403/12/28

Registrant information

Name

Hifza Imtiaz Ahmed

Name of organization / entity

The university of lahore

Country

Pakistan

Phone

+92 307 5994545

Email address

hefzawarraich286@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-07-01, 1403/04/11

Expected recruitment end date

2025-05-15, 1404/02/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative effects of AI generated vs therapist designed exercise on physical fitness and quality of life among post CABG patients

Public title

Comparative effects of AI generated vs therapist designed exercise on physical fitness and quality of life among post CABG patients

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria:

Both male & females. Age 35-60 Post CABG patients Undergone surgery in last 3-6 months Cleared by cardiologist to participate in structures exercise program

Exclusion criteria:

Pregnancy Severe musculoskeletal conditions affecting exercise Acute systemic illness or fever

Age

From **35 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

The computer-generated software will be used for randomization.

Blinding (investigator's opinion)

Single blinded

Blinding description

The study will be single blind, assessor will be kept blind.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research and ethics committee of Riphah International University

Street address

Gulberg 3

City

Lahore

Postal code

54660

Approval date

2024-07-30, 1403/05/09

Ethics committee reference number

REC/RCR & AHS/24/0337

Health conditions studied

1

Description of health condition studied

Post CABG patients

ICD-10 code

Z95.1

ICD-10 code description

Presence of Coronary Artery Bypass Grafting

Primary outcomes

1

Description

Quality of life

Timepoint

Before intervention and after intervention - 2 times

Method of measurement

Quality of life sf-36 questionnaire

Secondary outcomes

1

Description

Physical fitness

Timepoint

Before and after intervention 2 readings

Method of measurement

Senior fitness test

Intervention groups

1

Description

Intervention group: Group A- (AI generated exercise plan) For group A Artificial intelligence (CHAT-GPT) tool will be used for exercise plan . 8th weeks session will be taken, first reading will be assessed physically Before and after exercise training, warm-up and cool-down activities. All weeks have different protocols with different duration, intensity and duration

Category

Rehabilitation

2

Description

Group B- (Cardiopulmonary therapist designed plan) Group 2 Cardiopulmonary therapist will designed the plan of protocol. 8th weeks session will be taken, first reading will be assessed physically Before and after exercise training, warm-up and cool-down activities. All weeks have different protocols with different duration, intensity and duration

Category

Recruitment centers

1

Recruitment center

Name of recruitment center

Riphah International university

Full name of responsible person

Hifza Imtiaz Ahmed

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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tasneem.shehzadi@riphah.edu.pk

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Riphah International University Lahore

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Riphah International University

Full name of responsible person

Dr tasneem

Position

Senior Lecturer

Latest degree

Master

Other areas of specialty/work

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Person responsible for updating data

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Name of organization / entity

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Position

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Latest degree

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Other areas of specialty/work

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Comparative effects of AI generated vs therapist designed exercise on physical fitness and quality of life among post CABG patients

When the data will become available and for how long

Right after publication

To whom data/document is available

All academic or working institutions

Under which criteria data/document could be used

For rehabilitation and to improve quality of life and physical fitness

From where data/document is obtainable

Post cabg patients

What processes are involved for a request to access data/document

Data will be entered and analyzed by SPSS version 25. Statistical significance will be at $p= 0.05$.

Comments