Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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- (Al 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- (Al 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

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Riphah International university

Full name of responsible person
Hifza Imtiaz Ahmed

Street address
Marghzar colony Gujrat

City
Gujrat

Postal code
50700

Phone
+92 307 5994545

Email
hefzawarraich286@gmailcom

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Riphah International University Lahore

Full name of responsible person
Dr tasneem

Street address
Lahore

City
Lahore

Postal code
54600

Phone
+92 310 4108327

Email
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
Physiotherapy

Street address
Lahore

City
Lahore

Province
Punjab

Postal code
54660

Phone
+92 310 4108327

Email
tasneem.shehzadi@riphah.edu.pk

Person responsible for scientific 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
Physiotherapy

Street address
Lahore

City
Lahore

Province
Punjab

Postal code
54600

Phone
+92 310 4108327

Email
tasneem.shehzadi@riphah.edu.pk

Person responsible for updating data

Contact

Name of organization / entity
Riphah International University Lahore

Full name of responsible person
Dr Tasneem

Position
Senior lecturer

Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
Lahore
City
Lahore
Province
Punjab
Postal code
54660
Phone
+92 310 4108327
Email
tasneem.shehzadi@riphah.edu.pk

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