

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of calisthenics exercise versus circuit training on pulmonary function, Cardiorespiratory fitness and chest expansion in chronic stroke patients

Protocol summary

Study aim

The aim of this study is to find the potential benefits of these exercises in promoting overall physical health and functional recovery in individuals who have experienced a stroke.

Design

Randomized Clinical Trial

Settings and conduct

Tariq Hospital Lahore

Participants/Inclusion and exclusion criteria

Inclusion Criteria • Age between 35-55 years • Both male and female gender • History of Ischemic Stroke • Patient with Hemiplegia • Patient 6 months after stroke consider chronic • Berg balance scale value greater than 45 • Hemodynamically stable • Stable medical and Musculoskelton condition allowing physical activity
Exclusion Criteria • Stroke patient with flaccid paralysis • Cognitive Impairment • Patient with cardiothoracic surgery • Uncontrolled hypertension • Sever joints disease such as OA, RA and Gout. • Any other neurological disease • Chronic pulmonary disease like COPD

Intervention groups

Group A: Experimental Group will receive Calisthenics Exercises. Group B: Experiment Group will receive Circuit Tanning..

Main outcome variables

Cardiorespiratory Fitness Chest Expansion Pulmonary Functions

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191117045462N17**
Registration date: **2024-07-20, 1403/04/30**

Registration timing: **prospective**

Last update: **2024-07-20, 1403/04/30**

Update count: **0**

Registration date

2024-07-20, 1403/04/30

Registrant information

Name

Wajeeha Zia

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 42 35126110

Email address

wajeeha_z@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-08-01, 1403/05/11

Expected recruitment end date

2025-01-01, 1403/10/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of calisthenics exercise versus circuit training on pulmonary function, Cardiorespiratory fitness and chest expansion in chronic stroke patients

Public title

Effects of calisthenics exercise versus circuit training on pulmonary function, Cardiorespiratory fitness and chest expansion in chronic stroke patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age between 35-55 years Both male and female gender
History of Ischemic Stroke Patient with Hemiplegia
Patient 6 months after stroke consider chronic Berg
balance scale value greater than 45 Hemodynamically
stable Stable medical and Musculoskelton condition
allowing physical activity

Exclusion criteria:

Stroke patient with flaccid paralysis Cognitive
Impairment Patient with cardiothoracic surgery
Uncontrolled hypertension Sever joints disease such as
OA, RA and Gout Any other neurological disease Chronic
pulmonary disease like COPD

Age

From **35 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Investigator

Sample size

Target sample size: **66**

Randomization (investigator's opinion)

Randomized

Randomization description

Convenient sampling technique will be used to recruit
the chronic stroke patients in the study and then they
will be divided into two groups by simple random
sampling through sealed opaque enveloped. Label as 1
group A and 2 for group b

Blinding (investigator's opinion)

Single blinded

Blinding description

Investigator will be blind and assessment will be done by
2nd therapist who will not be involved in treatment and
data analysis

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ripah collage of rehabilitation and Allied health

sciences

Street address

M block Gulberg 3

City

Lahore

Postal code

54660

Approval date

2024-01-07, 1402/10/17

Ethics committee reference number

RCR&AHS/REC/MS-CPPT

Health conditions studied

1

Description of health condition studied

Chronic Stroke Patients

ICD-10 code

ICD-10 code description

I67.9

Primary outcomes

1

Description

Pulmonary Functions

Timepoint

Pre and post Treatment

Method of measurement

Spirometry

2

Description

Cardiorespiratory fitness

Timepoint

pre and post treatment

Method of measurement

6 mint walk test

3

Description

chest expansion

Timepoint

pre and post treatment

Method of measurement

Cirtometry

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group:

Category

Rehabilitation

2

Description

Intervention group:

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Ripah collage of rehabiliation and allied health sciences

Full name of responsible person

Ahmed Javed

Street address

M block Gulberg 3

City

lahore

Postal code

54660

Phone

+92 314 4829984

Email

punjabian189@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ripah International University

Full name of responsible person

Muhammed Ahmed Javed

Street address

Gulberg 03

City

Lahore

Postal code

54660

Phone

+92 314 4829984

Email

punjabian189@gmail.com

Grant name

Grant code / Reference number

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

No

Title of funding source

Person

Proportion provided by this source

1

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

Persons

Person responsible for general inquiries

Contact

Name of organization / entity

Ripah International University

Full name of responsible person

Muhammed Ahmed Javed

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

St No 03 Near Hameed Latif Hospital Misiri Shah

Lahore

City

Lahore

Province

Punjab

Postal code

05474

Phone

+92 314 4829984

Email

punjabian189@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Ripah international university

Full name of responsible person

Muhammed Ahmed Javed

Position

student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

near hameed latif hospital misri shah lahore

City

lahore

Province

punjab

Postal code

05474

Phone

+92 314 4829984

Email

punjabian189@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Ripah international university

Full name of responsible person

Muhammed Ahmed Javed

Position

student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

near hameed latif hospital lahore

City

lahore

Province

punjab

Postal code

05474

Phone

+92 314 4829984

Email

punjabian189@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

no further information

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available