

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of Brain Gym Exercises in Improving Musculoskeletal Health, Fatigue and Academic Performance in University Students

Protocol summary

Study aim

The study will aim to explore the effect of brain gym exercises in improving musculoskeletal health, Fatigue and Academic performance in University students.

Design

Randomized Controlled Trial

Settings and conduct

Study will be conducted on final year students, participants will be randomly divided into 2 groups. After taking informed consent, group 1 will be treated with Brain gym exercises with stretching of neck and shoulder. And group 2 will be treated with only stretching of neck and shoulder. Pre and post treatment readings will be taken by standardized questionnaires. The assessor who will measure outcome will be blinded and won't know from which group patient is from.

Participants/Inclusion and exclusion criteria

Inclusion criteria will include the final year DPT students of UMT, Lahore, with age group involving 20 to 25 years of both genders. Exclusion criteria will involve any participant with a history of MSK trauma/accident and students diagnosed with psychological issues. Physical and mentally disabled students will also be excluded.

Intervention groups

In experimental/ interventional group, we will advice or perform Brain gym exercises with stretching of neck and shoulder. 10 standard Brain gym exercises for 30 minutes, 3 times a week for 4 weeks.

Main outcome variables

MSK health questionaair will be used to measure musculoskeletal health. Piper fatigue scale will used to measure fatigue. And academic performance will be measured by academic performance scale.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240615062135N1**

Registration date: **2024-07-20, 1403/04/30**

Registration timing: **retrospective**

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

Update count: **0**

Registration date

2024-07-20, 1403/04/30

Registrant information

Name

Muhammad Mohsin Zaheer

Name of organization / entity

University of Management and Technlogy, Lahore

Country

Pakistan

Phone

+92 314 2932465

Email address

f2019241587@umt.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-06-21, 1403/04/01

Expected recruitment end date

2024-07-05, 1403/04/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Brain Gym Exercises in Improving Musculoskeletal Health, Fatigue and Academic Performance in University Students

Public title

Effect of Brain Gym Exercises in Improving Musculoskeletal Health, Fatigue and Academic Performance in University Students

Purpose

Health service research

Inclusion/Exclusion criteria**Inclusion criteria:**

Final year DPT students of University of Management and Technology, Lahore, Both Gender will be included Age group 20 to 25 years.

Exclusion criteria:

History of MSK trauma/accident Students diagnosed with psychological issues Physical and mentally disabled students

Age

From **22 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **22**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization will be done through Lottery method. Lottery Method will be used for randomization in which we will put two samples, one will be of control group and other one will be of Experimental group. Participants will choose one lottery page and subjectively allocated to that particular group.

Blinding (investigator's opinion)

Single blinded

Blinding description

The assessor who will measure outcome will be blinded and won't know from which group patient is from.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Research Ethics and Support Committee (RESC) Office of research innovation and commercialization Univ

Street address

72-A riawind road, Dubai town, Punjab, school of health sciences, University of management and

technology, Lahore Pakistan.

City

Lahore

Postal code

55150

Approval date

2024-05-28, 1403/03/08

Ethics committee reference number

RE-042-2024

Health conditions studied**1****Description of health condition studied**

Healthy individuals will be recruited

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Musculoskeletal health, Fatigue and Academic performance will be our Outcomes.

Timepoint

outcomes will be measured before intervention and after intervention

Method of measurement

MSK health questionnaire will be used to measure musculoskeletal health. Piper fatigue scale will be used to measure fatigue. And academic performance will be measured by academic performance scale.

Secondary outcomes

empty

Intervention groups**1****Description**

In experimental/ interventional group, we will advice or perform Brain gym exercises with stretching of neck and shoulder. 10 standard Brain gym exercises for 30 minutes, 3 times a week for 4 weeks

Category

Lifestyle

2**Description**

In control group, we will perform active stretching of neck and shoulder in all available ranges, with two sets of 5 repetitions with 10 seconds hold, 3 times a week for 4 weeks

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

University medical centre, health sciences campus, umt Lahore.

Full name of responsible person

Dr Saba Riaz

Street address

72-A riawind road, Dubai town, Punjab, school of health sciences, University of management and technology, Lahore Pakistan.

City

Lahore

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Phone

+92 42 35968907

Email

sabariaz317@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

University of Management and Technology, Lahore

Full name of responsible person

Dr Saba Riaz

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72-A riawind road, Dubai town, Punjab, school of health sciences, University of management and technology, Lahore Pakistan.

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

University of Management and Technology, Lahore

Proportion provided by this source

5

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

University of Management and Technology, Lahore

Full name of responsible person

Dr Saba Riaz

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

Contact

Name of organization / entity

university of management and technology, lahore

Full name of responsible person

Dr Saba Riaz

Position

Lecturer, Department of physical therapy and rehabilitation

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

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

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

No - There is not 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