

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 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 Tecnology, 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
Muscloskeletal 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 Committe (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
Muscloskeletal 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 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

Postal code

55150

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

Street address

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

City

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Email

sabariaz317@gmail.com

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

Street address

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

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Lahore

Province

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Person responsible for scientific inquiries

Contact

Name of organization / entity

University of Management and Technology, Lahore

Full name of responsible person

Dr Saba Riaz

Position

Lecturer

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Email

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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