

# 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 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**

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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

**Street address**

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

**Street address**

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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

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

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**Email**

sabariaz317@gmail.com

## 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