Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of Brain Gym Exercises in Improving Muscloskeletal 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 questionaaire 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 Muscloskeletal 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 questionaire 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
Lahore

Postal code
55150

Phone
+92 347 7510093

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.

City
Lahore

Province
Punjab

Postal code
55150

Phone
+92 42 35968907

Email
sabariaz317@gmail.com

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

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

City
Lahore

Province
Punjab

Postal code
55150

Phone
+92 42 35968907

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
Street address
72-A riawind road, Dubai town, Punjab, school of health sciences, University of management and technology, Lahore Pakistan.
City
Lahore
Province
Punjab
Postal code
55150
Phone
+92 42 35968907
Email
sabariaz317@gmail.com

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