Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

EFFECTS OF EXERCISE TRAINING WITH WHOLE BODY ELECTRIC MUSCLE STIMULATION ON CARDIORESPIRATORY PERCEIVED EXERTION,DYSPNEA AND PULMONARY FUNCTION TEST IN OBESE FEMALES

Protocol summary

Study aim
To find out Effects of exercise training with whole-body electric muscle stimulation on cardiorespiratory perceived exertion, dyspnea and pulmonary function test in obese females

Design
Two parallel group , single blinded, randomized control trial with pre and post assessment

Settings and conduct
Pro EMS Fitness & Rehabilitation Center

Participants/Inclusion and exclusion criteria
1. Age 25- 40 yrs 2. Obese Females 3. Hypothyroid 4. BMI(30-39.99) 5. Ability to perform physical activity voluntarily 6. Dyspnea Exclusion Criteria: 1. Physical Inactivity 2. Skin Allergies 3. Abdomen or groin hernia tuberculosis 4. Cancer 5. Neurologic disturbances 6. Bleeding tendencies 7. Reported injuries (i.e. hip, abdomen, groin and hernia) 8. Diseases (i.e. epilepsy, cardiac arrhythmia)

Intervention groups
Standardized EMS training program along with obese females

Main outcome variables
Borg Scale 6-Min Walk Test Spirometer

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20191117045462N23**
Registration date: **2024-08-22, 1403/06/01**
Registration timing: **retrospective**

Last update: **2024-08-22, 1403/06/01**
Update count: **0**

Registration date
2024-08-22, 1403/06/01

Registrant information

Name
Wajeeha Zia

Name of organization / entity
Riphah International University

Country
Pakistan

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+92 42 35126110

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wajeeha_z@yahoo.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-11-27, 1402/09/06

Expected recruitment end date
2023-11-27, 1402/09/06

Actual recruitment start date
2023-11-27, 1402/09/06

Actual recruitment end date
2023-11-27, 1402/09/06

Trial completion date
2023-11-27, 1402/09/06

Scientific title
EFFECTS OF EXERCISE TRAINING WITH WHOLE BODY ELECTRIC MUSCLE STIMULATION ON CARDIORESPIRATORY PERCEIVED EXERTION,DYSPNEA AND PULMONARY FUNCTION TEST IN OBESE FEMALES

Public title
EFFECTS OF EXERCISE TRAINING WITH WHOLE BODY ELECTRIC MUSCLE STIMULATION ON CARDIORESPIRATORY PERCEIVED EXERTION,DYSPNEA AND PULMONARY FUNCTION TEST IN OBESE FEMALES

Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age 25- 40 yrs Obese Females Hypothyroid BMI(30-39.99) Ability to perform physical activity voluntarily Dyspnea
Exclusion criteria:
Physical Inactivity Skin Allergies Abdomen or groin hernia tuberculosis Cancer Neurologic disturbances Bleeding tendencies Reported injuries (i.e. hip, abdomen, groin and hernia) Diseases (i.e. epilepsy, cardiac arrhythmia)
Age
From **25 years** old to **40 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Investigator

Sample size
Target sample size: **46**
Actual sample size reached: **46**
Randomization (investigator's opinion)
Randomized
Randomization description
Taking into account the above mentioned inclusion and exclusion criteria, patients will be recruited in the study through convenient sampling technique and then will be randomly assigned to each group through Random Sampling sealed opaque enveloped. Labeled as 1 group A and 2 for group b
Blinding (investigator's opinion)
Single blinded
Blinding description
Investigator will be blind. 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
Riphah college of rehabilitation & Allied Health Sciences
Street address
13-14-C-civic center, township near Hamdard Chowk, Lahore
City
Lahore
Postal code
54000
Approval date
2023-11-26, 1402/09/05
Ethics committee reference number
RCR&AHS/REC/MS-CPPT

Health conditions studied

1

Description of health condition studied
Dyspnea
ICD-10 code
R06.00
ICD-10 code description
Dyspnea, unspecified

Primary outcomes

1

Description
Exercise (6MWT)
Timepoint
Pre- Post treatment
Method of measurement
Borg Scale 6-Min Walk Test Spirometer

Secondary outcomes

1

Description
Timepoint
Method of measurement

Intervention groups

1

Description
Control group: will be treated without EMS Training.Participants were advised to perform exercises without wearing EMS. The program initiated as: Warm up for 30 seconds Jumping jacks High Knees Squats Lunges, Biceps Curls Mountain Climbing Foot Stepper Side Leg Raises, Flatter Legs Planks Leg Kicks Crunches and Bicycle Crunch, Bridging followed by Stretching.this without EMS session time is 20min
Category
Rehabilitation

2

Description
Intervention group: will be treated with EMS Training WB-EMS :Participants were advised to perform exercises in combination with EMS by wearing a whole-body electric muscle stimulation suit. After warming up, the program

started that includes: Warm up for 30 secondsJumping jacks High Knees squats Lunges, Biceps Curls Mountain Climbing Foot StepperSide Leg Raises, Flatter Legs Planks Leg Kicks Crunches and Bicycle Crunch, Bridging followed by Stretching.this EMS session time is 20min.

Category
Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Riphah International University

Full name of responsible person
Nimra Tariq

Street address
13-14-C-civic center, township near Hamdard Chowk, Lahore

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Lahore

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skyfairynimo@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Riphah International University

Full name of responsible person
Wajeeha

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Grant name
Educational

Grant code / Reference number
NO

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
Riphah International University

Proportion provided by this source
100

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
Riphah International University

Full name of responsible person
Nimra Tariq

Position
Student

Latest degree
Master

Other areas of specialty/work
Physiotherapy

Street address
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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

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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
uncomplete work

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