

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Jun 2026

Comparison of the effect of strength, aerobic and compound training on respiratory function and motor proficiency of per pubertal asthmatic children

Protocol summary

Summary

The aim of this study is evaluating the effect of aerobic exercise and strength training on respiratory capacity and motor competence in children with asthma. The participants in the study should have mild to moderate asthma and do not have a history of atopy or exercise. Acute asthmatic children and children with chronic illness or other acute illness whom consuming vitamin C and E supplements and Omega 3 in the last three months are not included in the study. Total of 60 children aged 6 to 11 years old enrolled in the Phase 3 clinical trial. They matched randomly in three athletic training groups including strength, aerobic and combination of them also with a control group. In this study Blinding won't be done. These training groups will do exercise once in a week under the supervision of coach up to eight-weeks and twice a week training session will be done at home. Signs and symptoms of asthma and spirometry test will be done and questionnaire before and after exercise testing will be completed by the participants then the results were compared with each other after the end of training period at the end of 8 weeks

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016062028546N1**

Registration date: **2017-04-06, 1396/01/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-04-06, 1396/01/17

Registrant information

Name

seyedeh manijheh Arabi

Name of organization / entity

Ferdowsi unverscity of mashhad

Country

Iran (Islamic Republic of)

Phone

+98 51 3621 1627

Email address

ma.arabi@um.ac.ir

Recruitment status

Recruitment complete

Funding source

Mashhad University of Medical Sciences

Expected recruitment start date

2016-06-09, 1395/03/20

Expected recruitment end date

2016-07-10, 1395/04/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of strength, aerobic and compound training on respiratory function and motor proficiency of per pubertal asthmatic children

Public title

Effect of exercise training on respiratory and motor function of asthmatic children

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: diagnosing mild to moderate asthma ; taking medicine ; no aggravation regarding their

diseases; suffering from atopic ; no sport experience ; mentioning tendency and ability to exercise; All samples were under the supervision of a physician specialist and treated with the same medicine. Exclusion criteria: participating in a research intervention in the past 6 months; existency of a smoker in the family; other chronic diseases and taking medicine for curing the disease; acute disease in the past month; suffering from amputation or joint - muscle disorder that is uncondutive to having physical activity; using supplements such as vitamins C and E as well as omega-3 in three months later.

Age

From **6 years** old to **11 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Not randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Ethics committee of Mashhad University of Medical science

Street address

Daneshgah Street Qureshi building

City

Mashhad

Postal code**Approval date**

2015-12-28, 1394/10/07

Ethics committee reference number

IR.MUMS.fm.REC.1394.375

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

Asthma illness

ICD-10 code

J45.8

ICD-10 code description

Combination of conditions listed in J45.0 and J45.1

Primary outcomes**1****Description**

Forced Expiratory Volume in One Second

Timepoint

Before experiment

Method of measurement

Spirometry

2**Description**

Tidal volume

Timepoint

Before experiment

Method of measurement

Spirometry

Secondary outcomes**1****Description**

Oxygen consumption

Timepoint

Two month after intervention

Method of measurement

Spirometry

2**Description**

Carbon dioxide production

Timepoint

Two month after interention

Method of measurement

Spirometry

3**Description**

Tidal volume

Timepoint

Two month after interention

Method of measurement

Spirometry

4**Description**

The number of Breathe

Timepoint

Two month after interention

Method of measurement

Spirometry

5

Description

Minute ventilation

Timepoint

Two month after interention

Method of measurement

Spirometry

6

Description

Respiratory rate

Timepoint

Two month after intervention

Method of measurement

Spirometry

Intervention groups

1

Description

Intervention group 1: Power sports for 8 weeks

Category

Rehabilitation

2

Description

Intervention group 2: Endurance sports for 8 weeks

Category

Rehabilitation

3

Description

Intervention group 3: Compound sport (power and endurance for 8 weeks

Category

Rehabilitation

4

Description

Control group: Without any sports

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Ghaem Hospital

Full name of responsible person

Hamid Ahanchian

Street address

Allergy Clinic Ghaem Hospital, Ahmad Abad Street, Mashhad

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Mashhad University of Medical Sciences

Full name of responsible person

Dr.Mohsen Tafaghodi

Street address

Qureshi building, Daneshgah Street, Mashhad

City

Mashhad

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice chancellor for research, Mashhad University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Ferdowsi university of Mashahad

Full name of responsible person

Manijheh Arabi

Position

Phd student of motor development

Other areas of specialty/work

Street address

Paradise of Ferdowsi university. Azadi square

City

Mashhad

Postal code

Phone

+98 51 3768 6638

Fax

Email

ma.arabi@um.ac.ir

Web page address

Person responsible for scientific

inquiries

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Ezzat Khodashenas

Position

Specialist of Pediatrician

Other areas of specialty/work

Street address

Department of Pediatrics, Ghaem Hospital, Ahmad
Abad street

City

Mashhad

Postal code

394491388

Phone

+98 51 3841 3006

Fax

Email

khodashenas@mums.ac.ir ; ARC@mums.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Ferdowsi University of Mashhad

Full name of responsible person

Vahideh Velayati

Position

Ph.D. student of motor development

Other areas of specialty/work

Street address

City

Mashhad

Postal code

Phone

+98 51 3768 6638

Fax

Email

Velayati.v@gmail.com

Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty