# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 2026

## Effectiveness of Physical Education and School Health Programs on Health-Related Fitness, Motor Skill Development, and Socialization of Students within the Framework of Motor Development and Motor Learning Theories

## Protocol summary

**Study aim**
To assess the effects of a structured physical education and health program on fitness, motor skills, and social development in lower secondary students

**Design**
Quasi experimental, pretest posttest, parallel controlled study involving 160 students in eight classes, 80 per group; nonrandom allocation; no blinding; phase not applicable

**Settings and conduct**
Conducted in public lower secondary schools in Razavi Khorasan Province during the 2026 to 2027 academic year. Outcomes will be measured before and after the intervention

**Participants/Inclusion and exclusion criteria**
Students aged 11 to 16 years in public lower secondary schools in Razavi Khorasan Province; parental consent and student assent required; medical restrictions preventing safe exercise are exclusion criteria

**Intervention groups**
Intervention: structured program for 12 weeks, three 45 minute sessions weekly. Control: usual school physical education

**Main outcome variables**
Cardiorespiratory fitness measured by a three minute step test and heart rate; motor skills measured by the Movement Assessment Battery for Children, Second Edition; social development measured by the Vineland Social Maturity Scale

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20250822066951N3**
Registration date: **2026-10-28, 1405/08/06**
Registration timing: **prospective**

Last update: **2026-10-28, 1405/08/06**
Update count: **0**

**Registration date**
2026-10-28, 1405/08/06

**Registrant information**

**Name**
Zahra Mansourjozan

**Name of organization / entity**

**Country**
Iran (Islamic Republic of)

**Phone**
+98 915 156 3578

**Email address**
zahra_mansuri65@yahoo.com

**Recruitment status**
**recruiting**

**Funding source**

**Expected recruitment start date**
2026-10-31, 1405/08/09

**Expected recruitment end date**
2027-01-29, 1405/11/09

**Actual recruitment start date**
empty

**Actual recruitment end date**
empty

**Trial completion date**
empty

**Scientific title**
Effectiveness of Physical Education and School Health Programs on Health-Related Fitness, Motor Skill Development, and Socialization of Students within the

Framework of Motor Development and Motor Learning Theories

**Public title**
Effect of a 12-Week Structured Physical Education and Health Program Compared with Usual School Physical Education on Physical Fitness, Motor Skills, and Social Development
**Purpose**
Education/Guidance
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
Enrollment in a public lower secondary school in Razavi Khorasan Province during the 2026–2027 academic year Age between 11 and 16 years Written informed consent from a parent or legal guardian and willingness of the student to participate
**Exclusion criteria:**
Presence of a medical condition, physical injury, or medical restriction that prevents safe participation in the physical activity program or study assessments
**Age**
From **11 years** old to **16 years** old
**Gender**
Female

**Phase**
N/A
**Groups that have been masked**
*No information*
**Sample size**
Target sample size: **160**
**Randomization (investigator's opinion)**
Not randomized
**Randomization description**
**Blinding (investigator's opinion)**
Not blinded
**Blinding description**
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**
A quasi-experimental pretest-posttest controlled study with class-level allocation to intervention and control groups. The intervention group will receive a structured 12-week physical education and health program, while the control group will continue usual school physical education. Outcomes will be assessed before and after the intervention.

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethics Committee of the School of Nursing and Midwifery, Mashhad University of Medical Sciences
**Street address**
2nd Floor, No. 15, Azadi 63, Azadi Street, Mashhad
**City**
mashhad
**Province**
Razavi Khorasan
**Postal code**
۹۱۹۷۹۴۴۶۸۸
**Approval date**
2026-10-06, 1405/07/14
**Ethics committee reference number**
IR.MUMS.NURSE.REC.1405.075

## Health conditions studied

### 1

**Description of health condition studied**
Physical fitness, motor skills, and social development in lower secondary school students
**ICD-10 code**
**ICD-10 code description**

## Primary outcomes

### 1

**Description**
Cardiorespiratory fitness assessed by heart rate recorded at the end of a three minute submaximal step test
**Timepoint**
At baseline, before the intervention, and immediately after completion of the 12 week intervention
**Method of measurement**
Three minute submaximal step test using a 15 centimeter step at a fixed cadence of 22 steps per minute; heart rate recorded at the end of the third minute using a standard heart rate measuring device

### 2

**Description**
Motor skill performance assessed using the total score of the Movement Assessment Battery for Children, Second Edition
**Timepoint**
At baseline, before the intervention, and immediately after completion of the 12 week intervention
**Method of measurement**
Administration of the Movement Assessment Battery for Children, Second Edition, using the official standardized kit and following the test administration and scoring instructions

### 3

**Description**
Social development assessed using the score obtained from the Vineland Social Maturity Scale
**Timepoint**
At baseline, before the intervention, and immediately after completion of the 12 week intervention

**Method of measurement**
Assessment using a validated Persian version of the Vineland Social Maturity Scale, with information collected through an interview with a person who has sufficient and ongoing knowledge of the student's daily functioning; scoring according to the instructions of the selected version

## Secondary outcomes

### 1

**Description**
Body mass index
**Timepoint**
At baseline before the intervention and immediately after the 12-week intervention
**Method of measurement**
Calculated using the student's measured height and weight

## Intervention groups

### 1

**Description**
Intervention group: A structured physical education and health program delivered over 12 weeks, consisting of 36 sessions, three sessions per week, with each session lasting 45 minutes. Each session includes warm-up activities, main physical education and health activities, games and group activities, and cool-down activities.
**Category**
Behavior

### 2

**Description**
Control group: Students will continue participating in their usual school physical education program throughout the 12-week study period. They will not receive the structured physical education and health intervention provided to the intervention group.
**Category**
N/A

## Recruitment centers

### 1

**Recruitment center**
**Name of recruitment center**
Public Lower Secondary Schools in Razavi Khorasan Province
**Full name of responsible person**
Zahra Mansourjozan
**Street address**
2nd Floor, No. 15, Azadi 63, Azadi Street, Mashhad
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**Province**
Razavi Khorasan
**Postal code**
9197944688
**Phone**
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**Email**
z.mansur.j@gmail.com

## Sponsors / Funding sources

### 1

**Sponsor**
**Name of organization / entity**
General Directorate of Education of Razavi Khorasan Province
**Full name of responsible person**
Safdar Soltani
**Street address**
General Directorate of Education of Razavi Khorasan Province, Imam Khomeini Street, Between Sarab Station and Shohada Square, Mashhad, Razavi Khorasan, Iran
**City**
Mashhad
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Razavi Khorasan
**Postal code**
9133714165
**Phone**
+98 51 3225 4060
**Email**
rabet@razaviedu.ir
**Grant name**
**Grant code / Reference number**
**Is the source of funding the same sponsor organization/entity?**
Yes
**Title of funding source**
General Directorate of Education of Razavi Khorasan Province
**Proportion provided by this source**
50
**Public or private sector**
Public
**Domestic or foreign origin**
Domestic
**Category of foreign source of funding**
*empty*
**Country of origin**
**Type of organization providing the funding**
Other

## Person responsible for general inquiries

**Contact**
**Name of organization / entity**
Independent Researcher
**Full name of responsible person**
Zahra Mansourjozan
**Position**
Independent Researcher
**Latest degree**

Ph.D.

**Other areas of specialty/work**
Motor Behavior (Motor Development, Learning, and Control)

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## Person responsible for scientific inquiries

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**Latest degree**
Ph.D.

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## Person responsible for updating data

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Independent Researcher

**Full name of responsible person**
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**Position**
Independent Researcher

**Latest degree**
Ph.D.

**Other areas of specialty/work**
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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**
There is currently no plan to share individual participant data. Any use or disclosure of the data will be subject to confidentiality requirements, informed consent, and research ethics regulations.

**Study Protocol**
No - There is not a plan to make this available

**Statistical Analysis Plan**
No - There is not a plan to make this available

**Informed Consent Form**
No - There is not a plan to make this available

**Clinical Study Report**
No - There is not a plan to make this available

**Analytic Code**
No - There is not a plan to make this available

**Data Dictionary**
No - There is not a plan to make this available