

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The Effect Of Adding Selevtive Neuromuscular Exercise to Conventional Basketball Exercises on Some of the Risk Factors in Adolescent Semi-Professional Basketball Players.

Protocol summary

Study aim

The Effect Of Adding Selevtive Neuromuscular Exercise to Conventional Basketball Exercises on Some of the Risk Factors in Adolescent Semi-Professional Basketball Players

Design

A semi-experimental research was conducted with a pre-test and post-test design .The research was one-sided blind in two experimental and control groups.

Settings and conduct

The samples were 30 people who were selected as available and randomly divided into two experimental groups of 15 people and control group of 15 people. The randomization process was done by a researcher who had no direct relationship with the clubs and team officials and was not involved in the intervention phase.

Participants/Inclusion and exclusion criteria

Players must be between 14 and 18 years old to enter the study. Players must have a history of 3 years of regular basketball training. Players who have abnormalities in their trunk and lower limbs will be prevented from participating.

Intervention groups

The players were randomly divided into control and experimental groups. The experimental group did selective neuromuscular exercises before their basketball practice for 20 minutes and then did basketball exercises for 90 minutes. The players in the control group only did common basketball exercises for 90 minutes, 3 sessions a week.

Main outcome variables

The Landing Error Scoring System (LESS): knee-valgus and flexion moment : Dynamic balance : Knee proprioception : Trunk endurance : Isometric Isometric strength (trunk flexion, trunk extension, plantar flexion, Dorsi flexion, Hip abduction, Hip extension, Knee flexion, knee extension): Sargent test : Illinois : T-test

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240907062968N1**

Registration date: **2024-11-18, 1403/08/28**

Registration timing: **retrospective**

Last update: **2024-11-18, 1403/08/28**

Update count: **0**

Registration date

2024-11-18, 1403/08/28

Registrant information

Name

Ali Honarvar

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 26 3443 4073

Email address

alihonarvar144@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-11-03, 1402/08/12

Expected recruitment end date

2024-01-20, 1402/10/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect Of Adding Selevtive Neuromuscular Exercise to Conventional Basketball Exercises on Some of the Risk Factors in Adolescent Semi-Professional Basketball Players.

Public title

The Effect Of Adding Selevtive Neuromuscular Exercise to Conventional Basketball Exercises on Some of the Risk Factors

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

The participants should have the ability to participate in the national league teams in terms of the quality level of the game Having at least three years of playing experience in national championships or national leagues Having general health approval by a doctor

Exclusion criteria:

The presence of abnormalities in the trunk and lower limbs Players who have not had any injury, pain or surgery in the lower limbs and trunk in the last six months

Age

From **13 years** old to **18 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

The randomization method will be web-based. Subjects who meet the inclusion criteria are randomly divided into the control group and injury prevention exercises using the randomization method of the website (Social Psychology Network, Connecticut, USA) www.randomizer.org. Randomization will be simple. Concealment of random allocation using a computer-generated block randomization table, where the number 1 will be defined for the training group, and the number 2 will be defined for the control group. Then the random number sequence will be placed in opaque and sealed envelopes. Also, according to the assignment of the group, the intervention by the researcher will continue. Finally, it will evaluate the results before the interventions and eight weeks after the interventions.

Blinding (investigator's opinion)

Single blinded

Blinding description

After reading the consent form, the participants were informed about the study groups in a 30-minute meeting, and without having the right to choose the group, they participated in this study with their consent, so that the names of the patients were entered by someone who

was not aware of the identity and physical characteristics of the individuals. Using the site [/http://randomizer.org](http://randomizer.org), it is randomly divided into two equal groups and each part is placed separately in sealed envelopes. Then, according to their assigned group, relevant training and exercises are provided to each person. The outcome analyzer and evaluator also examines and compares the changes made before and after eight weeks without knowing the hypotheses, study methods and patient characteristics.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Islamic Azad University Karaj branch

Street address

Rajaie shahr, Moazzen Bolvd, Islamic azad university Karaj branch

City

karaj

Province

Alborz

Postal code

3149968111

Approval date

2024-08-26, 1403/06/05

Ethics committee reference number

IR.IAU.K.REC.1403.108

Health conditions studied

1

Description of health condition studied

Risk factors of lower limb and trunk injury

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The Landing Error Scoring System

Timepoint

Before and after intervention

Method of measurement

The landing error scoring system

2

Description

knee-valgus and flexion moment

Timepoint

Before and after intervention

Method of measurement

Two cameras will be used to evaluate the dynamic valgus and flexion of the knee.

3

Description

Trunk endurance of extensor muscles

Timepoint

Before and after intervention

Method of measurement

Biering-Sorensen

4

Description

proprioception test

Timepoint

Before and after intervention

Method of measurement

30 degree angle

5

Description

Dynamic Balance

Timepoint

Before and after intervention

Method of measurement

It was measured in 3 directions with the star test

6

Description

Sarjent jump

Timepoint

Before and after intervention

Method of measurement

tape measure

7

Description

Illinoise test

Timepoint

Before and after intervention

Method of measurement

Illinois standardized test

8

Description

t-test

Timepoint

Before and after intervention

Method of measurement

T-test standardized test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Neuromuscular exercises were performed in the warm-up for 20 minutes before regular basketball exercises, and then they performed basketball exercises for 90 minutes, 3 sessions per week for 8 weeks.

Category

Prevention

2

Description

Control group: They only did common basketball exercises for 90 minutes, 3 sessions a week.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad university Karaj Branch

Full name of responsible person

Vahid Mazloum

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Sponsors / Funding sources

1

Sponsor

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Full name of responsible person

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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
Islamic Azad 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
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Vahid Mazloun
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

The data related to the subjects of the control and intervention groups in the pre-test and post-test are shared in an unidentifiable way.

When the data will become available and for how long

Six months after the publication of articles

To whom data/document is available

All researchers

Under which criteria data/document could be used

There is no obstacle to using data for citation, by mentioning the source.

From where data/document is obtainable

Vahid.mazloum@yahoo.com

What processes are involved for a request to access data/document

The request will be made by email and the answer will be sent within 15 days.

Comments