

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

02 Jul 2026

### The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

#### Protocol summary

##### Study aim

The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

##### Design

Clinical work. Simple random Four groups of control / vitamin D supplements / intralum / combined with 40 patients were selected for two months

##### Settings and conduct

. Anthropometric indices including height, weight, body fat percentage and body mass index were measured with minimum dress and no shoe. The weight of the subjects was measured with a German scale of 0.1 kg precision and their height was measured by tape measure with accuracy of 0.5 cm. The body mass index (BMI) was calculated by dividing the body weight (kg) by height (square meter). The percentage of subjects' fat was measured using the SAEHAN-SH 5020 calipers made in the UK using subcutaneous fat and using the method Three points (three-headed arm, abdomen, and supra) were calculated on the right side of the body after placement in the general equation of Pollack Jackson and to determine the percentage of fat in women.

##### Participants/Inclusion and exclusion criteria

Requirement to enter healthy participants and not to use vitamin D and physical activity up to six months ago.

##### Intervention groups

Vitamin D and Tetraethane supplement supplementation

##### Main outcome variables

dpp4-rbp4

#### General information

##### Reason for update

##### Acronym

Dpp4-Rbp4

#### IRCT registration information

IRCT registration number: **IRCT20170510033909N3**

Registration date: **2019-05-21, 1398/02/31**

Registration timing: **retrospective**

Last update: **2019-05-21, 1398/02/31**

Update count: **0**

#### Registration date

2019-05-21, 1398/02/31

#### Registrant information

##### Name

فرزانه تقيان

##### Name of organization / entity

دانشگاه آزاد اسلامی. واحد اصفهان

##### Country

Iran (Islamic Republic of)

##### Phone

+98 913 308 0241

##### Email address

f.taghian@khuisf.ac.ir

#### Recruitment status

**Recruitment complete**

#### Funding source

#### Expected recruitment start date

2019-02-28, 1397/12/09

#### Expected recruitment end date

2019-03-06, 1397/12/15

#### Actual recruitment start date

2019-03-09, 1397/12/18

#### Actual recruitment end date

2019-03-15, 1397/12/24

#### Trial completion date

2019-05-16, 1398/02/26

#### Scientific title

The Effect of 8 Weeks Interval Exercises and Vitamin D

Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

## Public title

The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

## Purpose

Health service research

## Inclusion/Exclusion criteria

### Inclusion criteria:

The criteria for entering the study include the absence of any ischemic heart disease, kidney, , non-use of lipid lowering drugs the inability of people to participate in a specific weight loss program the inability of people to participate in a specific physical program woman with over weight 35-45 year old

### Exclusion criteria:

Interrupting or not participating in exercises Do not take vitamin D supplements Participant withdrawal

## Age

From **35 years** old to **45 years** old

## Gender

Female

## Phase

3

## Groups that have been masked

*No information*

## Sample size

Target sample size: **50**

Actual sample size reached: **36**

## 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

National Ethics Committee for Biomedical Research

##### Street address

No.3 Baharan ave.Ostad shahriar jonobi st .Robot

##### City

Esfahan

##### Province

Isfahan

## Postal code

81838-95153

## Approval date

2019-02-26, 1397/12/07

## Ethics committee reference number

ir.iau.khuisf.rec.1397.259

## Health conditions studied

### 1

#### Description of health condition studied

over weaight woman

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Dpp4

#### Timepoint

At the beginning and end of the study

#### Method of measurement

DPP4 using the biometric group of Australian group kit by ELISA method

### 2

#### Description

Rbp4

#### Timepoint

At the beginning and end of the study

#### Method of measurement

Rbp4 using the biometric group of Australian group kit by ELISA method

## Secondary outcomes

### 1

#### Description

Serum insulin concentration

#### Timepoint

Before the intervention and after eight weeks of study

#### Method of measurement

, Serum insulin concentration by ELISA method and use of special kit, Monobind Inc., USA) (75 µg / ml micro-unit per ml, intra-group variation coefficient of 6.3%),

### 2

#### Description

Serum glucose concentration

#### Timepoint

Before the intervention and after eight weeks of study

#### Method of measurement

, Serum glucose concentration was measured by enzymatic calorimetric method (sensitivity of 5 ml / dl and internal variation coefficient of 2.5%)

### 3

#### **Description**

Insulin resistance

#### **Timepoint**

Before the intervention and after eight weeks of study

#### **Method of measurement**

Insulin resistance was used to evaluate the HOMA-IR homeostasis model by measuring insulin and fasting glucose according to the following formula. Serum glucose level in fasting state (MI / L). Serum insulin level in fasting state (MIU / L). Insulin resistance.5/22

## **Intervention groups**

### 1

#### **Description**

First intervention group: Interval exercise, which includes three sessions per week each session for an eight-week session

#### **Category**

Rehabilitation

### 2

#### **Description**

'Intervention Group 2: Vitamin D was consumed with vitamin D capsules with a dose of 50,000 units (manufactured by Zahrawi Company) with lunch for 8 weeks each week.

#### **Category**

Treatment - Drugs

### 3

#### **Description**

Intervention group: Interval exercise, which includes three sessions per week each session for an eight-week session Vitamin D was consumed with vitamin D capsules with a dose of 50,000 units (manufactured by Zahrawi Company) with lunch for 8 weeks each week.

#### **Category**

Treatment - Other

### 4

#### **Description**

Control group: Control group: did not take supplements and did not exercise, but they knew the necessary explanation for the study

#### **Category**

Other

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

Several Clinic OF Diet Therapy in Isfahan

##### **Full name of responsible person**

Hajar Bahador

#### **Street address**

Esfahan Hospital ,Ordibehesht Ave SheikhBahaei St

#### **City**

Esfahan

#### **Province**

Isfahan

#### **Postal code**

8183895183

#### **Phone**

+98 31 3233 0018

#### **Email**

A.h.bahador2017@gmail.com

## **Sponsors / Funding sources**

### 1

#### **Sponsor**

##### **Name of organization / entity**

The University of Khorasgan Esfahan

##### **Full name of responsible person**

Dr .Farzaneh Thaghian

##### **Street address**

Khorasgan University .Arghavanie St. Esfahan

##### **City**

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##### **Province**

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##### **Postal code**

81551-39998

##### **Phone**

+98 31 3500 2352

##### **Email**

f\_taghian@yahoo.com

#### **Grant name**

#### **Grant code / Reference number**

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

Yes

#### **Title of funding source**

The University of Khorasgan Esfahan

#### **Proportion provided by this source**

100

#### **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**

Academic

## **Person responsible for general inquiries**

#### **Contact**

##### **Name of organization / entity**

Islamic Azad University

##### **Full name of responsible person**

Hajar Bahador

##### **Position**

Clerk

**Latest degree**

Bachelor

**Other areas of specialty/work**

Nutrition

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**Email**

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**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Islamic Azad University

**Full name of responsible person**

Hajar Bahador

**Position**

Student

**Latest degree**

Master

**Other areas of specialty/work**

Nutrition

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**Person responsible for updating data****Contact****Name of organization / entity**

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Student

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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**

No more information

**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