

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The effect of energy conservation techniques on fatigue, eating disorder behaviors and self-management in people with type 2 diabetes

Protocol summary

Study aim

Determining the effect of energy conservation techniques on fatigue, disordered eating behaviors and self-management in people with type 2 diabetes.

Design

The study will be a clinical trial with a control group. The study is double-blind and has a sample size of 56 people. The samples are selected according to the available method and assigned to the intervention or control group in a block method.

Settings and conduct

This double-blind study will be conducted in Arak University of Medical Sciences without informing the participants and the outcome evaluators of the groups. Training of the desired techniques for the intervention group will be considered for 3 days.

Participants/Inclusion and exclusion criteria

Inclusion criteria : 1. Patients with type 2 diabetes (at least 3 to 6 months have passed since the definitive diagnosis of type 2 diabetes) 2. Age range from 20 to 70 years 3. Ability to implement energy conservation techniques 4. Speaking in Persian 5. Having hearing and sight 6. Not suffering from mental illnesses or using psychoactive drugs 7. Willingness to participate in the study 1. Unwillingness to participate in the study 2. Passing energy conservation courses

Intervention groups

Training of energy conservation techniques for the intervention group will be considered for 3 days (one day in between one session) and 2 hours every day, patients will use these techniques in their daily activities for 6 weeks. The control group will receive routine treatment.

Main outcome variables

fatigue; eating disorder behaviors; self management

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220709055421N1**

Registration date: **2023-01-01, 1401/10/11**

Registration timing: **retrospective**

Last update: **2023-01-01, 1401/10/11**

Update count: **0**

Registration date

2023-01-01, 1401/10/11

Registrant information

Name

Mahtab Farahani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 86 3417 3505

Email address

m.farahani@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-09-11, 1401/06/20

Expected recruitment end date

2022-11-11, 1401/08/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of energy conservation techniques on fatigue, eating disorder behaviors and self-management in people with type 2 diabetes

Public title

The effect of energy conservation techniques on people with type 2 diabetes

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Patients with type 2 diabetes (at least 3 to 6 months have passed since the definitive diagnosis of type 2 diabetes) Age range from 20 to 70 years Ability to implement energy conservation techniques (with the researcher's diagnosis) Speaking in Persian Having hearing and sight Not suffering from mental illnesses or using psychoactive drugs Willingness to participate in the study

Exclusion criteria:

Taking energy conservation courses

Age

From **20 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Care provider

Sample size

Target sample size: **56**

Randomization (investigator's opinion)

Randomized

Randomization description

Sampling will be done by available method, and if the research samples are eligible to participate in the study, they will be placed in one of the test or control groups by random blocks of four (A, A, B, B). Code A will be assigned to the intervention group and code B will be assigned to the control group.

Blinding (investigator's opinion)

Double blinded

Blinding description

Since the researcher will perform the intervention and another colleague will collect the data, and also considering that the person who will also perform the data analysis will not know about the codes assigned to the patient, this study A double-blind face will be accepted.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Arak University of Medical Sciences

Street address

Alam El Hadi St., Shahid Shiroudi St

City

Arak

Province

Markazi

Postal code

3819693345

Approval date

2022-09-12, 1401/06/21

Ethics committee reference number

IR.ARAKMU.REC.1401.142

Health conditions studied

1

Description of health condition studied

Type 2 diabetes

ICD-10 code

E11

ICD-10 code description

Type 2 diabetes mellitus

Primary outcomes

1

Description

fatigue

Timepoint

before the start of the study and six weeks after the end of the intervention

Method of measurement

Smets Multidimensional Fatigue Measurement Questionnaire (MFI)

2

Description

self management

Timepoint

before the start of the study and six weeks after the end of the intervention

Method of measurement

Diabetes Self-Management Questionnaire

3

Description

Eating disorder behaviors

Timepoint

before the start of the study and six weeks after the end of the intervention

Method of measurement

Eating disorder diagnosis scale

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The training of energy conservation techniques for the intervention group will be considered for 3 days (one day in between one session) and 2 hours every day, the patients will use these techniques in their daily activities for 6 weeks.

Category

Lifestyle

2

Description

Control group: The control group will receive routine treatment.

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

Hazrat Valiasr Arak educational and therapeutic center

Full name of responsible person

Mahtab Farahani

Street address

Hazrat Valiasr Education and Treatment Center.,
Hazrat Valiasr Square

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Mahtab Farahani

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Email

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Web page address

<https://arakmu.ac.ir/fa>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Arak University of Medical Sciences

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

Arak University of Medical Sciences

Full name of responsible person

Kobra Rahzani

Position

Associate Professor

Latest degree

Ph.D.

Other areas of specialty/work

Nursery

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Mahtab Farahani

Position

University student

Latest degree

Master

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

The results will be made available to the public in the form of an article.

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

Not applicable

Data Dictionary

Not applicable