

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Jun 2026

The effect of intervention based on Transtheoretical model using Self-determination theory to promote and maintain exercise behavior in college students

Protocol summary

Summary

The purpose of this study was to investigate the effect of a combined model of Transtheoretical model and self-determination theory on the promotion and maintenance of exercise behavior among college students. This study consists of two stages: 1) cross sectional study 2) interventional study. Inclusion criteria: volunteer students, having no apparent diseases or orthopedic barriers, students who were in preparation stage of their exercise behavior (the 5 stages of behavior change include: pre-contemplation, contemplation, preparation, action and maintenance). After determining the stages of change in exercise behavior in cross sectional study, students who were in preparation stage, were randomly allocated into experimental and control groups. The experimental group (66 students) received the intervention based on TTM and SDT, including: 20 sessions 45 to 60 minutes lectures for 12 to 14 participants about increasing their knowledge of exercise behavior, pros and cons in exercise behavior, goal setting in exercise, time management to fit exercise behavior in daily life and individual interviews, focus group discussions, role playing, simulation and video with a credible role model, rewarding oneself for activity and also sending SMS. The control group (67 students) received classical intervention based on Guilan University of Medical Sciences strategies. In fact, this group did not receive any intervention by the researcher. Evaluation was conducted by stages of change in exercise behavior and METs, before intervention, post intervention and after 8 months.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201206021087N3**

Registration date: **2012-06-18, 1391/03/29**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-06-18, 1391/03/29

Registrant information

Name

Rabiollah Farmanbar

Name of organization / entity

Guilan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 13 1552 0149

Email address

farmanbar@gums.ac.ir

Recruitment status

Recruitment complete

Funding source

Tarbiat Modares University-Medical school

Expected recruitment start date

2008-09-24, 1387/07/03

Expected recruitment end date

2009-07-01, 1388/04/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of intervention based on Transtheoretical model using Self-determination theory to promote and

maintain exercise behavior in college students

Public title

promoting and maintaining exercise behavior in college students

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: volunteer students, having no apparent diseases or orthopedic barriers, students who were in preparation stage of their exercise behavior (the 5 stages of behavior change include: pre-contemplation, contemplation, preparation, action and maintenance)

Age

From **18 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **133**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

This study consists of two stages: 1) cross sectional study 2) interventional study. After determining the stages of change in exercise behavior in cross sectional study, students who were in preparation stage, were randomly allocated into experimental and control groups

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tarbiat Modares University, Medical School

Street address

Jalale Ale Ahmad and Chamran crossroad

City

Tehran

Postal code

14115-331

Approval date

2008-12-27, 1387/10/07

Ethics committee reference number

15064259

Health conditions studied

1

Description of health condition studied

Exercise behavior

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Stages of change in exercise behavior

Timepoint

pre intervention, post intervention and 8 months after intervention

Method of measurement

Algorithm of stages of change in exercise behavior

2

Description

Metabolic equivalent tasks (METs)

Timepoint

pre intervention, post intervention and 8 months after intervention

Method of measurement

Godin & Shephard Weekly Leisure Time Exercise Questionnaire

Secondary outcomes

1

Description

Constructs of TTM and Self-determination theory in exercise behavior

Timepoint

Pre intervention, post intervention and 8 months after intervention

Method of measurement

Questionnaires of TTM and Self-determination theory in exercise behavior

Intervention groups

1

Description

In intervention group: TTM and Self-determination theory based intervention, including: 20 sessions 45 to 60 minutes lectures for 12 to 14 participants about increasing knowledge about exercise behavior, pros and cons in exercise behavior, goal setting in exercise, time management to fit exercise behavior in daily life and individual interview, focus group discussion, role playing, simulation and video with a credible role model, rewinding oneself for activity and also sending SMS.

Category

Lifestyle

2

Description

Control group: received classical intervention based on Guilan University of Medical Sciences strategies. In fact, this group did not receive any intervention by researcher.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Guilan University of Medical Sciences

Full name of responsible person

Rabiollah Farmanbar

Street address

Shahid Beheshty Nursing and Midwifery School

City

Rasht

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tarbiat Modares University, Medical School

Full name of responsible person

Dr Movahedin, Vice chancellor for research of Medical School, Tarbiat Modares University

Street address

Jalale Ale Ahmad and Chamran crossroad

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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

Tarbiat Modares University, Medical School

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

Guilan University of Medical Sciences

Full name of responsible person

Rabiollah Farmanbar

Position

Assistant professor of Health Education Department

Other areas of specialty/work

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Contact

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Guilan University of Medical Sciences

Full name of responsible person

Rabiollah Farmanbar

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Other areas of specialty/work

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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