

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

23 Jul 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, rewarding 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

#### City

Tehran

### 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

### Street address

Shahid Beheshty Nursing and Midwifery School

### City

Rasht

### Postal code

### Phone

+98 13 1552 0149

### Fax

+98 13 1555 0097

### Email

farmanbar@gums.ac.ir

### Web page address

## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

Tarbiat Modares University

#### Full name of responsible person

Shamsaddin Niknam

#### Position

Associated professor of Health Education Department

#### Other areas of specialty/work

#### Street address

Jalale Ale ahmad and Chamran crossroad

#### City

Tehran

#### Postal code

#### Phone

+98 21 8801 1001

#### Fax

#### Email

niknamis@modares.ac.ir

#### Web page address

## Person responsible for updating data

### 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

#### Street address

Shahid Beheshty Nursing and Midwifery School

#### City

Rasht

#### Postal code

#### Phone

+98 13 1552 0149

#### Fax

#### Email

farmanbar@gums.ac.ir

**Web page address**

## 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*