Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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 individiual interview,focus group discussion, role playing, simulation and video with a credible role model, rewading onself 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 Niknami
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