

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Jun 2026

Determining the effect of an intervention based on the Theory of Planned Behavior on promoting environmentally friendly behavior (Reducing Plastic Bag Consumption) in Health Volunteers in Zanjan

Protocol summary

Study aim

Determining the effect of educational intervention based on TPB on reducing the consumption of plastic bags in volunteers of health in Zanjan.

Design

This is a pre- and post-intervention study that aims to determine the effect of educational intervention using the theory of planned behavior (TPB) on reducing the consumption of plastic bags as an environmentally friendly behavior in volunteers of health in Zanjan.

Settings and conduct

The research method will be as follows: 1- Designing a questionnaire based on the TPB 3- Determining the validity and reliability of that 3- Designing intervention (educational content and multimedia)4- Implementing an intervention program through WhatsApp social network 5- Performing an educational evaluation (pre-test and post-test).

Participants/Inclusion and exclusion criteria

Inclusion criteria: health volunteer; resident of Zanjan city, and having at least one year of experience.
Exclusion criteria: reluctance to continue cooperation for any reason; failure to attend more than one training session, the intention to move during the intervention, and failure to complete scale before and after the intervention.

Intervention groups

The scale will be provided to the health volunteers of the intervention and control groups. Then, the designed training intervention will be implemented indirectly through WhatsApp social network and educational software (multimedia) designed for this purpose in the intervention group. The control group will not receive any intervention. The researcher will then provide the questionnaires to the research units in both groups and the participants will complete that.

Main outcome variables

Environmental knowledge score and constructs of the Planned Behavior Theory (TPB) (attitude, subjective norms, behavioral control, behavioral intention and behavior)- Reduce the daily consumption of plastic bags.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220430054703N1**

Registration date: **2022-05-03, 1401/02/13**

Registration timing: **prospective**

Last update: **2022-05-03, 1401/02/13**

Update count: **0**

Registration date

2022-05-03, 1401/02/13

Registrant information

Name

Khadijeh Hajimiri

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 24 3378 1300

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hajimiri@zums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-05-31, 1401/03/10

Expected recruitment end date

2022-07-01, 1401/04/10

Actual recruitment start date

empty
Actual recruitment end date
empty
Trial completion date
empty
Scientific title
Determining the effect of an intervention based on the Theory of Planned Behavior on promoting environmentally friendly behavior (Reducing Plastic Bag Consumption) in Health Volunteers in Zanzan

Public title
The effect of educational intervention based on the TPB on reducing the consumption of plastic bags

Purpose
Education/Guidance

Inclusion/Exclusion criteria
Inclusion criteria:
Health Volunteer Resident of Zanzan city Have at least one year of experience as a health volunteer

Exclusion criteria:
Reluctance to continue cooperation for any reason
Failure to attend more than one training session
Intention to move during the intervention
Failure to complete questionnaires before and after the intervention.

Age
From **18 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **110**

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
Ethics committee of Zanzan University of Medical Sciences
Street address

Zanzan University of Medical Sciences, Azadi Blvd.,
Zanzan

City
Zanzan

Province
Zanzan

Postal code
4515786349

Approval date
2020-04-07, 1399/01/19

Ethics committee reference number
IR.ZUMS.REC.1399.029

Health conditions studied

1

Description of health condition studied

The subject of study is not a disease

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Environmental knowledge

Timepoint

Before and 3 months after the educational intervention

Method of measurement

Researcher made questionnaire based on the Theory of Planned Behavior

2

Description

Attitude towards the behavior

Timepoint

Before and 3 months after the educational intervention

Method of measurement

Researcher made questionnaire based on the Theory of Planned Behavior

3

Description

Subjective norm

Timepoint

Before and 3 months after the educational intervention

Method of measurement

Researcher made questionnaire based on the Theory of Planned Behavior

4

Description

Perceived behavioral control

Timepoint

Before and 3 months after the educational intervention

Method of measurement

Researcher made questionnaire based on the Theory of

Planned Behavior

5

Description

Behavioral intention

Timepoint

Before and 3 months after the educational intervention

Method of measurement

Researcher made questionnaire based on the Theory of Planned Behavior

Secondary outcomes

1

Description

Reduce the daily consumption of plastic bags

Timepoint

Before and 3 months after the intervention

Method of measurement

Researcher made questionnaire based on the Theory of Planned Behavior

Intervention groups

1

Description

Intervention group: At first, people who meet the inclusion criteria will be selected to participate in the study. After selecting these people, the purpose of the study will be explained to them and then informed consent will be obtained. After reviewing the relevant texts, articles and journals, the questionnaire will be designed based on TPB and its validity and reliability will be calculated through evaluation of face validity, content validity (CVI, CVR), reliability (internal consistency). Then participants' perceptions about reducing the daily consumption of plastic bags will be measured based on the theory of planned behavior and also their behavior will be measured by completing a questionnaire designed for this purpose. Then the educational intervention program is implemented. This program will be implemented within a month through WhatsApp social network and multimedia. In the next step, in order to determine the effectiveness of the educational intervention program, participants' beliefs and behavior about reducing the daily consumption of plastic bag, three months after intervention, will be measured again through the same questionnaires.

Category

Behavior

2

Description

Control group: At first, participants' perceptions about reducing the daily consumption of plastic bags will be measured based on the theory of planned behavior and also their behavior will be measured by completing a questionnaire designed for this purpose. Then after three

months participants' beliefs and behavior, will be measured again through the same questionnaire.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Comprehensive urban health centers under the auspices of Health & Treatment Center of Zanjan

Full name of responsible person

Dr. Mohammad Reza Siraj Sadeghi

Street address

Health & Treatment Center of Zanjan, Amirkabir Crossroads, Imam street, Zanjan

City

Zanjan

Province

Zanjan

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4513956184

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zhc@zums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Zanjan University of Medical Sciences

Full name of responsible person

Samad Nadri

Street address

Vice Chancellor for Research and Technology, Third Floor, Second Building, Central Headquarters of Zanjan University of Medical Sciences, Azadi Boulevard, Zanjan

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4515613191

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research@zums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Zanjan 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

Zanjan

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hajimiri_kh@yahoo.com

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

Zanjan University of Medical Sciences

Full name of responsible person

Seyedeh Somayeh Mousavi

Position

Student Master

Latest degree

Master

Other areas of specialty/work

Health Promotion

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

Zanjan University of Medical Sciences

Full name of responsible person

Khadijeh Hajimiri

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

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

Zanjan University of Medical Sciences

Full name of responsible person

Seyedeh Somayeh Mousavi

Position

Student Master

Latest degree

Master

Other areas of specialty/work

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available