

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effects of health promotion intervention program to reduce the pesticide exposure among farmers

Protocol summary

Summary

This study is a randomized controlled trial. The aim of this study will be to determine the effects of health promotion intervention program to reduce the pesticide exposure among farmers. Design: in the first stage, using quantitative and qualitative methods, a needs assessment will be to reduce exposure to pesticides of behavioral problems farmers. From 54 villages have health houses had most of the problems identified in the needs assessment process, as clusters are used to lottery. For this purpose, the names written and among them will be selected by lottery, in the first five health houses for the control group, five other health houses for the intervention group I and the five other health houses selected for the intervention group II. After entering in health houses to study in the first list of farmers will be provided by health workers and farmers will be selected by simple random sampling among them. Blinding the study was done only for farmers. Setting and conduct: focused interventions to farmers will be in three issue pesticide storage, mixing and use of pesticides (spraying). Eligibility criteria: farmers who do spraying work. Intervention: providing training classes along with the distribution of personal protective equipment will be among farmers. Outcome measure: assess will be for effectiveness of interventions related between the intervention and control groups for determine expected outcomes in two time periods before and three months after intervention. Integrative agent centered questionnaire will be complete via interview. Also for determine exposure farmers to the organophosphate and carbamate pesticides, respectively test measuring the activity of the enzyme acetylcholinesterase (AChE) will be done by method of Ellman in plasma (PChE) and erythrocytes (EChE).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017013032312N1**

Registration date: **2017-03-22, 1396/01/02**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-03-22, 1396/01/02

Registrant information

Name

Maryam Afshari

Name of organization / entity

Hamadan University of Medical Science

Country

Iran (Islamic Republic of)

Phone

+98 81 3838 0090

Email address

m.afshari@umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice- Chancellor of Research and Technology of Hamadan University of Medical Sciences

Expected recruitment start date

2018-01-21, 1396/11/01

Expected recruitment end date

2018-07-23, 1397/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of health promotion intervention program to

reduce the pesticide exposure among farmers

Public title

The effects of intervention program to reduce the pesticide exposure among farmers

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria included; farmers who are exposed by organophosphate and carbamate pesticides and the types of pesticides used in agriculture and horticulture, inappropriate use of personal protective equipment (including masks and gloves) and consent to participate in the study. Exclusion criteria included in this study; migration from the region and non participation in half the envisaged intervention components (including half of the training sessions and tests loss AChE.

Age

From **1 year** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **201**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single 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 the Hamadan University of Medical Science

Street address

Martyr Fahmideh Street, Hamadan University of Medical Science

City

Hamadan

Postal code

Approval date

2017-01-28, 1395/11/09

Ethics committee reference number

IR.UMSHA.REC.1395.509

Health conditions studied

1

Description of health condition studied

Reduce exposure to pesticides

ICD-10 code

T60

ICD-10 code description

Toxic effect of pesticides

Primary outcomes

1

Description

Activity of the enzyme acetylcholinesterase

Timepoint

Befor and three month after intervention

Method of measurement

Laboratory measurement with method of Ellman

Secondary outcomes

1

Description

Protective behaviors

Timepoint

Befor and three month after intervention

Method of measurement

Integrative agent centered questionnaire

2

Description

Farmers health program

Timepoint

Befor and three month after intervention

Method of measurement

Checklist

3

Description

Constructs of combined health education and health promotion model

Timepoint

Befor and three month after intervention

Method of measurement

Integrative agent centred questionnaire

Intervention groups

1

Description

Third group: control group

Category

N/A

2

Description

First group: agriculture health program for providers+ education

Category

Behavior

3

Description

Second group: agriculture health program for providers+ education+ receive personal protective equipment

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

15 villages have a health center in the city Tuyserkan

Full name of responsible person

Maryam Afshari

Street address

City

Tuyserkan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice- Chancellor of Research and Technology,
Hamadan University of Medical Sciences

Full name of responsible person

Dr saeed Bashirian

Street address

Martyr Fahmideh Street, Hamadan University of
Medical Science

City

Hamadan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice- Chancellor of Research and Technology, Hamadan
University of Medical Sciences

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

Hamadan University of Medical Science, Public Health

Full name of responsible person

Maryam Afshari

Position

PhD Student of Health Education and Health
Promotion

Other areas of specialty/work

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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