Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

The study of the effectiveness of Seligman, Fordyce and Lyubomirsky happiness training programs on inflammatory markers and mental health in coronary artery patients

Protocol summary

Summary

The aim of this study is examining and comparing the effectiveness of three happiness interventions on cortisol awakening response, inflammatory markers and mental health variables in coronary patients. Inclusion criteria include of undergoing CABG or PCI and exclusion criteria include of antidepressant usage or being under psychotherapy and/or anti-inflammatory or immunologic medication usage. Methods: The target population is coronary patients referring to medical centers in Isfahan. In present study 69 CAD patients will assign to three HTPs groups, including Seligman, Lyubomirsky and Fordyce groups and a control group. The control group will not receive training program. Assessments will include cortisol awakening response, plasma levels of C-reactive protein, IL-1, IL-6, and depression, happiness, life satisfaction and hope at pretest, the end of the week 6th of intervention, and 15 weeks after starting of the programs in follow up phase.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014010516081N1**
Registration date: **2014-02-12, 1392/11/23**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-02-12, 1392/11/23

Registrant information

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Name of organization / entity

The University of Isfahan

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Recruitment status

Recruitment complete

Funding source

The University of Isfahan

Expected recruitment start date

2011-12-22, 1390/10/01

Expected recruitment end date

2012-04-20, 1391/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The study of the effectiveness of Seligman, Fordyce and Lyubomirsky happiness training programs on inflammatory markers and mental health in coronary artery patients

Public title

The study of the effectiveness of happiness interventions on coronary artery patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: undergoing CABG or PCI Exclusion criteria : medical condition limiting ability to participate in the study; unwillingness to participate in all stages of study; antidepressant usage or being under

psychotherapy; anti-inflammatory or immunologic medication usage

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **69**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
The University of Isfahan

Street address
The University of Isfahan- hezar jarib st.-

City
Isfahan

Postal code

Approval date
2011-07-06, 1390/04/15

Ethics committee reference number
UI1390/36749

Health conditions studied

1

Description of health condition studied
Coronary artery disease

ICD-10 code
I25.1

ICD-10 code description
Atherosclerotic heart disease

Primary outcomes

1

Description
CRP

Timepoint
Pretest- posttest-followup

Method of measurement
CRP Kit

2

Description
IL-1

Timepoint
Pretest- posttest-followup

Method of measurement
IL-1 Kit

3

Description
IL-6

Timepoint
Pretest- posttest-followup

Method of measurement
IL-6 Kit

4

Description
salivary cortisol

Timepoint
Pretest- posttest-followup

Method of measurement
cortisol kit

5

Description
Happiness

Timepoint
Pretest- posttest-followup

Method of measurement
Oxford quastionnaire

6

Description
Depression

Timepoint
Pretest- posttest-followup

Method of measurement
BDI-II

7

Description
Life satisfaction

Timepoint
Pretest- posttest-followup

Method of measurement
DINER SWL SCALE

8

Description
Hope

Timepoint
Pretest- posttest-followup
Method of measurement
Snyder hope scale

Secondary outcomes

empty

Intervention groups

1

Description
The happiness training programs (HTP) will plan in six sessions, each lasting 1.5 hours, on a weekly basis for 1.5 months, with weekly exercises. During each session, happiness trainer will provide the intervention manual, will present happiness strategies and techniques, and discuss the rationale for the happiness exercises and their positive impacts. Fordyce's HTP: W1: 1-keep busy and be more active 2- Spend more time socializing 3- Close relationships. W2: 1-Be productive 2-Get better organized and plan things out. W3:1-Stop worrying 2- Lower your expectations and aspirations. W4: 1-Develop positive, optimistic thinking 2-Become present oriented. W5: 1-Be yourself 2-Work on a healthy personality 3- Develop an outgoing, social personality. W6: 1-Eliminate negative feelings and problems 2-Put happiness as your most important priority.
Category
Other

2

Description
The happiness training programs (HTP) will plan in six sessions, each lasting 1.5 hours, on a weekly basis for 1.5 months, with weekly exercises. During each session, happiness trainer will provide the intervention manual, will present happiness strategies and techniques, and discuss the rationale for the happiness exercises and their positive impacts. Lyubomirsky's HTP : W1: 1-Acting like a happy person 2-Savoring life's Joys 3-Practicing acts of kindness. W2: 1-Nurturing social relationships 2- physical activity. W3: 1-Cultivating optimism 2- Expressing gratitude. W4: 1-Avoiding overthinking and social comparison 2-Developing strategies for coping. W5: 1- Learning to forgive 2-Practicing religion and spirituality. W6: 1-Increasing flow experiences 2- Committing to your goals 3-Meditation.
Category
Other

3

Description
The happiness training programs (HTP) will plan in six sessions, each lasting 1.5 hours, on a weekly basis for 1.5 months, with weekly exercises. During each session, happiness trainer will provide the intervention manual, will present happiness strategies and techniques, and discuss the rationale for the happiness exercises and their positive impacts. Seligman's HTP: Week 1 (W1): 1- Free yourself of imprisoning determinism 2- contentment 3- Forgiving and forgetting. W2: 1-Enhancing the pleasures 2-gratification. W3: 1-Increasing optimism 2- Increasing hope. W4: 1-Your signature strengths. W5: 1 Deploy your signature strengths 2-Your partner's strengths. W6: The meaningful life.
Category
Other

4

Description
The control group will not receive any training program and will be in waiting list until the end of the study and then will receive the most effective intervention among HTPs.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
The Iran Zamin cardiac rehabilitation center
Full name of responsible person
Saeedeh Hashemi
Street address
City
Isfahan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Isfahan
Full name of responsible person
Dr. Asgari Karim
Street address
The University of Isfahan- Hezarjarib st.
City
Isfahan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
The University of Isfahan
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

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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