Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effect of TRIZ creative problem- solving skills on emotional intelligence and bullying on high school girl students

Protocol summary

Study aim
Determining the effect of creative problem-solving training on emotional intelligence and bullying in high school female students of Aliabad city, 1402.

Design
Clinical trial with control group, blind on one side, randomized on 60 samples.

Settings and conduct
The population of the study are secondary school girls student of Aliabad city. Using simple random sampling method, 5 schools will be selected. After explaining the research during a meeting with parents and teenagers and obtaining informed consent, the demographic information questionnaire, illinoise and emotional intelligence will be distributed among students. After taking the pre-test, the training program for solving problems using the Teriz method, in 6 sessions for the test group in Selected schools will be implemented.

Participants/Inclusion and exclusion criteria
Having the informed consent of both the subject and the parents to participate in the research,age range of 14 to 17 years, Studying in secondary schools,The ability to accurately answer the questionnaires, Not using of psychiatric drugs and 6 not receiving similar intervention programs Reluctance to cooperate in research and leaving school and migrating to another city, Having a history of psychological illness, Missing a training session.

Intervention groups
The problem solving training program will be implemented in 6 60-minute group sessions with the help of a video projector and in the form of slides with a sequence of two sessions per week for the intervention group. The control group will not receive training and at the end of the research they will benefit from training in a session.

Main outcome variables
Teaching the creative problem solving skills of Teriz improves and increases emotional intelligence and reduces the general concept of bullying.

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20231024059841N1**
Registration date: **2024-01-26, 1402/11/06**
Registration timing: **registered_while_recruiting**

Last update: **2024-01-26, 1402/11/06**
Update count: **0**

Registration date
2024-01-26, 1402/11/06

Registrant information
Name
Fatemeh Aslani katuli
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 17 3424 7656
Email address
ea.east@yahoo.com

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2024-01-22, 1402/11/02
Expected recruitment end date
2024-02-21, 1402/12/02
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date

empty

Scientific title
Effect of TRIZ creative problem- solving skills on emotional intelligence and bullying on high school girl students

Public title
Effect of TRIZ creative problem- solving skills on emotional intelligence and bullying
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Studying in secondary schools of Ali Abadkatol city The age range is 14 to 17 years old Having informed consent to participate in the research of both subjects and parents Failure to receive similar intervention programs The ability to accurately answer questionnaires
Exclusion criteria:
Not using psychiatric drugs Having a history of psychological illness
Age
From **14 years** old to **17 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **60**
Randomization (investigator's opinion)
Randomized
Randomization description
The number of government and non-government high schools for girls in Aliabad city is 23 schools (10 government high schools and 13 non-government high schools) which will be selected by simple random sampling based on the table of random numbers of 5 girls' schools. After obtaining the necessary permits and consent Consciously of parents and teenagers, according to the sample size formula of interventional studies and similar studies, 60 female students who get the highest scores from the Illinois Bullying Questionnaire will be selected as research units. Randomly, in such a way that odd numbers will be placed in the control group (30 people) and even numbers will be placed in the test group (30 people). Sealed envelopes will also be used to hide the random allocation.
Blinding (investigator's opinion)
Single blinded
Blinding description
The research participants, who are high school girls, are kept blind. The participants are placed in two control and test groups using coded sealed envelopes (they do not know about the codes). And during the whole period Research The test group is asked not to tell anyone the contents.
Placebo
Not used
Assignment
Other
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Research Ethics Committee of Aliabade-katul Islamic Azad University
Street address
50th Pasdaran St. 6th Quds Alley
City
Aliabade-katul
Province
Golestan
Postal code
4941733495
Approval date
2024-01-09, 1402/10/19
Ethics committee reference number
IR.IAU.TON.REC.1402.085

Health conditions studied

1

Description of health condition studied
Bullying and emotional intelligence
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Bullying
Timepoint
Before starting the intervention and after completing the training sessions
Method of measurement
ILLINOIS bullying questionnaire

2

Description
Emotional intelligence
Timepoint
Before starting the intervention and after completing the training sessions
Method of measurement
Shot emotional intelligence questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Intervention group: problem solving training program based on the Teriz method, based on valid training plans approved by nursing and psychology professors in 6 sessions of 60 minutes in a group style with the help of a video projector and in the form of slides and films and lectures with the sequence of each Two sessions per week (3 weeks) will be implemented for the test group in selected schools. The first session: introductory introduction to science and its inventor, as well as the introduction of the 5 levels of innovation and creativity so that the students will have a general understanding of what they are going to learn. The second session: In this session, the challenge and problem will be explained, which is actually the same as the law of contradictions. Also, the types of contradictions, i.e. technical contradictions, and various examples of each type of contradictions will be explained to the students. and in the following, we will define the problem (contradiction) that we are trying to solve. The definition of the final goal, that is, the ideal state that we are considering, will be explained, and at the end of planning, opportunities to reduce the harmful factor or increase the beneficial factor will be explained. Third session: In this session, problem analysis, problem model analysis, problem formulation, and physical conflict will be taught, and at the end of the session, various examples and exercises will be explained in order to make the subject better learned. (As a result of going through these first three steps of ARIZ, a vague problem turns into a physical and specific problem and a physical contradiction). Fourth, using objects and external field resources and using information banks to solve the problem Finally, changing the problem or re-formulating it if the problem remains unclear and various examples of this law will be presented to the students for a better understanding of the issue. The fifth session: Analysis of the methods that resolve the physical contradiction, for control and review. The quality of the solution, the implementation of the found solution and the analysis of the steps that led to the solution will be explained in this session along with examples (39). The sixth session: summarizing all the taught materials and implementing After the test.

Category

Behavior

2

Description

Control group: This group will not receive training during the research. After completing the research and collecting the questionnaires, in order to comply with the ethical principles, during a meeting, they will benefit from the summary of the contents mentioned for the intervention group.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center
Girls' high schools

Full name of responsible person
fatemeh aslani katuli

Street address
50th Pasdaran St Mehdieh 6th alley

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Islamic Azad University

Full name of responsible person
Ghasem Barani

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Grant name

Grant code / Reference number

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

Title of funding source
Islamic Azad University

Proportion provided by this source
100

Public or private sector
Private

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

fatemeh Aslani katuli

Position

پرستار

Latest degree

Bachelor

Other areas of specialty/work

Nursery

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Person responsible for scientific inquiries

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assistant professor ,

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Other areas of specialty/work

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Person responsible for updating data

Contact

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Position

Assistant professor, faculty of the university

Latest degree

Ph.D.

Other areas of specialty/work

Nursery

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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

No - There is not 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

Not applicable