

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The effect of mirror therapy on the phantom limb pain and sexual satisfaction in men with lower limb amputation

Protocol summary

Study aim

The effect of mirror therapy on phantom limb pain and sexual satisfaction in men with lower limb amputation referred to Government clinics in Rasht

Design

A clinical trial with the control group, parallel-group, randomized groups, without blinding, sample size 50 people (intervention of 25, control of 25)

Settings and conduct

This study is a randomized clinical trial. The study population is men with lower limb amputation referred to government clinics in Rasht. The sample size is estimated at 50 people. After determining the people who are eligible to enter the study, the samples are randomly divided into two groups, intervention, and control, based on Random allocation software.

Participants/Inclusion and exclusion criteria

Inclusion criteria: One-sided amputation of the lower limb; Pain in the phantom limb with the severity of at least 20; Married and monogamous men. Exclusion criteria: History of sexual dysfunction before amputation; Movement disorders or barriers (cast, splint, etc.) in the healthy lower limb.

Intervention groups

In the intervention group (Mirror therapy), subjects will be in front of a mirror with dimensions of 80 x 30 cm. So that the amputated limb is behind the mirror and the healthy lower limb is in front of the mirror and the person can see a clear image of the reflection of the healthy limb in the mirror. Each session of mirror therapy will be 15 minutes and 5 sessions per week for 28 days (in total, 20 sessions of 15 minutes). In each session of mirror therapy, 5 minutes will be devoted to opening and closing the healthy foot in front of the mirror, 5 minutes to rotating the ankle inward, and 5 minutes to the rotation of the ankle outward. Control group: No specific intervention by the researcher will be performed in this group.

Main outcome variables

Pain score in a Pain Visual Analogue Scale; Scores obtained in the Sexual Satisfaction Questionnaire

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190805044438N3**

Registration date: **2021-07-30, 1400/05/08**

Registration timing: **prospective**

Last update: **2021-07-30, 1400/05/08**

Update count: **0**

Registration date

2021-07-30, 1400/05/08

Registrant information

Name

Roya Mansour-ghanaei

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 13 4256 5058

Email address

r_ghanaei@gums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-08-23, 1400/06/01

Expected recruitment end date

2021-12-22, 1400/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of mirror therapy on the phantom limb pain and sexual satisfaction in men with lower limb amputation

Public title

The effect of mirror therapy on the phantom limb pain and sexual satisfaction in men with lower limb amputation

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Married and monogamous men Age 18 to 60 years old One-sided amputation of the lower limb at two partial levels (from toes to ankle) or extensive levels (above ankle to thigh) Pain in the phantom limb with a severity of at least 20 Sufficient cognitive ability according to AMT tool Informed consent to participate in the study

Exclusion criteria:

History of sexual dysfunction before amputation Sexual disorder drugs consumption during the study New analgesics consumption during the study Thyroid disorders Malignant diseases Visual disturbances Severe hearing loss Movement disorders or barriers (cast, splint, etc.) in the healthy lower limb

Age

From **18 years** old to **60 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Individuals are entered into the study according to the study criteria. Individuals are simple randomly assigned to the intervention and control groups with the Random Allocation software. The unit of randomization is individual and study without blinding and parallel.

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 Guilan University of Medical Sciences

Street address

Deputy of university Research and Technology of the University, Old Bldg (building) School of Health, in front of 17 Shahrivar Hospital, Shahid Siadati Ave, Namjoo St, Rasht

City

Rasht

Province

Guilan

Postal code

4477163485

Approval date

2021-07-14, 1400/04/23

Ethics committee reference number

IR.GUMS.REC.1400.174

Health conditions studied

1

Description of health condition studied

Amputation

ICD-10 code

Y83.5

ICD-10 code description

Amputation of limb(s)

Primary outcomes

1

Description

Pain score in a Pain Visual Analogue Scale

Timepoint

Before intervention and 7, 14, 21 and 28 days after the start of mirror therapy

Method of measurement

Pain Visual Analogue Scale

2

Description

Scores obtained in the Sexual Satisfaction Questionnaire

Timepoint

Before intervention and 28 days after the start of mirror therapy

Method of measurement

Larson Sexual Satisfaction Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: At the beginning of the study, before starting mirror therapy, the degree of phantom limb pain and sexual satisfaction in individuals will be determined before the session begins. In this method, subjects will be in front of a mirror with dimensions of 30x80 cm, in such a way that the amputated limb is behind the mirror and the healthy limb is in front of the mirror so that the subject can see a clear image of the movements of the healthy limb in the mirror. Each mirror therapy session will be 15 minutes. Subjects will have 5 sessions per week for 28 days. In each session of mirror therapy, 5 minutes will be devoted to opening and closing the healthy foot in front of the mirror, 5 minutes to rotating the ankle inward, and 5 minutes to rotation of the ankle outward. All participants will complete a total of twenty 15-minute sessions. 7, 14 and 21 days after the intervention, the degree of phantom limb pain will be measured by a VAS instrument and on the 28th day after the end of the intervention, sexual satisfaction will also be assessed in addition to the phantom limb pain. After the first session, when the researchers ensured that the patients have learned correctly how to perform mirror therapy, they provided written instructions to the patients so that they could continue the mirror therapy process at home. Every week 2 phone calls were made to review the process, to encourage people to perform the process regularly, and to answer participants' questions.

Category

Rehabilitation

2

Description

Control group: No specific intervention by the researcher will be performed on patients in this group.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Government Clinics of Guilan University of Medical Sciences in Rasht (Besat, Razi, Poursina)

Full name of responsible person

Roya Mansour-ghanaei

Street address

Martyr Yaghoub Sheikhi St., Leyla Kooh, Langeroud, Rasht, Iran

City

Langeroud

Province

Guilan

Postal code

4477163485

Phone

+98 13 4256 5058

Email

r_ghanaei@gums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rasht University of Medical Sciences

Full name of responsible person

Dr. Mohamadreza Naghipour

Street address

Deputy of university Research and Technology of the University, Old Bldg (building) School of Health, in front of 17 Shahrivar Hospital, Shahid Siadati Ave, Namjoo St, Rasht

City

Rasht

Province

Guilan

Postal code

4477163485

Phone

+98 13 3333 5821

Fax

+98 13 3333 6395

Email

r_ghanaei@gums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Rasht 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

Person responsible for general inquiries

Contact

Name of organization / entity

Rasht University of Medical Sciences

Full name of responsible person

Roya Mansour-ghanaei

Position

Assistant Professor, Faculty member

Latest degree

Ph.D.

Other areas of specialty/work

Health Sciences

Street address

Martyr Yaghoub Sheikhi St., Leyla Kooh, Langeroud,
Rasht, Iran

City

Langeroud

Province

Guilan

Postal code

4477163485

Phone

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Email

r_ghanaei@gums.ac.ir

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

Rasht University of Medical Sciences

Full name of responsible person

Roya Mansour-ghanaei

Position

Assistant Professor, Faculty member

Latest degree

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Other areas of specialty/work

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Province

Guilan

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4477163485

Phone

+98 13 4256 5058

Fax**Email**

r_ghanaei@gums.ac.ir

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

Rasht University of Medical Sciences

Full name of responsible person

Roya Mansour-ghanaei

Position

Assistant Professor, Faculty member

Latest degree

Ph.D.

Other areas of specialty/work

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Email

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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