

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

Comparison the Effect of Benson and Jacobson Relaxation Techniques on Job Stress and Sleep Quality of Nurses

Protocol summary

Study aim

Comparison the Effect of Benson and Jacobson Relaxation Techniques on Job Stress and Sleep Quality of Nurses

Design

This study was a randomized clinical trial with three groups (Benson and Jacobson Relaxation Technique and control), pre and post-test design, and not-blinded.

Settings and conduct

This study was conducted on 90 nurses of Ferdows hospitals that were randomly divided into three groups (n = 30).

Participants/Inclusion and exclusion criteria

Inclusion criteria: Not experienced major stressors, such as divorce within 6 month before. Exclusion criteria: Severe unpleasant incident during study.

Intervention groups

First intervention group: In this group, the Benson relaxation technique was taught to nurses in two 45-minute sessions. Then were asked to do this technique twice a day for 20 minutes each time, for 4 weeks.
Second intervention group: In this group, the Jacobson relaxation technique was taught to nurses in two 45-minute sessions. Then were asked to do this technique twice a day for 20 minutes each time, for 4 weeks.
Control group: in control group, nurses was conducted routine work for 4 weeks and did not receive any intervention.

Main outcome variables

The main outcome variables in this study included: job stress and sleep quality that in three groups was assessed before the intervention and 4 weeks after it with French's job stress and Pittsburgh sleep quality questionnaires.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220130053883N1**

Registration date: **2022-09-26, 1401/07/04**

Registration timing: **retrospective**

Last update: **2022-09-26, 1401/07/04**

Update count: **0**

Registration date

2022-09-26, 1401/07/04

Registrant information

Name

Sara Rastgu

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 56 3273 0307

Email address

www.sara1364@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-04-09, 1401/01/20

Expected recruitment end date

2022-05-10, 1401/02/20

Actual recruitment start date

2022-04-09, 1401/01/20

Actual recruitment end date

2022-05-10, 1401/02/20

Trial completion date

2022-05-10, 1401/02/20

Scientific title

Comparison the Effect of Benson and Jacobson Relaxation Techniques on Job Stress and Sleep Quality of Nurses

Public title

The Effect of Relaxation Techniques on Job Stress and Sleep Quality of Nurses

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

Not experienced major stressors, such as divorce within 6 month before.

Exclusion criteria:

Severe unpleasant incident during study.

Age

No age limit

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: 90

Actual sample size reached: 90

Randomization (investigator's opinion)

Randomized

Randomization description

This study was a randomized clinical trial with three groups (Benson, Jacobson Relaxation Technique and control), pre and post-test design, and not-blinded. The subjects were divided into three groups using random number table.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features

The nursing divided to interventions (Benson and Jacobson Relaxation Technique) and control group with simple randomization method (random number table).

Secondary Ids

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Birjand University of Medical Sciences

Street address

Birjand University of Medical Sciences, Vice chancellor for research, Central Building, Ghafari St.

City

Birjand

Province

South Khorasan

Postal code

9717853577

Approval date

2022-01-05, 1400/10/15

Ethics committee reference number

IR.BUMS.REC.1400.325

Health conditions studied**1****Description of health condition studied**

Job Stress

ICD-10 code

Z56.6

ICD-10 code description

Other physical and mental strain related to work

2**Description of health condition studied**

Sleep Quality

ICD-10 code

G47.2

ICD-10 code description

Disorders of the sleep-wake schedule

Primary outcomes**1****Description**

Job Stress

Timepoint

Before the intervention and the end of fourth week

Method of measurement

French Job Stress Questionnaire

2**Description**

Sleep Quality

Timepoint

Before the intervention and the end of fourth week

Method of measurement

Pittsburgh Sleep Quality Questionnaire

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: In this group, the Benson relaxation technique was taught to nurses in two 45-minute sessions. Then were asked to do this technique twice a day for 20 minutes each time, for 4 weeks.

Category

Prevention

2

Description

Intervention group: In this group, the Jacobson relaxation technique was taught to nurses in two 45-minute sessions. Then were asked to do this technique twice a day for 20 minutes each time, for 4 weeks.

Category

Prevention

3

Description

Control group: nurses was conducted routine work for 4 weeks and did not receive any intervention.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Hazrat Rasoul Hospital

Full name of responsible person

Babak Ebrahimi

Street address

Hazrat Rasoul Hospital, Emam Reza St.

City

Ferdows

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3162 7300

Email

Ebrahimib@bums.ac.ir

2

Recruitment center

Name of recruitment center

Chamran Hospital

Full name of responsible person

Babak Ebrahimi

Street address

Chamran Hospital, Motahari St.

City

Ferdows

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3272 2801

Email

Ebrahimib@bums.ac.ir

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Mohammadreza Miri

Street address

Birjand University of Medical Sciences, Vice
chancellor for research, Central Building, Ghafari St

City

Birjand

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3238 1200

Email

research@bums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Birjand 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

Birjand University of Medical Sciences

Full name of responsible person

Sara Rastgu

Position

Master of Science Student in Medical-Surgical Nursing

Latest degree

Bachelor

Other areas of specialty/work

Nursery

Street address

Chamran Hospital, Motahari St.

City

Ferdows

Province

South Khorasan

Postal code

9717853577

Phone
+98 56 3272 2801
Email
sara64@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Birjand University of Medical Sciences
Full name of responsible person
Zahra Unesi
Position
Instructor
Latest degree
Master
Other areas of specialty/work
Nursery
Street address
Nursing and Midwifery School, Ghafari St.
City
Birjand
Province
South Khorasan
Postal code
9717853577
Phone
+98 56 3238 1425
Email
Unesiz@bums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Birjand University of Medical Sciences
Full name of responsible person
Sara Rastgu
Position
Master of Science Student in Medical-Surgical Nursing
Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
Chamran Hospital, Motahari St.

City
Ferdows
Province
South Khorasan
Postal code
9717853577
Phone
+98 56 3272 2801
Email
sara1364@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

The study report published in the dissertation form and article for researcher.

When the data will become available and for how long

The start of access is 6 months after the announcement of the results.

To whom data/document is available

Researchers at university centers

Under which criteria data/document could be used

Data is authorized only with permission from the author of the articles and with the source.

From where data/document is obtainable

Sara Rastgu, Chamran Hospital, Motahari St, Contact Number: 00989151373793, Email: Sara1364@gmail.com

What processes are involved for a request to access data/document

After submitting a request, the request is reviewed and, if the request is accepted, is answered within 1 month.

Comments