

Clinical Trial Protocol

Iranian Registry of Clinical Trials

08 Jul 2026

Effects of exposure to visible light with a short wavelength in the range of blue and amber on sleep quality and sleepiness hospital employees at night shift

Protocol summary

Summary

This non-randomized interventional study will be done on 24 people working night shift in hospitals and two third of their time working with monitors. This research is going to be done in three groups. In the first group the amount of sleepiness of people is going to be measured without using filters by Karolinska Drowsiness questionnaire during half hours before the end of night shift. In the second group, at the beginning of the night shift blue filters are going to be fixed on screen monitor and the amount of sleepiness of people is going to be measured in half an hour before the end of shift through questionnaire. In the third group, the personnel are going to be checked as second group with difference that instead of blue filter, amber filter is going to be used. Demographic questionnaire, Pittsburgh Sleep Quality and EMF questionnaire (to determine the effect of electromagnetic field on sleep quality) for all three groups is going to be completed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017012532168N1**

Registration date: **2017-07-28, 1396/05/06**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-07-28, 1396/05/06

Registrant information

Name

Seyed Mohammad Javad Mortazavi

Name of organization / entity

Shiraz University of Medical physics

Country

Iran (Islamic Republic of)

Phone

+98 71 3230 8113

Email address

mortazavismj@gmail.com

Recruitment status

Recruitment complete

Funding source

Vice Chancellor of Research Shiraz University of Medical Sciences

Expected recruitment start date

2017-02-19, 1395/12/01

Expected recruitment end date

2017-03-18, 1395/12/28

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of exposure to visible light with a short wavelength in the range of blue and amber on sleep quality and sleepiness hospital employees at night shift

Public title

Exposure to visible light on sleep quality and sleepiness

Purpose

Prevention

Inclusion/Exclusion criteria

Administrative personnel work at night using the monitor in the hospital Exclusion criteria (Exclusion) The participants are not willing to cooperate. Alcohol and drug use

Age

No age limit

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: 24

Randomization (investigator's opinion)

Not randomized

Randomization description**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 Shiraz University of Medical Sciences, Shiraz, Iran

Street address

Shiraz University of Medical Sciences, Zand Street, Shiraz, Iran

City

Shiraz

Postal code**Approval date**

2016-08-07, 1395/05/17

Ethics committee reference number

ir.sums.rec.1395.89

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

The level of individual consciousness

ICD-10 code

-

ICD-10 code description

-

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

Drowsiness

Timepoint

The amount of sleepiness of people is going to be measured by Karolinska Drowsiness questionnaire One week before the intervention and immediately after the intervention (half an hour before the end of the night shift)

Method of measurement

karolinska sleepiness scale

Secondary outcomes**1****Description**

sleep quality

Timepoint

The amount of Sleep quality of people is going to be measured by Pittsburgh Sleep Quality Index questionnaire One week before the intervention and immediately after the intervention (half an hour before the end of the night shift)

Method of measurement

Pittsburgh Sleep Quality Index

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

The third group using amber filter on the monitor

Category

Other

2**Description**

The first group, the control group without the use of filters to screen

Category

Other

3**Description**

The second group, using blue filters to the screen

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Shahid Faghihi hospital

Full name of responsible person

Hossein Molaei-far

Street address

Medical Physics & Medical Engineering Department
School of Medicine, Imam Hossein Square, Shiraz

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Shiraz University of Medical Sciences

Full name of responsible person

Dr. Seyed Mohammad Javad Mortazavi

Street address

Shiraz University of Medical Sciences, Zand Street, Shiraz

City

Shiraz

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Vice chancellor for research, Shiraz 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**

Ionizing and Non-ionizing Radiation Protection Research Center (INIRPRC), Shiraz University of Medi

Full name of responsible person

Dr. Seyed Mohammad Javad Mortazavi

Position

PHD/Professor of Medical Physics

Other areas of specialty/work**Street address**

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Full name of responsible person

Samaneh jarideh

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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