

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

27 Jun 2026

**Investigation the effects of combined exposure to harmful and non-harmful levels of noise, heat and lighting on performance indices such as attention & working memory and physiological indices such as body temperature, blood pressure & heart rate of human, 2013.**

### Protocol summary

#### Summary

Physical factors such as noise, heat and light along side other environmental factors can cause changes in occupational performance and social behavior (increased errors, accident and reduced product quality). The aim of This study is Investigation the effects of combined exposure to harmful and non-harmful levels of noise, heat and lighting on performance indices such as attention & working memory and physiological indices such as body temperature, blood pressure & heart rate of human, 2013. This study is an interventional. student with having the general health, hearing, vision, No consumption of Narcotics and full satisfaction will participate in the study. Noise, heat and lighting at two levels harmful and non harmful together are combined, and the 8 combination conditions are created. Each group exposed to one of 8 conditions placed. Attention, working memory and physiological parameters (pulse, blood pressure and temperature) of each person is measured.

### General information

#### Acronym

#### IRCT registration information

IRCT registration number: **IRCT2013101415016N1**

Registration date: **2014-04-23, 1393/02/03**

Registration timing: **retrospective**

Last update:

Update count: **0**

#### Registration date

2014-04-23, 1393/02/03

#### Registrant information

#### Name

Zahra Zamanian

#### Name of organization / entity

Shiraz University of Medical Sciences, School of Public Health

#### Country

Iran (Islamic Republic of)

#### Phone

+98 71 1725 1001

#### Email address

zamanianz@sums.ac.ir

#### Recruitment status

**Recruitment complete**

#### Funding source

Vice chancellor for research, Shiraz University of Medical Sciences

#### Expected recruitment start date

2013-11-22, 1392/09/01

#### Expected recruitment end date

2014-03-21, 1393/01/01

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

Investigation the effects of combined exposure to harmful and non-harmful levels of noise, heat and lighting on performance indices such as attention & working memory and physiological indices such as body temperature, blood pressure & heart rate of human, 2013.

#### Public title

Investigation the effects of combined exposure to

harmful and non-harmful levels of noise, heat and lighting on performance indices such as attention & working memory and physiological indices such as body temperature, blood pressure & heart rate of human, 2013.

**Purpose**

Health service research

**Inclusion/Exclusion criteria**

Inclusion criteria: having the general health, hearing, vision, and no consumption of Narcotics and full satisfaction for participation in the study.

**Age**

From **18 years** old to **26 years** old

**Gender**

Both

**Phase**

0

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **128**

**Randomization (investigator's opinion)**

Not randomized

**Randomization description**

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

**Placebo**

Used

**Assignment**

Parallel

**Other design features**

**Secondary Ids**

empty

**Ethics committees**

1

**Ethics committee**

**Name of ethics committee**

Shiraz University of Medical Sciences

**Street address**

zand st,shiraz

**City**

shiraz

**Postal code**

**Approval date**

2013-10-08, 1392/07/16

**Ethics committee reference number**

CT-92-6710

**Health conditions studied**

1

**Description of health condition studied**

Attention

**ICD-10 code**

F73

**ICD-10 code description**

Profound mental retardation

2

**Description of health condition studied**

Memory

**ICD-10 code**

R41

**ICD-10 code description**

Other symptoms and signs involving cognitive functions and awareness

3

**Description of health condition studied**

Blood pressure

**ICD-10 code**

Z01.3

**ICD-10 code description**

Examination of blood pressure

4

**Description of health condition studied**

Body temperature

**ICD-10 code**

**ICD-10 code description**

5

**Description of health condition studied**

Heart rate

**ICD-10 code**

**ICD-10 code description**

**Primary outcomes**

1

**Description**

reaction time

**Timepoint**

during exposure

**Method of measurement**

Continuous Performance Test

2

**Description**

commission error

**Timepoint**

during exposure

**Method of measurement**

Continuous Performance Test

3

**Description**

omission error

**Timepoint**

during exposure

## Method of measurement

Continuous Performance Test

### 4

#### Description

working memory

#### Timepoint

during exposure

#### Method of measurement

pasat test

### 5

#### Description

blood pressure

#### Timepoint

before, during & after exposure

#### Method of measurement

digital manometer

### 6

#### Description

heart rate

#### Timepoint

before, during & after exposure

#### Method of measurement

digital manometer

### 7

#### Description

body temperature

#### Timepoint

before, during & after exposure

#### Method of measurement

mercury thermometer

## Secondary outcomes

### 1

#### Description

Personality Type

#### Timepoint

before exposure

#### Method of measurement

NEO Questionnaire

## Intervention groups

### 1

#### Description

combined exposure to noise, temperature and lighting(8 different conditions).

#### Category

Other

### 2

#### Description

group1:exposure to noise(55 db),lighting(500lux),heat(24°C) for 40 min.

#### Category

Other

### 3

#### Description

group2:exposure to noise(55 db),lighting(20lux),heat(24°C) for 40 min.

#### Category

Other

### 4

#### Description

group3:exposure to noise(55 db),lighting(500lux),heat(32°C) for 40 min.

#### Category

Other

### 5

#### Description

group4:exposure to noise(55 db),lighting(20lux),heat(32°C) for 40 min.

#### Category

Other

### 6

#### Description

group5:exposure to noise(95 db),lighting(500lux),heat(24°C) for 40 min.

#### Category

Other

### 7

#### Description

group6:exposure to noise(95 db),lighting(20lux),heat(24°C) for 40 min.

#### Category

Other

### 8

#### Description

group7:exposure to noise(95 db),lighting(500lux),heat(32°C) for 40 min.

#### Category

Other

### 9

#### Description

group5:exposure to noise(95 db),lighting(20lux),heat(32°C) for 40 min.

#### Category

Other

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**

Laboratory of occupational health, School Public Health

**Full name of responsible person**

Fateme Amiri

**Street address**

School Public Health, Koi Zahra

**City**

Shiraz

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Shiraz University of Medical Sciences

**Full name of responsible person**

Dr. Syyed Basir Hashemi

**Street address**

Shiraz University of Medical Sciences ,zand st,shiraz

**City**

Shiraz

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

Yes

**Title of funding source**

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**

School of Public Health, Shiraz

**Full name of responsible person**

Zahra Zamanian

**Position**

PhD, Shiraz University of Medical Sciences

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

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zamanianz@sums.aac.ir

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

School of Public Health, Shiraz

**Full name of responsible person**

Fatemeh Amiri

**Position**

MSc student

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## Person responsible for updating data

### Contact

**Name of organization / entity**

School of Public Health

**Full name of responsible person**

Fateme Amiri

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**City**

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**Postal code****Phone**

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**Fax****Email**

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**Web page address**

## 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*