

Clinical Trial Protocol

Iranian Registry of Clinical Trials

22 Jul 2026

Clinical trial of comparison the effect of different sit-stand schedules on physiological and mental parameters, and productivity in office personnel

Protocol summary

Summary

Objectives: Comparing the effect of different sit-stand schedule on physiological and mental parameters, and productivity in office personnel. Design: Studied population is university office workers that 45 subjects (male and female) from them as sample will be chosen based on simple random method. The blinding will not be done and study will be conducted as a single-center. Setting and conduct: Before intervention, outcomes of the study in the sample will be measured. Samples are divided into 3 groups by block randomization (2 intervention groups and 1 control group) and interventions will last for 2 months. After this period (2 months), outcomes will be measured again. Participants: People who have work experience more than one year, included in the study and people with musculoskeletal, psychological and hormonal disorders symptoms, will be excluded. Intervention: In this study, intervention is height-adjustable desk and schedule time. Schedule time includes 3 groups: time regime 1 (30 minute in sitting and 30 minutes in standing position), time regime 2 (45 minute in sitting and 15 minutes in standing position) and control group (usual sitting position). Main outcome measures: Variables including working energy expenditure, blood parameters (HDL, LDL, glucose, cortisol, insulin, inflammatory factors (TNF α , hs-CRP and IL6) and serotonin), pulse rate, level of depression, prevalence of musculoskeletal disorders symptoms, level of fatigue, level of productivity and level of discomfort before and after intervention will be assessed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016111122071N2**

Registration date: **2017-01-05, 1395/10/16**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-01-05, 1395/10/16

Registrant information

Name

Hadi Daneshmandi

Name of organization / entity

Shiraz University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice-Chancellor for Research and Technology Affairs,
Shiraz University of Medical Sciences

Expected recruitment start date

2017-01-09, 1395/10/20

Expected recruitment end date

2017-03-10, 1395/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Clinical trial of comparison the effect of different sit-stand schedules on physiological and mental parameters, and productivity in office personnel

Public title

Effect of active ergonomic workstation on official personnel

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: People's willingness to participate in the study; Job experience more than 1 year. Exclusion criteria: Presence of acute musculoskeletal disorders in the spine and lower limbs; Presence of mental and hormonal disorders; People who follow a specific dietary regime; People who follow a specific exercise schedule.

Age

No age limit

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: 45

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

In this study, a block randomization will be done.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Shiraz University of Medical Sciences

Street address

Vice-Chancellor for Research and Technology Affairs,
The central building of Shiraz University of Medical Sciences, Zand Blvd, Shiraz, Iran.

City

Shiraz

Postal code

Approval date

2016-08-21, 1395/05/31

Ethics committee reference number

IR.SUMS.REC.1395.99

Health conditions studied

1

Description of health condition studied

Sitting behavior in office workers

ICD-10 code

-

ICD-10 code description

-

Primary outcomes

1

Description

Fatigue

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement

Multidimensional Assessment of Fatigue (MAF) scale

2

Description

Productivity

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement

Health and Work Questionnaire (HWQ)

3

Description

Energy expenditure

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement

Bodymedia sensewear system

4

Description

High-Density Lipoprotein (HDL)

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement

Autoanalyzer apparatus

5

Description

Low-Density Lipoprotein (LDL)

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement

Autoanalyzer apparatus

6

Description

Blood glucose

Timepoint

Before intervention, 2 months after the beginning of the intervention

Method of measurement
Autoanalyzer apparatus

7

Description
Blood cortisol

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

8

Description
Blood insulin

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

9

Description
Proinflammatory factor of high-sensitivity C-Reactive Protein (hs-CRP)

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

10

Description
Interleukin 6 (IL-6)

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

11

Description
Tumor Necrosis Factor- α (TNF- α)

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

12

Description
Blood serotonin

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Enzyme-Linked Immunosorbent Assay (ELISA) method

13

Description
Pulse rate

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Pulse rate meter

14

Description
Depression

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Beck depression questionnaire

15

Description
Musculoskeletal disorders symptoms

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Nordic Musculoskeletal Questionnaire (NMQ)

16

Description
Discomfort

Timepoint
Before intervention, 2 months after the beginning of the intervention

Method of measurement
Visual Analog Scale (VAS)

Secondary outcomes

1

Description
-

Timepoint
-

Method of measurement
-

Intervention groups

1

Description
Intervention group 2: 15 office personnel will work in accordance with the schedule of 45 minutes in sitting and 15 minutes in standing position for 2 months

(working hours of 7 to 8 per day). In this study, the intervention is a height adjustable desk that has been designed and built by the study researchers.

Category

Prevention

2

Description

Intervention group 1: 15 office personnel will work in accordance with the schedule of 30 minutes in sitting and 30 minutes in standing position for 2 months (working hours of 7 to 8 per day). In this study, the intervention is a height adjustable desk that has been designed and built by the study researchers.

Category

Prevention

3

Description

Control group: 15 office personnel will work like before (in sitting position) for 2 months (working hours of 7 to 8 per day).

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

School of Health & School of Nutrition and Food Sciences

Full name of responsible person

Hadi Daneshmandi

Street address

Koye Zahra Blvd

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Seyed Masoom Masoompour

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The central building of Shiraz University of Medical Sciences, Zand Blvd, Shiraz, Iran.

City

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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

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

Shiraz University of Medical Sciences

Full name of responsible person

Hadi Daneshmandi

Position

Ph.D Student of Ergonomics

Other areas of specialty/work

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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