

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

19 Jun 2026

**Investigate the effectiveness of ergonomic interventions to reduce the prevalence of musculoskeletal disorders with participatory ergonomics approach to dentists and their assistants in Milad hospital at 2015.**

### Protocol summary

#### Summary

**Objectives:** The dentists are known to have some of the highest prevalence rates of work-related musculoskeletal disorders (WMSD) among all work professional groups. The aim of this study is to evaluate the effectiveness of ergonomics intervention program as the prevention of musculoskeletal disorders. **Design:** The program will be conduct among dentists and their assistants. **Setting and conduct:** Before running the program, will investigate the prevalence of musculoskeletal disorders among employees. The multifaceted intervention program consisted of five components, which will design to address all the major ergonomic risk factors identify in the healthcare environment. After the intervention to assess the effectiveness of the program, will investigate the prevalence of musculoskeletal disorders among employees. **Inclusion criteria:** all participants will provide writ inform consent; no pregnancy for female; no LBP in the last two years; no previous spinal surgery; no current pain medications; not undertaken previous postural control training. **Intervention:** the five components are: group training on ergonomic principles and safe practices, work and equipment modification, supervise onsite ergonomic training, regular exercise program and typing training and computer workstation evaluation and advice. **Main outcome measures:** musculoskeletal disorders, after the intervention to assess the effectiveness of the program, will measure the prevalence of musculoskeletal disorders.

### General information

#### Acronym

#### IRCT registration information

IRCT registration number: **IRCT2015113024199N2**

Registration date: **2015-12-09, 1394/09/18**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

#### Registration date

2015-12-09, 1394/09/18

#### Registrant information

##### Name

Mashaallah Aghilinejad

##### Name of organization / entity

Iran University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 8862 2682

##### Email address

maghilinejad@tums.ac.ir

#### Recruitment status

**Recruitment complete**

#### Funding source

Research Deputy, Iran University of Medical Sciences

#### Expected recruitment start date

2015-12-01, 1394/09/10

#### Expected recruitment end date

2016-02-29, 1394/12/10

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

Investigate the effectiveness of ergonomic interventions to reduce the prevalence of musculoskeletal disorders with participatory ergonomics approach to dentists and their assistants in Milad hospital at 2015.

#### Public title

Participatory ergonomics interventions for dentists

### **Purpose**

Prevention

### **Inclusion/Exclusion criteria**

Inclusion criteria: all participants will provide writ inform consent; no pregnancy for female; no LBP in the last two years; no previous spinal surgery; no current pain medications; not undertaken previous postural control training.

### **Age**

No age limit

### **Gender**

Both

### **Phase**

N/A

### **Groups that have been masked**

*No information*

### **Sample size**

Target sample size: **100**

### **Randomization (investigator's opinion)**

N/A

### **Randomization description**

### **Blinding (investigator's opinion)**

Not blinded

### **Blinding description**

### **Placebo**

Not used

### **Assignment**

Single

### **Other design features**

## **Secondary Ids**

empty

## **Ethics committees**

### **1**

#### **Ethics committee**

##### **Name of ethics committee**

Ethical Committee of Iran University of Medical Sciences

##### **Street address**

Iran University of Medical Sciences, Hemat Highway

##### **City**

Tehran

##### **Postal code**

1449614535

#### **Approval date**

2015-05-19, 1394/02/29

#### **Ethics committee reference number**

IR.IUMS.REC.1394.112081

## **Health conditions studied**

### **1**

#### **Description of health condition studied**

Diseases of the musculoskeletal system and connective tissue

### **ICD-10 code**

M96.8

### **ICD-10 code description**

Instability of joint secondary to removal of joint prosthesis

## **Primary outcomes**

### **1**

#### **Description**

Rate of musculoskeletal disorders

#### **Timepoint**

Before intervention, one month the intervention.

#### **Method of measurement**

Nordic standard questionnaire

## **Secondary outcomes**

empty

## **Intervention groups**

### **1**

#### **Description**

The program will be conduct among dentists. Before running the program, will investigate the prevalence of musculoskeletal disorders among employees. The multifaceted intervention program consisted of five components, which will design to address all the major ergonomic risk factors identify in the healthcare environment. After the intervention to assess the effectiveness of the program, will investigate the prevalence of musculoskeletal disorders among employees. The five components are: group training on ergonomic principles and safe practices, Work and equipment modification, supervise onsite ergonomic training, regular exercise program and typing training and computer workstation evaluation and advice. Main outcome measures: Prevalence of musculoskeletal disorders. After the intervention to assess the effectiveness of the program, will investigate the prevalence of musculoskeletal disorders among employees. In fact, in this study we have a group for intervention. The program has been implemented to reduce musculoskeletal disorders in this group of employees and the prevalence of musculoskeletal disorders in this group of employees will be compared before and after the program together.

#### **Category**

Treatment - Other

## **Recruitment centers**

### **1**

#### **Recruitment center**

##### **Name of recruitment center**

Milad Hospital

##### **Full name of responsible person**

Dr. Mashalah Aghilinejad

**Street address**

Hemat Highway, Milad Hospital

**City**

Tehran

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Research Deputy, Iran University of Medical Sciences

**Full name of responsible person**

Dr. Seyed Ali Javad Mousavi

**Street address**

Iran University of Medical Sciences, Hemat Highway

**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**

Research Deputy, Iran 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**

Occupational Medicine Research Center, Iran University of Medical Sciences

**Full name of responsible person**

Dr. Mashallah Aghilinejad

**Position**

Head of research center

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**Full name of responsible person**

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Associate professor of occupational medicine

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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*

