Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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

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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
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Tehran
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

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Occupational Medicine Research Center, Iran University of Medical Sciences
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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*