

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Assessment of ergonomics improvements in upper trapezius muscle fatigue in carpet weaver

#### Protocol summary

##### Summary

Objective: To assess the effect of ergonomics improvements on carpet weavers's upper trapezius fatigue. Design: The carpet weavers with the following criteria will be included in the study: age of 20-40 years old; not having musculoskeletal disorders, acute disease, surgery records. Intervention: carpet weavers will evaluate into traditional and interventional stages with crossover assignment. That former situation defined as work in common workstation and the later one is working in ergonomics workstation. Main outcome measures: effect of each workstation on upper trapezius fatigue, using BPDR self-reporting and EMG parameters.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2012062510111N1**

Registration date: **2013-01-18, 1391/10/29**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2013-01-18, 1391/10/29

##### Registrant information

##### Name

Majid Motamedzade

##### Name of organization / entity

Hamedan University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 81 1838 0025

##### Email address

motamedzadeh@umsha.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice-chancellor of Research and Technology, Hamadan University of Medical Sciences

##### Expected recruitment start date

2011-12-22, 1390/10/01

##### Expected recruitment end date

2012-08-22, 1391/06/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Assessment of ergonomics improvements in upper trapezius muscle fatigue in carpet weaver

##### Public title

Assessment of s muscle fatigue in workplaces

##### Purpose

Prevention

##### Inclusion/Exclusion criteria

Inclusion criteria: age 20-40 years old. Exclusion criteria: Musculoskeletal disorders; acute disease; history of surgery.

##### Age

From **20 years** old to **40 years** old

##### Gender

Both

##### Phase

N/A

##### Groups that have been masked

*No information*

##### Sample size

Target sample size: **12**

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

Not randomized

**Randomization description**  
**Blinding (investigator's opinion)**

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Crossover

**Other design features****Secondary ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Local Human Subject Review board

**Street address**

Hamadan University of Medical Sciences, Shahid  
Fahmideh ave

**City**

Hamadan

**Postal code**

6517838695

**Approval date**

2012-06-16, 1391/03/27

**Ethics committee reference number**

1028/9/35/16/د/پ

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

muscle fatigue

**ICD-10 code**

M60-M63

**ICD-10 code description**

Disorders of muscles

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

EMG Parameters

**Timepoint**

Every 10 minute

**Method of measurement**

Electromyography records

**2****Description**

BPDR Scale

**Timepoint**

start and End of carpet weaving

**Method of measurement**

BPDR - self reporting reports

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

objective fatigue

**Timepoint**

every 10 minute from start carpet weaving

**Method of measurement**

Electromyography record

**2****Description**

subjective fatigue

**Timepoint**

start and end of carpet weaving

**Method of measurement**

BPDR-self reporting scale

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

Intervention group: participant works on vertical bearing fitted to their physical dimensions and sits on the chair that has 10 degree forward slop (for 6 hours).

**Category**

Prevention

**2****Description**

Control group: the same group who work traditionally.

**Category**

N/A

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

Organization of Industry, Trade and Mines, Hamadan -  
Mehraban workshop

**Full name of responsible person**

Mokhtar Moradi

**Street address****City**

Hamadan

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

Vice-Chancellor of Research and Technology,

Hamadan University of Medical university

**Full name of responsible person**

Dr Heydar Tavilani

**Street address**

Hamadan University of Medical Sciences, school of public health, Shahid Fahmideh avenue

**City**

Hamadan

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Vice-Chancellor of Research and Technology, Hamadan University of Medical university

**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**

Ergonomics department, school of public health

**Full name of responsible person**

Dr Majid Motamedzade Torqabe

**Position**

PhD

**Other areas of specialty/work**

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## Person responsible for scientific inquiries

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## Person responsible for updating data

**Contact**

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ergonomics department, school of Public health

**Full name of responsible person**

Neda Mahdavi

**Position**

postgraduate student of Ergonomics

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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*