

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

18 Jun 2026

### Compare the effect of task oriented training and conventional physiotherapy on balance in hemiplegic patients following stroke

#### Protocol summary

##### Summary

Objectives: The effect of task oriented training and conventional physical therapy on balance in hemiplegic patients following stroke will be compared. Design: In this clinical trial, 20 hemiplegic patients following stroke will be divided randomly (people with odd inclusion number in the control group and those with even inclusion number in experimental group) in two groups of task oriented training and conventional physical therapy. Setting and conduct: Individuals will participate in 4-weeks therapy sessions 3 times a week for about 2 hours. Major inclusion and exclusion criteria: Inclusion criteria include: hemiplegia secondary to stroke; clear asymmetry in weight bearing; the ability to independent walking for at least 10 meters; passing less than three months after stroke and the Berg Balance Scale in the range of 30 to 40 and Exclusion criteria include: impaired vision; the absence of any neurological or orthopedic diseases affecting patients postural disorder and any disease that limited patient's participation in the study. Interventions: Task-oriented training and conventional physiotherapy exercises Main outcome variables include: The Berg Balance Scale will be used to measure functional balance and pressure distribution of foot, the center of pressure path length and the center of pressure confidence ellipse area will be used to evaluate static balance by means of pressure distribution zebris system while standing with open eyes before and after the treatment.

#### General information

##### Acronym

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##### IRCT registration information

IRCT registration number: **IRCT2015100224297N1**

Registration date: **2015-10-12, 1394/07/20**

Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2015-10-12, 1394/07/20

##### Registrant information

###### Name

Soodeh Arabzadeh

###### Name of organization / entity

Tabriz University of Medical Science

###### Country

Iran (Islamic Republic of)

###### Phone

+98 31 3336 1993

###### Email address

soltania@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for research, Tabriz University of Medical Sciences

##### Expected recruitment start date

2015-10-21, 1394/07/29

##### Expected recruitment end date

2015-12-16, 1394/09/25

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Compare the effect of task oriented training and conventional physiotherapy on balance in hemiplegic patients following stroke

##### Public title

Compare the effect of task oriented training and conventional physiotherapy on balance in stroke patients

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria include: hemiplegia secondary to stroke; clear asymmetry in weight bearing; the ability to independent walking for at least 10 meters; passing less than three months after stroke and the Berg Balance Scale in the range of 30 to 40 and Exclusion criteria include: impaired vision; the absence of any neurological or orthopedic diseases affecting patients postural disorder and any disease that limited patient's participation in the study.

**Age**

From **45 years** old to **70 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **20**

**Randomization (investigator's opinion)**

Randomized

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

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids****1****Registry name**

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**Secondary trial Id**

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**Registration date**

empty

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

Tabriz University of Medical Sciences

**Street address**

Assistance Research and Technology, Third floor, Central Building (2), Tabriz University of Medical Sciences, Golgasht St, Tabriz

**City**

Tabriz

**Postal code**

51665118

**Approval date**

2014-03-03, 1392/12/12

**Ethics committee reference number**

92223

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

Stroke

**ICD-10 code**

G96.8

**ICD-10 code description**

Other disorders of central nervous system

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

Functional balance

**Timepoint**

Before and after treatment

**Method of measurement**

Berg Balance Scale

**2****Description**

Sway

**Timepoint**

Before and after treatment

**Method of measurement**

The center of pressure path length and the center of pressure confidence ellipse area

**3****Description**

Symmetry

**Timepoint**

Before and after treatment

**Method of measurement**

The plantar pressure distribution of foot

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

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**Timepoint**

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**Method of measurement**

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

Intervention group: Task oriented training, three times a week for four weeks over twelve sessions. Each session takes about 2 hours. 1) sitting on a chair and reaching objects in all directions at a distance of more than arm's length; 2) forward, backward and side way stepping up; 3) flexion and extension the affected knee, while the affected foot located on the exercise step; 4) stepping over obstacles with different heights; 5) standing up from a chair, walking four steps forward, touching a stool and then returning to the chair; 6) sitting on a Swiss ball while doing range of motion and balance exercise in the trunk and upper extremities; 7) double leg stand for 10 seconds; 8) tandem stand (the heel of one foot in front of the other foot) for 10 seconds; 9) standing up from a chair without using the arms; 10) tandem walking forward and backward. The four last exercises have been done in different situation as follows: 1) with open eyes and a hard surface, 2) with open eyes and a soft surface, 3) with closed eyes and hard surface; 4) with closed eyes and smooth surface

#### Category

Rehabilitation

#### 2

#### Description

Control group: conventional physiotherapy, three times a week for four weeks over twelve sessions. Each session takes about 2 hours. Exercises to improve balance, increase muscle strength, range of motion and walking through weight training or weight transfer in the parallel bars, mats exercise (strengthening, stretching, range of motion) and correct gait training in parallel bar

#### Category

Rehabilitation

### Recruitment centers

#### 1

#### Recruitment center

##### Name of recruitment center

physiotherapy clinic of Asadabady hospital

##### Full name of responsible person

Abbas Soltani Somee, PhD of Physiotherapy, Assistant professor

##### Street address

Asadabadi Hospital, Adjacent Agricultural high schools, Spring Street before the intersection Azerbaijan, Tabriz

##### City

Tabriz

#### 2

#### Recruitment center

##### Name of recruitment center

physiotherapy clinic of Razi

##### Full name of responsible person

Sakineh Goljaryan, PhD of Physiotherapy, Assistant professor

##### Street address

Elgoli road, Razi hospital

##### City

Tabriz

### Sponsors / Funding sources

#### 1

#### Sponsor

##### Name of organization / entity

Vice chancellor for research, Center of Tabriz University of Medical Sciences

##### Full name of responsible person

Mohammadreza Rashidi

##### Street address

Vice chancellor for research and technology, Third floor, Central Organization, Tabriz University of Medical Sciences, Tabriz

##### City

Tabriz

##### Grant name

##### Grant code / Reference number

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

Yes

##### Title of funding source

Vice chancellor for research, Center of Tabriz 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

Faculty of Rehabilitation, Tabriz University of Medical Sciences

##### Full name of responsible person

Abbas Soltani Somee

##### Position

PhD of Physiotherapy, Assistant professor

##### Other areas of specialty/work

##### Street address

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## Person responsible for scientific inquiries

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## Person responsible for updating data

### Contact

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M.Sc student of Physiotherapy

**Other areas of specialty/work**

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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*