# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

08 Nov 2026

## The Effectiveness of Neurofeedback Training on Competitive Aggressiveness, Emotion Regulation Difficulties and Sport Function in Football Athletes.

## Protocol summary

**Study aim**

Determining the effectiveness of neurofeedback training on Competitive Aggressiveness, emotion regulation Difficulties, Sports Function in Football Athletes.

**Design**

intervention and control groups, with parallel, double-blind, randomized groups. Excel software rand function is used for randomization. The statistical population:70 people. 24 Athletes (experimental group: 12- control group: 12). All complete the questionnaire, and only the intervention group is treated with Neurofeedback Training.

**Settings and conduct**

Research Method: Semi-experimental and pre-test-post-test research design with the control group. The statistical population: Football Athletes in the age range of 16 to 21years who were active at the Football Club in Astaneh Ashrafiyeh city. during the first quarter of 1401. Athletes during 2 months, three a week, and in Each session is followed by Neurofeedback Training for 30 minutes.

**Participants/Inclusion and exclusion criteria**

Entry requirements: registration card of the football club, Being a boy, At least 3 months of continuous training in the club, Being young(16-21). No entry conditions: Having psychological disorders, Athletes in the youth age range(over 21), Activities in sports clubs outside the study city.

**Intervention groups**

Intervention group: Football Athletes. 12 people in the experimental group and 12 people in the control group. neurofeedback devise and tools such as Competitive Aggression and Anger Scale Test (Maxwell & Moores), Difficulties in Emotion Regulation Scale Test(Gratz & Roemer), Sports Performance Scale Test(Charbonneau), and Sports Success Scale Test(Moosavi&Vaez) will be used. Subjects before and after intervention complete the questionnaire, only the intervention group under Neurofeedback training is included.

**Main outcome variables**

Neurofeedback Training, Competitive Aggressiveness, Emotion Regulation Difficulties, Sports Function.

## General information

**Reason for update**

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT20211218053447N1**
Registration date: **2022-07-16, 1401/04/25**
Registration timing: **registered_while_recruiting**

Last update: **2022-07-16, 1401/04/25**
Update count: **0**

**Registration date**

2022-07-16, 1401/04/25

**Registrant information**

**Name**

Navid Agand

**Name of organization / entity**

**Country**

Iran (Islamic Republic of)

**Phone**

+98 13 4212 0152

**Email address**

navid.a0152@gmail.com

**Recruitment status**

**Recruitment complete**

**Funding source**

**Expected recruitment start date**

2022-07-11, 1401/04/20

**Expected recruitment end date**

2022-07-21, 1401/04/30

**Actual recruitment start date**
empty
**Actual recruitment end date**
empty
**Trial completion date**
empty

**Scientific title**
The Effectiveness of Neurofeedback Training on Competitive Aggressiveness, Emotion Regulation Difficulties and Sport Function in Football Athletes.

**Public title**
The Effectiveness of Neurofeedback on Footballists.
**Purpose**
Prevention
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
Having a registration card in a football club Being a boy At least 3 months of continuous training in the club Being young (age 16-21)
**Exclusion criteria:**
Having psychological disorders. Athletes in the youth age range(over 21). Activities in sports clubs outside the study city.
**Age**
From **16 years** old to **21 years** old
**Gender**
Male

**Phase**
N/A
**Groups that have been masked**
*No information*
**Sample size**
Target sample size: **24**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
At first, Football Athletes are selected according to the inclusion criteria. And then according to the random sequence obtained through Random allocation software, In the same way, Football Athletes will be randomly divided into experimental and control groups.
**Blinding (investigator's opinion)**
Not blinded
**Blinding description**
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethics Committee of Lahijan Branch of Azad University
**Street address**
No. 24, Ayatollah Vahid street, Riyahini alley
**City**
Astaneh Ashrafiyeh
**Province**
Guilan
**Postal code**
4441953533
**Approval date**
2022-05-15, 1401/02/25
**Ethics committee reference number**
IR.IAU.LIAU.REC.1401.009

## Health conditions studied

### 1

**Description of health condition studied**
Football Athletes
**ICD-10 code**
**ICD-10 code description**

### 2

**Description of health condition studied**
Competitive Aggressiveness
**ICD-10 code**
**ICD-10 code description**

### 3

**Description of health condition studied**
Emotion Regulation Difficulties
**ICD-10 code**
**ICD-10 code description**

### 4

**Description of health condition studied**
Sport Function
**ICD-10 code**
**ICD-10 code description**

## Primary outcomes

### 1

**Description**
Competitive Aggression Score in Athletes Competitive Aggression and Anger Scale Test
**Timepoint**
Measurement of Competitive Aggression at the beginning of the study and 15 sessions after starting Neurotherapy(Neurofeedback training)
**Method of measurement**
Athletes Competitive Aggression and Anger Scale Test(Maxwell & Moores)

**2**

**Description**
Difficulties in Emotion Regulation Score in Difficulties in Emotion Regulation Scale Test (Gratz & Roemer)
**Timepoint**
Measurement of Difficulties in Emotion Regulation at the beginning of the study and 15 sessions after starting Neurotherapy(Neurofeedback training)
**Method of measurement**
Difficulties in Emotion Regulation Scale Test (Gratz & Roemer)

**3**

**Description**
Sport Performance Score in Sport Performance Scale Test(Charbonneau) and in Sports Success Scale Test(Moosavi&Vaez)
**Timepoint**
Measurement of Sport Performance at the beginning of the study and 15 sessions after starting Neurotherapy(Neurofeedback training)
**Method of measurement**
Sport Performance Scale Test(Charbonneau) and Sports Success Scale Test(Moosavi&Vaez)

## Secondary outcomes

empty

## Intervention groups

**1**

**Description**
Intervention group: Football Athletes who receive Neurofeedback Training. In relation to therapeutic intervention and data collection, neurofeedback device treatment protocols and tools such as Questionnaires will be used. Each Athletes undergoes neurotherapy for 30 minutes 3 times a week for 2 months in each session. Neurofeedback intervention is performed with monopolar protocol. At the point "FCz" of the head, Theta(4 to 8 Hz) will decrease, Low Beta(16 to 21 Hz) will increase, and High Beta(20 to 32 Hz) will decrease. All Athletes complete the questionnaires before and after the intervention. The questionnaires used in this research are as follows: 1)Competitive Aggression and Anger Scale Test 2)Difficulties in Emotion Regulation Scale Test 3)Sport Performance Scale Test 4)Sports Success Scale Test
**Category**
Treatment - Devices

**2**

**Description**
Control group: Football Athletes who do not receive Neurofeedback Training. In relation to data collection, tools such as Questionnaires will be used. Pre-test and post-test are taken from all athletes without therapeutic intervention. The questionnaires used in this research are as follows: 1)Competitive Aggression and Anger Scale Test 2)Difficulties in Emotion Regulation Scale Test 3)Sport Performance Scale Test 4)Sports Success Scale Test
**Category**
Treatment - Devices

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Astaneh Ashrafiyeh Sports and Youth Office
**Full name of responsible person**
Navid Agand
**Street address**
next to Umm Al-Shuhada Square, Shahid Rajaei Street
**City**
Astaneh Ashrafiyeh
**Province**
Guilan
**Postal code**
4441953533
**Phone**
+98 911 507 8797
**Email**
navid.a0152@gmail.com

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Islamic Azad University
**Full name of responsible person**
Hosein KHara
**Street address**
45 meter University Blvd, east kashif street
**City**
Lahijan
**Province**
Guilan
**Postal code**
۳۹۵۱۵-۴۴۱۶۹
**Phone**
+98 13 4222 9081
**Email**
navid.a0152@gmail.com
**Grant name**
**Grant code / Reference number**
**Is the source of funding the same sponsor organization/entity?**
No
**Title of funding source**
Lahijan Islamic Azad University
**Proportion provided by this source**
100
**Public or private sector**
Public

**Domestic or foreign origin**
Domestic
**Category of foreign source of funding**
*empty*
**Country of origin**
**Type of organization providing the funding**
Academic

## Person responsible for general inquiries

**Contact**
**Name of organization / entity**
Islamic Azad University
**Full name of responsible person**
Navid Agand
**Position**
University student
**Latest degree**
Bachelor
**Other areas of specialty/work**
Psychology
**Street address**
No. 24, Ayatollah Vahid street, Riyahini alley
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## Person responsible for scientific inquiries

**Contact**
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**Latest degree**
Bachelor
**Other areas of specialty/work**
Psychology
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## Person responsible for updating data

**Contact**
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**Latest degree**
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**Postal code**
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navid.a0152@gmail.com

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**
Yes - There is a plan to make this available
**Study Protocol**
Yes - There is a plan to make this available
**Statistical Analysis Plan**
Yes - There is a plan to make this available
**Informed Consent Form**
Yes - There is a plan to make this available
**Clinical Study Report**
Yes - There is a plan to make this available
**Analytic Code**
Yes - There is a plan to make this available
**Data Dictionary**
Yes - There is a plan to make this available
**Title and more details about the data/document**
All data obtained from the results of questionnaires, diagnostic interviews and improving the performance of clients will be published.
**When the data will become available and for how long**
Access period starts from September 2022
**To whom data/document is available**
Data and other documents are available to all researchers in the field of research.
**Under which criteria data/document could be used**
If other people request to receive data and documents, send a message to my personal email.
**From where data/document is obtainable**
Navid Agand is responsible by calling +989115078797 and emailing navid.a0152@gmail.com
**What processes are involved for a request to access data/document**
Applicants should call +989115078797 to receive the required documents or data or send an email to

navid.a0152@gmail.com . Documents will be provided to them within 72 hours to a week.

**Comments**