

Cognitive- and EEG-diagnostic markers of ADHD-symptoms

Published: 18-04-2012

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The objective of the current experiment is to validate cognitive- and EEG-diagnostic markers of ADHD-symptoms by studying differences in cognitive task performance between subjects diagnosed ADHD, undiagnosed ADHD subjects showing ADHD symptoms and...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Cognitive and attention disorders and disturbances
Study type	Observational non invasive

Summary

ID

NL-OMON39997

Source

ToetsingOnline

Brief title

Cognition, EEG and ADHD

Condition

- Cognitive and attention disorders and disturbances

Synonym

ADHD, attention deficit/hyperactivity disorder

Research involving

Human

Sponsors and support

Primary sponsor: Universiteit Maastricht

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: ADHD, Cognition, Diagnosis, EEG

Outcome measures

Primary outcome

The main study parameters will be Stop-signal reaction time on the stop-signal task and the P300 ERP component during that task.

Secondary outcome

The following secondary parameters will be taken into account:

- Task-switching test: switch costs;
- Choice delay test: percentage long-delay awards;
- Verbal memory: immediate recall, delayed recall and recognition;
- Continuous Performance Task: commission errors;
- EEG: P300 ERP during all tasks except the choice-delay task.

Study description

Background summary

ADHD can only be diagnosed based on observable behaviour criteria. However, because of the aetiology of ADHD, it is expected that ADHD patients perform worse on cognitive tests and show differences in ERP components during those tasks, as compared to healthy adults. In the current study, it will be examined to which extent cognitive tests and ERP measurements can enhance ADHD diagnosis accuracy.

Study objective

The objective of the current experiment is to validate cognitive- and EEG-diagnostic markers of ADHD-symptoms by studying differences in cognitive task performance between subjects diagnosed ADHD, undiagnosed ADHD subjects showing ADHD symptoms and healthy subjects showing no ADHD symptoms at all. Cognitive tasks will be assessed, while simultaneously recording brain

activity.

Study design

This study will be conducted according to a mixed model design.

Study burden and risks

The time investment for the participants will be around 6 hours in total, spread over one training session and two subsequent sessions of testing on different days.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

In addition to the inclusion and exclusion criteria valid for all groups, some criteria are specifically valid for one group only.

Inclusion criteria for all groups:

- Male or female;
- Ages between 18 and 35 years of age;
- Willingness to sign an informed consent.;Inclusion criteria ADHD+ group specific
- Meeting DSM-IV criteria for an ADHD-diagnosis.;Inclusion criteria ADHD± group specific
- Showing ADHD symptoms, but not sufficient for the diagnosis.

Exclusion criteria

Exclusion criteria for all groups

- Use of recreational drugs in the past month;
- Excessive drinking;
- Pregnancy;
- Use of ADHD medication in the past.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	31-08-2012
Enrollment:	75
Type:	Actual

Ethics review

Approved WMO

Date: 18-04-2012

Application type: First submission

Review commission: METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

Approved WMO

Date: 21-05-2014

Application type: Amendment

Review commission: METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register

CCMO

ID

NL38839.068.11