Improving Executive Functioning in Children with ADHD: Training Executive Functions within the Context of a Computer Game.

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON21912

Source
NTR

Brief title
EF Training

Health condition

ADHD, Executive functioning, EF, Training, treatment, game

Sponsors and support

Primary sponsor: University of Amsterdam
Source(s) of monetary or material Support: University of Amsterdam

Intervention

Outcome measures

Primary outcome

The effect of the interventions will be measured in five different domains:

1. EF performance and behavior;

2. ADHD characteristics;

3. Complex reasoning;

4. General problem behavior;

5. Motivation.

Measured immediately after training.

Secondary outcome

The effect of the interventions will be measured in five different domains:

1. EF performance and behavior;

2. ADHD characteristics;

3. Complex reasoning;

4. General problem behavior;

5. Motivation.

Measured at 3 months follow-up.

Study description

Background summary

In this study we examine the effects of a EF training on the EF performance and ADHD behavior of children with ADHD.
The study is performed in a Dutch sample. It has been approved by the ethical commission of the department of psychology of the University of Amsterdam.

Study objective

An adaptive EF training will improve EF performance and behavior, complex reasoning, ADHD

characteristics, general problem behavior and motivation compared to a non-adaptive training condition.

Study design

3 timepoints of measurement:

T1: Pre training testing (2-3 weeks before training);

T2: Post training testing (1 week after training);

T3: Follow-up testing (3 months after training).

Testing at T1-3 will cover five different domains:

1. EF performance and behavior: Visuospatial and verbal WM (CBTT and digit span backwards), response inhibition (Stop-Task and STROOP), set-shifting (TRAIL MAKING TASK), visuospatial and verbal short term memory (CBTT and digit span forward), and an EF behavior questionnaire (the BRIEF);

2. Complex reasoning (RAVEN);

3. ADHD characteristics (DBDRS);

4. General problem behavior (HSQ);

5. Motivation (BIS/BAS).

Intervention

3 training groups:

1. A adaptive EF training (3 types of EF are trained with an adaptive difficulty level);

2. A partial adaptive EF training (3 types of EF training tasks are presented; only 2 types of EF are trained adaptively; one EF is trained non-adaptively and on a low difficulty level);

3. A non-adaptive training (3 types of EF are trained non-adaptively and on a low difficulty level).

In every condition children train 25 sessions for 40 minutes, 4 to 5 days a week.

Contacts

Public
University of Amsterdam
Department of Developmental Psychology
Roetersstraat 15
S. Dovis
Room A 7.24
Amsterdam 1018 WB
The Netherlands
+31 (0)20 5256298
Scientific
University of Amsterdam
Department of Developmental Psychology
Roetersstraat 15
S. Dovis
Room A 7.24
Amsterdam 1018 WB
The Netherlands
+31 (0)20 5256298

Eligibility criteria

Inclusion criteria

Children aged 8 to 12 years with a diagnosis of ADHD combined-type participate. Children are recruited from outpatient mental-healthcare centers. Children that meet the following criteria are included:

1. A prior DSM-IV-TR (American Psychiatric Association, 2000) diagnosis of ADHD combined-type by a child psychologist or psychiatrist;

2. A score within the clinical problem range (95th to 100th percentile) on the ADHD scales of both the parent and teacher version of the Disruptive Behavior Disorder Rating Scale (DBDRS; Pelham, Gnagy, Greenslade, & Milich, 1992; Dutch translation Oosterlaan, Scheres, Antrop, Roeyers, & Sergeant, 2000);

3. Meeting criteria for ADHD combined-type on the ADHD section of the Diagnostic Interview Schedule for Children for DSM-IV, parent version (PDISC-IV; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). The PDISC-IV is a structured diagnostic interview based on the DSM-IV, with adequate psychometric properties;

4. Absence of Conduct Disorder (CD) based on the CD sections of the PDISC-IV;

5. Absence of a prior DSM-IV-TR diagnosis of any autism spectrum disorder (ASD) according to a child psychologist or psychiatrist;

6. An IQ score ≥80 as measured by the short version of the Dutch Wechsler Intelligence Scale for Children (WISC-III; Kort et al., 2002). Two WISC-III subtests, Vocabulary and Block Design are administered to estimate Full Scale IQ (FSIQ). This composite score has satisfactory reliability (r =0.91) and correlates highly with FSIQ (r = 0.86; Sattler, 2001);

7. Absence of any neurological disorder, non-verbal learning disorder (Nigg, 2006), or sensory (color blindness and vision) or motor impairment as stated by the parents;

8. Not taking any medication other than methylphenidate (children have to be able to discontinue medication at least 24 hours before each test session, allowing a complete wash-out; Greenhill, 1998).

Exclusion criteria

If children do not meet the inclusion criteria they are excluded from the study.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	15-04-2011
Enrollment:	90
Type:	Anticipated

Ethics review

Not applicable
Application type: Not applicable

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	ID
NTR-new	NL2600
NTR-old	NTR2728
Other	METC UvA : 2011-OP-1526
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A