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

Gepubliceerd: 02-02-2011 Laatst bijgewerkt: 13-12-2022

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.

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON21912

Bron
NTR

Verkorte titel
EF Training

Aandoening

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

Ondersteuning

Primaire sponsor: University of Amsterdam
Overige ondersteuning: University of Amsterdam

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

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.

Toelichting onderzoek

Achtergrond van het onderzoek

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.

Doel van het onderzoek

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.

Onderzoeksopzet

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).

Onderzoeksproduct en/of interventie

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.

Contactpersonen

Publiek

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

Wetenschappelijk

University of Amsterdam

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

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

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).

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Dubbelblind
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	15-04-2011
Aantal proefpersonen:	90
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

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

Resultaten

Samenvatting resultaten
N/A