Train the brain: changing learning processes in children with ADHD

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON21790

Source
NTR

Health condition

ADHD

Sponsors and support

Primary sponsor: The study will be conducted at the Faculty of Psychology and Educational Sciences, KU Leuven, Belgium
Source(s) of monetary or material Support: FWO

Intervention

Outcome measures

Primary outcome

-Associative learning as measured by a matching to sample task with condition discrimination

-Working memory/short term memory capacity measured through the Corsi Block Tapping Task (backward/forward)

Secondary outcome

-ADHD symptoms as measured by the Questionnaire Behavior problems for Children from 6 to 16 (VvGK 6-16) parents & teachers' form

-academic performance measured by a student performance tracking system (leerling volg systeem; LVS)

Study description

Background summary

The purpose of the study is to investigate whether we can improve basic (associative) learning processes in ADHD by training the working memory through a game-based working memory training. Previous research has shown that children in the active condition improved in working memory whilst those in the non-active did not (Dovis et al., 2015), however effects of training this working memory on basic learning processes is to date unclear. Children with ADHD (N=60) will be randomized to either an active game based working memory training or a non-active working memory training. Pre, post and 3 months follow-up tests will be conducted. Primary outcomes are associative learning & working/short term memory, secondary outcomes are academic performance, and parent/teacher rated ADHD symptoms.

Study objective

The purpose of the study is to investigate whether we can ameliorate (associative) learning processes in children with ADHD by training working memory. We predict that children in the active working memory training condition will show improved short term memory, working memory & learning processes, whilst children in the non-active working memory training condition will show no improvements in these parameters.

Study design

pretest

posttest

3 months follow-up

Intervention

Braingame Brian is a game based working memory training consisting of 25 sessions with a duration approximately around 45 minutes. It consist of an interactive game world in which children with ADHD solve problems through completing tasks training working memory, inhibition and cognitive flexibility, which can be adaptive (active) or non-adaptive (non-active/placebo).

In the current study, at random half of the children with ADHD will receive a non-adaptive (placebo condition) trraining of working memory, cognitive flexibility and inhibition. The other half of the Children will receive an adaptive (active) working memory training and a non-adaptive cognitive flexibility and inhibition training.

Contacts

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Eligibility criteria

Inclusion criteria

- Between 8 and 12 years old

- The presence of a primary clinical diagnosis of any subtype of ADHD

- The presence of a clinical score on the ADHD scales of the Questionnaire Behavior problems for Children from 6 to 16 (VvGK 6-16)

- The presence of a primary clinical diagnosis of any subtype of ADHD based on the Diagnostic Interview Schedule for Children (PDISC-IV) - module E (Behavioral disorders): Parents' form.

- IQ > 80 measured by the short version of the Wechsler Intelligence Scale for Children (WISC-III-NL)

- Medication (e.g. Methylfenidate) has to be stable for at least four weeks before pretest and stopped 48 hour before the testing sessions.

Exclusion criteria

- The presence of a clinical diagnosis on conduct disorder (CD) as measured by the Diagnostic Interview Schedule for Children (PDISC-IV) - module E (Behavior disorders): Parents' form

- The presence of a diagnosis of Autism Spectrum Disorders (ASD) as indicated by the parents

- The presence of a neurological disorder, a sensory or motor deficit as indicated by the parents on the general questionnaire.

- Medication that causes behavioral changes or has an influence on attention or concentration, except for methylphenidate and dexamphetamine.

Study design

Design

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

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-10-2015
Enrollment:	60
Type:	Anticipated

Ethics review

Positive opinion

Date:	22-09-2015
Application type:	First submission

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	NL5334
NTR-old	NTR5444
Other	Grant provider nr: G073814N : Ethical Committe nr: G-2015 01 156

Study results

Summary results
n/a