Adventurous Dreaming Highflying Dragon: A Randomized Control Trial (RCT) testing the Effectiveness of a Full-Body Video Game on Decreasing Attention Deficit Hyperactive Disorder (ADHD) Symptoms

No registrations found.

Ethical review	Not applicable
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON25823

Source
Nationaal Trial Register

Health condition

ADHD, school-aged children, intervention, videogame

Sponsors and support

Primary sponsor: Radoud University Nijmegen, Behavioural Science Institute
Source(s) of monetary or material Support: Radoud University Nijmegen, Behavioural Science Institute

Intervention

Outcome measures

Primary outcome

1. Pre-Post Scores on the neuro-psychological tasks assessing:

-Selective attention/Impulsivity/Motor Inhibition (Go-No-Go task)

-Fine and Gross Motor skills (MOVEMENT ABC-2 NL; Smits-Engelsman, 2010)

2. Pre-post scores on the AVL questionnaire assessing teacher-observed ADHD symptoms (Scholte & Ploeg, 2005).

Secondary outcome

1. In-game improvement using data saved in the game e.g. duration of play, correct-incorrect responses and response times.

2. Game evaluation; how much they liked the game, how difficult the game was to them, whether they felt they learned something, and whether they would recommend it to a friend.

Study description

Background summary

In this randomized controlled trial (RCT with 2 conditions, intervention and control condition), the effectiveness of the full-body driven videogame Adventurous Dreaming Highflying Dragon will be tested in a Dutch sample of school-aged children (6-13) with elevated ADHD symptoms. Children are randomly assigned to one of two conditions. Children in the intervention condition will play Adventurous Dreaming Highflying Dragon, children in the control condition will play a comparable full-body driven game (Angry Birds Trilogy) without ADHD-focused components. Both groups will have 6 play sessions of 15 minutes spread over 3-4 weeks at school during school hours. Measurements of primary outcomes will be conducted before the first play-session and after the last play-session. Secondary measurements will be conducted during the treatment phase (play-sessions).

Study objective

This study will test the effectiveness of Dragon in improving ADHD related symptoms, specifically in the areas of selective attention, impulsivity, hyperactivity/motor inhibition and motor skills in children with elevated ADHD-symptoms. It is expected that this game will lead to a greater improvement in these areas than a comparable full-body driven game which does not possess the ADHD-focused training components.

Study design

1. Screening on ADHD-symptoms

2. Pre-measure (primary outcomes on neuro-psychological tasks);

3. Play-sessions/Treatment phase (secondary outcomes. In all sessions: in-game data. Directly after final session: game evaluation)

4. Post-measure (all primary outcomes)

Intervention

1.Children of special education schools between the ages of 6-13 with elevated ADHD symptoms are randomly assigned to the intervention or control condition.

2. Children in the intervention condition will play the full-body driven video game "Adventurous Dreaming Highflying Dragon" for 6 sessions of 15 minutes spread over 3-4 weeks. Children in the control group will play a comparable full-body driven game (Angry Birds Trilogy) which does not possess any ADHD-focused training components. Both groups will play the game during school hours in a separate room at their school.

3. Before the first play-session children will be completing several neuro-spcyhological tasks, each assessing a specific skill that is trained in the intervention game, specifically: selective attention, impulsivity, motor inhibition and fine and gross motor skills.

After the last play-session, evaluative questions about the game will be asked and the neuropsychological tasks will be repeated to assess improvement. In addition, the screening questionnaire (AVL) will again be filled out by teachers, to assess observable changes in symptoms.

4. During gameplay, some additional data will be saved in the game e.g. duration of play, correct-incorrect responses and response times.

5. Additional information from the school or parents will be acquired on diagnoses, medication, treatment and IQ-scores, so that this can be controlled for/taken into account.

Contacts

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Eligibility criteria

Inclusion criteria

1. Children of special education schools between the ages of 6-13;

2. Screening participation: passive consent from parents;

3. Elevated ADHD symptoms. Participants with a subclinical to clinical score on the teacher-rated AVL (Scholte & Ploeg, 2005), which is 36 or above, will be included;

4. After screening: active consent from parents

Exclusion criteria

No passive or active consent from children and parents

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	19-01-2015
Enrollment:	90
Type:	Actual

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	NL4811
NTR-old	NTR5083
Other	: ECSW2014-1310-260

Study results