Effectiveness of auditory training in children with (central) auditory processing disorders.

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON21982

Source
NTR

Brief title
N/A

Health condition

auditieve verwerkingsproblemen - auditory processing disorders; effectstudie - effictiveness; gerandomiseerde interventie studie - randomized controlled trial; kind - child

Sponsors and support

Primary sponsor: UMC Utrecht
Source(s) of monetary or material Support: Stichting Kinderpostzegels Nederland

Intervention

Outcome measures

Primary outcome

The proportion of children below normal performance in at least one of three domains of auditory processing: word recognition in noise, binaural fusion, dichotic listening.

Secondary outcome

1. Auditory processing skills in all domains of the auditory processing test battery (speech recogntion in noise test, filtered speech test, binaural fusion test, binaural competitive speech recognition test, dichotic speech recognition test, Lindamood auditory conceptualisation test);

2. Attention skills (Test of Everyday Attention in Children);

3. Subjective measures of auditory processing skills (Children Auditory Processing Scale as completed by parents and teacher).

Study description

Background summary

Children with (central) auditory processing disorders can be distinguished from children with peripheral hearing loss by using an auditory processing assessment battery. The effect of training to enhance auditory processing capabilities in these children has however not been proven in a RCT. We therefore perform a RCT into the effectiveness of four training programs and compare them with a control group that did not receive training.

108 children were included.
Inclusion criteria are:

1. Age between 5 and 9 years;

2. APD-diagnosis based on standard auditory processing tasks;

3. Normal hearing (thresholds below 15 dB);

4. Normal intelligence (Raven).
Exclusion criteria are:

1. Speech and language developmental disorders;

2. Learning and behavioural disorders.

Children were randomly assigned to one of four training groups (n=18 each) or a control group (n=36). Training consists of 2x10 weeks daily training, with a 10-weeks training-free interval. Training programs:

1. Computerized auditory training;

2. Computerized auditory training including noise;

3. FM-system in the classroom;

4. High-frequency-lateral training.

The primary outcome measure is auditory processing skills as measured by standard auditory processing tasks. Secondary outcome measures are attention, parental and teacher's report, and developmental on a subset of auditory processing tests over 4 measurement points.

Study objective

Auditory training will enhance auditory processing in children with auditory processing disorders.

Study design

1. M1: Randomisation - baseline measurements;

2. M2: after 10 weeks training;

3. M3: after a 10 week break, just before second stage of 10 weeks training;

4. M4: after second stage of 10 weeks training.

Intervention

Randomized assignment to one of the following training programs:

1. Computerized auditory training;

2. Computerized auditory training with noise;

3. FM-system;

4. Lateral trainer.

Contacts

Public
University Medical Center Utrecht

Wilhelmina Children's Hospital
Department of Otorhinolaryngology
PO Box 85090
Anne G.M. Schilder
Utrecht 3508 AB
The Netherlands
+31 (0)30 2504004
Scientific
University Medical Center Utrecht
Wilhelmina Children's Hospital
Department of Otorhinolaryngology
PO Box 85090
Anne G.M. Schilder
Utrecht 3508 AB
The Netherlands
+31 (0)30 2504004

Eligibility criteria

Inclusion criteria

1. Children aged between 5-6 and 9-11 years;

2. Normal peripheral hearing acuity;

3. Below normal performance in at least one of three domains of auditory processing: word recognition in noise, binaural fusion, dichotic listening.

Exclusion criteria

1. Below normal intelligence (IQ < 85);

2. Language comprehension and/or language production disorder;

3. Diagnosis of learning difficulties;

4. Below normal peripheral hearing acuity (high Fletcher index below 25 dB (at 1, 2, and 4 kHz) in the better hearing ear).

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):	01-04-2006
Enrollment:	108
Type:	Actual

Ethics review

Positive opinion

Date:	27-02-2009
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	NL1606
NTR-old	NTR1688
Other	METC UMC Utrecht : 05-161
ISRCTN	ISRCTN wordt niet meer aangevraagd

Study results

Summary results
N/A