Perceptual learning to reduce crowding effects in visually impaired children

No registrations found.

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

Summary

ID

NL-OMON21908

Source
Nationaal Trial Register

Health condition

Visual impairment

Sponsors and support

Primary sponsor: Radboud University Medical Center
Cognitive Neuroscience, Huispost 126
P.O. Box 6500 HB, Nijmegen
Source(s) of monetary or material Support: Bartiméus
ODAS
LSBS

Intervention

Outcome measures

Primary outcome

-Crowding ratio (distance and near)

Secondary outcome

-Distance and near visual acuity (sensory component)

-Fixation stability (motor component)

-Saccade execution (motor component)

-Reading performance (cognitive aspect)

Study description

Background summary

Children with visual impairment show stronger crowding than children with normal vision; they have more difficulty identifying a suprathreshold object in the presence of clutter. Children with visual impairment also show a lag in their reading skills and longer visual search times than age-matched peers with normal vision. Recent studies demonstrate the potential prospects of perceptual learning to improve visual functions. However, it is still unclear which mechanisms are responsible for these improvements.

The main objective of this study is to determine whether perceptual learning can reduce crowding in children with visual impairment. In addition, the study aims to extent our understandings about the mechanisms that underlie crowding and perceptual learning. In order to do so, the effect of training on oculomotor, sensory and cognitive aspects will be evaluated separately.

Study objective

-Perceptual learning can reduce foveal crowding in children with albinism and idiopathic infantile nystagmus

Study design

N.A.

Intervention

A computerized perceptual learning training will be used to reduce crowding in children with visual impairment. Children in the experimental group train with target letters surrounded by distrators and children in the control group train with isolated letters.

Contacts

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Eligibility criteria

Inclusion criteria

-Age 6-10 years

-Normal birth weight

-Birth at term

-No perinatal complications

-Normal development

-No motor or intellectual impairments

Exclusion criteria

-children with normal vision: distance visual acuity <20/25 or 0.80

-children with visual impairment: distance visual acuity <20/400 or 0.05

Study design

Design

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

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	05-01-2015
Enrollment:	80
Type:	Actual

Ethics review

Positive opinion

Date:	19-05-2015
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 40727
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL5104
NTR-old	NTR5236
CCMO	NL49432.091.14
OMON	NL-OMON40727

Study results