

Differential Susceptibility to Parenting: Gene-Environment Interactions in Children's Problem and Prosocial Behavior

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To answer the question whether an intervention, aimed to reduce problem behavior, is more effective for a particular genetic subgroup of children, and why this might be. The current studie study gives insight into the moderating effects of specific...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Personality disorders and disturbances in behaviour
Study type	Interventional

Summary

ID

NL-OMON38080

Source

ToetsingOnline

Brief title

ORCHIDS

Condition

- Personality disorders and disturbances in behaviour

Synonym

aggressive behaviour; disruptive behaviour

Research involving

Human

Sponsors and support

Primary sponsor: Universiteit Utrecht

Source(s) of monetary or material Support: NWO

Intervention

Keyword: Differential susceptibility, Externalizing problem behaviour, Incredible Years, Randomized controlled trial

Outcome measures

Primary outcome

The primary outcome measures of the study are possible moderating effects of genetic polymorphisms on the intervention effect. The intervention effect is: a significantly stronger decrease of externalizing behavior problems over time and/ or a significantly stronger increase in prosocial behavior in the IC than in de CC, with an alpha of .05. Externalizing problem behavior will be measured with the ECBI and DPICS. Prosocial behavior will be measured with the SSRS and DPICs.

Secondary outcome

The secondary outcome measures are the observed child behavior in parent-child interactions. This in particular concerns the behavioral and affective responses of the child on negative/ corrective/ punitive signals and positive/ encouraging/ rewarding signals from parents, and behavioral processes that are underlying the moderating effects of the polymorphisms. Furthermore, parenting measurements (both observed as well obtained by questionnaires) will be included as secondary outcome measures.

Study description

Background summary

Externalizing behavior problems are the most common and as most stressful experienced problems in children (SCP, 2006). Both environmental factors (e.g. parenting, Shaw et al, 1998) and child factors (e.g. neurobiological factors; Matthys, Vanderschuren & Schutter, in press) play an important role in the development of externalizing problem behavior. Research has shown that certain polymorphisms are related to the development of these problems (Rutter, Moffit, & Caspi, 2006). Most studies however have only focused on the cumulative negative effects of specific risk genes and a negative environment. Potential benefits of the same genes in interaction with a positive environment are therefore underestimated. Recently there is evidence that children with certain genes, that suffer from adverse environmental conditions, can also benefit the most when exposed to positive environmental conditions. This interaction can be explained by a recently raised hypothesis, namely that some children based on their genetic makeup are susceptible to both positive and negative environmental factors (*differential susceptibility theorie*; Belsky, 1997; 2005).

Study objective

To answer the question whether an intervention, aimed to reduce problem behavior, is more effective for a particular genetic subgroup of children, and why this might be. The current study gives insight into the moderating effects of specific polymorphisms on externalizing behavior, and behavioral processes that are underlying the moderating effects .

Study design

The study will use a randomized controlled trial (RTC) with an experimental (IC) and a no-active intervention control group (CC). De effectiveness of the parent training Incredible Years will be used as intervention (see METC protocol number 03-119-k en 09-433).

Intervention

The IY program is a 14-16 week parent training where parents learn parenting skills specifically tailored to reduce externalizing problem behavior of children. Parents watch videos together, discuss them, and practice in role-plays with different parenting techniques. Trainers are not prominently teaching parents new skills, but are part of the group and guide the discussion by asking open-end questions and by emphasizing positive parenting techniques. This way, parents are encouraged to come up with their own solutions to their problems and will not develop a dependency upon the professionals.

Study burden and risks

Burden on participants will be minimal. Participants are not at any risk for

injury caused by participating in the study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Children (2-11 years)

Elderly (65 years and older)

Inclusion criteria

Parents of children aged 4-8

Score on the Eyberg Child Behavior Inventory (ECBI) on the 70th percentile or higher

Exclusion criteria

No mastery of the Dutch language

Intellectual disability (total IQ ≤ 70)

Study design

Design

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

Primary purpose: Prevention

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-10-2012
Enrollment:	960
Type:	Actual

Ethics review

Approved WMO	
Date:	11-05-2012
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

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
CCMO	NL37113.041.11