Cognitive shifting as a predictor of agression in people with intellectual disabilities and autism spectrum disorders.

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Ethical review	Approved WMO
Status	Pending
Health condition type	Mental impairment disorders
Study type	Observational invasive

Summary

ID

NL-OMON30725

Source
ToetsingOnline

Brief title
Cognitive shifting and agression in the cognitively impaired with autism

Condition

- Mental impairment disorders
- Developmental disorders NEC

Synonym
autism-spectrum-disorder, intellectual disabilities

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W,Betrokken VG-instellingen

Intervention

Keyword: Agression, Autism spectrum disorders, Cognitive styles, Intellectual disabilities

Outcome measures

Primary outcome

Staff Observation Aggression Scale - Revised (SOAS-R, Palmstierna & Wistedt,

1987)

Child Behavior Checklist (CBCL, Achenbach & Edelbrock, 1983)

Secondary outcome

Agressie Vragenlijst (AVL Meesters, Muris, Bosma, Schouten, & Beuving, 1996)

Zelf-Analyse Vragenlijst (ZAV; Ploeg, Defares & Spielberger, 1982)

Autisme Beoordelings Lijst (ABL, Teunisse e.a., 2001)

Sociale Interpretatie Test (SIT, Vijftigschild e.a. 1969) en de WISC-III

Plaatjes Ordenen

Vineland Adaptive Behavior Scales (VABS Sparrow e.a., 1984; Kraijer, 2000)

Inventarisatielijst Omgaan met Anderen (IOA; Van Dam-Baggen & Kraaimaat, 1990)

Study description

Background summary

Aggressive behaviour is commonly viewed as a major impediment in the care and treatment of patients with intellectual disabilities (MR) and autism spectrum disorders (ASD). Neither medication nor behaviour therapy has shown to produce satisfactory decrease in aggression. There are indications that

treatment-resistant aggression occurs especially in a subset of the ASD population: people with poor cognitive shifting. In neuropsychological literature, impaired cognitive shifting has known to be associated to striatal dopaminergic deficiency. Besides, striatal dopaminergic transmission is supposed to be specifically involved in the regulation of aggressive behaviour: dopaminergic hypoactivity may lead to an increase in aggression. In previous studies we have demonstrated that weak cognitive shifting appeared to be a significant impediment to progress in social behaviour in people with high-functioning ASD.
Consequently, our current hypothesis is that striatal dopaminergic hypoactivity is specifically involved in the regulation of aggressive behaviour in patients with MR and ASd.

Study objective

This hypothesis will be challenged in five objectives:
1. To check the factorial validity of two cognitive styles - weak central coherence; poor cognitive shifting - in patients with MR and ASS.
2. To assess the specificity of the association between poor cognitive shifting and aggressive behaviour in this population.
3. To determine whether this association is specific to ASS rather than MR.
4. To evaluate the potential role of mental shifting in predicting successful treatment of aggressive behaviour.
5. To record the association between poor mental shifting and striatal dopaminergic hypoactivity in this population

Study design

The first part of the present study addresses the operationalization, the identification and the prevalence of weak central coherence and poor cognitive shifting in patients with MR and ASS (age range 14 - 24 yrs). With a principle components analysis we will check our assumption that our neuropsychological test-battery, developed in previous research, indeed reflects the intended cognitive styles in this population.

The second part of the study addresses the relation between aggressive behaviour, as measured by Behaviour Checklists, Observation Aggression Scales and Personality Inventories, and cognitive style. Patients with MR and ASS will be compared with patients with MR without ASS and with patients with ASS without MR. The patients will be assessed at two separate time points with a 1-year interval between pre- and posttest. To evaluate the role of mental shifting in predicting successful treatment of aggressive behaviour ANCOVA analysis will be carried out. Striatal dopaminergic hypoactivity will be revealed by DaT SPECT in a *poor shifting* subset of our study population.

Study burden and risks

The study has been designed in such a way that the burden for paticipants is minimal. If necessary, the test and inventory study part can be done in the presence of the personal coach. There will be as many pauses as is necessary. Before entering the DaT-spect study part, the participant gets acquinted with the procedure by way of a dummy-spect. If there appears to be too much tension with the participant, this study part will be cancelled for this person.
There are no risks associated with participation in the study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adolescents (12-15 years)
Adolescents (16-17 years)
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

The experimental group consists of adolescents and young adults (age 14-24 years) with mild

intellectual disabilities and autism.;The criteria for mild intellectual disabilities match the indicationcriteria from the dutch ministery of VWS (2005). Conform the DSM-IV it concerns people in the IQ-range 50-69. People with an IQ between 70-85 are included as well, if they have problems on the domain of social adaptation skilles and a chronic need for professional help (minimum of 2 out of 10 items judged as problematic on the checklist ' Beperkingen in de (sociale) aanpassing').;Autism-spectrum-disorders (ASD) meet the DSM-IV diagnostic criteria for 299.00 'autistic disorder', 299.80 PDD-NOS, or 299.80 Asperger syndrome. ;There are two control groups: patients with intellectual disabilities without ASD and with patients with ASD without intellectual disabilities.

Exclusion criteria

central nerve system diseases other than autism or mental retardation

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-06-2007
Enrollment:	88
Type:	Anticipated

Ethics review

Approved WMO

Application type:	First submission

Review commission: CMO regio Arnhem-Nijmegen (Nijmegen)

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	NL15945.091.07