# Cognitive rehabilitation treatment of deficits in emotion, social cognition and regulation of behaviour after traumatic brain injury; development of treatment protocol and pilot study

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To determine the feasibility and the estimation of the effect for the primary study parameter of a cognitive rehabilitation treatment for deficits in social cognition after traumatic brain injury.

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Interventional

# Summary

### ID

NL-OMON32762

**Source** ToetsingOnline

Brief title Treatment of Social Cognition in TBI patients

### Condition

- Other condition
- Structural brain disorders

#### Synonym

behavioural regulation, deficits in social attention, personality changes

#### **Health condition**

traumatisch hersenletsel; stoornissen in sociale cognitie

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#### **Research involving** Human

#### Sponsors and support

Primary sponsor: Dr. J.M. Spikman, onderzoeker is zelf de verrichter Source(s) of monetary or material Support: Hersenstichting Nederland

#### Intervention

**Keyword:** cognitive rehabilitation, social cognition, traumatic brain injury (TBI)

#### **Outcome measures**

#### **Primary outcome**

Improvement of social cognition, that is, a significant difference between preand postmeasurement on the The Awareness of Social Inference Test (TASIT, Mc Donald, 2003).

#### Secondary outcome

Checklists and questionnaires for social functioning in daily life (KATZ adjustmentscales, (KAS-R, Goran & Fabiano, 1993), Dysexecutive Questionnaire (DEX, Wilson, e.a., 1996), NBAP, Nelson, 1998,, Quality of Life after Brain Injury (QOLIBRI, Von Steinbuchel e.a., 2005). Tests for social cognition (FEEST (Young e.a., 2002), Cartoon Test (Happe e.a. 1999), Faux Pas test (Stone e.a., 1998), Sustained Attention to response Task (SART, Robertson e.a., 1997), Iowa Gambling Task (Bechara e.a., 1994), Emotional Empathy Questionnaire (EEQ, Mehrabian & Epstein, 1972), Read the Mind in the Eyes (Baron-Cohen, e.a., 1997) ), for executive functioning (Behavioural Assessment of the Dysexecutive Syndrome (BADS, Wilson et al, 1996)), and an estimation of premorbid IQ by means of the Dutch version of the NART (NLV, Schmand e.a., 1992).

# **Study description**

#### **Background summary**

Patients with traumatic brain injury (TBI) can have deficits in social cognition because of damage to orbitofrontal/ventromedial prefrontal brain area's. Social cognition is the ability to perceive social information (i.e. emotional expressions on faces), to integrate this information with general knowledge of social concepts and conventions in order to understand the behaviour or others, and to adapt behaviour to the social situation. Deficits in social cognition manifest themselves as socially inadequate, egocentrical, disinhibited or emotionally indifferent behaviour. Such behavior has serious, adverse consequences for the ability of patients to function adequately in daily life situations, that is, to be involved in social relationships with others and to maintain a job. There is much evidence that deficits in social cognition, more than cognitive or physical consequences of brain injury, have a negative influence on the outcome of patients. Until now there were no adequate, multi-faceted treatment possibilities for these patients, although sorely needed. There are soms studies in which single aspect treatment of social cognition is described, but the majority of these concern other, neuropsychiatric patient groups. Seldomly treatments are evaluated in the form of an RCT. We developed a treatment protocol in wich all three aspects of social cognition (perception, understanding and regulation of social situations) are treated, in which successfull elements of other treatments are incorporated and which has the explicit goal to improve social behaviour in daily life.

#### **Study objective**

To determine the feasibility and the estimation of the effect for the primary study parameter of a cognitive rehabilitation treatment for deficits in social cognition after traumatic brain injury.

#### Study design

A pilotstudy with 8 TBI patients in a repeated measures design (pre- and postmeasurement) on the effect of a cognitive rehabilitationtreatment for deficits in social cognition after traumatic brain injury.

#### Intervention

A cognitive rehabiliation treatment of deficits in social cognition, given by an experienced neuropsychologist, twice a week, 20-24 1hr sessions in total

#### Study burden and risks

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There will be no adverse consequences of the treatment nor risks for the patients involved. The burden is small and mainly psychological, that is, the treatment will be rather intensive en requires patients to be motivated. However, this will be carefully supervised and coached by the psychologist who gives the treatment and who has ample experience with brain injured patients.

# Contacts

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## **Trial sites**

#### **Listed location countries**

Netherlands

# **Eligibility criteria**

Age Adults (18-64 years) Elderly (65 years and older)

#### **Inclusion criteria**

 deficient score on the Neuro Behavioural Affect Profile (NBAP, Nelson, 1998)
deficient score on the Facial Expression of Emotion TEst (FEEST, Young, 2003) AND/OR orbitofrontal/mediofrontal damage on MRI

### **Exclusion criteria**

neurodegenerative or psychiatric disorders, lack of self-awareness (indicated by a difference score of 0 on the self-rating version of the NBAP between rating of premorbid and present functioning), severe cognitive comorbidity interfering with the ability to follow treatment (global aphasia, neglect, amnestic syndrome).

# Study design

### Design

Study type: Interventional	
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

### Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-01-2009
Enrollment:	8
Туре:	Anticipated

### **Ethics review**

Approved WMO	
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

# **Study registrations**

### Followed up by the following (possibly more current) registration

No registrations found.

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

No registrations found.

### In other registers

Register

ССМО

ID NL25269.042.08