

# The neural basis of cognitive-emotional processing in people with an at-risk mental state for developing psychosis

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The objective of this study is threefold. First, to investigate neural correlates of cognitive-emotional processing in an ARMS sample, i.e. help-seeking young people with an at-risk mental state (this will be addressed in the base-line measurement...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruiting
<b>Health condition type</b>	Schizophrenia and other psychotic disorders
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON33062

### Source

ToetsingOnline

### Brief title

The neural basis of at-risk mental state for psychosis

### Condition

- Schizophrenia and other psychotic disorders

### Synonym

psychosis, schizophrenia

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Groningen

**Source(s) of monetary or material Support:** ESF-NWO

## Intervention

**Keyword:** cognitive-emotional processing, psychosis, schizophrenia

## Outcome measures

### Primary outcome

In this study brain activation during cognitive processing will be investigated in two separate sessions, separated by 8 months. Questionnaire scores will be linked to brain activation. Through diagnostic interviews and symptom evaluations 2 years after the first fMRI scan will be conducted, to evaluate whether fMRI activation was predictive of the clinical state 2 years later.

### Secondary outcome

n.a.

## Study description

### Background summary

Schizophrenia affects individuals in their personal, social and occupational development and functioning. Besides cognitive deficits it is characterized by deficits in emotional processing and regulation. There is an increasing interest in the role of social cognitive processes in schizophrenia. Deficits in social function are present throughout the course of the disorder and are even present before onset of psychosis and have been shown to contribute to the rate of relapse. A crucial finding is that performance on social cognition tasks predicts social functioning, and that this association cannot be accounted for by general cognitive deficits. There is also neuroanatomical evidence of abnormalities in brain circuits subserving social cognition in schizophrenia (at-risk mental state for schizophrenia, ARMS). Such research can uncover the mechanisms involved in transition to psychosis and schizophrenia. This might ultimately enable the development of prevention strategies, which would have very significant implications in terms of mental health care.

### Study objective

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The objective of this study is threefold. First, to investigate neural correlates of cognitive-emotional processing in an ARMS sample, i.e. help-seeking young people with an at-risk mental state (this will be addressed in the base-line measurement). Second, we will investigate putative changes after 8 months. This will give us information regarding the neural correlates of symptom changes over time. In addition, it will allow us to compare the effects of interventions that have been applied, be it treatment as usual or cognitive therapy (the intervention is not part of the present study, but concerns an already ongoing project at the psychiatric institute). Finally, we want to conduct diagnostic interviews and symptom evaluations 2 years after the first fMRI-scan, to evaluate whether fMRI activation is predictive of the clinical state 2 years later.

## **Study design**

Using functional magnetic resonance imaging (fMRI) we will investigate the neural basis of 3 cognitive processes that are highly relevant; reality monitoring, emotion regulation and self-reflection. After 8 months subjects will be scanned a second time, using the same tasks. Finally, we want to conduct diagnostic interviews and symptom evaluations 2 years after the first scan, to evaluate whether fMRI activation is predictive of the clinical state 2 years later.

## **Study burden and risks**

Participants will be exposed to a 3 T magnetic field. No side effects have been described so far. On rare occasions, a peripheral nerve (abdomen) is stimulated by the changing magnetic gradients, this will cause an itchy feeling, but is not harmful.

## **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

- healthy individuals, male and female with IQ in the normal range and with normal or corrected to normal vision.
- between 18 and 45 years old

### Exclusion criteria

- neurological problems (incl. epilepsy)
- use of drugs that may influence the task
- contra indications for fMRI will lead to exclusion, fMRI-exclusion criteria:
- MR incompatible implants in the body (such as ear prothesis or other metal implants)
- any risk of having metal particles in the eye
- tattoos containing red pigments
- (suspected) pregnancy
- claustrophobia
- the refusal to be informed of structural brain abnormalities that could be detected during the experiment.

## Study design

### Design

Study type: Observational non invasive

Intervention model: Other

Allocation: Non-randomized controlled trial  
Masking: Open (masking not used)  
**Primary purpose:** Other

## Recruitment

NL  
Recruitment status: Recruiting  
Start date (anticipated): 14-12-2009  
Enrollment: 60  
Type: Actual

## Ethics review

Approved WMO  
Date: 20-10-2009  
Application type: First submission  
Review commission: METIGG: Medisch Ethische Toetsingscommissie Instellingen Geestelijke Gezondheidszorg (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	NL28576.097.09