

Working memory function and affective interference in patients with early psychosis

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

Summary

ID

NL-OMON29865

Source

ToetsingOnline

Brief title

Affective working memory in psychosis

Condition

- Schizophrenia and other psychotic disorders

Synonym

psychosis

Research involving

Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: emotion, faces, psychosis, working memory

Outcome measures

Primary outcome

Group differences between psychotic and healthy control subjects in working memory performance.

Effect of affective interference on working memory performance and the interaction between group and affective interference.

Secondary outcome

Influence of medication and actual psychopathology on working memory performance for emotional expression and identity of faces.

Study description

Background summary

Working memory is a psychological model introduced by Baddeley (1986), which tries to give a theoretical basis for our ability to use recent information to guide current behaviour. It has been shown that it is clearly different from long-term memory and also the earlier used concept of short-term memory does not fully cover the functions which are explainable with the working memory model. Some investigators propose that working memory plays, besides its above mentioned function, an important role in the formation of long-term memory and may be a major factor of intelligence.

Baddeley's model proposes beside the central executive, which is the hypothetical space where incoming information will be processed and translated in action, two components: the phonological loop and the visuo-spatial sketchpad. Numerous research has been performed looking at the processing of language and visuo-spatial information. Since several years also visual objects have been used for research in working memory tasks. Possible objects for working memory tasks are human faces. Faces have a high ecological value. They convey important information in two basic qualities, namely identity and emotional expression.

Several studies have demonstrated that patients with schizophrenia show

disturbances in working memory function as well as in the detection of emotional expressions in human faces. Emotions are well known for their relevance to guide immediate action, especially in the case of fear. Furthermore, it has been demonstrated that the emotional content of language enhances their memory storage. Until now the effect of emotional content of visual objects for the working memory function is not clear.

Study objective

In the present study we are interested in the interaction between these two deficits in patients with schizophrenia using faces as visual objects. One of the important issues that will be addressed is that if the emotional content represented by the emotional facial expression will enhance the working memory function, this may give clues for specific psychotherapeutic and educational approaches for patients with schizophrenia to improve their cognitive deficits.

Main objectives:

1. To investigate whether patients with schizophrenia differ from healthy controls in their general working memory performances using faces.
2. To investigate whether patients with schizophrenia differ from healthy controls regarding the impact of the emotional expression on a working memory task.
3. To investigate whether patients with schizophrenia differ from healthy controls in their ability to detect similarities between visual stimuli.
4. To study whether there is an impact of pharmacological treatment and actual psychopathology on the performance of the working memory task.

Study design

The paradigm comprises a working memory paradigm designed as an event-related Sternberg-Paradigm. Each trial comprises the short presentation of 1, 2 or 3 faces (sample) followed by a delay of 8 seconds. Thereafter another face will appear for 2 seconds (target). Subjects have to decide whether the target face has been displayed in the sample or not. Faces will vary in identity or in emotional expression, so the study has a 2 (identity vs. emotion) x 3 (load) factorial design.

A simple matching task will be used as a control experiment. Faces from each individual trial (sample and target) will be now presented one at the time. Participants now have to decide if the target face matches with one of the sample faces. Stimuli will be identical with the faces used in the working memory experiment.

Study burden and risks

There are no known risks for neuropsychological examination.

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

all patients (treated or untreated) with a diagnosis of *first episode psychosis*, suggestive for the schizophrenia are eligible to participate in the study. The age range is between 16 and 40 years

Exclusion criteria

Uncorrected visus disturbances, any neurological, cardiovascular, and respiratory diseases; pregnancy; other relevant psychiatric disorders. Subjects will also be excluded when they cannot understand the Dutch language sufficiently to understand the purposes and implications of the experiment.

Study design

Design

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

Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	01-11-2006
Enrollment:	80
Type:	Actual

Ethics review

Approved WMO	
Date:	16-10-2006
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL13220.078.06