



**Pergamon**

Archives of Clinical Neuropsychology  
17 (2002) 477–483

---

---

Archives  
of  
CLINICAL  
NEUROPSYCHOLOGY

---

---

## Executive functioning in obsessive–compulsive disorder, unipolar depression, and schizophrenia

Steffen Moritz\*, Christiane Birkner, Martin Kloss, Holger Jahn, Iver Hand,  
Christian Haasen, Michael Krausz

*Clinic for Psychiatry and Psychotherapy, University Clinic Hamburg-Eppendorf, Martinistraße 52,  
D-20246 Hamburg, Germany*

Accepted 23 March 2001

---

### Abstract

The present study investigated whether schizophrenic, unipolar depressive, and obsessive–compulsive psychiatric patients show a distinguishable profile in tasks considered sensitive to frontal lobe functioning. Three psychiatric samples, each comprising 25 patients with little symptomatic overlap, were compared to 70 healthy controls. Participants completed several executive tasks (Wisconsin Card Sorting Test (WCST), verbal fluency, digit span, Stroop, and Trail-Making). Except for age, which was entered as a covariate, subjects did not differ in any sociodemographic background variable. Healthy controls showed superior performance relative to depressive and schizophrenic patients who exhibited comparable deficits in all tasks. Obsessive–compulsive disorder (OCD) patients revealed dysfunctions in the Trail-Making Tests A and B and in the fluency task. Dysfunctions in the domains of working memory, verbal fluency, distractibility, and concept formation were not confined to a specific psychiatric population. © 2002 National Academy of Neuropsychology. Published by Elsevier Science Ltd.

*Keywords:* Schizophrenia; Depression; Obsessive–compulsive disorder; Frontal lobe; Wisconsin Card Sorting Test; Verbal fluency

---

---

\* Corresponding author. Tel.: +49-40-42803-6565; fax: +49-40-42803-5121.

*E-mail address:* moritz@uke.uni-hamburg.de (S. Moritz).

## 1. Introduction

Within the last decade, evidence has accumulated that frontal lobe dysfunctions play a crucial role in the genesis of schizophrenia (Liddle, 1994), depression (Rogers, Bradshaw, Pantelis, & Phillips, 1998), and obsessive–compulsive disorder (OCD) (Purcell, Maruff, Kyrios, & Pantelis, 1998). Studies conducted with biological high-risk populations and healthy subjects scoring high on measures of OCD, schizotypy (considered to be a mild variant of schizophrenia), and depression suggest that neuropsychological dysfunctions are a risk factor for and not a mere consequence of these psychiatric disorders. However, the causative role of *circumscribed* prefrontal dysfunctions for the genesis of *specific* psychiatric disorders has not yet been convincingly established.

Neuropsychological studies with *depressive* and *schizophrenic* samples have revealed that dysfunctions in the anterior cingulate cortex (as indexed with the Stroop task; Peterson et al., 1999) and the dorsolateral cortex (as assessed with the Wisconsin Card Sorting Test (WCST); Weinberger, Berman, & Zec, 1986) are evident in both disorders compared to healthy controls (Franke et al., 1993; Moritz, 2000). However, most investigations conducted in the past have merely contrasted performance of a single psychiatric population with that of healthy controls without additionally investigating another psychiatric sample. Therefore, it has not yet been established whether executive deficits are equally pronounced in both disorders.

For *OCD patients*, a rather contradictory picture emerges regarding executive functioning (for reviews, see Cox, 1997; Tallis, 1997). Previous investigations have revealed mixed findings for various executive tasks. Whereas Alarcón, Libb, and Boll (1994) infer from previous research that OCD is associated with frontal impairments, in a more recent review Cox (1997) speculates that comorbid psychotic and depressive symptoms may have induced neuropsychological deficits, which were misattributed to OCD psychopathology. This hypothesis has been confirmed in a recent study: It was found that OCD patients exhibiting elevated depressive scores revealed cognitive deficits, whereas OCD patients with low depressive scores could not be distinguished from controls regarding executive functioning (Moritz et al., in press).

To analyze the executive performance profile of psychiatric patients, an exploratory study was performed with 25 subjects either suffering from OCD, schizophrenia, or unipolar depression. A total of 70 healthy subjects served as controls. It was hypothesized that executive deficits are not confined to any specific psychiatric group.

## 2. Methods

### 2.1. Subjects

All psychiatric subjects were inpatients at the psychiatric university hospital of Hamburg who were tested shortly after admission following an acute psychiatric episode. All patients gave informed consent to participate. Subjects with a current or previous history of alcohol or drug abuse, significant neurological disturbances (e.g. stroke), or a schizoaffective disorder

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات