

# A comparable study to the rewardsensitivity and cognitive flexibility by Obsessive Compulsive Disorders and Pathological Gambling

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The goal of our research is to compare OCD with PG with the following research questions. 1) Is there a disorder in cognitive flexibility in OCD and PG groups measured with the WCST ) compared to the healthy control group? 2) Are there differences...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Pending
<b>Health condition type</b>	Psychiatric disorders NEC
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON33505

### Source

ToetsingOnline

### Brief title

rewardsensitivity and cognitive flexibility by OCD and PG

### Condition

- Psychiatric disorders NEC

### Synonym

Obsessive compulsive disorder (obsessive disorders) Pathological gambling (gambling addiction)

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Reinier van Arkelgroep (Den Bosch)

**Source(s) of monetary or material Support:** geen specifieke geldstroom.

## Intervention

**Keyword:** cognitive flexibility, obsessive compulsive disorder, Pathological Gambling, rewardsensitivity

## Outcome measures

### Primary outcome

Primary outcomes of the RLT

- number of correct responses with a reward
- number of probalistic errors with change of strategy
- number of probalistic errors without change of strategy
- number of spontaneous errors
- number of last reversal errors
- reaction time in seconds

Primary outcomes of the WCST:

- number of correct responses
- number of errors
- number of perseverant errors
- number of complete categories.
- Reaction time.

### Secondary outcome

The secondary variables:

- Gender
- Age
- Marital status
- Level of education
- medication
- years of onset disease (in years)
- comorbidity

The outcomes of the items from the Brief Symptom Inventory, Padua-Inventory and the South Oaks Gambling scale will be measured as variables.

## Study description

### Background summary

Introduction: The behaviour in chronic addiction and pathological gambling (PG) shows similarities with obsessive compulsive disorders. As a result addiction and PG could be rated among the obsessive - compulsive spectrum disorders. Phenomenological similarities and differences are characterised by having compulsions with OCD and impulses with PG. The distinction is made because of the fact that compulsions are fear related and impulses are mainly aimed at sensations and rewards. Compulsions and impulses may both have a similar and abnormal regulation mechanism for overt stimuli, which will lead to repetitive (self - injuring) actions. In the field of neuro - biology a malfunction may be present in the orbito frontal cortex and gyrus cinguli. These structures are associated with the inhibitory system (regulation mechanism). In this study two aspects of the regulation mechanism are dealt with. The first aspect concerns the extent of sensitivity to rewards and for this the Reversal Learning Task will be used. The second aspect concerns the extent of cognitive flexibility. In order to look into this the Wisconsin Card Sorting Test (WCST) is used. It appears from literature that little research has been conducted into performances on RL task and the WCST among PG and OCD clients. From the rare findings available it appears that to a variable extent disorders are found on both the RL task and the WCST, during which the OCD and the PG group on average perform worse than the

control groups. As a result it seems likely that a disruption possibly has taken place in the reward processes in which OCD and PG patients are aimed at direct rewards and that the OFC striatal loops may be involved.

## **Study objective**

The goal of our research is to compare OCD with PG with the following research questions.

- 1) Is there a disorder in cognitive flexibility in OCD and PG groups measured with the WCST ) compared to the healthy control group?
- 2) Are there differences between OCD and PG groups in reward related learning ( measured with the Reversal Learning Task ) compared to the healthy control group?

## **Study design**

Method: A comparative study is conducted in three groups: OCD, PG and a control group. Use is made of DSM diagnoses already made by psychiatrists or psychotherapists. Also the Brief Symptom Inventory is administered to survey the co-morbidity. To support the diagnoses OCD and PG two self-reporting scales are held, respectively the Padua Inventory-R and South Oaks Gambling Scale. Then once only the RL task and the WCST will be held. The results are compared.

## **Study burden and risks**

There are no risk and there are no direct benefits with participation of the research. Total time will be 30 minutes.

## **Contacts**

### **Public**

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### **Scientific**

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

the most important inclusion criteria is the presence of obsessive compulsive disorder and pathological gambling

### Exclusion criteria

The most important exclusion criteria is colourblindness

One of the following diagnosis ADHD/ psychotic disorders/ manic episode

Neurological disorders ( epilepsy, CVA)

Drugs dependency

Recent drugsabuse <24 uur

## 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:	Basic science

## Recruitment

NL  
Recruitment status: Pending  
Start date (anticipated): 01-10-2009  
Enrollment: 60  
Type: Anticipated

## Ethics review

Approved WMO  
Date: 23-02-2010  
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	NL28914.097.09