Empathy and violence in forensic addicted patients: An EEG study

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Ethical review	Approved WMO
Status	Pending
Health condition type	Psychiatric and behavioural symptoms NEC
Study type	Observational non invasive

Summary

ID

NL-OMON43459

Source
ToetsingOnline

Brief title
Electrophysiology in forensic addicted patients

Condition

- Psychiatric and behavioural symptoms NEC

Synonym
psychopathic personality addiction

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus Universiteit Rotterdam
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: electrophysiology, empathy, psychopathy, violence

Outcome measures

Primary outcome

Prediction of Recidivism after 6 months.

Secondary outcome

Difference between the groups with respect to LPP, mu suppression and

topological properties.

Study description

Background summary

Substance Use Disorder (SUD) is found to be a major risk factor for crime and violence. SUD is costly, exacting over $600 billion annually in costs related to crime, lost work productivity and healthcare. Consequently, addicted patients pose a great burden on society.
Recent evidence suggests that a lack of empathy plays an important role in the violent behavior of addicted individuals. Studies using electroencephalography (EEG) demonstrate that different event related potentials (ERPs) and mu rhythms can be a means to investigate the neurophysiological involvement in empathy. In a recent pilot study in a sample of 10 forensic addicted patients, we found that empathic responding could be reliably measured with EEG using a newly developed empathy task.
Despite these above insights, no study has directly examined electrophysiological correlates of empathy and its relation to violence in addicted patients. The proposed study will be the first to study this.

Study objective

The following research questions will be addressed in two different studies:
1. Do addicted patients with high scores on psychopathy have reduced empathic concern associated with reduced LPP amplitude and mu-suppression during an empathy task?
2. Are LPP amplitude reduction and reduction in mu-suppression predictive of violent recidivism in patients scoring high on psychopathic traits?
3. Are addicted patients scoring high on psychopathic traits characterized by

alterations in brain topology of brain networks related to empathy when compare to patients scoring low on psychopathy and healthy controls?

Study design

A total sample of 75 male participants will be included in the study. 25 addicted patients scoring high on psychopathic traits, 25 addicted patients scoring low on psychopathic traits will be included from the Forensic Addiction Clinic (FVK) of the Bouman GGZ. Also, 25 healthy controls will be included in the study. They will be assessed for demographic variables and psychopathology (DSM-5 criteria) using file data. In addition they will participate in an interview session in which psychopathic traits will be determined using the Psychopathic Personality Inventory Revised (PCL-R). The Self-Report Psychopathy scale (SRP) will be used for assessment of psychopathic traits in the control group. Also, aggression will be assessed using the Reactive and Proactive Aggression Questionnaire (RPQ) and trait empathy using the Interpersonal Reactivity Index (IRI).
To examine the predictive value of electrophysiological correlates, risk assessment scores on the HKT-30 risk assessment tool and violent reoffending of patients will be recorded during a six-month follow-up using official record of the Ministry of Security and Justice.

Study burden and risks

The patients and controls will participate in two different sessions. One session in which they will fill out different questionnaires and one in which EEG during a task will be registered. The patients will be tested at the Forensic Clinic and the controls will be tested in de lab at the university.

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

In order to be eligible to participate in this study, a subject must meet all of the following criteria:
* Male
* Age 18-55
* Good understanding of the Dutch language

In the addiction group the subjects must meet the following criterion:
* Diagnosed with an alcohol and/or cocaine SUD according to the DSM-5;In the patient group scoring high on psychopathic traits, subjects must meet the following criterion:
* A score of above 25 on the PCL-R.

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study:
* Major neurological conditions

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):	08-02-2016
Enrollment:	75
Type:	Anticipated

Ethics review

Approved WMO

Date:	03-02-2017
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	NL56208.078.15