

# TBI and novelty effect in a forensic psychiatric population in relation to aggression and violent crimes: an explorative study

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A. To gain more knowledge about the prevalence of TBI in male prisoners in the PPC and the relationship of TBI with violent crime and aggression. We expect that TBI is more common in violent offenders than in non-violent offenders. More specific, we...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Structural brain disorders
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON44452

### Source

ToetsingOnline

### Brief title

TBI and novelty effect in a forensic psychiatric population

### Condition

- Structural brain disorders
- Impulse control disorders NEC

### Synonym

'Traumatic Brain Injury' en 'TBI'

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Sint Elisabeth Ziekenhuis

**Source(s) of monetary or material Support:** Onderzoek in het kader van opleiding tot Klinisch Neuropsycholoog. De personele en overige kosten worden gefinancierd door het Ministerie van Veiligheid en Justitie.

## Intervention

**Keyword:** Aggression, Forensic, Novelty effect, TBI

## Outcome measures

### Primary outcome

Participants complete a semi-structured interview, two neuropsychological test (for novelty effect), and aggression questionnaires. Furthermore, researchers use data from judicial records.

### Secondary outcome

Not applicable.

## Study description

### Background summary

Since Traumatic Brain Injury (TBI) is supposed to be a risk factor for aggressive behaviour, it may be important to know if a prisoner suffers from TBI. Therefore, the aim of this study is to examine the prevalence of TBI among male prisoners in the Penitentiair Psychiatrisch Centrum (PPC), using a semi-structured interview (the Ohio State University Traumatic Brain Injury Identification Method (OSU-TBI-ID)), in relation to the type of crime and aggression. Diagnosing TBI in a forensic population is difficult and can take a lot of time because medical records often are not available or difficult to obtain. Self-report isn't always reliable and mild TBI isn't always detectable using standard neuropsychological testing. The Test of Attentional Performance 2.3.1 (TAP 2.3.1) measures different kinds of attentional functions. The subtests *\*alertness\** and *\*flexibility\** can measure the novelty effect (NE). Both tests have to be done twice. NE is a sensitive measure for TBI in a forensic population. In this study it is also investigated if the TAP 2.3.1 can distinguish between prisoners with and without TBI as measured with the

OSU-TBI-ID. When this is the case, the TAP 2.3.1 can be used in diagnostics. Furthermore, the aim of this study is to examine whether increasing NE correlates with increasing aggression and increasing severity of crimes. This is of use by evaluating the ecological validity of NE.

## **Study objective**

A. To gain more knowledge about the prevalence of TBI in male prisoners in the PPC and the relationship of TBI with violent crime and aggression. We expect that TBI is more common in violent offenders than in non-violent offenders. More specific, we hypothesize that TBI, as measured by the OSU-TBI-ID, is predictive of a higher number and more severe violent crimes. Also, we hypothesize that TBI is predictive of more impulsive aggressive behaviour as measured by the Novaco Anger Scale-Provocation Inventory (NAS-PI) and the Reactive Proactive Questionnaire (RPQ).

B. To investigate if two subtests of the TAP 2.3.1, alertness and flexibility, are useful as an instrument to discriminate between prisoners with and without TBI as measured by the OSU-TBI-ID. We hypothesize that TBI leads to an increased novelty effect and, therefore, prisoners with TBI will have significant higher scores on the task compared to prisoners without TBI. Also, we hypothesize that increasing NE correlates with an increasing number and more severe violent crimes and increasing impulsive aggressive behaviour as measured by the Novaco Anger Scale-Provocation Inventory (NAS-PI) and the Reactive Proactive Questionnaire (RPQ).

## **Study design**

A. The prevalence part of the study has a cross sectional design.

B. The explorative part of the study has a cross sectional design.

## **Study burden and risks**

The study group is estimated to be representative for Dutch, male offenders in the PPC. Since this is a non-invasive study, the risks for participants are low. Participation is fully voluntarily. They may benefit from participation in the study by gaining more insight in their cognitive skills.

## **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

- Residing in the PPC of PI Vught
- Male
- Adult (>18 yrs)
- Well acquainted with the Dutch language (though not necessarily native speaking)
- Participants need to be able to participate in daily programme activities and be able to perform an activity for more than 1 hour
- Delinquents with a recent history of severe behavioural problems are also included, except when the safety of the investigator is at risk

### Exclusion criteria

- Not being familiar with the Dutch language. This will be assessed by the researcher in the intake interview.
- Not able to complete questionnaires (when reading is impaired or participants have poor understanding of the questions involved)
- A major diagnosis on the DSM 5 is only an exclusion criterion when there is an actually or recently occurring and invalidating episode of a psychiatric illness (i.e. major depression, manic episode, psychotic episode), based on self report or psychomedical information of the treating psychologist or nurse.

## Study design

### Design

**Study type:** Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Diagnostic

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-11-2017

Enrollment: 300

Type: Actual

## Ethics review

Approved WMO

Date: 03-01-2018

Application type: First submission

Review commission: METC Brabant (Tilburg)

## 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	NL63538.028.17