

# Virtual Reality Aggression Prevention Training in forensic clinics

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	-
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON24428

### Source

NTR

### Brief title

VRAPT

### Health condition

Reactive aggression, forensic psychiatric inpatients, Virtual Reality, SIP model

In Dutch:

Reactieve agressie, forensisch psychiatrische patiënten, Virtual Reality, SIV model

## Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Groningen

Hanzeplein 1

9713 GZ Groningen

**Source(s) of monetary or material Support:** NWO, Maatschappij- en Gedragwetenschappen

## Intervention

## Outcome measures

### Primary outcome

Our primary outcomes are twofold, consisting of staff-report and self-report questionnaires.

- Staff:

The social dysfunction and aggression scale (SDAS; Widstedt et al., 1990) is recorded by staff on a weekly basis for each patient meeting the inclusion criteria to document the aggressive state of patients. The SDAS measures a broad range of aggressive behaviour, including very mild forms of aggression. SDAS data needs to be collected at least three months before VRAPT starts (T0).

- Participants:

Three self-report questionnaires are completed by the participants at three different times: pre-treatment (T1), after treatment (T2) and three-month follow-up (T3).

- the Dutch version of the Aggression Questionnaire (AVL; Meesters, Muris, Bosma, Schouten, & Beuving, 1996).
- Novaco Anger Scale and Provocation Inventory (NAS-PI; Novaco, 1994).
- the State-Trait Anger Expression Inventory-2 (STAXI-2; Hovens, Lievaart & Rodenurg, 2014).

## **Secondary outcome**

A participant's individual changes in aggression, physiological arousal, coping and the way a patient reacts on provocation of others. This is measured by means of individual self-report measures of aggression, anger and impulsivity. This will be done on three moments in time, namely: pre-treatment (T1), after treatment (T2) and three-month follow-up (T3).

- Buss-Durkee Hostility Inventory-Dutch (BDHI-D; Lange, Pahlich, Sarucco, Smits, Dehghani, & Hanewald, 1995).
- Barratt Impulsiveness Scale (BIS-11; Patton, Stanford & Barratt, 1995).
- Reactive Proactive Questionnaire (RPQ; Raine et al., 2006).
- Hostile Interpretation Bias Task (HIBT; Smeijers et al., in preparation).

- Only assessed pre-treatment (T1): Child Trauma Questionnaire-Short Form (CTQ-SF; Bernstein & Fink, 1998).
- Only assessed after treatment (T2): Igroup Presence Questionnaire (IPQ) (Schubert et al. 2001)
- Only assessed after three-month follow-up (T3): Interview, we evaluate whether the participant has obtained his/her learning objectives and participant satisfaction of VRAPT.

## Study description

### Background summary

Besides being perpetrators, forensic inpatients are also more likely to become victims of aggression. Reactive aggression is an impulsive and uncontrolled outburst of anger as a reaction on a perceived provocation, often involving problems with Social Information Processing (SIP). The SIP-model is used as a framework for Virtual Reality Aggression Prevention Training (VRAPT). VRAPT is an interactive three-dimensional virtual environment in which inpatients have the opportunity to practice with aggressive behavior of virtual characters. In an iterative process, software engineers, VR experts, clinicians and researchers developed the VRAPT protocol.

VRAPT consists of 16-biweekly individual treatment sessions. Different interactive provocative social scenarios were designed with the main focus on controlling behavior, emotions and impulses. During these interactive scenarios participants wear earphones and a head-mounted display while arguing with a virtual character that is controlled by the therapist. Therapists deliver the dialogue and control speech, emotions and actions of the virtual character. Besides, VRAPT measures real-time galvanic skin response and heart rate as feedback for participants on their physical arousal.

All participants are monitored with the Social Dysfunction and Aggression Scale by staff for aggression on a weekly basis. Additionally, pre- and after treatment; and at three months follow-up self-report questionnaires will be completed. The development of the VRAPT protocol and the pilot was successful. Following the evaluation after the pilot a few adaptations in the VRAPT protocol and software were made. The multicenter randomized controlled trial is still ongoing.

### Study objective

Besides being perpetrators, forensic inpatients are also more likely to become victims of aggression. Reactive aggression is an impulsive and uncontrolled outburst of anger as a reaction on a perceived provocation, often involving problems with Social Information Processing (SIP). The SIP-model is used as a framework for Virtual Reality Aggression Prevention Training (VRAPT). VRAPT is an interactive three-dimensional virtual environment in which inpatients have the opportunity to practice with aggressive behavior of virtual characters.

## Study design

Data will be collected at baseline (T0), pre-treatment (T1), after treatment (T2) and at three-month follow-up (T3).

## Intervention

In both arms treatment as usual (with the exception of specific aggression therapy or training) will be provided for the forensic psychiatric patients. In the first experimental arm there will be a maximum of 16-biweekly individual treatment sessions Virtual Reality Aggression Prevention Training (VRAPT). Treatment duration is about two months and patients will be followed-up at 3 months. The second arm entails a waiting list and after the study, these participants will also get VRAPT.

## Contacts

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## Eligibility criteria

### Inclusion criteria

- Forensic Psychiatric inpatient in a Forensic Psychiatric Centers (FPC's), Clinics (FPK's) or Sections (FPA's);
- Forensic Psychiatric inpatients are referred to aggression training by their treatment

supervisors;

- Age 18 – 65.

## Exclusion criteria

- IQ under 70;
- Insufficient command and understanding of the Dutch language;
- Epilepsy.

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	06-03-2017
Enrollment:	128
Type:	Actual

### IPD sharing statement

**Plan to share IPD:** No

## Ethics review

Positive opinion	
Date:	14-04-2017

Application type:

First submission

## 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

NTR-new NL6184

NTR-old NTR6340

Other NWO; Medisch Ethische Toetsingscommissie van het Universitair Medisch Centrum Groningen : 432-13-802; METc 2015/474

## Study results