Unravelling the underlying mechanisms of Eye Movement Desensitization and Reprocessing (EMDR) therapy: The effects of beta-blocker Propranolol on EMDR effectiveness.

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON22254

Source
Nationaal Trial Register

Brief title
The role of NA in EMDR: a propranolol investigation

Health condition

Propranolol; EMDR; eye movements; emotional memory; noradrenaline

Sponsors and support

Primary sponsor: Utrecht University
Prof. Dr. Marcel van den Hout
Source(s) of monetary or material Support: Utrecht University

Intervention

Outcome measures

Primary outcome

The emotionality and vividness of recollected memories at pretest (baseline), posttest (after medication intake and each experimental manipulation) and after 24 hour follow-up measured with corrugator EMG, HR, SC, a VAS for emotionality, and a VAS for vividness.

Secondary outcome

N/A

Study description

Background summary

Eye Movement Desensitization and Reprocessing (EMDR) is a widely used, effective psychological treatment for posttraumatic stress disorder (PTSD). Its core intervention is that patients recall trauma memories while simultaneously making lateral eye movements. It is largely unknown how EMDR works, however, much evidence has been obtained for the working memory hypothesis. This hypothesis comprises that both recalling traumatic memories and making eye movements (EM) tax working memory (WM), which has limited capacity. Simultaneously performing both tasks leads to a competition for WM, rendering the traumatic memories less vivid and emotional. When memories are recollected they re-enter a labile state and become malleable and, because of this, the traumatic memory is overwritten by the memory that is blurred by EM. Emotional material is better (re) consolidated than emotional neutral material, i.e., it is prioritized and is (re) consolidated more vividly and in greater detail. This is caused by the release of noradrenaline (NA). In EMDR emotional material is recollected and reconsolidated. Therefore, EMDR might work because of NA release, i.e., NA enhances the reconsolidation of the blurred emotional memories.

The goal of the present study is to investigate whether the blockade of NA-transmission by beta-antagonist propranolol reduces the common EMDR effects (reduced vividness/emotionality of emotional memories) in order to find out if NA-release (evoked by the emotionality of the memories) plays an important role in the blurring of traumatic memories during EMDR.

The proposed study will use a double-blind, placebo-controlled, experimental, repeated measures design, with medication group (placebo, propranolol) as between subjects independent variable, condition (recall + EM, recall only, no recall) and time (pretest,

posttest-1, posttest-2) as within subjects independent variables, and VAS-rated vividness and emotional arousal, and physiological response (heart rate, skin conductance and facial electromyography (EMG)) as dependent variables.

Study objective

The goal of the present study is to investigate whether the blockade of NA-transmission by beta-antagonist propranolol reduces the common EMDR effects (reduced vividness/emotionality of emotional memories) in order to find out if NA-release (evoked by the emotionality of the memories) plays an important role in the blurring of traumatic memories during EMDR.

Study design

Direct post-test and 24h hour follow-up.

Intervention

1. Propranolol 40 mg or placebo;

2. Memory recall + eye movements, memory recall only.

Contacts

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Eligibility criteria

Inclusion criteria

1. Passing the medical screening (blood pressure and heart rate examination, two-step test and interview);

2. Age 18-35.

Exclusion criteria

1. History of cardiovascular problems;

2. Liver or kidney disease;

3. Asthmatic disease;

4. Use of contraindicative medication;

5. History of psychiatric disorders;

6. History of neurological disorders;

7. Hypersensitivity to propranolol;

8. Pregnancy.

Study design

Design

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

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-02-2013
Enrollment:	50
Type:	Anticipated

Ethics review

Not applicable

Application type:	Not applicable

Study registrations

Followed up by the following (possibly more current) registration

ID: 40004
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL3540
NTR-old	NTR3695
CCMO	NL41743.041.12
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON40004

Study results

Summary results

N/A