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

Gepubliceerd: 08-11-2012 Laatst bijgewerkt: 15-05-2024

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...

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON22254

Bron
NTR

Verkorte titel
The role of NA in EMDR: a propranolol investigation

Aandoening

Propranolol; EMDR; eye movements; emotional memory; noradrenaline

Ondersteuning

Primaire sponsor: Utrecht University
Prof. Dr. Marcel van den Hout
Overige ondersteuning: Utrecht University

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

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.

Toelichting onderzoek

Achtergrond van het onderzoek

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.

Doel van het onderzoek

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.

Onderzoeksopzet

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

Onderzoeksproduct en/of interventie

1. Propranolol 40 mg or placebo;

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

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

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

2. Age 18-35.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Dubbelblind

Controle:	Placebo

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-02-2013
Aantal proefpersonen:	50
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 40004
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

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

Resultaten

Samenvatting resultaten
N/A