

# Reducing dental anxiety by taxing working memory

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1. Taxing working memory of patients with fear of dental treatment by playing the computer game Tetris® reduces the vividness of their flashforward. (as indexed by a Visual Analogue Scale (VAS), from 0 = 'not lively' to 100 = "...)

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON28447

### Bron

Nationaal Trial Register

### Aandoening

The purpose of this study is to determine whether playing the computer game Tetris® prior to dental treatment is capable of reducing trait anxiety in patients suffering from a severe form of dental anxiety.

### Ondersteuning

**Primaire sponsor:** Academic Centre for Dentistry Amsterdam (ACTA). University of Amsterdam, Vrije University Amsterdam, The Netherlands

**Overige ondersteuning:** none

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

Trait anxiety for dental treatment; state anxiety; liveliness of the flashforward, emotional charge of the flashforward.

# Toelichting onderzoek

## Achtergrond van het onderzoek

The working memory account predicts that a task that tax working memory will affect the intensity of a memory. Indeed, it has been found that a competing task for working memory resources will reduce not only the emotionality of retrospective images but prospective images as well (Engelhard et al., 2011; Butler et al., 1995). Although the effects of taxing working memory with a dual-task on flashbacks (disturbing memories of past events) and flashforwards (scary fantasies about what could possibly happen in the future) has been supported by prior studies (Holmes et al, 2009; Holmes et al, 2010; Engelhard et al, 2010; Engelhard et al, 2011), it is not yet clear whether these effects can be replicated in patients suffering from a specific phobia. The purpose of this study is to determine whether playing the computer game Tetris® prior to dental treatment is capable of reducing trait anxiety in patients suffering from a severe form of dental anxiety. Patients who visit a dental fear clinic are asked to think about one aspect of dental treatment that they fear most, their 'flashforward'. At the same time their working memory will be taxed by playing the computer game Tetris®.

## Doel van het onderzoek

1. Taxing working memory of patients with fear of dental treatment by playing the computer game Tetris® reduces the vividness of their flashforward. (as indexed by a Visual Analogue Scale (VAS), from 0 = 'not lively' to 100 = "extremely lively").
2. Taxing working memory of patients with fear of dental treatment by playing the computer game Tetris® reduces the emotionality of a flashforward (as indexed by a Visual Analogue Scale (VAS), from 0 = "not at all emotionally charged" to 100 = 'extremely emotional').
3. Taxing working memory of patients with fear of dental treatment by playing the computer game Tetris® reduces trait anxiety in regard to the dental treatment significantly, compared to the levels of three weeks prior. Level of dental trait anxiety is measure at the start of the study using the K-ATB, and is administered again when commencing dental treatment three weeks thereafter.
4. Taxing working memory of patients with fear of dental treatment by playing the computer game Tetris® reduces dental trait anxiety regarding the dental treatment significantly more than it does for patients without intervention.

## Onderzoeksopzet

Baseline, immediately after treatment, three weeks later.

## Onderzoeksproduct en/of interventie

The purpose of this study is to determine whether playing the computer game Tetris® prior

to dental treatment is capable of reducing trait anxiety in patients suffering from a severe form of dental anxiety. Patients who visit a dental fear clinic are asked to think about one aspect of dental treatment that they fear most. They focus on their mental representation of what might go wrong (a so called 'flashforward'). At the same time their working memory will be taxed by playing the computer game Tetris®.

## Contactpersonen

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## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

The participants are 18 years old or older. They must have a severe fear for dental interventions (and comply fully or partially to the criteria of a specific phobia stated by DMS-IV-TR).

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Patients who are familiar with the EMDR treatment method are excluded from participation.

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

### Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	01-11-2013
Aantal proefpersonen:	60
Type:	Verwachte startdatum

## Ethische beoordeling

Positief advies	
Datum:	03-11-2013
Soort:	Eerste indiening

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

## In overige registers

Register	ID
NTR-new	NL4102
NTR-old	NTR4247
Ander register	jldqgcqe : 15658
ISRCTN	ISRCTN wordt niet meer aangevraagd.

## Resultaten

### Samenvatting resultaten

N/A