

# Prevention of vivid memories

Published: 15-06-2010

Last updated: 15-05-2024

To compare the efficacy of playing Tetris to Assessments Only in the reduction of frequency, vividness, and emotional intensity of intrusions in Dutch soldiers exposed to aversive events on deployment in Afghanistan.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Anxiety disorders and symptoms
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON34053

### Source

ToetsingOnline

### Brief title

Vivid memories

### Condition

- Anxiety disorders and symptoms

### Synonym

intrusions; vivid memories

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Universiteit Utrecht

**Source(s) of monetary or material Support:** VIDI Vernieuwingsimpuls van prof.dr. Iris Engelhard

### Intervention

**Keyword:** Early interventions, Life change events, Memory, Posttraumatic Stress Disorder

(PTSD)

## Outcome measures

### Primary outcome

We expect to find a medium effect for Tetris ( $d=.5$ ), compared to the control group for frequency of intrusions at 1 week after the aversive event.

### Secondary outcome

Vividness and emotionality of intrusions will be measured immediately before the intervention, immediately after the intervention, 1 week after the event, and 6 weeks after deployment.

PTSD symptom severity will be assessed using a self-report instrument at 1 week after the aversive event and 6 weeks after deployment. At 6 weeks after deployment, PTSD diagnosis and severity will be assessed using a structured clinical interview.

## Study description

### Background summary

After a traumatic event, people may develop posttraumatic stress disorder (PTSD), which consists of reexperiencing the event (i.e., intrusive memories), avoidance of trauma-reminders, and increased arousal. There are no effective early interventions that prevent the onset of intrusive memories and other PTSD symptoms. Laboratory studies have shown that negative autobiographical memories become less vivid and emotional when the memory is retrieved while a concurrent (dual) task that taxes working memory (WM) is performed. Beneficial effects are thought to occur because the two tasks (keeping the memory in mind and dual task) compete for limited WM resources, which blurs the recollection and produces a decay of the original memory trace. The findings may have important implications for secondary prevention of posttraumatic stress symptoms. Within hours and probably a day after an adverse event, the memory for the event is flexible. In a recent analogue trauma study, Holmes et al. (2009) showed healthy participants an extremely aversive film. After a waiting period,

memories of the films were activated. Half of the participants were asked to simultaneously play the PC game \*Tetris\*, which requires WM resources. In line with the hypothesis, participants in the Tetris group reported significant less impact and fewer intrusions of the film in the subsequent week, compared to a control group that did not play Tetris. These findings have been replicated several times.

In the current study, we will evaluate whether intrusive memories may be prevented by early intervention with Tetris in Dutch soldiers deployed to Afghanistan. We hypothesize that the frequency, vividness, and emotional intensity of intrusions will be reduced in soldiers who receive the Tetris intervention, compared to participants who do not receive the Tetris intervention.

## **Study objective**

To compare the efficacy of playing Tetris to Assessments Only in the reduction of frequency, vividness, and emotional intensity of intrusions in Dutch soldiers exposed to aversive events on deployment in Afghanistan.

## **Study design**

Randomised Controlled Trial (RCT)

## **Intervention**

Participants will be randomly allocated to one of two conditions: (1) Tetris (n=51); and (2) Assessments Only (n=51). The Tetris group will be asked to repeatedly bring the event to mind, while playing Tetris on a computer for 12 minutes. The Assessments Only group will be administered the same pre measures used in the Tetris group, and are asked to return after 10 min. to complete the post assessment. Both groups will be offered care as usual by the Dutch Defense Military Mental Health.

## **Study burden and risks**

The burden of participation consists of completing questionnaires (15 min) and attending the intervention session (12 min) within 24 hrs after the aversive event. In addition, participants will be asked to complete a post-intervention assessment immediately after the intervention (10 minutes), a post-intervention assessment at 1 week after the aversive event (30 minutes) and a follow-up assessment at 6 weeks after deployment (45 minutes). There are no risks involved and the burden to participants is limited.

## 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

1) exposure to potentially traumatizing event according to the stressor A1 criterion of the diagnostic criteria for PTSD in DSM IV (i.e., involving actual or threatened death or serious injury, or threat to the physical integrity of self or others); and 2) the event happened no longer than 24 hours earlier.

### Exclusion criteria

1) not fully conscious; 2) physically unable of undergoing the intervention); 3) suicidal ideation; 4) meeting the criteria for any of the following DSM-IV diagnoses: psychotic disorders, bipolar disorder, depression with psychotic features, or posttraumatic stress disorder.

## Study design

### Design

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

**Primary purpose:** Prevention

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	15-07-2010
Enrollment:	102
Type:	Actual

## Ethics review

Approved WMO	
Date:	15-06-2010
Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)
Approved WMO	
Date:	16-07-2010
Application type:	Amendment
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

## Study registrations

**Followed up by the following (possibly more current) registration**

No registrations found.

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

ID: 22994

Source: Nationaal Trial Register

Title:

## In other registers

Register	ID
CCMO	NL32189.068.10
Other	trial is aangemeld, nog geen nummer toegekend
OMON	NL-OMON22994

## Study results

Date completed: 31-12-2011

Actual enrolment: 4

### Summary results

Trial ended prematurely