Effects of Sleep Deprivation on Memory, Cognitive Inhibition and How They Relate to Dissociative Experiences

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Dissociative disorders
Study type	Interventional

Summary

ID

NL-OMON34240

Source
ToetsingOnline

Brief title
Effects of sleep deprivation on memory and dissociation

Condition

- Dissociative disorders

Synonym
dissociation

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit Maastricht
Source(s) of monetary or material Support: ZonMW

Intervention

Keyword: cognitive inhibition, dissociative experiences, memory, sleep deprivation

Outcome measures

Primary outcome

The effects of sleep deprivation (as measured bij Stanford Sleepiness Scale) on dissociative experiences (Clinician-Administered Dissociative States Scale, Peritraumatic Dissociative Experiences Questionnaire), mood (Profile of mood states), and memory (subjective memory fragmentation, free recall, objective memory fragmentation, suggestibility, false memories).

Secondary outcome

Exploratory measures entail executive functioning (Attention Network Task, deception task), and visual perception (Interpersonal Perception Task, Snowy Pictures Task).

Study description

Background summary

Many clinicians assume that dissociative symptoms (e.g., amnesia, absorption, derealization) are the direct result of aversive life events (i.e., traumatic experiences). However, in our recent Psychological Bulletin review, we summarize evidence showing that dissociative symptoms are also (and perhaps primarily) related to unusual sleep experiences (e.g., nightmares, hypnopompic imagery).

Study objective

The aim of the present study is to test whether sleep deprivation specifically enhances dissociative symptoms and in doing so, fuels commission errors. It is designed to investigate whether 36 hours of sleep deprivation increases deficits in memory and cognitive inhibition. We hypothesize that the largest effects will be found in people with increased levels of dissociation. We will

primarily investigate whether sleep deprivation induces commission errors, memory fragmentation, and false memories. Furthermore, we will explore whether sleep deprivation leads to transient deficits in executive functioning.
Finally, the correlation between dissociative symptoms and a broad range of sleep measures, anxiety, depression, schizotypy, cognitive failures, and fantasy proneness will be investigated.
We expect most pronounced effects in participants with high levels of trait dissociation. We hypothesize that participants who sleep normally will function better on memory tasks than sleep-deprived participants. However, we expect sleep-deprived participants to score better on direct recall tasks than participants who sleep. Moreover, we hypothesize that sleep deprivation will increase the risk of so called commission errors and false memories in participants who score high on dissociation measures. Finally, we hypothesize that sleep deprivation will increase the risk of transient executive functioning deficits in participants with high dissociation scores.

Study design

Participants of the experimental group will be invited to the lab for a 36 hours sleep deprivation period. During this time they will be given several questionnaires, computer tasks, and interval measurements. Participants in the control group will attend two shorter sessions involving the same questionnaires, computer tasks, and interval measurements as the experimental group.

Intervention

36 hours of sleep deprivation in the sleep laboratory of the University of Maastricht.

Study burden and risks

No serieus risks are associated with participation. Sleep deprivation can only lead to fatique/sleepiness and a chance on a slight headache.

Contacts

Public
Maastricht University

Universiteitssingel 40
6200 MD Maastricht
NL
Scientific

Maastricht University

Universiteitssingel 40
6200 MD Maastricht
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Participants will be native Dutch undergraduate psychology students, male or female, 18-35 years old. Participation is only possible after written informed consent.

Exclusion criteria

Exclusion criteria entail any kind of sleep medication, substance misuse or dependence, nicotine dependence, serious mental disease, or an endocrinological disorder.

Study design

Design

Study type:	Interventional
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)

Primary purpose: Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-04-2011
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO

Date:	22-11-2010
Application type:	First submission
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

No registrations found.

In other registers

Register	ID
CCMO	NL33929.068.10