Acute and delayed effects of THC intoxication on false memories in a legal context

Published: 23-01-2017
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Primary Objective: to assess the immediate and delayed effects of THC on true and false memories in a legal context (i.e., on eyewitness and offender statements).Secondary Objective(s): to link drug-induced false memory effects to dissociation

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON45359

Source
ToetsingOnline

Brief title
Effects of THC intoxication on false memories in a legal context

Condition

- Other condition

Synonym
n.a.

Health condition

no health condition is addressed in the research, and healthy volunteers who are occasional cannabis users will be recruited

Research involving
Human

Sponsors and support

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

Intervention

Keyword: dissociation, false memories, mock crime, THC

Outcome measures

Primary outcome

Primary: Spontaneous false memories will be measured using the Deese/Roediger-McDermott (DRM) paradigm. Suggestion-based false memories will be assessed via exposing subjects to a virtual reality mock crime and adding suggestive misinformation in subsequent interrogations.

Secondary outcome

Secondary: Dissociative psychopathology (i.e., dissociative traits) will be measured using the Dissociative Experiences Scale (DES). Reality monitoring/dissociative symptoms (i.e., dissociative states) will be assessed using the Clinician Administered Dissociative States Scale (CADSS). Other parameters include constructs related to (false) memory, such as attention, information processing, compliance, arousal, and convergent and divergent thinking.

Study description

Background summary

False memories refer to memories of events/details that did not actually occur (Otgaar, Howe, Brackmann, & Smeets, 2016). False memories frequently occur spontaneously but can also be elicited through suggestive pressure. Legal cases

have shown that eyewitnesses and innocent suspects can falsely remember to have seen non-existing details of a crime or falsely confess to have committed a crime due to suggestive interrogation tactics of the police. Such false memories can lead to wrongful convictions. Moreover, eyewitnesses and suspects are often under influence of drugs such as cannabis while no knowledge base exists whether their drugged state makes them more sensitive to spontaneous or suggestion-based false memories. From a practical perspective, examining this issue is highly relevant as cannabis is the most widely used illicit drug in the world, and is strongly prevalent in the Netherlands. In the courtroom, eyewitness and suspect statements are seen as highly valuable evidence, thus their reliability is important.

Study objective

Primary Objective: to assess the immediate and delayed effects of THC on true and false memories in a legal context (i.e., on eyewitness and offender statements).
Secondary Objective(s): to link drug-induced false memory effects to dissociation

Study design

The study will be conducted according to a double-blind, placebo-controlled, 2 (Group: Treatment vs. Control) by 2 (Time 1 vs. Time 2) cross-over mixed design with Group as a between-subjects factor. Occasional (N=64) cannabis users will receive single doses of cannabis (300 µg/kg THC and placebo according to a double-blind design in which they will be exposed to either an eyewitness scenario (Study 1a) or a perpetrator scenario (Study 1b). Each participant will be allocated to 1 of 2 groups (n=32 each) that receive eyewitness and perpetrator virtual reality scenarios during opposing treatment conditions. Groups will be matched according to sex, education and age. The major advantage of this approach is that participants will only be exposed once to each scenario (i.e. to exclude carry-over and learning effects) while participating in both studies.

Intervention

Placebo (Knaster Hemp) and bedrobinol (300 µg THC/kg bodyweight)

Study burden and risks

The participants will inhale placebo and bedrobinol in a cross-over study. They will view two different virtual reality mock crimes on separate testing days, and subsequently their memory will be assessed.

Contacts

Public
Universiteit Maastricht

Universiteitssingel 40
Maastricht 6229ER
NL
Scientific
Universiteit Maastricht

Universiteitssingel 40
Maastricht 6229ER
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Occasional cannabis users (used between 1 times a month and 1 times a week during the previous year)
Aged between 18 and 40 years
Free from psychotropic medication
Good physical health as determined by medical examination and laboratory analysis
Absence of any major medical, endocrine and neurological condition
Normal weight, body mass index (weight/height2) between 18 and 28 kg/m2
Written Informed Consent
Good knowledge and understanding of the English language (at least 5 years of English language education; assessed in the pre-screening)

Exclusion criteria

History of drug abuse (other than the use of cannabis) or addiction (determined by the medical questionnaire, drug questionnaire and medical examination)
Pregnancy or lactation (pregnancy test, if needed)
Hypertension (diastolic> 90; systolic> 140)
Current or history of psychiatric disorder (determined by the medical questionnaire and medical examination)
Liver dysfunction
(Serious) side effects due to previous cannabis consumption
History of cardiac dysfunctions (arrhythmia, ischemic heart disease,*)

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	10-05-2017
Enrollment:	40
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Bedrobinol
Generic name:	dronabinol/THC
Registration:	Yes - NL outside intended use

Ethics review

Approved WMO Date:	23-01-2017
Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)
Approved WMO Date:	04-04-2017
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

ID: 25116
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
EudraCT	EUCTR2016-004982-22-NL
CCMO	NL60303.068.16
Other	not yet available
OMON	NL-OMON25116