Effects of MDMA on memory when witnessing or committing a simulated crime

Gepubliceerd: 12-09-2018 Laatst bijgewerkt: 15-05-2024

It is expected that participants in the MDMA condition will be more susceptible to false memory formation, and that this will be mediated by dissociation.

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON25089

Bron
Nationaal Trial Register

Verkorte titel
MDMA study

Aandoening

Participants are healthy volunteers

Ondersteuning

Primaire sponsor: Maastricht University
Overige ondersteuning: NWO

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Spontaneous and suggestion-based false memories will be assessed by using established

false memory paradigms (associatively-related word lists, mock crime).

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale: 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. Eyewitnesses and suspects are often under the influence of the party-drug ecstasy (MDMA) but little knowledge exists whether their drugged state makes them more vulnerable to spontaneous or suggestion-induced false memories.
Objective: Objectives of this study are twofold. The current project will examine the impact of MDMA intoxication on susceptibility to false memories and dissociation. Additionally, the effect of MDMA on functional connectivity between the striatum and the prefrontal cortex will be studied using fMRI in a subset of participants.

Study design: Acute and delayed influences of MDMA on false memory formation will be assessed in a placebo-controlled study in occasional MDMA users, using a virtual reality (VR) eyewitness and a perpetrator scenario. The order of treatments and scenarios will be counterbalanced across participants.

Study population: Sixty-four healthy, occasional MDMA users, aged 18-40.

Intervention (if applicable): Placebo and MDMA (75mg)
Main study parameters/endpoints: Spontaneous and suggestion-based false memories will be assessed by using established false memory paradigms (associatively-related word lists, mock crime). Dissociative states and traits will be assessed using both established self-report and clinician-administered measures. Functional connectivity will be assessed using resting state fMRI.

Nature and extent of the burden and risks associated with participation, benefit and group relatedness: Participants will visit our lab five times. The first visit includes a full medical screening by a licensed physician ensuring their safety, which will include a medical history review, a blood sample (12 ml), and an electrocardiogram recording. The second includes a short training session to familiarize them with the testing procedures and (potentially) the MRI scanner. During the third and fourth visit, participants will be administered placebo and MDMA (capsule) and be exposed to two distinct mock crime Virtual Reality (VR) scenarios on two separate occasions, each followed by an immediate and a one-week follow-up assessment, including measures of true and false memory and dissociative states and traits.

Moreover, a subset of 12 participants will undergo a resting state functional connectivity assessment inside the magnetic resonance scanner (time in MRI scanner is ~20 minutes). Finally, participants will return a week later for a brief follow up visit (20 minutes) in which they will receive follow-up false memory tests.

Doel van het onderzoek

It is expected that participants in the MDMA condition will be more susceptible to false memory formation, and that this will be mediated by dissociation.

Onderzoeksopzet

week 0: medical screening

week 1: training

week 2: testing session 1

week 3: testing session 2

week 4: followup

Onderzoeksproduct en/of interventie

75mg dose of 3,4-methylenedioxymethamphetamine (MDMA) vs placebo

Contactpersonen

Publiek

Wetenschappelijk

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen

(Inclusiecriteria)

• Experience with the use of MDMA/ecstasy (maximally 200 times in total, minimally 3 times in total; and at least once in the past 12 months): This will be assessed by means of a drug history questionnaire and an interview by the medical supervisor

• Age between 18 and 40 years

• Good physical health as determined by medical examination and laboratory analysis

• 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 prescreening)

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• History of drug abuse (other than the use of MDMA) or addiction (determined by the medical questionnaire, drug questionnaire and medical examination)

• Pregnancy or lactation (pregnancy test, if needed)

• Use of psychotropic medication (i.e. medication prescribed by a physician, such as antidepressants or antipsychotics, not including contraceptives or painkillers such as ibuprofen)

• Any major medical, endocrine and neurological condition]

• Decreased liver function

• 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 MDMA consumption

• History of cardiac dysfunctions (arrhythmia, ischemic heart disease,…)/ cardiovascular abnormalities as indicated by (1) The medical questionnaire and/or (2) the standard 12-lead

ECG

• Previous participation in study NL60303.068.16, “Acute and delayed effects of THC intoxication on false memories in a legal context”

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	N.v.t. / één studie arm
Blindering:	Dubbelblind
Controle:	Placebo

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	01-11-2017
Aantal proefpersonen:	64
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	12-09-2018
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 44349
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL7423
NTR-old	NTR7665
CCMO	NL62794.068.17
OMON	NL-OMON44349

Resultaten