

# CANreduce 3.0 - a web-based self-help program for reducing cannabis use that explores the effectiveness of mindfulness and cognitive behavioral therapy approaches

<b>Submission date</b> 09/09/2021	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered
<b>Registration date</b> 09/09/2021	<b>Overall study status</b> Completed	<input checked="" type="checkbox"/> Protocol
<b>Last Edited</b> 06/12/2022	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

In European countries, including Switzerland, as well as in many states worldwide, cannabis is the most widely used psychoactive substance (a chemical known to change brain function) after alcohol and tobacco. Although approximately one in ten users develop serious problems of dependency, only a small number attend outpatient addiction counseling centers. The offer of a web-based self-help program could potentially also reach those users who hesitate to approach such treatment centers and help them to reduce their cannabis use.

This study will test the effectiveness of two versions of a web-based self-help intervention (program) in reducing cannabis use in problematic users. One version is based on classical therapy (cognitive behavioral therapy) and one is based on mindfulness. A third condition is a waiting list control group.

### Who can participate?

Adults (aged 18 years or above) who can read and write in German and have used cannabis at least once a week during the last 30 days.

### What does the study involve?

Participants are randomly allocated to one of three groups. The two intervention groups consist of a 6-week, web-based self-help program (CANreduce) with a consumption diary, eight modules designed to help people to reduce their cannabis intake based on the principles of motivational interviewing, self-control practices, and methods of cognitive behavioural therapy (arm 1) or a mindfulness-based therapy (arm 2). The waiting control group are placed on a waiting list; after 6 months they can start the program, too. All participants are followed up after 6 weeks, 3 and 6 months to see whether they have reduced their cannabis use.

### What are the possible benefits and risks of participating?

A possible benefit to participation is using less cannabis. Possible risks include experiencing mild cravings and depression.

Where is the study run from?

Swiss Research Institute for Public Health and Addiction (ISGF) (Switzerland)

When is the study starting and how long is it expected to run for?

April 2020 to March 2024

Who is funding the study?

Swiss National Science Foundation

Who is the main contact?

Prof. Dr Michael Schaub, michael.schaub@isgf.uzh.ch

## Contact information

### Type(s)

Scientific

### Contact name

Prof Michael Schaub

### ORCID ID

<https://orcid.org/0000-0002-8375-4005>

### Contact details

Konradstrasse 32

Zürich

Switzerland

8005

+41 44 448 11 65

michael.schaub@isgf.uzh.ch

## Additional identifiers

### Clinical Trials Information System (CTIS)

Nil known

### Protocol serial number

20.4.17, 10001C\_192301 / 1

## Study information

### Scientific Title

CANreduce 3.0 - Randomized controlled trial testing the effectiveness of two different versions (mindfulness and CBT) of an adherence-focused web-based self-help intervention to reduce cannabis use in frequent cannabis users

### Acronym

CANreduce 3.0

## **Study objectives**

Current study hypothesis as of 24/01/2022:

1. A web-based self-help program with focus on mindfulness (arm 1) is more effective than the waiting list control condition (study arm 3) in reducing cannabis use in frequent cannabis users
2. A web-based self-help program with focus on cognitive behavioral therapy (arm 2) is more effective than the waiting list control condition (study arm 3) in reducing cannabis use in frequent cannabis users
3. A web-based self-help program with focus on mindfulness (arm 1) is at least as effective as one with focus on cognitive behavioral therapy (arm 2) in frequent cannabis users.

Previous study hypothesis:

1. A web-based self-help program with focus on mindfulness (arm 1) is more effective than the waiting list control condition (study arm 3) in reducing cannabis use in cannabis misusers
2. A web-based self-help program with focus on cognitive behavioral therapy (arm 2) is more effective than the waiting list control condition (study arm 3) in reducing cannabis use in cannabis misusers
3. A web-based self-help program with focus on mindfulness (arm 1) is similarly effective as one with focus on cognitive behavioral therapy (arm 2) in cannabis misusers.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

Approved 22/04/2020, Ethics Committee, Faculty of Arts and Social Science, University Zurich (Institute of Psychology, Binzmühlestrasse 14, Box 22, 8050 Zurich, Switzerland; +41 (0)44 635 74 70; k.oberauer@psychologie.uzh.ch), ref: 20.4.17

## **Study design**

Interventional randomized controlled trial

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Frequent cannabis use

## **Interventions**

Current interventions as of 24/01/2022:

The three-arm randomized controlled trial aims to test the effectiveness of a newly developed integrated mindfulness-based minimally guided self-help Internet intervention (Arm 1) and a cognitive-behavioral minimally guided self-help Internet intervention (reference product; Arm 2) with a control condition (Arm 3) in 630 individuals with frequent cannabis use. Moreover, we will explore similarities between the main intervention (arm 1) and the reference product (arm 2) for the effect size of the difference between the two study arms with confidence interval approaches including a priori set equivalence margin. In addition, the project intends to identify and compare relevant predictors of retention, adherence, and treatment outcomes for the two main intervention arms. The primary outcome is the number of days of cannabis use in the last 30 days.

Participants are randomly allocated to one of three arms:

1. Intervention 1: Web-based self-help program with focus on mindfulness
2. Intervention 2: Web-based self-help program with focus on cognitive behavioral therapy
3. Control group: Waiting list

CANreduce is an automated web-based self-help tool based on classical CBT approaches (expanded with mindfulness for this trial) for treating adults with frequent cannabis use. It will take 6 weeks and consists of a consumption diary, eight modules designed to reduce cannabis use based on the principles of motivational interviewing, self-control practices, and methods of cognitive-behavioural therapy (strategies for goal achievement, identifying risk situations, dealing with cannabis craving, dealing with relapses, working on needs, saying "no" to foster refusal skills, dealing with burdens, preserving achievements).

The control condition is a waiting list. After 6 months they will be given the opportunity to start the self-help program (study arm 1).

The masking technique will be single-blind, insofar that participants are only informed that "two different interventions" are being studied but not that they are mindfulness and CBT based. However, they will know if they have been assigned to the waiting list.

Once participants have completed their baseline assessment, they will be randomly assigned by a software-generated random number to one of the three groups.

Previous interventions:

The three-arm randomized controlled trial aims to test the superiority of a newly developed integrated mindfulness-based minimally guided self-help Internet intervention (Arm 1) and a cognitive-behavioral minimally guided self-help Internet intervention (reference product; Arm 2) with a control condition (Arm 3) in 630 individuals who abuse cannabis. Moreover, we will explore similarities between the main intervention (arm 1) and the reference product (arm 2) for the effect size of the difference between the two study arms with confidence interval approaches including a priori set equivalence margin. In addition, the project intends to identify and compare relevant predictors of retention, adherence, and treatment outcomes for the two main intervention arms. The primary outcome is the number of days of cannabis use in the last 30 days.

Participants are randomly allocated to one of three arms:

1. Intervention 1: Web-based self-help program with focus on mindfulness
2. Intervention 2: Web-based self-help program with focus on cognitive behavioral therapy
3. Control group: Waiting list

CANreduce is an automated web-based self-help tool based on classical CBT approaches for treating cannabis dependence. It will take 6 weeks and consists of a consumption diary, eight modules designed to reduce cannabis use based on the principles of motivational interviewing, self-control practices, and methods of cognitive behavioural therapy ( strategies for goal achievement, identifying risk situations, dealing with cannabis craving, dealing with relapses, working on needs, saying "no" to foster refusal skills, dealing with burdens, preserving achievements).

The control condition is a waiting list. After 6 months they will be given the opportunity to start the self-help program.

The masking technique will be single-blind, insofar that participants are only informed that "two different interventions" are being studied but not that they are mindfulness and CBT based. However, they will know if they have been assigned to the waiting list.

Once participants have completed their baseline assessment, they will be randomly assigned by a software generated random number to one of the three groups.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

Number of days of cannabis use in the last 30 days measured using self-report at baseline, after 6 weeks, and at 3 and 6 months follow-up.

## **Key secondary outcome(s)**

Current secondary outcome measures as of 24/01/2022:

1. Cannabis use frequency and amount over the past 7 days according to the "time-line-follow-back" (TLFB) method
2. Consumption patterns (years of cannabis use, 30-day point prevalence of cannabis and CBD use, type of consumption)
3. Cannabis use (CUDIT-R)
4. Alcohol abuse (AUDIT-C)
5. Perceived Stress (PSS-10)
6. Comprehensive Inventory of Mindfulness Experience (CHIME)
7. Depression (PHQ-9)
8. Generalized Anxiety (GAD-7)
9. Client Satisfaction
10. Negative effects according to Rozental et al. (2016)
11. Mindfulness Attention Awareness Scale (MAAS)
12. Severity of Dependence Scale (SDS)
13. National Institute on Drug Abuse Screening (NIDA-ASSIST)
14. Drug Abuse Screening Test (DAST-10)
15. Adult ADHD Self-Report Scale (ASRS-V1.1)

Some measures are taken at baseline (all but 9 and 10), some after 6 weeks (1, 2, 3, 5, 9, 10, 11, 12) and some after 3 and 6 months follow-up (1, 2, 3, 4, 5, 7, 8, 11, 12, 13)

Previous secondary outcome measures:

At baseline, after 6 weeks, and at 3 and 6 months follow-up.

1. Cannabis use frequency and amount over the past 7 days according to the "time-line-follow-back" (TLFB) method.
2. Number of days of CBD use in the last 30 days
3. Cannabis use (CUDIT)
4. Alcohol abuse (AUDIT-C)
5. Perceived Stress (PSS-10)
6. Comprehensive Inventory of Mindfulness Experience (CHIME)
7. Depression (PHQ-9)
8. Generalized Anxiety (GAD-7)
9. Client Satisfaction
10. Adverse effects according to Rozental et al. (2016)

## **Completion date**

31/03/2024

## Eligibility

### Key inclusion criteria

Current inclusion criteria as of 24/01/2022:

1. Cannabis use of at least once a week 30 days prior to study entry
2. At least 18 years old
3. At least weekly internet access and a valid email address and phone number
4. Informed consent (via a web form)

Previous inclusion criteria:

1. Cannabis use of at least once a week 30 days prior to study entry
2. At least 18 years old
3. At least weekly internet access and a valid email address

### Healthy volunteers allowed

No

### Age group

Adult

### Lower age limit

18 years

### Sex

All

### Key exclusion criteria

1. Current pharmacological psychiatric disease or history of psychosis, schizophrenia, bipolar type I disorder or significant current suicidal thoughts
2. Use of other pharmacological and psycho-social treatments for cannabis use disorders
3. Inability to read or write in German

### Date of first enrolment

13/09/2021

### Date of final enrolment

13/09/2023

## Locations

### Countries of recruitment

Austria

Germany

Switzerland

**Study participating centre**  
**Swiss Research Institute for Public Health and Addiction (ISGF)**  
Konradstrasse 32  
Zürich  
Switzerland  
8005

## Sponsor information

**Organisation**  
University of Zurich

**ROR**  
<https://ror.org/02crff812>

## Funder(s)

**Funder type**  
Government

**Funder Name**  
Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung

**Alternative Name(s)**  
Schweizerischer Nationalfonds, Swiss National Science Foundation, Fonds National Suisse de la Recherche Scientifique, Fondo Nazionale Svizzero per la Ricerca Scientifica, Fonds National Suisse, Fondo Nazionale Svizzero, Schweizerische Nationalfonds, The Swiss National Science Foundation (SNSF), SNF, SNSF, FNS

**Funding Body Type**  
Private sector organisation

**Funding Body Subtype**  
Trusts, charities, foundations (both public and private)

**Location**  
Switzerland

## Results and Publications

Individual participant data (IPD) sharing plan

Fully anonymized data will be shared with qualified and trusted individuals for further use upon request (for example, for individual-patient data metaanalyses). michael.schaub@isgf.uzh.ch

## IPD sharing plan summary

Available on request

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>		24/03/2022	06/12/2022	Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes