

# Walking towards a more productive and balanced life

<b>Submission date</b> 11/04/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 07/09/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 07/09/2022	<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

Psychotherapy and its effects on psychological disorders have improved in recent decades. However, further improvement of psychotherapy is relevant for both clients and therapists. One way of improving psychotherapy interventions is to adjust the existing intervention to a different, more effective setting. In recent years, the positive effects that nature has on people's mental health and well-being have been increasingly documented. The idea that some psychological interventions can be provided in nature to increase the positive effect of treatment exists but has not been tested enough. This study aims to test whether the one session of solution-focused brief therapy (SFBT) provided in a natural environment leads to more improvements in participants' mental well-being when compared to the same intervention provided in an urban environment or indoor environment.

### Who can participate?

Healthy students (without diagnosis or treatment for psychological disorders) from universities or universities of applied sciences in the Netherlands, aged over 18 years

### What does the study involve?

Participants will be randomly allocated to one of the three groups. Participants will either receive a brief (45-minute) SFBT session in the indoor environment in rooms at the Vrije Universiteit, in the urban environment in the streets around the Vrije Universiteit, or in the natural environment in the Amsterdam Forest near the Vrije Universiteit. Participants from all three groups will fill out online questionnaires 1 day before the session, right before and after the session, later on the day of the session, and 2 weeks after the session. The study will last for 1 year.

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

All participants will receive a free 45-minute SFBT session provided by trained clinical psychology students. During the session participants will set a short-term goal to increase their productivity and well-being and will be guided to achieve these goals in the following 2 weeks. Taking part in this study won't cause risks of physical injury or harm for participants. Their mental health will not be at risk because only healthy participants will be included in the study, and coaches will be trained to provide the intervention.

Where is the study run from?  
Vrije Universiteit Amsterdam (Netherlands)

When is the study starting, and how long is it expected to run for?  
December 2021 to April 2023

Who is funding the study?  
Vrije Universiteit Amsterdam (Netherlands)

Who is the main contact?  
Dr Jolanda Maas  
jolanda.maas@vu.nl

## Contact information

**Type(s)**  
Principal investigator

**Contact name**  
Dr Jolanda Maas

**ORCID ID**  
<https://orcid.org/0000-0001-6400-149X>

**Contact details**  
van der Boechorststraat 7  
Amsterdam  
Netherlands  
1081BT  
+31 (0)6 24212540  
j2.maas@vu.nl

## Additional identifiers

**Clinical Trials Information System (CTIS)**  
Nil known

**ClinicalTrials.gov (NCT)**  
Nil known

**Protocol serial number**  
1

## Study information

**Scientific Title**  
The additive effects of solution-focused brief therapy in a natural environment: a three-armed randomized controlled trial

## **Study objectives**

Research questions:

What is the effect of a 45-minute session of Solution-Focused Brief Therapy (SFBT) on:

1. Short-term wellbeing
2. Goal commitment
3. Goal attainment
4. Mental health condition
5. Quality of life
6. Self-efficacy
7. Self-esteem
8. Procrastination

Does the effect of a 45-minute session of Solution-Focused Brief Therapy (SFBT) differ when it is given in a natural environment as opposed to in an indoor or urban environment for these outcome measures:

1. Short-term wellbeing
2. Goal commitment
3. Goal attainment
4. Mental health condition
5. Quality of life
6. Self-efficacy
7. Self-esteem
8. Procrastination
9. Use of nature

To what extent do personality and age moderate the effect of the environment in which the SFBT session took place on the outcome measures?

To what extent does therapeutic alliance mediate the effect of the environment in which the SFBT session took place and the outcome measures?

To what extent does the quality of the session mediate the effect of the environment in which the SFBT session took place on the outcome measures?

Hypothesis 1: The 45-minute session of Solution-Focused Brief Therapy (SFBT) will lead to improvement of:

1. Short-term wellbeing
2. Goal commitment
3. Goal attainment
4. Mental health condition
5. Quality of life
6. Self-efficacy
7. Self-esteem
8. Procrastination

Hypothesis 2: The 45-minute SFBT session in the natural condition will be more effective compared to the indoor and urban condition in improving:

1. Short-term wellbeing
2. Goal commitment
3. Goal attainment
4. Mental health condition
5. Quality of life

6. Self-efficacy
7. Self-esteem
8. Procrastination
9. Connectedness to nature
10. Use of nature

Hypothesis 3: The participants who received the 45-minute SFBT session in the natural condition will score higher on the patient working capacity scale compared to the participants who received the session in the indoor or urban condition.

Hypothesis 4: The experienced therapeutic alliance mediates the effect of the environment in which the SFBT session took place and the outcome measures

Hypothesis 5: The experienced quality of the session mediates the effect of the environment in which the SFBT session took place and the outcome measures

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Approved 03/02/2022, Vaste Commissie voor Wetenschap en Ethiek (Vrije Universiteit Amsterdam, Van der Boechorststraat 7, 1081 BT Amsterdam; +31 (0)20 59 88786; vcwe.fgb@vu.nl), ref: VCWE-2022-002

### **Study design**

Three-armed randomized controlled trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

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

Student well-being and productivity

### **Interventions**

Design: randomized controlled trial with three conditions (1:1:1 allocation ratio).

1. Regular indoor therapy room
2. Walking therapy in an urban environment
3. Walking therapy in a natural environment

Block randomization will be used involving varying block sizes of 3, 6, and 9. One of the researchers will create randomization schemes using a Sealed Envelope, and the randomization scheme will be safely stored. Each time a participant enters the study, one of the executive researchers will allocate the participant to one of the three conditions: (1) indoor, (2) outdoor in an urban environment, or (3) outdoor in a natural environment. The allocation ratio will be 1:1:1 to each condition to ensure an even number of participants in all conditions.

For the experiment, 200 students from universities or universities of applied sciences will be randomly assigned to one of the three environmental conditions (indoor therapy, therapy in nature, therapy in an urban environment).

Nine master psychology students are trained for 3 days by the Buitenpsychologen (<https://www.buitenpsychologen.nl>) to provide a 45-minute Solution Focused Brief Therapy (SFBT) session. During the training, they learn about the principles of Nature-Based/ Assisted Therapy and SFBT. They will be trained in providing these forms of therapy and practice applying The Miracle Question, a strategy often used in SFBT. They will also be trained to use the script that is made to guide the therapy session. Participants are asked to fill in a set of questionnaires:

1. One day before, they will attend the SFBT session with questions about personal characteristics (age, gender, study, personality) and mental health-related outcomes (Baseline t-1) (completion time approximately 15 minutes)
2. Directly before (t0) and after (t1) the SFBT session with questions about their current mood (completion time approximately 5 minutes per questionnaire)
3. Later on the day they attend the SFBT session with questions about the experienced quality of the session (completion time approximately 10 minutes) (t2)
4. Two weeks after they attend the SFBT session with questions concerning mental health related outcomes (completion time approximately 10 minutes) (t3)

### **Intervention Type**

Behavioural

### **Primary outcome(s)**

Psychological distress as a measure of student well-being will be measured using the self-report scale General Health Questionnaire (GHQ-12) at the baseline measurement (1 day before the session) and 2 weeks after the session.

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

1. Self-efficacy measured using the self-report questionnaire General Self-Efficacy Scale (GSES) at the baseline measurement (1 day before the session) and 2 weeks after the session.
2. Self-esteem measured by the Rosenberg Self-Esteem Scale at the baseline measurement (1 day before the session) and 2 weeks after the session.
3. Procrastination measured using the self-report questionnaire Procrastination Scale (GPS) at the baseline measurement (1 day before the session) and 2 weeks after the session
4. Goal achievement measured using a single item from the Self-regulation Skills Battery 2 weeks after the session
5. Goal commitment measured using the Goal Commitment Scale after the session
6. Quality of life measured using the self-report questionnaire Quality of Life Scale (QOLS) at the baseline (1 day before the session) and 2 weeks after the session
7. Short-term wellbeing measured using Short Form of the Profile of Mood States (POMS-SF), Positive and Negative Affect Schedule (PANAS), and a single stress item immediately before and after the session
8. Therapeutic alliance measured using the patient and the therapist version of the California Psychotherapy Alliance Scale (CALPAS) after the session
9. Perceived quality of the session measured using Session Rating Scale directly after the session
10. Perceived restorativeness of the environment measured using Perceived Restorative Scale at t2
11. The extent to which the participant perceived the session as enjoyable and whether the participant is interested in following a similar session again, assessed with adhoc questions after the session

12. Connectedness to nature measured using the Nature in Self scale at baseline and t3
13. The use of nature measured with two open questions at baseline and t3

**Completion date**

30/04/2023

## Eligibility

**Key inclusion criteria**

People can participate in this study if:

1. They are a student at a university or university of applied sciences
2. They are NOT currently suffering from a mental disorder
3. They are NOT in treatment for a mental disorder

**Participant type(s)**

Healthy volunteer

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

People cannot participate in this study if:

1. They are a not student at the university or university of applied sciences
2. They are currently suffering from a mental disorder
3. They are in treatment for a mental disorder

**Date of first enrolment**

14/02/2022

**Date of final enrolment**

30/10/2022

## Locations

**Countries of recruitment**

Netherlands

**Study participating centre**

Vrije Universiteit Amsterdam

Faculty of Behavioral and Movement Sciences

van der Boechorststraat 7

Amsterdam

Netherlands  
1081 BT

## Sponsor information

### Organisation

Vrije Universiteit Amsterdam

## Funder(s)

### Funder type

Other

### Funder Name

Topsector Tuinbouw en Uitgangsmaterialen

## Results and Publications

### Individual participant data (IPD) sharing plan

Anonymous data will be shared via DataverseNL. The data-sharing plans will be made available at a later date.

### IPD sharing plan summary

Stored in publicly available repository, Data sharing statement to be made available at a later date