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Walking towards a more productive and balanced life

Submission date
11/04/2022

Recruitment status
No longer recruiting

Registration date
07/09/2022

Overall study status
Completed

Last Edited
07/09/2022

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] 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

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes