ISRCTN17623318 https://doi.org/10.1186/ISRCTN17623318

Indoor rock climbing (bouldering) as a new treatment for depression

Submission date
15/07/2015

Recruitment status
No longer recruiting

Registration date
24/07/2015

Overall study status
Completed

Last Edited
18/08/2023

Condition category
Mental and Behavioural Disorders

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

Plain English summary of protocol

Background and study aims
We are carrying out a study to investigate the effects of a bouldering treatment on patients with depression. Bouldering is defined as rock climbing to moderate heights (up to around four metres) without rope. The study aims to develop a manual for an eight-week treatment that integrates psychotherapeutic interventions in a bouldering group setting and to assess the effects of a bouldering treatment on people with depression.

Who can participate?
Adults with depression. The study is not restricted to a certain age range.

What does the study involve?
All participants receive the bouldering treatment. The treatment takes place for three hours once a week over a period of eight weeks. Patients are randomly assigned to two groups (intervention vs. waiting list). At first, the intervention group receives the treatment and after eight weeks of treatment the groups change and the waiting list group also receives the treatment. Every 8 weeks for 24 weeks, the patients complete several questionnaires concerning their psychological well-being.

What are the possible benefits and risks of participating?
Those participating in the study receive a free eight week physical activity programme estimated to have beneficial effects on physical and psychological well-being. In the long run we hope to find an effective supplementary treatment for depression. Another advantage is the implementation of the treatment in a group setting which is more cost-efficient in comparison to individual treatment. Additionally, we expect to gain evidence-based understanding on treatment programmes. The highest risk for participants would be a sport injury which is expected to be very unlikely. A current study on the incidence of climbing-associated injuries found that the average was 0.2 injuries per 1,000 h of outdoor rock climbing. In a supervised indoor bouldering setting, this should be even less, but of course all participants must adhere to the safety rules given by the therapists, and therapists must be trained in climbing safety.

Where is the study run from?
University Hospital Erlangen (Germany)

When is the study starting and how long is it expected to run for?
April 2013 to September 2015

Who is funding the study?
University Hospital Erlangen (Germany)

Who is the main contact?
Dr Katharina Luttenberger
katharina.luttenberger@uk-erlangen.de

Contact information

Type(s)
Scientific

Contact name
Dr Katharina Luttenberger

Contact details
Psychiatrische Universitätsklinik Erlangen
Schwabachanlage 6
Erlangen
Germany
91054

Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title
Indoor rock climbing (bouldering) as a new treatment for depression: Study design of a waitlist-controlled randomized group pilot study (Klettern Und Stimmung: Bouldern als neuer Behandlungsbaustein für Menschen mit Depression)

Acronym
KuS

Study objectives
Bouldering might be a valuable additional therapy for people with depression. In this pilot study we intend to develop a manual for an eight-week interventional program that integrates psychotherapeutic interventions in a bouldering group setting. We hypothesize that patients undergoing the bouldering treatment might reduce their depression scores to a greater extent than patients in the waitlist group, undergoing their individual treatment (TAU). Additionally a number of other depression related symptoms will be evaluated in explorative analyses.

Ethics approval required

Old ethics approval format

Ethics approval(s)
Ethics committee of the medical faculty, Friedrich-Alexander University Erlangen-Nuremberg, 15 /05/2013,
ref: 99_13 B

Study design
Randomized waitlist-controlled pilot study

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Depression

Interventions
The study is conducted as a randomised waitlist-controlled pilot study with an intervention period of 8 weeks. Both groups (intervention and waitlist) take part in the intervention program but with a delay for the waitlist group of 2 months. During the whole time both groups are free to take part in their individual treatment (e.g. medication, psychotherapy), prescribed by their physicians. These treatments that are not influenced by the study. The bouldering treatment consists of a 8-week manual on depression related problems and is held once a week for 3h each session. Each session starts and ends with a short mindfulness-based meditation and has a specific topic such as "fear and coping with it", "own limitations", "how to achieve personal goals" etc. These topics are worked with in specific bouldering-plays as for example climbing blindfolded, feeling support from others etc. The therapy is held in groups of about 12 patients with two therapists.

Intervention Type
Behavioural

Primary outcome(s)
The BDI-II is used to measure the intensity of depression. Measured at baseline (t0), after 8 weeks (t1), 16 weeks (t2), and 24 weeks (t3).

Key secondary outcome(s))
1. SCL-90-R (global intensity of psychological symptoms and distress)
2. FERUS (individuals' health-related resources and manageability)
3. d2-R (attention and concentration performance)
Measured at baseline (t0), after 8 weeks (t1), 16 weeks (t2), and 24 weeks (t3).

Completion date
30/09/2015

Eligibility

Key inclusion criteria
1. Diagnosis of depression by a psychiatrist or less than 13 points on the WHO depression scale,
2. Informed consent
3. Having free time on Thursday mornings during the intervention period
4. BMI between 18.5 and 35

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
1. Undergoing in-patient treatment during either the intervention or the waiting periods
2. Acute suicidality or psychosis
3. Medical contraindication against sport, determined by a GP or psychiatrist

Date of first enrolment
01/06/2013

Date of final enrolment
31/10/2014

Locations

Countries of recruitment
Germany

Study participating centre
University Hospital Erlangen (Universitätsklinikum Erlangen)
Erlangen
Germany
91054

Sponsor information

Organisation
Psychiatric University Hospital Erlangen (Germany)

ROR
https://ror.org/0030f2a11

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
Universitätsklinikum Erlangen

Alternative Name(s)
Erlangen University Hospital

Funding Body Type
Government organisation

Funding Body Subtype
Other non-profit organizations

Location
Germany

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	25/08/2015		Yes	No
Results article		07/12/2019	18/08/2023	Yes	No
Results article		23/03/2018	18/08/2023	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes