Preventive Cognitive Therapy with Neurocognitive Remediation Therapy for partially remitted depressed patients: a pragmatic randomized controlled multicentre trial.

No registrations found.

Ethical review	Positive opinion
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON22498

Source
NTR

Brief title
HERSTEL-study

Health condition

Major Depressive Disorder

Sponsors and support

Primary sponsor: Amsterdam UMC, location AMC
Source(s) of monetary or material Support: Hersenstichting (Dutch Brain Foundation

Intervention

Outcome measures

Primary outcome

Depressive symptoms over a one-year period: this main study parameter will be assessed monthly during a one-year period after baseline assessment using the Inventory of Depressive Symptomatology (IDS-SR).

Secondary outcome

Neuropsychological functioning by means of neuropsychological assessment at baseline and after treatment (assessed with online neuropsychological tests via a videoconferencing program or with the Amsterdam Cognition Scan):
o Malingering (Test of Memory Malingering (TOMM)).
o Verbal learning: immediate and delayed memory recall (Wordlist learning, Delayed recall & Recognition- equivalent of Rey Auditory Verbal Learning Test).
o Mental flexibility: inhibition and set-shifting ability (Stroop Colour-Word Interference Test; Connect the Dots II– equivalent of Trail Making Test B).
o Verbal working memory (Digit Sequences I & II – equivalent of Digit Span Forward and Backwards).
o Planning (Place the beads – equivalent of the Tower of London Test; Connect the Dots I– equivalent of Trail Making Test A).
o Computer skills as measured by the Amsterdam Cognition Scan.

Remission status, full recovery, and time to relapse within a year from baseline will be assessed by means of the Structured Clinical Interview for DSM-5 disorders (SCID-5-S) and Hamilton Depression Rating Scale (HAM-D).

Using the SCID-5-S, we will assess MDD history, current (hypo) mania or a history of bipolar illness, other psychiatric disorders (including anxiety), any psychotic disorder, and alcohol or drug misuse.

Positive and negative affect (PANAS), Dysfunctional attitudes (DAS), Childhood trauma (CTQ), and daily hassles (Everyday problem checklist; EPCL).

Disability (World Health Organization Disability Assessment Schedule 2.0 [WHODAS 2.0]).

Health-related quality of life (EQ-5D-5L) and health care and associated costs and costs from productivity loss (TIC-P).

Other parameters include age, marital status, gender, ethnicity, level of education, medication use, substance use (smoking, alcohol, drugs), psychiatric history (therapy, medication, number of previous episodes, duration of episodes and treatment). Electroconvulsive therapy in the previous 12 months, neurological disorder, disabling sensory and/or motor deficit by means of additional questions.

Study description

Background summary

Rationale: Patients who experience subsyndromal depressive symptoms during remission (i.e. partial remission of Major Depressive Disorder [MDD]) are at increased risk for a return to a full depressive episode, work and (psycho) social impairment, and lower quality of life. Current evidence-based interventions for partially remitted depressed patients include (continuation or switch of) psychotherapy and/or pharmacology. Most psychological treatments do not focus on improving cognitive functioning, whereas cognitive complaints are the most persistent symptoms in partial remission. Deficits in cognitive functioning are present during the acute phase of MDD and remain during remission, and predict poor treatment response and worse functioning. Adding online Neurocognitive Remediation Therapy (oNCRT) to strengthen cognitive abilities to current evidence-based treatments might improve treatment effects for these patients at risk for substantial increase of depressive symptomatology and return to a full depressive episode. NCRT is a transdiagnostic intervention that is widely applied to reduce cognitive dysfunction in various disorders, such as acquired brain injury, stroke, schizophrenia, multiple sclerosis, and attention-deficit/hyperactivity disorder. The present RCT may provide a new effective neuropsychological intervention to reduce the burden of depression in terms of improvement of symptoms, cognitive functioning, and quality of life as assessed by patient reported outcome measures.

Objectives: To examine the effect of Preventive Cognitive Therapy (PCT) with oNCRT as compared to PCT alone on the course of depressive symptomatology over a one-year period in partial remitted depressed patients. The secondary objectives are to investigate the effectiveness of PCT with oNCRT, compared to PCT alone, in patients partially remitted from depression on neuropsychological functioning (verbal learning, mental flexibility, verbal working memory, planning), positive and negative affect, dysfunctional attitudes, stress, time to MDD relapse within a year from baseline, disability, health-related quality of life, health care and associated costs and costs from productivity loss.

Hypothesis: PCT with oNCRT will lead to a larger decrease in depressive symptoms (measured with the IDS-SR) over the course of one year, as compared to PCT alone.

Study design: A pragmatic multi-centre randomized controlled trial (RCT) in which partial remitted depressed patients will be randomized (1:1) to 1. PCT with oNCRT, or 2. PCT alone. Randomization will be stratified for number of previous episodes (one versus more than one previous episodes) using randomly permuted blocks. After inclusion, duration of study participation, including monthly follow-ups, will be 12 months total.

Interventions: Participants will be randomly allocated to: 1) PCT with oNCRT, or 2) PCT alone.

Study population: 115 partially remitted depressed patients. Consistent with literature, partial remission is defined as subsyndromal depressive symptoms during the remission phase of MDD. Patients will be recruited from the general population using regular (social) media, hospitals, and several mental health institutions.

Study objective

Primary hypothesis: PCT with oNCRT will lead to a larger decrease in depressive symptoms

(measured with the IDS-SR) over the course of one year, as compared to PCT alone.

This is a two-tailed hypothesis, where the effect of PCT + oNCRT relative to PCT only will be estimated using linear mixed models for fixed (for PCT + oNCRT) treatment) and random effects (for patient, and possibly for centre). The primary analysis will be intention to treat, i.e. participants will be analyzed according to their randomized allocation, regardless of the actual treatment, and time in the study after baseline. Secondary analyses will be per protocol, defined as at least 6 PCT sessions and 6 weeks of oNCRT (in case of PCT+oNCRT allocation).

Secondary hypotheses (two-tailed tested):
Compared to PCT alone, PCT plus oNCRT will lead to:
- Longer time to depressive relapse (survival analysis);
- Improved neuropsychological functioning;
- Higher self-reported health-related quality of life;
- Less self-reported disability;
- Lower health care and associated costs and costs from productivity loss;
- Changes in positive and negative affect, dysfunctional attitudes, and stress.
In each analysis, adjustment will be performed for the stratification variable. If despite randomization other prognostically important factors differ between the groups, they will be adjusted for in supplemental analyses.

Study design

Baseline assessment (T0): Inclusion: SCID-5-S, HAM-D, neuropsychological assessments, IDS-SR, EPCL, DAS, CTQ, TIC-P, EQ-5D-5L, WHODAS 2.0, PANAS-SF, socio-demographic factors and participant characteristics.

Monthly assessment (T1 up to T12): IDS-SR

Post-treatment (T2): HAM-D, neuropsychological assessments, IDS-SR.

Trimonthly assessment (T3, T6, T9): EPCL, PANAS-SF, DAS, WHODAS 2.0, TIC-P, EQ-5D-5L, IDS-SR.

End of trial assessment (12 months post baseline; T12): SCID-5-S, HAM-D, IDS-SR, EPCL, DAS, TIC-P, EQ-5D-5L, WHODAS 2.0, PANAS-SF, socio-demographic factors and participant characteristics.

Intervention

Preventive Cognitive Therapy: All participants receive 8 weekly PCT sessions. PCT has been proven effective in relapse prevention in previous studies. The PCT will be delivered online by trained and licenced health care and clinical psychologists at one of the study sites.

Online neurocognitive remediation therapy: The participants, who are randomized to the PCT with oNCRT condition, receive oNCRT in addition to PCT. The oNCRT program utilized in the

current study is designed by CogniFit and consists of 3 session per week. The oNCRT is delivered during the same 8-week period as the PCT. The oNCRT will be delivered at home, online, at a participants' home computer.

Contacts

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Eligibility criteria

Inclusion criteria

- Does not meet the criteria of a current MDD episode according to the DSM-5, as assessed with the Structured Clinical Interview for DSM-5 disorders (SCID-5-S; First et al., 2016);
- Is more than 8 weeks MDD diagnosis-free (with a maximum of 2 years);
- Has a Hamilton Depression Interview (HAM-D) score of ≥8 and ≤15 (Hamilton, 1980);
- Is aged 18 or older;
- Speaks Dutch or English.

Exclusion criteria

- Current (hypo)mania or a history of bipolar illness;
- Any psychotic disorder;
- Alcohol or drug misuse;
- Primary Anxiety disorder diagnosis;
- Electroconvulsive therapy in the previous 12 months;
- Neurological disorder;
- Disabling sensory and/or motor deficit.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	12-07-2021
Enrollment:	115
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Yes

Ethics review

Positive opinion

Date:	09-07-2021
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 55338
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL9582
CCMO	NL74547.018.20
OMON	NL-OMON55338

Study results