

# Cognitive control training for depression

<b>Submission date</b> 11/09/2019	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 24/09/2019	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 11/10/2019	<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

Depression is a mental health condition where a person feels constantly very sad and low in mood for two weeks or more. It affects people in different ways. Sufferers can feel hopeless, anxious and lose interest in doing things they used to enjoy. It can also lead to problems with sleeping, feeling constantly tired, a loss of appetite and a low sex drive. In the most extreme cases, it can result in a person harming themselves or attempting to take their own life (suicide). The study aims to compare two treatment methods for depression, cognitive control training and behavioural activation

### Who can participate?

Patients aged 18 – 50 with major depressive disorder

### What does the study involve?

Participants are randomly allocated into Cognitive Control Training (CCT) or the active control group (Behavioral Activation). They are assessed with questionnaires a before and after the 18-session intervention (twice weekly).

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

Possible benefits of participating in this study include improvement in their condition and relief from symptoms. Improvement in cognitive and mood symptoms is likely. The intervention will target mood regulation and long-term sustainable strategies to deal with depression. The study doctor/researcher will be monitoring participants' condition more closely than usual. The findings of this study will be helpful in developing new strategies for patients with depression. There are no costs to participants and they will not be paid for their participation. The tests, examination and treatment will be free of cost. There are no risks involved in the treatment, but since the treatment requires participants to not change the dose of medication a month before and 3 months after the intervention there could be worsening of symptoms, in such a case they will be independently assessed by a psychiatrist and will be removed from the study.

### Where is the study run from?

1. NIMHANS OPD
2. NIMHANS Centre for Well Being (NCWB)

When is the study starting and how long is it expected to run for?  
October 2017 to October 2019

Who is funding the study?  
National Institute of Mental Health and Neuroscience (India)

Who is the main contact?  
Meenakshi Banerjee  
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## Contact information

**Type(s)**  
Public

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## Additional identifiers

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

**Protocol serial number**  
Nil known

## Study information

**Scientific Title**  
Cognitive control training for depression: a randomised controlled trial

**Acronym**  
CCT-D

**Study objectives**

Hypothesis 1: There will be no difference in measures of depression, anxiety, emotion regulation, metacognition, neuro-cognitions and quality of life, before and after cognitive control training

Hypothesis 2: There will be no difference in measures of depression, anxiety, emotion regulation, metacognition, neuro-cognitions and quality of life, between patients who receive cognitive control training and behavioural activation

### **Ethics approval required**

Old ethics approval format

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

Approved 18/07/2016, NIMHANS (Human) Ethics Committee (National Institute for Mental Health and Neuroscience (NIMHANS), Hosur Road, Hombegowda Nagar, Bangalore, India; +91 (0) 8026995000; ms@nimhans.ac.in), ref: NIMH/DO/ETHICS SUB-COMMITTEE29thMEETING/2016

### **Study design**

Randomised controlled trial with single-blind pre-post and follow up design

### **Primary study design**

Interventional

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

Treatment

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

Major depressive disorder

### **Interventions**

Allocation to groups was done with a computer-generated random number table.

Arm 1 (Intervention) Cognitive Control Training:

18 sessions (two per week) training executive control processes - working memory, response inhibition and mental flexibility keeping an affective framework to suit patients with depression and decrease rumination and improve metacognition.

Arm 2 (Control) Behavioural Activation:

18 sessions (two per week) behaviour activation adapted from Jacobson (2001) and suggestions by Veale et al (2007).

Post-intervention CGI (Clinical Global Index) was done by an expert blind rater.

### **Intervention Type**

Behavioural

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

Depression measured using Beck's Depression Inventory (BDI) at baseline and 9 weeks

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

1. Illness severity measured using the Clinical Global Index (CGI) at baseline and 9 weeks
2. Neuro-cognitive measures at baseline and 9 weeks:

- 2.1. Spatial Span
- 2.2. Digit Span (WMS III)

**Completion date**

15/10/2019

## **Eligibility**

**Key inclusion criteria**

1. Major Depressive Disorder (as primary diagnosis)
2. Score of 17 or above on Beck's Depression Inventory (BDI)
3. Age range of 18-50 years
4. Comprehension of written and spoken English/Hindi
5. Right handedness
6. Normal or corrected vision or hearing
7. Stable on medication dosage for one month

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Upper age limit**

50 years

**Sex**

All

**Total final enrolment**

60

**Key exclusion criteria**

1. History suggestive of neurological, neurosurgical conditions and /or history of head injury And /or mental retardation on clinical assessment
2. Diagnosis of schizophrenia, Bipolar Affective Disorder, Severe Depression with psychotic symptoms, Delusional disorder, current psychoactive substance abuse and/or dependence (except nicotine)
3. Any structured psychological intervention in the past 6 months
4. Any neurocognitive intervention and/or neuropsychological assessments
5. Have received ECT (in last 6 months)

**Date of first enrolment**

01/10/2017

**Date of final enrolment**

10/09/2019

**Locations****Countries of recruitment**

United Kingdom

India

**Study participating centre**

**National Institute of Mental Health and Neuroscience (NIMHANS)**

Hosur Road

Hombegowda Nagar

Bangalore

Karnataka

India

560029

**Study participating centre**

**National Institute of Mental Health and Neurosciences Centre for Well-Being**

9th Main Road

Stage, BTM Layout 1

Bengaluru

Karnataka

United Kingdom

560076

**Sponsor information****Organisation**

National Institute for Mental Health and Neuroscience (NIMHANS)

**ROR**

<https://ror.org/0405n5e57>

**Funder(s)****Funder type**

Government

**Funder Name**

National Institute of Mental Health and Neuroscience

**Results and Publications****Individual participant data (IPD) sharing plan**

The datasets generated and/or analysed during the current study during this study will be included in the subsequent results publication.

**IPD sharing plan summary**

Other