

Metacognitive Therapy for Depressive Patients: A Systematic Review

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ABSTRACT

Metacognitive therapy has emerged as a new therapeutic approach for the management of mental disorders. The aim of this research was to systematically review existing scientific evidence regarding the efficacy of metacognitive therapy for adults with depression. Systematic searches were conducted in following electronic databases upto January 2025: The Cochrane Central Register of Controlled Trials (CENTRAL) published in the Cochrane Library, PsycINFO, PubMed (MEDLINE), Embase, and other sources that include Google Scholar, ICTRP and ClinicalTrials.gov. After study selection process, required data was extracted within the sphere of the review, and risk of bias was assessed. Seven RCTs were identified out of a total of 719 studies with total of 380 participants and were systematically reviewed. These results provided evidence for the use of metacognitive therapy in treating depression among young adults. Our systematic review goes with the previous researches on metacognitive therapy, proving that it could be a promising therapeutic method to treat depression. This systematic review provides directions for future research and guidance for mental health practitioners to use metacognitive therapy in this population.

Keywords: *Metacognitive Therapy, Systematic Review, Meta-analysis, Depressive Disorders, Randomized Controlled Trials.*

INTRODUCTION

The Institute for Health Metrics and Evaluation reported that mental health disorders are amongst the top ten main causes why people lose health across the world, and most common among all age groups and geographical locations are found to be anxiety and depressive disorders (Institute for Health Metrics and Evaluation, 2025). World health organization reported in 2019 that 970 million people were living with a mental disorder and among all psychological disorders depression and anxiety were the most prevalent (World Health Organization, 2022).

As a remedy for psychological issues, metacognitive therapy (Wells, 2009) is still becoming more popular and effective treatment in managing depression and dysthymia (Zanini et al., 2025) and complex anxiety disorders (Pålerud et al., 2025). The metacognitive model of psychological disorders, which is a continuation of the cognitive models, is the foundational basis for the therapy (Wells & Matthews, 1996). The Self-Regulatory Executive Function model (S-REF) serves as the theoretical foundation for MCT. This model explains how metacognitive beliefs that are maladaptive in nature give rise to the Cognitive Attentional Syndrome (CAS), resulting in psychological issues like anxiety and depression (Wells, 2009). The metacognitive theory that explains psychological disorders has a fundamental tenet that negative feelings and thoughts are typically fleeting (Wells & Matthews, 1994; Wells, 2009).

According to the epidemiological point of view, depressive disorders are widespread, with the World Health Organization (WHO) ranking them as among the main causes of disability globally (WHO, 2020). Psychotherapeutic approaches, especially cognitive-behavioral therapy (CBT), have demonstrated strong effectiveness in addressing the cognitive and relational dimensions of depression, offering long-term benefits (Cuijpers et al., 2023). More recently, meta-cognitive therapy (MCT) has emerged as a promising intervention. Studies comparing MCT and CBT have shown that while both approaches significantly ease out symptoms of depression, MCT has confirmed even better reductions on both the Beck Depression Inventory-II and the Hamilton Depression Rating Scale. Importantly, these gains were sustained at a follow-up of six months, indicating the lasting impact of MCT (Hagen et al., 2017).

Objective of the Study

To conduct a systematic review of randomized controlled trials (RCTs) to provide evidence for the efficacy of Metacognitive Therapy (MCT) in the treatment of depressive disorders among young adults.

LITERATURE REVIEW

In treating anxiety and depressive disorders, the effectiveness of MCT has been repeatedly demonstrated by numerous studies. Meta-analysis consisting of 16 studies and involving 384 participants, Normann et al. (2014) found that MCT was more effective than waitlist controls and on comparison with CBT. Normann and Morina (2018) updated their review to 25 studies to further provide evidence for MCT's enduring effectiveness. Follow-up data in this review displayed continuous reduction of symptoms for up to a year after taking therapeutic treatment. Similarly, McEvoy (2019) presented the increasing evidence that MCT is effective in managing anxiety disorders among children and adolescents, though it is still blurred how MCT can be differentiated from other third-wave therapies.

A recent meta-analysis by Andersson et al. (2024) assessed the effectiveness of MCT and Metacognitive training across 49 randomized controlled trials with 3,239 participants. MCT demonstrated moderate superiority over other cognitive behavioral therapies, and it demonstrated substantially greater effectiveness compared to waitlist control conditions. Thingbak et al. (2024) examined the connection between internalizing symptoms in young people and metacognitive beliefs in a meta-analysis. This review analyzed 40 studies involving 9,887 participants that were aged between 7 to 18 years. The participants displayed substantially lower levels of negative beliefs about worry, reduced cognitive confidence, heightened need for control, and increased cognitive self-consciousness compared to non-clinical groups.

METHODOLOGY

The systematic review was conducted as per the guidelines given by the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Group (Moher et al., 2009). This review has been registered prospectively with the International Prospective Register of Systematic Reviews (PROSPERO) under the ID CRD42024584573.

Search Strategy

The mentioned electronic databases were explored comprehensively from January 2010 to January 2025 for the potential studies relevant with this study: PubMed, PsycINFO, Embase and other sources such as Google Scholar. Keywords used to search the mentioned databases were “Depression” OR “Comorbidity” OR “Metacognitive therapy” OR “Metacognition” OR “MCT” OR “Metacognitive Model” OR “MCT Intervention” OR “Intervention” OR “Depressive Disorders” OR “Major Depressive Disorder” OR “Randomized controlled trials” OR “Individual Therapy” OR “Group Therapy” OR “Psychotherapy”.

Inclusion and Exclusion Criteria

The study was included if the study has:

- Intervention based on MCT as established by Adrian Wells
- Participants must be over 18 years old and have depressive symptoms
- Only randomized controlled studies will be included

The study was excluded if the study has:

- Full paper was unavailable in English text

Study Selection and Data Extraction

All the relevant studies were imported to Covidence (Covidence, 2025) and the duplicates were removed and after titles and abstract screening, full-text reviews were undergone as per review's inclusion and exclusion criteria. Final list of the RCTs to be included in the review was discussed by both the authors and disagreements were resolved through discussion. For each included RCT in this systematic review, certain characteristics of each study were extracted manually that includes; Psychological complaint treated, primary outcome, study and treatment type, treatment format (group or individual), number of participants for those data was available in the study, follow up months, gender distribution by reporting of % female in the study, mean age and total therapy sessions performed in experimental and comparator group.

Quality Assessment

The risk of bias assessment for each included RCT was assessed by using the Cochrane risk of bias tool version 2.0 (Sterne et al., 2019). Both of the researchers independently evaluate the methodological quality of included studies using this tool.

RESULTS

Literature Search Results

Literature search results are depicted through a PRSIMA flow diagram as shown in Figure 1. As a whole, 719 researches were scrutinized through database searching. 392 articles remained after removing 327 duplications. After titles and abstract screening, 34 researches were remained in the pool and identified for full-text review. 7 studies got eligible to be included in the review after full-text review and the reasons of exclusion can be seen in Figure 1.

Study Characteristics

An overview of the included studies with characteristic of each trial is depicted in Table 1. Out of these trials, 4 trials were those in which MCT was compared with active control groups; 1 was with treatment as usual control condition and 3 were with waitlist control condition. The comparator conditions with active conditions included both disorder-specific and generic Cognitive Behavioral Therapy (K=3), Behavioral Activation (K=1), and treatment as usual (K=1). Among the 7 RCTs, follow up data was available for 6 trials.

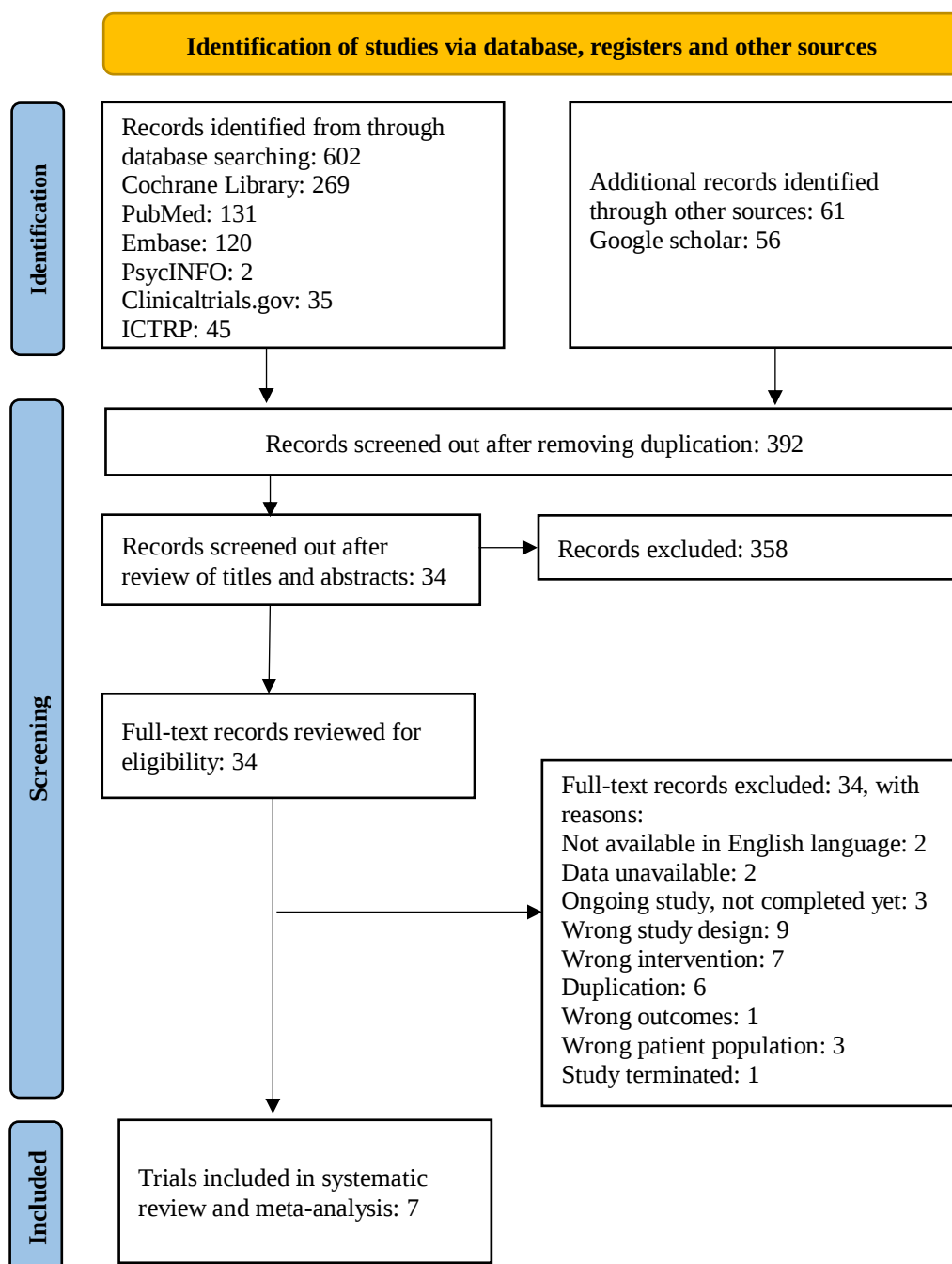


Figure 1: PRISMA flow diagram of study selection process

Table 1
Characteristic of Studies Included in Review

Psychological Complaint	Study and treatment type	Primary outcome	Treatment format	N analyzed	Flw-up months	% female	Mean age	Therapy sessions
DEPRESSIVE DISORDERS								
Depression (Among Cancer Patients)	Zahedian et al., 2021							
	MCT	BDI	Group	12	1	NI	47.33	8 (90 mins each)
	TAU		Group	12	1	NI	50.75	
MDD	Callesen et al., 2020							
	MCT	BDI-II	Individual	73	6	69.9	35	5.5 ^b (60 minutes each)
	CBT		Individual	82	6	68.3	35	6.7 ^b (60 minutes each)
MDD	Bahrami et al., 2020							
	MCT	BDI-II	Individual	16	-	93.8	18-60 years	10 (60 mins each)
	Citalopram			12		83.3		
	WL			8		87.5		
MDD	Hagen et al., 2017							
	MCT	BDI	Individual	20	6	65.0	32.2	10
	WL			19		53	35.4	

MDD	Zemestani et al., 2015							
	MCT	BDI	Group	15	3	61 ^a	24.2 ^a	8 (90 mins each)
	BA		Group	15				8 (90 mins each)
	WL			15				
Depressive Disorders	Jordan et al., 2014							
	MCT	QIDS ₁₆ -C	Individual	23	6	48	37.2	12
	CBT		Individual	25		48	35.0	12
MDD	Ashouri et al., 2012							
	MCT + Medication	BDI-II	Individual	10	yes ^c	60.6 ^a	32.48 ^a	NI
	CBT + Medication		Individual	10				
	Medication			13				

Note. N analyzed refers to number of participants that data was available for. Follow-up months indicate the longest follow-up period from post treatment. Mean are given for number of therapy sessions, and if means are unavailable, the maximum number of therapy sessions allowed is stated. ^aRefers to the total sample, as data was not available for each group. ^bIf maximum number of sessions allowed is not stated exactly, means are given for number of therapy sessions. ^cMeasures were administered for follow-up but time frame (after how many months) was not given in the study. MCT = Metacognitive Therapy; TAU = Treatment As Usual; CBT = Cognitive Behavioral Therapy; MDD = Major Depressive Disorder; BA = Behavioral Activation; QIDS₁₆-C = Quick Inventory of Depressive Symptomatology; NI = No information; WL = Waitlist; BDI-II = Beck Depression Inventory-II-Second Edition

Patient Characteristics

Out of 7 included RCTs, two RCTs undergo treatment in group format, rest of five were performed in individual format. Five RCTs included patients of Major Depressive Disorder, one with cancer patients having depressive symptoms (Zahedian et al., 2021) and one included generally depressive disorders (Jordan et al., 2014). Out of total 380 participants included in this review, 169 received Metacognitive Therapy and were analyzed at post-treatment.

Outcome Measures

The most frequently used depression measure (K=6) was the Beck depression Inventory (BDI, BDI- II; Beck, 1961; Beck et al., 1996) and only one study uses 16-item Quick Inventory of Depressive Symptomatology to assess symptom domains for DSM-IV major depressive disorder (QIDS16-C; Rush et al., 2003).

Risk of Bias

Out of 7 included RCTs, 4 were rated as having a high risk of bias, 2 were estimated as low risk, and 1 were rated as showing some concerns as shown in Table 2. Overall, the risk of bias was deemed high in 57% of the assessments, of concern in 0.14%, and low in only 28% of the trials. It is important to note that it is almost impossible in RCTs involving therapeutic interventions to make sure that the outcome assessments are not influenced by the participant's knowledge of the therapeutic intervention they are getting. Since most of the measures are self-administered, this increases the risk of bias, as the study participant also functions as the outcome assessor (Higgins & Thomas, 2019).

Table 2
Risk of Bias Assessment

Study ID	D1	D2	D3	D4	D5	Overall	
Zahedian et al., 2021							Low risk
Callesen et al., 2020							Some concerns
Bahrami et al., 2020							High risk
Hagen et al., 2017							D1 Randomization process
Zemestani et al., 2015							D2 Deviations from the intended interventions
Jordan et al., 2014							D3 Missing outcome data
Ashouri et al., 2012							D4 Measurement of the outcome
							D5 Selection of the reported result

DISCUSSION

This systematic review was carried out to provide the evidence for the efficacy of Metacognitive Therapy in alleviating depressive symptoms in young adults, as compared to waitlist and active control conditions. Data was investigated across 7 randomized controlled trials encompassing a total of 380 adult participants following a rigorous screening process based on PRISMA guidelines. In comparison to the earlier review by Normann et al. (2018), this study incorporated 7 randomized controlled trials only to give evidence for the efficacy of metacognitive therapy in treating depressive disorders only.

Most studies in this systematic review had some limitations that increased the risk of bias. First, the disadvantage was that double blind randomization was impossible because in psychotherapy it is unethical to double blind the therapist-patient performance in experimental group. Second, the randomization processes were not mentioned in detail in all of the studies that increases the uncertainty about the exact allocation of the participants.

Several suggestions are made to direct future research and clinical practice in light of the study's limitations and findings. To improve the generalizability and robustness of results, more high-quality randomized controlled trials with bigger and more varied samples are required. To lower the risk of bias, future studies should place a higher priority on methodological rigor by implementing blinding techniques, clear reporting on allocation concealment, transparent reporting of randomization, objective outcome measures, use of structured diagnostic interview treatment fidelity checks, and preregistration protocols.

CONCLUSION

A systematic review was performed as per the PRISMA guidelines in an attempt to address a substantial gap in the research and this can be a step towards making an indigenous manual of MCT for Pakistani ethnicity and culture. This systematic review provides evidence that MCT is highly effective in alleviating symptoms of depression. The findings align with previous preliminary research and further suggest that MCT may outperform other established treatments. While the presence of publication bias and high risk of bias in several studies calls for cautious interpretation, the overall results support the clinical utility of MCT and underscore its potential as a transdiagnostic intervention. Future research should aim to address current methodological limitations, ensure diverse and representative sampling, and explore innovative delivery methods to maximize the impact and accessibility of MCT in mental health care.

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