Chapter

Metacognitive Therapy (MCT) for Post-Traumatic Stress Disorder

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Abstract

Metacognition refers to the awareness and regulation of one's own thought processes. It involves thinking about thinking and includes skills such as self-reflection, self-monitoring, and self-regulation. When applied to post-traumatic stress disorder (PTSD), metacognition plays a significant role in how individuals process and cope with traumatic experiences. The results of experimental studies proved that metacognitive therapy (MCT) is effective in treating PTSD. MCT for PTSD offers several key benefits, making it a highly effective and client-friendly treatment option. By directly targeting dysfunctional metacognitive beliefs, MCT empowers clients to gain control over their thoughts and emotions, leading to rapid and sustained symptom reduction. Some studies specifically target chronic or complex PTSD, often resulting from prolonged or repeated trauma, such as childhood abuse or combat. Others focus on more specific types of trauma, like road traffic accidents or physical assaults. The studies generally aim to assess how well MCT works across different trauma types, offering insights into its versatility and effectiveness as a treatment approach. Additionally, MCT's potentially lower dropout rates make it a more sustainable treatment option for clients, especially those who may find other therapies overwhelming or too intense.

Keywords: metacognitive therapy, post-traumatic stress disorder, cognitive attentional syndrome, attention training technique, detached mindfulness, evidence-based therapy

1. Introduction

Metacognitive therapy (MCT), was created by Adrian Wells, represents a variant of cognitive-behavioral therapy (CBT) that emphasizes the examination and alteration of metacognitive beliefs and processes implicated in psychological disorders [1]. MCT has been applied to a wide variety of problems, it is also very useful in treating trauma. Individuals diagnosed with post-traumatic stress disorder (PTSD) are often characterized by recurrent, involuntary, and intrusive distressing memories and thoughts, dissociative reactions, nightmares, and avoidance of painful feelings. Individuals often engage in efforts to evade experiences and trauma-related stimuli that recurrent, involuntary, and intrusive distressing memories [2]. Beyond the symptoms characteristic of PTSD, the intense emotional pain and consequences of

trauma result in affected individuals perceiving as persistent and exaggerated negative beliefs or expectations about oneself, others, or the world in significant ways.

Many people encounter traumatic experiences that can significantly affect their lives. A minority of those who subjected such events go on to develop PTSD [2]. Recent meta-analytic findings indicate that the prevalence of PTSD decreases by roughly 50% within the initial 6 months following a traumatic incident, with minimal evidence suggesting any further alterations in prevalence or symptom intensity beyond this period [3]. Metacognitive model of PTSD suggests that the development of PTSD is not primarily driven by the specific content of thoughts but rather by how individuals respond to their thoughts and inner experiences [1, 4]. According to MCT, PTSD arises when individuals respond to intrusive thoughts and memories with rumination, worry, or other avoidant coping strategies, collectively known as cognitive attentional syndrome (CAS). This syndrome is considered maladaptive as it perpetuates threat perceptions and hinders emotional processing. MCT and PTSD symptoms are seen as a normal part of the adaptation process following trauma exposure, and the CAS is initiated in response to these symptoms among individuals with specific metacognitive beliefs about thinking. Holding positive metacognitive beliefs leads to the use of avoidant coping methods, while holding negative metacognitive beliefs results in distressing thought processes.

1.1 Overview of MCT

MCT is a psychological intervention with empirical support that originates from an information-processing model of psychopathology known as the self-regulatory executive function (S-REF) model, as proposed by Wells and Matthews [5, 6]. The initial stage in the advancement of MCT involved identifying three fundamental psychological processes linked to the emergence and persistence of emotional distress: perseverative thinking, attentional biases, and self-focused attention. Creating models with practical applications in clinical settings that can be transformed into effective interventions is a fundamental aspect of clinical psychology; a model integrating all these elements had the possibility of serving as a feasible substitute for traditional cognitive models of emotional distress.

The approach of MCT is notably different from CBT in that it emphasizes changes in metacognitive processes rather than alterations in cognitive content. According to Wells, schema theory indicates that the information retained in long-term memory influences the interpretation of thoughts and emotions; however, it does not clarify the mechanisms by which schemas direct information processing and contribute to ongoing emotional distress [5]. For effective advancement in psychological therapy, a conceptual framework is necessary to elucidate how self-awareness governs cognitive and emotional processing. The S-REF model, which is a comprehensive, multilevel framework for understanding psychopathology, offers a solution to this need.

S-REF encompasses three levels of cognitive functioning that interact to create an information-processing model of psychopathology. The initial tier is low-level processing (automatic and reflexive processing), in which intrusive thoughts function as the incoming stimuli. This level operates with minimal awareness and lacks any intention to modify its functioning. The second tier is online conscious processing, which is under an individual's active control and regulation. This level plays a crucial role in shaping how intrusive thoughts are evaluated, appraised, and responded to.

The third tier, known as top-down processing, consists of metacognitive knowledge that is retained in long-term memory. Metacognitive knowledge, or metacognition, refers to cognitive processes applied to cognitive activities.

MCT focuses on addressing issues at the metacognitive level. The online level of processing includes (a) perseveration, (b) concentrated attention on sources of threat both internal and external, and (c) unhelpful coping strategies. Collectively, these three components are termed the CAS. The CAS is counterproductive because it disrupts self-regulation and precludes change in knowledge about how the cognitive system processes. A large number of the coping strategies are metacognitive in structure in that they are intended explicitly or implicitly to change the status of cognition. That is, in MCT, what and how an individual think is controlled and altered by metacognition.

1.2 Metacognitive therapy for PTSD

The studies show that clients improve with prolonged exposure [7], cognitive processing therapy [8], and eye movement desensitization and reprocessing treatments [9]; however, a significant percentage of clients fail to respond, drop out of treatment, or show only limited improvement [10, 11]. MCT posits that an internal objective of processing the aftermath of a traumatic event is the development of a plan to guide thought and action in contingency future encounters with threats. The goal of emotional processing, which normally proceeds unhindered and inherently, is the strengthening of such a plan. PTSD symptoms such as recurrent, involuntary, and intrusive distressing memories and hypervigilant are the process by which emotional processing occurs and plans are developed called the reflexive adaptation process (RAP) [1, 4]. This term refers to the idea that this process is initiated automatically in response to intrusive thoughts.

PTSD symptoms alleviate when the RAP is concluded and the client handles threat-focused modes of processing. The aim of this procedure is to direct both cognitive processes and behaviors toward formulating general strategies for coping with threat. However, symptoms continue and therefore result PTSD when the client cannot go out threat-related modes. As mentioned above, psychopathology results from the cognition and coping pattern of the cognitive attentional syndrome. MCT emphasis on styles of thinking (worry/rumination and attentional strategies for threat) rather than on content of thinking, and for its concentrate on metacognitions, which are the beliefs (negative appraisal of one's coping or responses) and avoidance strategies (suppression and coping through cognitive, emotional or situational) [12]. Wells [4] presented a diagrammatic outline of the model in **Figure 1**.

The model posits that symptoms of PTSD, including involuntary, and intrusive distressing memories and thoughts, dissociative reactions, hypervigilance are typical responses following trauma. These symptoms serve as cognitive biases, influencing the selection and modification of metacognitive processes that direct thinking and coping strategies. In general, PTSD symptoms such as intrusive recollections (flashbacks) in conjunction with attentional-orienting responses, create a drive for mental simulations aimed at processing and overcoming the traumatic experience.

The issue with these processes lies in their tendency to perpetuate threat-related cognition, resulting in the individual's inability to effectively down-regulate the anxiety response activated by intrusive thoughts and trauma reminders. Consequently, the modes of responding that are centered on perceived threats become extended and intensified, preventing cognitive adjustment to a threat-free environment [4, 12].

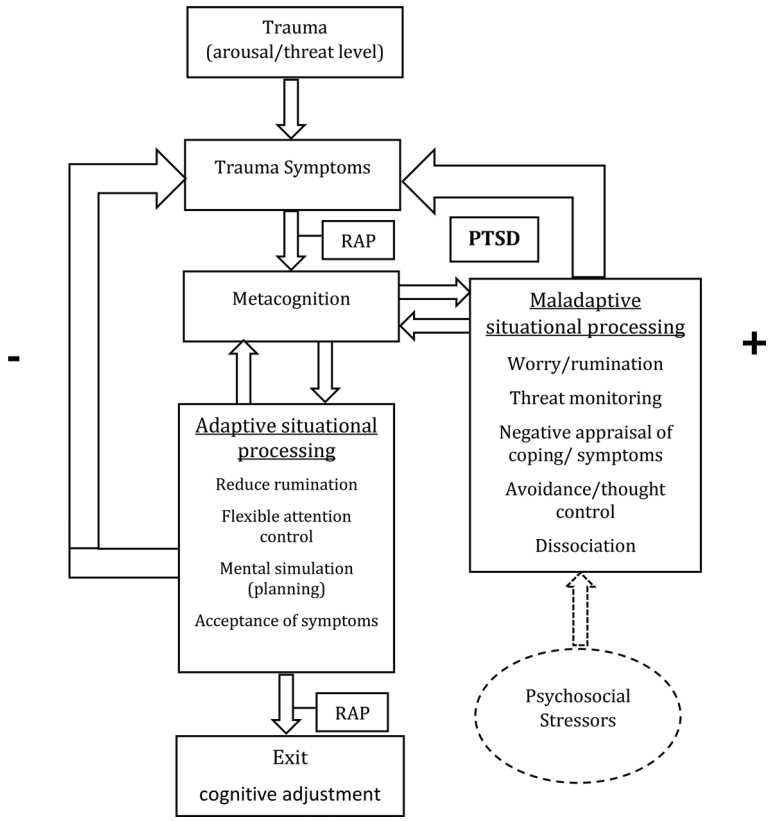

Figure 1.
A schematic representation of the metacognitive model of PTSD [4].

1.3 Implications of CAS in MCT for PTSD

The RAP operates its course unhindered for most individuals; however, those who develop PTSD will encounter a problem in the RAP due to an extended pattern of thinking known as the CAS. According to MCT, the CAS is central to psychological disorders. The CAS describes a set of perseverations (maladaptive thinking), threat monitoring and maladaptive coping strategies that sustain psychological disorders like PTSD. Understanding the CAS is critical to apprehend how MCT addresses these disorders.

Perseverative thinking includes worry, rumination, and gap filling where clients engage in repetitive and maladaptive thinking about contingent threats, past events or future-oriented. Rumination is typically past-oriented, and dwelling on past events and unwanted states. It includes intrusive thoughts about causes and consequences of one's distress, important in PTSD. Worry is characteristically future-oriented and involves a chain of negative thoughts about contingent dangers. It is characterized by "what if" scenarios and related to anticipating and dealing with potential threats. An additional manifestation of dwelling present in PTSD can be termed "gap filling." This concept involves revisiting past events in one's memory with the intention of addressing particular omissions. The process of gap-filling is often underpinned by the conviction that achieving this will yield insights into culpability and accountability for adverse occurrences or that it may aid in the evasion of possible threats in the future. For example, after an individual experiences an earthquake, he/she can

constantly go over the mistakes he/she made during the earthquake in his/her mind, constantly think about what he/she could have done in that situation, and plan what to do if another earthquake occurs in the future. As the person repeats this process, they become more and more anxious because all they can remember is the noise and everything in the house shaking, which means that a moment may occur.

Threat monitoring is characterized by an attentional bias to recognize and concentrate on possible jeopardy in the environment. Individuals often engage in continuous surveillance for indicators of risk or adverse outcomes, resulting in a state of hypervigilance. This increased level of awareness contributes to persistent anxiety, hindering the individual's ability to attain relaxation or experience positive emotional states. For example, a client who experienced an earthquake while sleeping later tried to be aware of the noises and would focus on safe exits from the environment they were sleeping in. This could happen at some night and significantly affect his sleep pattern.

Maladaptive coping mechanisms include strategies such as suppression, avoidance, and seeking reassurance, which ironically sustain and aggravate distress. Suppression, or the attempt to eliminate unwanted thoughts, often leads to their increased permanent and intrusive. Avoiding feared situations or activities hinders individual from realizing that these scenarios are not as perilous as they perceive. Additionally, reassurance-seeking may provide short-term relief from anxiety, yet it ultimately fosters a reliance on external validation and sustains the cycle of anxiety.

The pattern of responding with the CAS is contributed by underlying metacognitions comprising positive and negative beliefs about thinking. For example, after an individual experience an earthquake, he/she can constantly go over the mistakes he/she made during the earthquake in his/her mind, constantly thinks about what he/she could have done in that situation, and plans what to do if another earthquake occurs in the future.

The nature of metacognitive beliefs in individuals with PTSD encompasses both positive and negative dimensions. Positive beliefs pertain to the perceived utility of worry, rumination, monitoring of threats, filling cognitive gaps, and managing intrusive thoughts related to trauma. Conversely, negative metacognitive beliefs are associated with the interpretation and perceived threat posed by symptoms, including intrusive thoughts, nightmares, and anxiety.

2. MCT: Clinical application

Treatment sessions are conducted on a weekly basis schedule, with the sessions lasting between 45 and 60 minutes. The objectives of MCT are generally presented in a specific sequence; however, this does not preclude the possibility of presenting these goals in an alternative order or allowing the therapist to prioritize certain goals based on the unique challenges faced by the client. Effective of the therapeutic process evidenced by the following criteria [4]: (a) the client reports a successful disengagement from worry/rumination from the intrusive thoughts and/or memories, hypervigilant, and orienting responses; (b) the client reports permitting intrusions, memories, and thoughts related to the trauma to occupy their own "mental space" while watching the spontaneous behavior of them as a passive observer; (c) the client recognizes that symptoms are part of normal adaptation that do not require active avoidance or suppression. For a more comprehensive presentation of MCT interventions, see [1, 4].

2.1 Assessment

Assessment methods focus on administering the Post-traumatic Stress Disorder Scale (PTSD-S) [1]: examining the negative and positive metacognitive beliefs endorsed by the client in order to obtain a preliminary impression of the types of beliefs and behaviors that should be investigated and included in the case formulation.

Structured clinical interview (SCID) [13], and the using the and self-report scales for PTSD (for example the Impact of Event Scale [14], the Impact of Event Scale-Revised [15], the Revised Child Impact of Events Scale [16], the Post-traumatic Stress Diagnostic Scale [17], the Penn Inventory [18], or the Davidson Trauma Scale [19]). This scale provides an impression of the types of responses made to intrusive thoughts and memories of the trauma. Other measures that the therapist might consider that can be completed before treatment are the Beck Depression Inventory [20], and the Beck Anxiety Inventory [21].

2.2 The contents of MCT treatment

MCT can be used with a variety of clients and clinical presentations, with no certain restrictions to its use. However, it appears to be most useful when applied to clients who are assessed to be perseveration, focused attention on internal and/or external threat, and maladaptation coping strategies (suppression and avoidance), have chronic conditions, or who have multiple treatment failures. MCT has been demonstrated to be effective when used in the treatment of PTSD [3, 4, 12, 22–28].

2.2.1 First session: Case conceptualization

The objective of the initial session is to help clients recognize that their symptoms are associated with PTSD, to develop a case formulation, and to implement the fundamental strategies of MCT.

2.2.2 Second session: Socialization to the metacognitive model

The therapist emphasizes to the client that under normal circumstances, symptoms decrease over time as the natural psychological healing process occurs, and that PTSD symptoms are a normal part of adapting to traumatic experiences.

The client is offered psychoeducation about the CAS of PTSD, the process of continuing to produce a unique version of the metacognitive model that represents events that are activated in response to an intrusive thought, memory, or emotion related to the trauma. Because intrusive thoughts or feelings such as fear are easily detected, there is usually little difficulty in identifying a trigger to map the case formulation.

2.2.3 Third session: Training detached mindfulness

One goal of session is to alleviate the unhelpful effects of rumination/worry, overcontrol, attentional monitoring for threat, and negative appraisals on adaptation so that normal adaptation processes can continue. The other step in achieving this is "detached mindfulness" training, which increases awareness of maladapting thinking styles, disrupts them, and facilitates flexible control over responding.

2.2.4 Fourth session: Worry/rumination postponement

Once the client has understood the principle of detached mindfulness, the therapist shifts focus to alleviating worry and rumination. To facilitate this, the therapist introduces the technique of worry postponement. The client is encouraged to recognize the occurrence of the thought, flashback, or nightmare, and to consciously instruct themselves to refrain from worrying or ruminating about the trauma or its symptoms at that moment. They should allow the symptoms to diminish naturally and plan to reflect on them at a later time. It is essential for the therapist to closely monitor the client to ensure that they are consistently applying this strategy across the spectrum of intrusive thoughts and experiences of worry and rumination.

2.2.5 Fifth session: Challenging metacognitive beliefs

In the sessions, the therapist evaluates the client's progress with detached mindfulness exercises and worry postponement, while also encouraging the ongoing application and generalization of these techniques.

The initial concern pertains to the consistency and frequency of the application of both techniques. To gauge the use of detached mindfulness, the therapist inquiries about the clients' self-assessment regarding the proportion of time they have successfully employed this approach in response to intrusive thoughts. It is crucial for both the therapist and the client to recognize that this assessment should not be interpreted as a measure of the level of distress experienced. (a) The therapist should investigate whether there has been a decline in the application of the technique over time and, if so, explore the reasons behind this change. (b) The therapist must clarify that the primary aim of the technique is not to alleviate distress but rather to "remove barriers to natural processing," thus encouraging its application across a wide range of intervention scenarios. (c) The application of detached mindfulness is crucial when addressing any distressing intrusions associated with the client's trauma and its repercussions.

At this stage of the session, the therapist conducts an evaluation of the client's reliance on various maladaptive coping mechanisms that hinder effective adaptation. These mechanisms encompass the consumption of alcohol or other substances as a means to escape from distressing thoughts and emotions, strategies aimed at suppressing thoughts, and the deliberate avoidance of certain stimuli, such as news broadcasts. The therapist guides the client in recognizing the detrimental nature of these approaches. For instance, many of these coping strategies can be interpreted as forms of avoidance concerning traumatic thoughts and memories, which prompts a dialog about the issues stemming from cognitive avoidance.

2.2.6 Sixth session: Attention training

Attention training technique (ATT) aims to teach clients ATT to increase their control over attention, reduce threat monitoring, and increase flexibility in shifting attention.

This session focuses on hypervigilance and threat monitoring, which is an ongoing anxiety and distorted perception of danger for the individual. Internal sources of threat are an attempt to overestimate the possibility of danger based on subjective experiences such as bodily sensations, emotions, and thoughts. External sources of threat involve scanning the environment for potential dangers or being constantly

alert. The goal of this session is to help clients reduce their tendency to pay attention to and process potential threats. Clients are directed to focus on neutral or positive stimuli, away from perceived threats, both internal and external. Clients are encouraged to create or put into action plans to deal with real threats. This helps them feel more in control and capable, rather than reacting to perceived threats.

2.2.7 Seventh session: Reducing safety behaviors and avoidance

After the removal of maladaptive strategies and the modification of the positive metacognitive beliefs that underpinned them, the concluding phase of treatment involves the consolidation and reinforcement of alternative metacognitive strategies designed to manage responses to trauma-related intrusions in the future. It is crucial for the client to remain cognizant of their tendencies toward worry, rumination, and avoidance of perceived threats. The newly developed processing plan should embody responses that are fundamentally incompatible with these maladaptive behaviors. To aid in this transition, a "plan summary" can be utilized, which juxtaposes the old strategies with the newly formulated responses that should be practiced in reaction to specific triggers. The execution of this strategy encompasses three essential elements. First, it is necessary to identify a comprehensive array of symptom triggers to enhance the client's awareness. Second, a detailed set of first-person statements should be crafted in the summary, encapsulating both the previous and the new plans to be rehearsed. Lastly, the client must be motivated to consistently apply the new plan as a substitute for the old one. A closer examination of each component reveals that "My Triggers" includes a compilation of typical internal events that activate previous processing and coping mechanisms.

2.2.8 Eighth session: Relapse prevention

It is essential to consistently assess progress and reinforce the achievements attained throughout the therapeutic process. Formulating a Relapse Prevention Strategy: Establish a comprehensive plan that incorporates techniques for addressing possible challenges and sustaining advancements. This may entail supplementary sessions and ongoing application of ATT and detached mindfulness practices.

2.3 Evidence-based MCT for PTSD

MCT helps clients develop a more adaptive way of thinking and behaving. It helps them break free from restrictive thinking styles such as worry, threat monitoring and maladaptive self-control by revealing the "trauma-lock" state. Evidence-based studies [3, 4, 12, 23–28] have investigated the application of MCT among individuals diagnosed with PTSD stemming from diverse traumatic experiences. Certain research efforts concentrate on chronic or complex PTSD, which frequently arises from extended or recurrent trauma, including instances of childhood maltreatment or military combat. Other investigations are directed toward particular trauma categories, such as vehicular accidents or instances of physical violence. The overarching objective of these studies is to evaluate the efficacy of MCT across various trauma types, thereby providing valuable insights into its adaptability and effectiveness as a therapeutic intervention.

The participant pool predominantly consists of adults who have been diagnosed with PTSD, although there is notable diversity in both age and the types of trauma

experienced. The sample sizes exhibited significant variability across the studies. While the majority of the research encompassed a gender-diverse population, certain studies concentrated on particular categories of trauma. For instance, the increased representation of males in studies related to combat-induced PTSD may affect the overall gender distribution.

2.3.1 Attention training technique in MCT

The ATT is a fundamental component of MCT, designed to assist individuals in effectively managing their attentional focus. This approach is predicated on the premise that maladaptive attentional habits, such as persistent threat monitoring and an excessive focus on negative cognitions, significantly contribute to the persistence of PTSD symptoms.

2.3.1.1 Objectives of ATT

The primary aim of ATT is to improve an individual's capacity to redirect attention among various stimuli, rather than fixating on threatening or distressing thoughts. By facilitating a shift away from perceived dangers, ATT seeks to mitigate the hypervigilance and anxiety associated with threat perception that is often experienced in PTSD. This technique fosters a heightened awareness of how attention is directed and its subsequent effects on emotional health.

2.3.1.2 Structure of ATT

The initial phase of ATT involves training individuals to concentrate on specific environmental stimuli, such as auditory cues. The therapist may guide the client to sequentially focus on different sounds, like the ticking of a clock or the noise of passing traffic. This practice cultivates the ability to intentionally direct and maintain attention.

2.3.1.2.1 Selective attention

This aspect requires the client to concentrate on particular stimuli while disregarding others. For instance, the client might be instructed to filter out ambient sounds and focus solely on the ticking clock. This exercise enhances the ability to exclude irrelevant stimuli from conscious awareness.

2.3.1.2.2 Alternating attention

In this phase, the client practices transitioning their focus between various stimuli. They may be prompted to concentrate on one sound for a brief period before shifting to another, such as the sound of the wind, and then returning to the original sound, depending on the context of the exercise. This practice develops the necessary flexibility for voluntary attention shifts, which are crucial for overcoming the rigidity associated with threat-centered attention.

2.3.1.2.3 Divided attention

The concluding phase entails the client honing the skill of attending to multiple stimuli at once. The client may be instructed to listen to two distinct sounds concurrently

while striving to remain cognizant of both. This practice is designed to diminish the preeminence of any distressing thoughts or stimuli within the individual's awareness.

2.3.1.3 Implementation of ATT

The ATT is typically commenced within a carefully organized therapeutic environment, where the therapist facilitates the client through a range of exercises. This facilitation may involve the utilization of audio recordings or live stimuli to augment the practice. Clients are frequently assigned tasks to practice ATT autonomously at home. This could include listening to a recorded ATT session or incorporating mindfulness exercises into their everyday routines. Following each ATT session, a dialog regarding the session's experiences occurs between the therapist and the client. This reflective dialog aids the client in recognizing how their attention is diverted and the subsequent effects this diversion has on their emotional health.

2.3.1.4 Benefits of ATT

The ATT contributes to alleviating symptoms of PTSD by diminishing the focus on negative or threatening stimuli. Clients cultivate a heightened sense of control over their thoughts, which mitigates the sensation of being inundated by adverse cognitive patterns. As attention becomes more flexible and less fixated on perceived dangers, clients report a reduction in emotional turmoil.

2.3.2 Detached mindfulness techniques in MCT

Detached Mindfulness is a central technique within MCT that assists individuals in observing their emotions and thoughts without becoming entangled in them. It distinguishes itself from traditional mindfulness by emphasizing a non-judgmental, observational stance rather than actively engaging in the awareness of the present moment.

2.3.2.1 Objectives of detached mindfulness

Distancing from Thoughts: Independent Awareness aims to help individuals recognize that thoughts are merely mental events and do not directly reflect reality.

2.3.2.1.1 Reduction of cognitive fusion

It seeks to diminish cognitive fusion, which occurs when individuals overly identify with their thoughts, leading to emotional distress.

2.3.2.1.2 Promotion of metacognitive awareness

Independent Awareness encourages individuals to focus on the process of thinking itself rather than the content of their thoughts, thereby enabling them to understand how to respond to their thoughts more effectively.

2.3.2.2 Essential elements of detached mindfulness

Observing thoughts without reaction:

- Mental events: Individuals are encouraged to perceive their thoughts as fleeting mental events, akin to clouds drifting across the sky, rather than engaging with or attempting to alter them.

- Non-judgmental attitude: Practitioners learn to observe their thoughts without categorizing them as positive or negative, thereby diminishing the emotional weight of adverse thoughts.

Letting go of control:

- Embracing thoughts: Rather than striving to suppress or dominate their thoughts, individuals are taught to accept their existence without the compulsion to act upon them.

- Minimizing effort: Detached mindfulness emphasizes the reduction of effort expended in attempting to control or resist unwanted thoughts, which can often intensify emotional distress.

Breaking the cycle of worrying and ruminating:

- Disengagement: Individuals are instructed to disengage from the cycles of worry and rumination by identifying the onset of these thought patterns and deliberately opting to withdraw from them.

- Shifting focus: This approach also entails redirecting attention away from the content of worry or rumination toward the surrounding environment or other neutral stimuli.

2.3.2.2.1 Therapist guidance

The therapist facilitates the introduction of detached mindfulness through structured exercises that teach individuals to observe their thoughts without engaging with them. These sessions typically involve the therapist prompting the individual to acknowledge their thoughts and emotions, subsequently practicing the art of allowing these thoughts to pass without interference.

2.3.2.3 Implementation of detached mindfulness

Individuals are encouraged to sit in silence and become aware of the thoughts that emerge, visualizing them as objects drifting by, akin to leaves on a stream. The key aspect is to observe these thoughts without attempting to alter or suppress them. While this concept shares similarities with traditional mindfulness, the emphasis in detached mindfulness is on maintaining a clear distinction between thoughts and the self, recognizing them as separate entities. Individuals are encouraged to incorporate the practice of detached mindfulness into their daily routines, particularly when they find themselves ensnared in negative cognitive patterns. They are advised to maintain a journal documenting their experiences with detached mindfulness, which can serve as a focal point for discussion during therapy sessions.

2.3.2.4 Benefits of detached mindfulness

By creating a distance from troubling thoughts, individuals frequently report a decrease in symptoms associated with PTSD. Detached Mindfulness fosters an individual's capacity to select their responses to thoughts, resulting in more constructive emotional reactions. By preventing negative thoughts from overwhelming their mental space, individuals become more adept at managing their emotional states.

2.4 Efficacy of MCT for PTSD

Metacognitive therapy has been consistently validated as an effective treatment for (PTSD), with numerous studies indicating significant improvements in patient outcomes. MCT emphasizes the alteration of maladaptive cognitive patterns, such as worry, rumination, and threat assessment, providing a distinct alternative to conventional trauma-focused interventions like prolonged exposure (PE), eye movement desensitization and reprocessing (EMDR), and Cognitive Behavioral Therapy (CBT). Evidence from various studies comparing MCT to control groups and standard treatments strongly supports its efficacy. **Table 1** provides a brief summary of the status of the studies.

In the research conducted by Wells et al. [27], which focused on individuals with chronic PTSD, an impressive 90% of participants achieved clinical recovery after only eight sessions of MCT. Although this study did not include a control group, the extent of improvement in PTSD, anxiety, and depression symptoms was remarkable. In another study involving 20 participants, MCT was evaluated against a waitlist control group, revealing an 80% recovery rate in the MCT cohort, alongside significant decreases in PTSD, anxiety, and depression [12]. Conversely, the control group showed no notable changes, thereby affirming that the symptom improvements were attributable to MCT. Further corroboration of these findings was provided by Zafarizadeh et al. [28], which demonstrated that MCT resulted in substantial reductions in PTSD and depression among accident survivors when compared to a waitlist control group. Notably, these benefits persisted at a two-month follow-up, highlighting the lasting impact of MCT.

When MCT is directly compared to traditional therapeutic approaches, it exhibits even more favorable outcomes. The study by Callinan, Johnson, and Wells [23] that contrasted MCT with PE found that while both therapies were effective, MCT facilitated a more rapid reduction in symptoms, particularly concerning worry and rumination. This expedited recovery represents a significant advantage of MCT, as it targets the cognitive processes that perpetuate PTSD symptoms without necessitating that patients re-experience traumatic events, as is the case with PE [24].

Furthermore, Rahnejat et al. [25] investigated the effects of war-related PTSD and found that both MCT and PE significantly enhanced the quality of life (QoL) for veterans, with MCT showing marginally superior improvements in emotional health and cognitive flexibility. In the context of youth, MCT exhibited recovery rates ranging from 85–95% among children and adolescents, underscoring its efficacy across various age demographics [3]. Although the youth study did not provide a direct comparison with conventional therapies, the impressive recovery rates observed are consistent with those reported in adult populations, thereby affirming the widespread applicability of MCT.

Articles	n	Gender	PTSD assessment	Treatment	Control group	Time postassault
Wells and Sembi [4]	6	Female: 5 Male: 1	1. Post-traumatic stress diagnostic scale 2. Beck depression inventory 3. Beck anxiety inventory 4. Penn inventory for PTSD 5. Impact of events scale 6. Davidson trauma scale	Metacognitive Therapy	None	Pre- and post-treatment, and at 3, 6, and 18–41 months
Wells et al. [27]	11	Female: 6 Male: 5	1. Impact of Event Scale 2. The Penn Inventory 3. Beck Anxiety Inventory 4. Beck Depression Inventory	Metacognitive Therapy	None	Pre- and post-treatment, and at 3- and 6-month
Wells and Colbear [12]	10	Female: 6 Male: 4	1. Post-traumatic Stress Diagnostic Scale 2. Impact of Events Scale 3. Beck Depression Inventory – Second Edition 4. Beck Anxiety Inventory 5. Assessor Rating. 6. Thought Control Questionnaire	Metacognitive Therapy	Waitlist control	Pre- and post-treatment, and at 3- and 6-month
Zafarizadeh et al. [28]	15	Female: 0 Male: 15	1. Mississippi post-traumatic stress disorder scale	Metacognitive Therapy	Control group	Pre- and post-treatment, as well as at a follow-up 2-month
Callinan et al. [23]	29	Non-defined	1. The Impact of Events Scale 2. The Detached Mindfulness Questionnaire 3. The Positive and Negative Affect Schedule 4. Self-Attention Rating Scale	Attention Training	Control group	Pre- and post-treatment

Articles	n	Gender	PTSD assessment	Treatment	Control group	Time postassault
Wells et al. [26]	10	Female: 4 Male: 6	1. The Impact of Events Scale 2. The Post-traumatic Stress Diagnostic Scale 3. The Beck Depression Inventory-Second Edition 4. The Beck Anxiety Inventory	Metacognitive Therapy	Prolonged exposure	Pre- and post-treatment and at a follow-up 3-month
Simons and Kursawe [3]	18	Female: 14 Male: 4	1. The Revised Child Impact of Events Scale 2. The Child PTSD Symptom Scale	Metacognitive therapy	None	Pre- and post-treatment, as well as at a follow-up 3- to 5-month
Rahnejat et al. [25]	57	Male: 57	1. The 36-item short-form survey	Metacognitive therapy	prolonged exposure therapy and control group	Pre- and post-treatment, as well as at a follow-up 3- month
Nordahl et al. [24]	60	Female: 49 Male: 11	1. The Impact of Event Scale-Revised 2. Post-traumatic Stress Diagnostic Scale 3. The Beck Anxiety Inventory 4. The Beck Depression Inventory 5. The Inventory of Interpersonal Problems	Metacognitive therapy	Treatment as usual (TAU) consisting of cognitive behavioral therapy, prolonged exposure, and eye movement desensitization and reprocessing	Pre- and post-treatment

Table 1.
Comparison of experimental methods for PTSD.

3. Conclusion

The literature highlights several key advantages of Metacognitive Therapy (MCT) for clients, including:

Addressing metacognitive beliefs: MCT specifically targets the maladaptive beliefs that perpetuate PTSD symptoms, providing clients with strategies to regain control over their cognitive and emotional processes.

Flexibility: MCT's adaptable nature allows it to be tailored to various trauma experiences, making it suitable for a diverse clientele, ranging from adolescents to adults, including those with chronic PTSD and individuals with distinct trauma backgrounds.

Rapid and sustainable symptom alleviation: Clients often report swift improvements in their symptoms, with the potential for these positive changes to be maintained over the long term.

Reduced distress and lower dropout rates: MCT tend to be less distressing compared to exposure-based therapies, which may result in lower rates of client dropout, thereby enhancing its accessibility for a broader range of individuals.

Enhanced overall functioning: In addition to alleviating PTSD symptoms, MCT fosters improvements in overall functioning and quality of life, which are essential for the long-term well-being of clients. These characteristics render MCT a compelling choice for PTSD treatment, providing an effective, adaptable, and less distressing alternative to conventional therapeutic approaches.

Metacognitive therapy for PTSD presents numerous advantages that contribute to its efficacy and client-centered approach. By focusing on maladaptive metacognitive beliefs, MCT empowers clients to manage their thoughts and emotions, leading to swift and enduring alleviation of symptoms. Its flexible nature allows for customization to accommodate various types of trauma, rendering it appropriate for diverse populations, including adolescents and individuals with chronic PTSD. Furthermore, MCT typically exhibits lower levels of distress and dropout rates in comparison to exposure-based therapies, while simultaneously enhancing overall functioning and quality of life. These characteristics position MCT as a significant alternative for individuals seeking a treatment for PTSD that is both effective and less distressing.

4. Limitations

Sample size: A number of studies utilized relatively small sample sizes, which constrains the generalizability of their results and diminishes the statistical power necessary to identify differences between treatment modalities.

Control groups: Several investigations did not incorporate suitable control groups, such as placebo or untreated controls, complicating the attribution of observed improvements directly to MCT.

Generalizability: The emphasis on specific demographics, including chronic PTSD patients or youth, restricts the applicability of the findings to the wider PTSD population.

Duration of follow-up: The absence of extended follow-up periods in many studies leaves the long-term effects of MCT uncertain.

Therapist bias: Some research indicated that therapist enthusiasm could potentially skew results, favoring MCT outcomes. Notably, Wells participated in numerous studies.

Comparative analyses: Although certain studies compared MCT with alternative therapies, they frequently lacked comprehensive subgroup analyses that could elucidate which patient populations might derive the most benefit from MCT. These limitations indicate that, while the results of these studies are encouraging, there is a pressing need for larger, more rigorously controlled studies, the inclusion of more diverse populations, and extended follow-up durations to accurately assess the efficacy of MCT and its role within the broader spectrum of PTSD treatments.

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