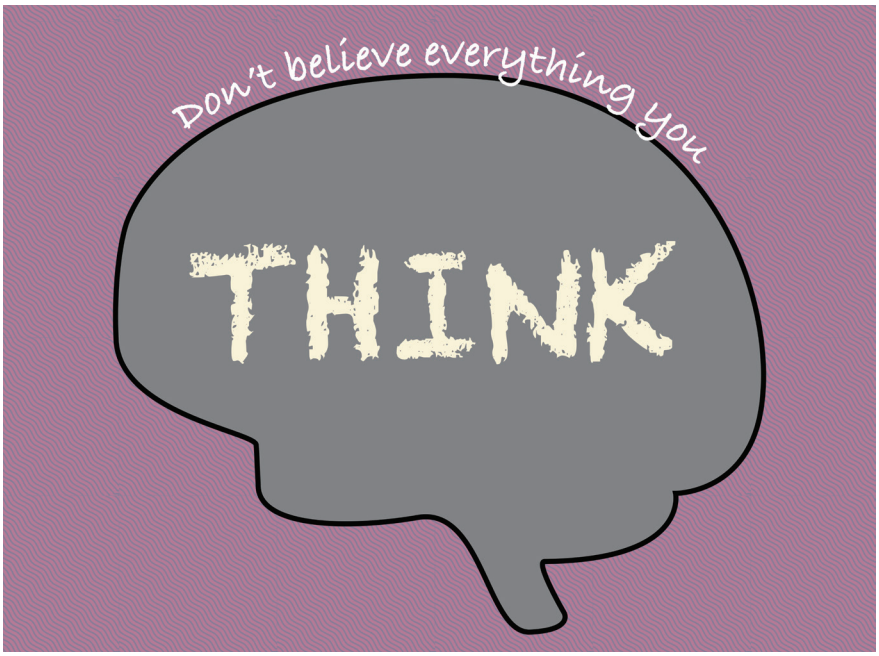
Research Article

The Effectiveness of Cognitive Behavioural Therapy versus Metacognitive Therapy on the Treatment of Anxiety

By Dr Marion Mensing



Introduction

The Cognitive Behavioural Therapy (CBT) therapist explains anxiety as an unpleasant emotional response to a perception of a threat, resulting from a distorted appraisal of a situation (Beck, Emery, & Greenberg, 2005). The distortion usually is a mixture of (1) an overestimation of the likeliness of a threatening event, (2) an overestimation of the extent of damage, (3) an underestimation of one's own coping potential, and (4) an underestimation of possible external support (Wills & Sanders, 2013). The Metacognitive Therapy (MCT) therapist looks at thinking about thinking (metacognition) and sees anxiety and other psychological problems as a result of a certain pattern of thinking – the cognitive attentional syndrome (CAS) – and not as a result of the content of the situational appraisal itself (Fisher & Wells, 2009). The CAS comprises prolonged repetitive thinking like rumination and worry, fixed attention on threat, and unhelpful coping behaviours (Fisher & Wells, 2009). Newer research evidence encourages us to have a fresh look at the underlying model of cognitive therapy.

Cognitive Behaviour Therapy (CBT) for Anxiety Treatment

Cognitive Behaviour Therapy (CBT) regards thoughts, emotions, and behaviours as interconnected and focuses on changing them in order to improve the client's psychological difficulties (Wills & Sanders, 2013). Aaron Beck developed the original model of CBT in the 1970s, which "contained a theory of how people develop emotional problems; a model of how they could heal disturbance; and a model of how further problems might be prevented" (Wills, 2013, p. 4). CBT has also strong roots in the work of Albert Ellis and his Rational Emotive Behaviour Therapy (REBT) especially with respect to the challenging of negative thoughts (Wills, 2013). Ellis developed REBT and the ABC assessment in the 1960s (Ellis & Dryden, 1999). Ellis & Dryden (1999) present an updated version of the ABC framework, which identifies "Activating Events or Activators (A's)" (p.8), "Beliefs (B's) – cognitions, thoughts, or ideas – about their Activating events" (p. 9), and "cognitive, emotional, and behavioural Consequences (C's)". For Ellis & Dryden (1999) irrational beliefs or irrational cognitions are the cause for self-destructive behaviours. Beck et al. (2005) designate those underlying beliefs and cognitions as "cognitive schemas" (p. 55).

CBT for anxiety treatment draws on the cognitive model of anxiety, which depicts how the immediate thoughts about a triggering situation or the way the client perceives the situation affect emotions, behaviours and physiological responses (Beck et al., 2005). This model implies that irrational beliefs often lead to dysfunctional perceptions and "perseverative, involuntary intrusion of automatic thoughts" (p. 31) which result in anxiety (Beck et al., 2005). Clients may already find it helpful to learn about anxiety being the outcome of "exaggerated, *automatic* thinking" (Beck et al., 2005, p. 168) and may then be open to reframe their thinking (Beck et al., 2005). The typical duration of anxiety treatment using CBT lies somewhere between five and twenty sessions (Beck et al., 2005).

The first step in CBT for anxiety treatment – after ruling out any general medical reasons for the symptoms – is normalising the symptoms, helping the client to understand the bodily responses to perceived threats (Beck et al., 2005). The therapist will explain the two types of fear: fear of the threat itself, and fear of the anxiety symptoms (Beck et al., 2005). Information about the role of the adrenal system, the fight-or-flight response, and the nervous system when facing the threat, will change the client's perspective and begin to help to overcome the second type of fear, the fear of the symptoms themselves (Tubridy, 2007). Beck et al. (2005) propose a role-play with the client, in which the therapist represents the client's frightening thoughts about the symptoms and the client has the task to respond in a more rational way. The CBT therapist will also explain the cognitive model to the client and emphasise the outcome of therapy being particularly dependent on the client's ability to monitor his or her own thinking (Beck et al., 2005).

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(Beck et al., 2005)

In CBT, the therapist leads the client mainly by asking questions. Beck et al. (2005) call this approach "the Socratic method" (p. 177).

> Often a patient reports that when confronted by a new anxiety-producing situation he will start by asking himself the same questions he heard from the therapist: "Where is the evidence?" "Where is the logic?" "What do I have to lose?" "What do I have to gain?" "What would be the worst thing that could happen?" "What can I learn from this experience?" (Beck et al., 2005, p. 178)

CBT is directive, very structured, and uses standardised procedures to reassure the often insecure anxious client by providing some order; a clear agenda with a focus on specific targets underlies each session (Beck et al., 2005). The four steps of problem-solving – according to Beck et al. (2005) – are: (1) Conceptualisation, (2) Strategy, (3) Tactic, (4) Assessment. The CBT therapist conceptualises the problem by detecting what it means for the client and what actually triggers anxiety (Beck et al., 2005; Newman & Borkovec, 2002;). Examples of common strategies in CBT for anxiety are simplification, being specific, focussing on the present, helping to accept certain situations, learning to stop worrying, encouraging the client to take certain risks, becoming more comfortable with anxiety symptoms (Beck et al., 2005; Greenberger & Padesky, 2016; Newman & Borkovec, 2002). Examples for tactics are creating a fear ladder, image exposure, assignments to approach feared situations, relaxation methods, exercises to deal with shame, reverse role play, and use of logic and evidence to attack the irrational (Beck et al., 2005; Greenberger & Padesky, 2016; Newman & Borkovec, 2002).

Zinbarg, Craske, & Barlow (2006) structure their CBT approach for anxiety treatment into four modules: The first module is about the correction of the client's distorted thoughts and concepts with respect to anxiety and worry, and about supporting the recognition and the replacement of these thoughts; the second module contains relaxation techniques; the third module is about the exposure to images which give rise to worry, and the fourth module is about the exposure to real situations which used to evoke worry.

Tubridy (2007) bases her method of controlling panic on Barlow's CBT approach, and also highlights the influence of catastrophising on the adrenaline levels: "your anxiety level will follow your adjectives" (p. 175). Tubridy (2007) recommends three ways of invalidating catastrophic thinking: (1) use of positive coping affirmations, (2) challenge the possibility of a feared outcome or question the severity of the feared outcome, and (3) stop the catastrophic appraisal with something like a "mental slap" (p. 178) and turn to something

else. Also Tubridy (2007) recommends gradually increasing exposure to the threat once the client has developed some trust in the relaxation techniques and in the thought replacement.

Borkovec, Newman, & Castonguay (2003) work out some evidence that worrying in Generalised Anxiety Disorder (GAD) can also be a strategy to avoid the processing of deeper feelings and they see here a limitation of traditional CBT for GAD clients who might prefer discussing cognition to exploring their emotions.

As Wells (2012) puts it: "CBT is a 'shape shifter' and it continuously incorporates concepts from other theories and techniques" (para. 2), but "the combining of CBT and MCT treatment techniques is likely to be problematic as they are based on conflicting messages" (para. 2).

Metacognitive Therapy (MCT) for Anxiety Treatment

Metacognitive Therapy (MCT) uses experiential practices to target the Cognitive Attentional Syndrome (CAS) and to build up more control about thinking processes and more flexibility in reactions to thoughts, emotions and threats; these practices aim to modify attention, awareness, and the relationship with thoughts (Fisher & Wells, 2009). MCT draws on the theory that it is *the way a person responds* to negative, automatic thoughts which leads to anxiety or other psychological problems, rather than the negative, automatic thoughts themselves (Fisher & Wells, 2009).

MCT usually requires between five and ten sessions and starts with the case conceptualisation (Wells, 2009). For the case conceptualisation in anxiety treatment the MCT therapist and the client explore a recent episode of worry/rumination and identify (1) the first triggering thought, (2) the worry/rumination that followed, (3) the feelings and symptoms caused by the worry/rumination, (4) any thoughts about a bad outcome caused by the worry/rumination, feelings, and symptoms, (5) beliefs about the danger of worry/rumination, (6) beliefs about the uncontrollability of worry/rumination, (7) lack of confidence in memory/cognition, (8) beliefs about the usefulness of worry/rumination, and (9) the coping strategies the client deploys (Wells, 2009). Wells (2009) proposes to let the client experience that, attempts to suppress thoughts are ineffective e.g. by asking him or her not to "think of a blue rabbit in any shape or form" (Wells, 2009, p. 108). The MCT therapist then uses "detached mindfulness (DM)" (Wells, 2009, p. 79) with a recent triggering thought for the client to experience that it is indeed possible to control worry/rumination (Wells, 2009). Mindfulness, according to Wells (2009), generally refers to an awareness of "inner cognitive events, namely, thoughts, beliefs, memories, and feelings of knowing" (p. 79), whereas DM has additional qualities of firstly refraining from any attempts to engage, evaluate, or cope, and secondly becoming aware of "the perspective of the self as an observer of thought or belief" (p. 79). To enhance the efficacy of these exercises the therapist asks the client to combine them with the exercise of postponing worry/rumination for a few hours – as a homework (Wells, 2009). Wells (2009) also suggests to make use of certain techniques "to strengthen metacognitions that regulate thinking, remove unhelpful thinking styles that impede normal emotional processing, or modify beliefs" (p. 67); these techniques are "attention training technique (ATT)" (p. 67) and "situational attention refocusing (SAR)" (p. 67). ATT involves "selective attention" (p. 68) to a specific sound in a room with many different sounds coming from various directions, "rapid attention switching" (p. 68) between different sounds in different locations, and "divided attention" (p. 68) with an attempt to focus on different sounds in different locations simultaneously. Wells (2009) emphasises the rationale for ATT to be not about blocking out unwanted thoughts and feelings but about regarding them as "additional noise" (p. 69). "SAR is intended to explicitly enhance the processing of information that is incompatible with the patient's dysfunctional beliefs" (Wells, 2009, p. 77). For example, Nordahl & Wells (2018) refer to an SAR experiment in treating Social Anxiety Disorder to challenge the client's belief of having poor cognition: The therapist went for a 10-minute walk with the client, who got the instruction to be really self-conscious in the first 5 minutes and focus on the surroundings as much as possible in the second 5 minutes. The client was then asked to recall what he had noticed in the first 5 minutes in comparison to the second 5 minutes. The client's cognitive

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performance significantly improved while giving his attention to his surrounding (Nordahl & Wells, 2018).

During the course of therapy, further exercises follow to change the client's beliefs about the danger of worry/rumination, and later also the beliefs about the usefulness of worry/rumination (Wells, 2009). The therapist combines those exercises with verbal challenging of the maladaptive metacognitions, such as unhelpful beliefs about the uncontrollability and danger of worry/rumination, and a lack of confidence in memory and cognition (Wells, 2009).

In MCT much of the work is about accepting thoughts without reactive engaging, detaching the self from the thought, attention training practices to develop control of attention, redirecting attention in anxiety-triggering situations, and challenging unhelpful meta-cognitions

Effectiveness of CBT Versus MCT for Anxiety Treatment

Normann, van Emmerik, & Morina (2014) analysed the results of 16 research studies on the effectiveness of MCT for anxiety and depression on a total of 384 participants with diagnoses of anxiety or depression. Collectively, the researchers of the 16 studies had allocated 234 participants to MCT, 112 to CBT and 73 to a waiting list (Normann et al., 2014). Comorbidity rates were high (Normann et al., 2014). MCT showed large and sustainable gains in treatment of anxiety and depression in comparison to clients on the waiting list (Normann et al., 2014). In addition, MCT presented large effect sizes with respect to the sustainable change of metacognitions, which brings some assurance of the change of metacognition having a therapeutic effect (Normann et al., 2014). Only five studies of the 16 were controlled trials with relatively small samples comparing MCT with CBT (Normann et al., 2014). Here, MCT showed significantly larger treatment effects than CBT (Normann et al., 2014). As there are more variations in CBT than in MCT and because of the relatively small sample, these results demand further investigation (Normann et al., 2014).

Nordahl et al. (2018) carried out a study on recovery rates for 81 clients with Generalised Anxiety Disorder (GAD). They designed this study with the particular aim to compare the effectiveness of CBT with MCT (Nordahl et al., 2018). Six therapists, trained in both modalities, were treating 28 clients with CBT and 32 clients with MCT (Nordahl et al., 2018). Nordahl et al. (2018) used a "crossover design of therapists to control the therapist factor" (p. 393), which means every therapist had to use CBT as well as MCT with different clients. They allocated 21 clients to a waiting list for control purposes (Nordahl et al., 2018). "Patients not willing to withdraw psychotropic medication for a period of three weeks before entry to the trial were not included" (Nordahl et al., 2018, p. 393). In CBT, the therapists used relaxation techniques, cognitive therapy, and image exposure, and focussed mainly on physical and emotional symptoms; in MCT, the therapists used methods to change the metacognitive beliefs about worry, and focused on metacognitive detachment from a thought (Nordahl et al, 2018). To measure the outcome of therapy, Nordahl et al. (2018) used the "Penn State Worry Questionnaire (PSWQ)" (p. 395) with the result that "65% of patients were recovered after MCT compared with 38% after CBT" (p. 398).

Regarding social anxiety disorder, Nordahl & Wells (2017) engaged further in the question, which of the conflicting assumptions in CBT versus MCT provides the better fit to reality, i.e. which is the better model for understanding social anxiety? The CBT model emphasises "social self-beliefs (schemas) as the core underlying factor for maladaptive self-processing and social anxiety symptoms" (Nordahl & Wells, 2017, p. 1) whereas the MCT model regards beliefs/thoughts about thinking (meta-cognitions) as the decisive factor. Nordahl & Wells (2017) collected a vast amount of data in online surveys about social anxiety at two different time points and tested the fitting of the CBT model and the fitting of the MCT model to the respective data sets, with the result that the MCT model showed the better fit and therefore provides the better lens for understanding social anxiety.

Compared to CBT, MCT also has certain advantages as an intervention for patients in cardiac rehabilitation who are suffering from depression and anxiety: the model and the strategies are transdiagnostic and there is no need to challenge the content of negative thoughts which in this case can be quite realistic (Wells et al., 2018).

Conclusion

CBT is a well-established psychotherapeutic approach for the treatment of anxiety and has its roots in Albert Ellis's Rational Emotive Behaviour Therapy from the 1960s and Aaron Beck's Cognitive Therapy from the 1970s. It focusses on the triangle of thoughts, emotions, and behaviours which influence each other. The model is based on the assumption that negative automatic thoughts and their underlying irrational beliefs or schemas affect emotions, behaviours and physiological responses. The communication of this model, and of the importance of thought monitoring is itself an important first element of CBT. With respect to anxiety and panic, modern CBT approaches include the correction of the client's irrational negative thoughts and concepts, relaxation techniques, and gradually increasing exposure to threat.

MCT denies the importance of thoughts themselves and differs therefore relevantly from CBT, in a way that the two can hardly be combined. The MCT model regards a certain style of thinking and unhelpful coping behaviours as the core feature of psychological disorders. In MCT much of the work is about accepting thoughts without reactive engaging, detaching the self from the thought, attention training practices to develop control of attention, redirecting attention in anxiety-triggering situations, and challenging unhelpful meta-cognitions.

Recent studies about the effectiveness of MCT and CBT on the treatment of anxiety show a promising potential for MCT compared to CBT, especially in the treatment of General Anxiety Disorder. The results of a longitudinal online survey about social anxiety further challenges the underlying assumption in CBT that irrational beliefs are the root of the problem.

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Marion Mensing graduated with a PhD in Natural Sciences (Dr. rer. nat.) from the University of Muenster in Germany in 1990 with Statistical Research as main area and worked for more than two decades in different roles in the financial services industry in Germany, Luxembourg and Ireland. Recovering from a severe life crisis, she changed her direction. She studied Counselling and Psychotherapy at PCI College in Cork, qualifying with an IACP accredited Diploma in June 2020. She will enrol for an additional year, leading to a BSc (Hons) in Counselling & Psychotherapy in conjunction with Middlesex University, London. Pluralistic Counselling is her main therapeutic orientation. She is a student member of IACP.

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REFERENCES

Beck, A., Emery, G., & Greenberg, R. (2005). *Anxiety disorders and phobias: A cognitive perspective.* New York: Basic Books.

Borkovec, T. D., Newman, M. G., & Castonguay, L. (2003, June). *Cognitive-behavioural therapy for generalized anxiety disorder with integrations from interpersonal and experiential therapies*. Retrieved from: https://www.researchgate.net/publication/10742944

Ellis, A. & Dryden W. (1999). *The practice of REBT.* London: Free association books.

Fisher, P. & Wells, A. (2009). *Metacognitive therapy: Distinctive features.* East Sussex: Routledge.

Greenberger, D., Padesky, C. A. (2016). *Mind over mood: Change how you feel by changing the way you think.* New York: Guilford.

Newman, M. G. & Borkovec, T. D. (2002). Cognitive behavioural therapy for worry and generalised anxiety disorder. In G. Simos (Ed.) *Cognitive behaviour therapy: A Guide for the Practising Clinician* (pp. 150-172). New York: Taylor and Francis.

Nordahl, H. M., Borcovec T. D., Hagen, R., Kennair, L. E. O., Hjemdal, O., Solem, S., Hansen, B., Haseth, S., & Wells, A. (2018, September). *Metacognitive therapy versus cognitive-behavioural therapy in adults with generalised anxiety disorder.* Retrieved from: https://doi.org/10.1192/bjo.2018.54

Nordahl, H. & Wells, A. (2017, May). *Testing the metacognitive model against the benchmark CBT model of social anxiety disorder: Is it time to move beyond cognition?* Retrieved from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0177109

Nordahl, H. & Wells, A. (2018, April). *Metacognitive therapy for social anxiety disorder: an A-B replication series across social anxiety subtypes*. Retrieved from: https://doi.org/10.3389/fpsyg.2018.00540

Normann, N., van Emmerik, A. A. P., & Morina, N. (2014). The efficacy of Metacognitive Therapy for anxiety and depression: A meta-analytic review. *Depression and Anxiety, 31,* 402-411.

Tubridy, Á. (2007). *When panic attacks.* Dublin: Gill Books.

Wells, A. (2009). *Metacognitive Therapy for anxiety and depression*. New York: The Guilford Press.

Wells, A. (2012, May). *A brief interview with Prof. Adrian Wells on the distinctive features of Metacognitive Therapy (MCT).* Retrieved from: https://www.stateofmind.it/2012/05/adrian-wells-metacognitive-therapy/

Wells, A., McNicol, K., Reeves, D., Salmon, P., Davies, L., Heagerty, A., Doherty, P., McPhillips, R., Anderson, R., Faija, C., Capobianco, L., Morley, H., Gaffrey, H., Shields, G., & Fisher, P. (2018, April 3). *Improving the effectiveness of psychological interventions for depression and anxiety in the cardiac rehabilitation pathway using group-based metacognitive therapy (PATHWAY Group MCT): study protocol for randomised controlled trial.* Retrieved from: https://doi.org/10.1186/s13063-018-2593-8

Wills, F. & Sanders, D. (2013). *Cognitive behaviour therapy: Foundations for practice.* London: Sage.

Zinbarg, R. E., Craske, M. G., & Barlow, D. H. (Ed.) (2006). *Mastery of Your Anxiety and Worry: Therapist Guide.* Oxford: University Press.