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CASE REPORT

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Metacognitive therapy for generalized anxiety disorders in group: A case study

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Abstract

Objectives: In Metacognitive therapy (MCT), homework is used, for example, to increase awareness of thoughts and thought processes, to challenge metacognitive beliefs in real-life situations, and to practice new ways of processing thoughts, feelings, and symptoms. All MCT treatment manuals include homework assignments to be given between each session.

Method: The following study provides a detailed description of the implementation of homework in a group-based MCT treatment for generalized anxiety disorder (GAD) at an outpatient clinic in Norway. The treatment described in this case consisted of 10 weekly group sessions (7 patients) lasting two hours.

Results: This case study demonstrates that group-based MCT can be used to treat GAD and describes how the use of homework can facilitate therapeutic change.

Conclusion: Overall, the effectiveness of MCT was found to be high. Homework gives patients the opportunity to take charge of their therapy and develop a sense of responsibility for their own progress, both during and after treatment.

KEYWORDS

anxiety, GAD, group treatment, homework, MCT

1 | INTRODUCTION

Generalized anxiety disorder (GAD) is a common and persistent mental disorder. It is characterized by "a period of at least 6 months with prominent tension, worry, and feelings of apprehension about everyday events and problems" (World Health Organization, 2016). Patients with GAD experience somatic complaints, anxiety symptoms, and distressing worries about a variety of issues, as well as high levels of impairment and disability (Spitzer et al., 2006). GAD has a lifetime prevalence of 3%–6% and is one of the most common anxiety disorders in primary care (Wittchen, 2002). Patients with GAD often report having been worrisome for most of their lives and describe worrying as a process that significantly interferes with their occupational and social functioning. Traditionally, cognitive behavioral therapy (CBT) has been the most widely used treatment for GAD, but metacognitive therapy (MCT) has emerged as an alternative treatment (Wells, 2009) In contrast to CBT, MCT focuses on the process of thinking rather than the content of negative thoughts.

Worry is the most central feature of GAD, and refers to a thought process that focuses primarily on possible future negative events. Worries often involve thoughts that begin with a "what if?" question (e.g., "What if I have a serious illness?," "What if something bad happens to my children?," or "What if I make a mistake?"). In MCT, these thoughts are called trigger thoughts, because they trigger further worries and negative emotions in the patient.

A patient with GAD typically responds to trigger thoughts with a tendency to worry more than other people. For example, the trigger thought, "What if I don't get the job?" may cause a patient to worry in several minutes, or even hours, about the consequences of such an event (e.g., "How will this affect my economy? … What if I do not get a job at all? … I might have to sell the apartment … Then the kids will have to move … What if they lose their friends? …"). Another key feature of GAD is the tendency to focus more strongly on potential sources of threat, for example, symptoms of anxiety or signs in the environment that something bad is about to happen. For example, the trigger thought "What if I don't get the job?" may lead the patient to look for signs that this is the case, such as social cues of rejection. According to MCT, this worry process and threat-focused attention lead to increased anxiety because they make the patient overestimate the likelihood that something bad will happen. Furthermore, this increased anxiety leads the patient to be more likely to engage in counterproductive coping behaviors. Examples of typical counterproductive coping behaviors in GAD include asking for reassurance, double-checking, or distracting attention away from thoughts and symptoms. The use of such control behaviors contributes to perpetuating GAD by transferring control from the self to external factors, which prevents the patient from discovering that worrying is actually something the individual can choose to engage in or not. The process of worrying, threat monitoring, and engaging in unhelpful coping behaviors represent what is referred to as the cognitive attentional syndrome (CAS) in MCT.

CAS is central in the development and maintenance of GAD, as it maintains threat-focused processing and prevents efficient regulation of thoughts, feelings, and emotions (Wells, 2009). MCT builds on a theoretical model, the Self-Regulatory Executive Function model (the S-REF model), which proposes that psychological disorders are developed and maintained by a transdiagnostic dysfunctional pattern of thinking and self-regulation (for a detailed description, see Wells [2009]).

According to metacognitive theory, the reason why patients with GAD engage in worry and other aspects of CAS is because they perceive it as a useful way to anticipate future problems and finding ways to cope. Paradoxically, they also believe that worrying is uncontrollable and/or dangerous. In MCT, beliefs like these are examples of what is called positive and negative metacognitive beliefs. Other examples of typical positive metacognitive beliefs about CAS in GAD are: "If I worry, I will be prepared"; "If I pay attention to my symptoms, I will not miss anything important," or "If I avoid being alone, nothing bad will happen." Examples of typical negative metacognitive beliefs in GAD are "my thoughts will drive me crazy"; "my anxiety will kill me," or "I can never stop worrying." While positive metacognitive beliefs encourage engaging in CAS, activation of negative metacognitive beliefs increases anxiety and feelings of not being able to cope because they change the significance of thoughts, feelings, and symptoms. In addition, negative metacognitive beliefs often cause patients to start worrying about the fact that they are worrying (also referred to as type 2 worry) and motivate them to engage in unhelpful coping behaviors that contribute to problem maintenance.

Because metacognitive beliefs are thought to be relatively stable, the individual's response (the CAS) to negative thoughts, feelings, and symptoms will be relatively stable, although the content of concerns may vary over time (Wells, 2009). This becomes evident when you ask a patient, "If we could find a solution to your worries around a particular issue, say your job, would that solve your anxiety problem?" The typical response will be "No, because I would just come up with something else to worry about." This illustrates that it is not the worry about the job per se that troubles the patient, but the fact that the individual worries a lot and experiences this as an uncontrollable and harmful activity. Therefore, the focus in MCT is not to find solutions to worries or practice more positive thinking, but rather to help patients give up CAS by changing their beliefs about the benefits, control, and danger of it—their metacognitive beliefs. The MCT treatment is manualized and consists of a sequence of stages, usually administered in 5–10 sessions. The group-based MCT for GAD follows the same treatment manual as the individual MCT treatment for GAD.

1.1 | Homework

Homework, or between session activities, is used in various therapy traditions to gather information from daily life, practice skills and techniques outside the therapy room, and/or apply insights gained in therapy. Homework plays a central role in all forms of CBT, including MCT. Sessions typically begin with reviewing the previous week's homework and end with a new homework assignment. Studies on CBT for anxiety disorders have found that client adherence to homework is a strong predictor of treatment outcome (LeBeau et al., 2013). In MCT, homework is used to, for example, increase awareness of thoughts and thought processes, challenge metacognitive beliefs in real-life situations and practice new ways of processing thoughts, feelings, and symptoms. All MCT treatment manuals include homework assignments to be given between each session (Wells, 2009).

1.2 | Empirical support for the model

There is substantial empirical evidence supporting the metacognitive model of GAD, which states that worry leads to greater anxiety and that metacognitive beliefs play a central role in the development of pathological worry (Hjemdal et al., 2013). MCT is a recommended treatment for GAD according to the National Institute for Health and Clinical Excellence guidelines (National Institute for Health and Clinical Excellence, 2011), and several studies have shown it to be an effective treatment for GAD, both in terms of short-term (Nordahl et al., 2018; Normann & Morina, 2018; Wells & King, 2006) and long-term results (Solem et al., 2021). Fewer studies have examined group-based MCT, but there is evidence that group-based MCT is also an effective treatment for GAD (Haseth et al., 2019; Van der Heiden et al., 2013). Most of the existing literature regarding MCT treatment for GAD is based on outcome studies, and there are fewer qualitative pragmatic studies describing the treatment. This is a narrative paper describing how group-based MCT for GAD works. More specifically, it will provide context and detail on how homework can be used to promote therapeutic change in a group-based MCT treatment for GAD. Therefore, this case study has the potential to be valuable to clinicians by providing unique insights from a naturalistic therapeutic setting.

2 | CASE ILLUSTRATION

2.1 | Presenting problem and client description

The following case describes a group-based MCT treatment for GAD and how homework was used to promote change during the treatment. The treatment described in this case was delivered at a specific clinic in Norway that provides MCT with an integrated work focus for patients with anxiety and depression. The treatment consisted of

10 weekly group sessions lasting 2 h. The patients were referred to the clinic by their general practitioner. Inclusion criteria for the group were a primary GAD diagnosis and motivation for group-based treatment. Exclusion criteria followed the clinic's admission procedures: patients with severe mental disorders, high risk of suicide, substance abuse, or severe personality disorders. Secondary major depression was not a reason for exclusion.

The group consisted of seven patients: five women and two men (mean age: 34). In the following, the patients will be referred to as Patients 1, 2, 3 ..., and 7. Six of the seven patients in the group had a history of other psychiatric disorders (e.g., anxiety, depression, PTSD, and/or eating disorders) and had received previous psychological treatment. Subjective experience of the duration of mental health problems ranged from 1 to 35 years, with a mean duration of 14 years. More than half of the patients reported a history of traumatic experiences such as sexual abuse or violence. Before treatment began, all patients committed to attending all treatment sessions. However, six of seven had at least one no-show, mainly due to illness. There was no dropout from the group.

All patients gave informed consent. The study was approved by the hospital's data protection officer and is defined as a quality study. Such studies do not need ethical approval from the Regional Committee for Medical and Health Research Ethics in Norway, which is also the case for the current study (REK Southeast: 602141).

2.2 | Therapist competence

The treatment was delivered by two clinical psychologists, both of whom are trained graduates of the MCT Institute. The therapists videotaped all sessions and were supervised by an MCT master clinician every 2 weeks.

2.3 | Assessment

Before each treatment session, patients completed self-report questionnaires about their symptoms, CAS activity, and metacognitive beliefs. The primary outcome measure in this study is the GAD-7, which measures symptoms of GAD in the past 2 weeks. This questionnaire consists of seven items rated on a four-point Likert scale ranging from 0 (*not at all*) to 3 (*almost every day*). The total score derived from these items ranges from 0 to 21 points, with higher scores indicating a stronger correlation with functional impairment. Scores above 10 are considered to be within the clinical range, and cutoff scores of 5, 10, and 15 represent mild, moderate, and severe anxiety, respectively. The GAD-7 has been validated in primary care settings and has good reliability and validity (Johnson et al., 2019; Spitzer et al., 2006).

The Patient Health Questionnaire-9 (PHQ-9), which measures symptoms of depression in the past 2 weeks, is included in the study as a secondary outcome measure due to the high comorbidity between depression and GAD (Merikangas et al., 2010). The PHQ-9 consists of nine items that directly relate to the diagnostic criteria for depression in the DSM-IV. The items are scored on the same four-point Likert scale as in GAD-7, yielding a total score between 0 and 27. Scores above 10 are considered to be within the clinical range, and cutoffs of 5, 10, 15, and 20 are considered to indicate mild, moderate, moderately severe, and severe depression, respectively. The PHQ-9 has demonstrated good validity and reliability in assessing depression (Kroenke et al., 2001; Volker et al., 2016).

Another secondary outcome is the Generalized Anxiety Disorder Scale—Revised (GADS-R), which assesses CAS processes in the previous week, such as time spent worrying and how often coping behaviors were used, as well as negative and positive metacognitive beliefs related to worry. The CAS items are rated on a 9-point scale ranging from 0 (*none of the time*) to 8 (*all of the time*), whereas the metacognitive beliefs are rated on a scale ranging from 0 (*I do not believe this at all*) to 100 (*I am completely convinced this is true*) (Wells, 2009). The GADS-R was included in the

study to investigate how the assumed underlying transdiagnostic factors (CAS and metacognitions) in GAD might contribute to symptom change (Rochat et al., 2017).

3 | COURSE OF TREATMENT

The following section will describe the course of the group-based MCT treatment for GAD and examples of how homework has been used to promote therapeutic change at different stages of the treatment.

3.1 | Case formulation

The main topic of the first group session was to develop a shared case formulation to foster cohesion in the group and to obtain a collective understanding of the maintenance of GAD based on the metacognitive model. This was achieved by interviewing the group about a recent worry episode. The patients' formulations were noted on a flip-board (see Figure 1). The group described several domains of worry, such as health, work, and fear of making mistakes. All patients described that the occurrence of trigger thoughts was followed by worrying in the form of a stream of thoughts. They reported that this worrying process elicited many negative emotions and physical symptoms, which triggered further worrying, where several patients began to worry about the fact that they were worrying (type 2 worries). These type 2 worries were driven by negative metacognitive beliefs about the dangers of worrying and anxiety, which most but not all patients described. All patients reported negative metacognitive beliefs that worrying is uncontrollable, but they varied in how certain they were that this was true. They described trying to reduce worry and anxiety by using various coping behaviors, such as avoiding triggers, asking for reassurance, and checking for mistakes, as well as more direct thought strategies, such as "trying not to think about it." Despite their negative beliefs, all patients believed worrying was beneficial in some way, such as helping them solve problems, prepare them for the future, and make decisions. These perspectives align with positive metacognitive beliefs, as defined in MCT.

Because of the research supporting the use of homework as effective in promoting therapeutic change, the therapists focused on the importance of engaging in homework between sessions as early as the first session. This was done, for example, by comparing homework to taking medication for a somatic illness: "When you are in treatment, it is important that you take the medication that you have been prescribed, which in this case is working on the homework assignments between sessions." To further facilitate homework adherence in the group, the patients were often instructed to talk in pairs and help each other make specific plans for how they could practice the homework in the upcoming week. In addition, each homework assignment was written on a piece of paper that the patients placed in their personal portfolio. These papers included lines where the patients could write personal notes from their homework. When the homework was discussed at the next session, the patients were asked to present their portfolio. This way, if someone had not worked on their homework, it was more obvious and the therapists could address this in the session.

3.2 | Socialization

The therapists used the case formulation to socialize the group to the treatment model to understand that what maintains their problem is the way they respond to the triggering thoughts (the CAS) and the metacognitive beliefs they hold that support this way of responding (Wells, 2009). For example, the therapists pointed out the unhelpful coping behaviors and asked the group, "How have these strategies worked for you so far?" "Have they helped you overcome your worry problem?" The entire group unanimously acknowledged that they were using strategies that

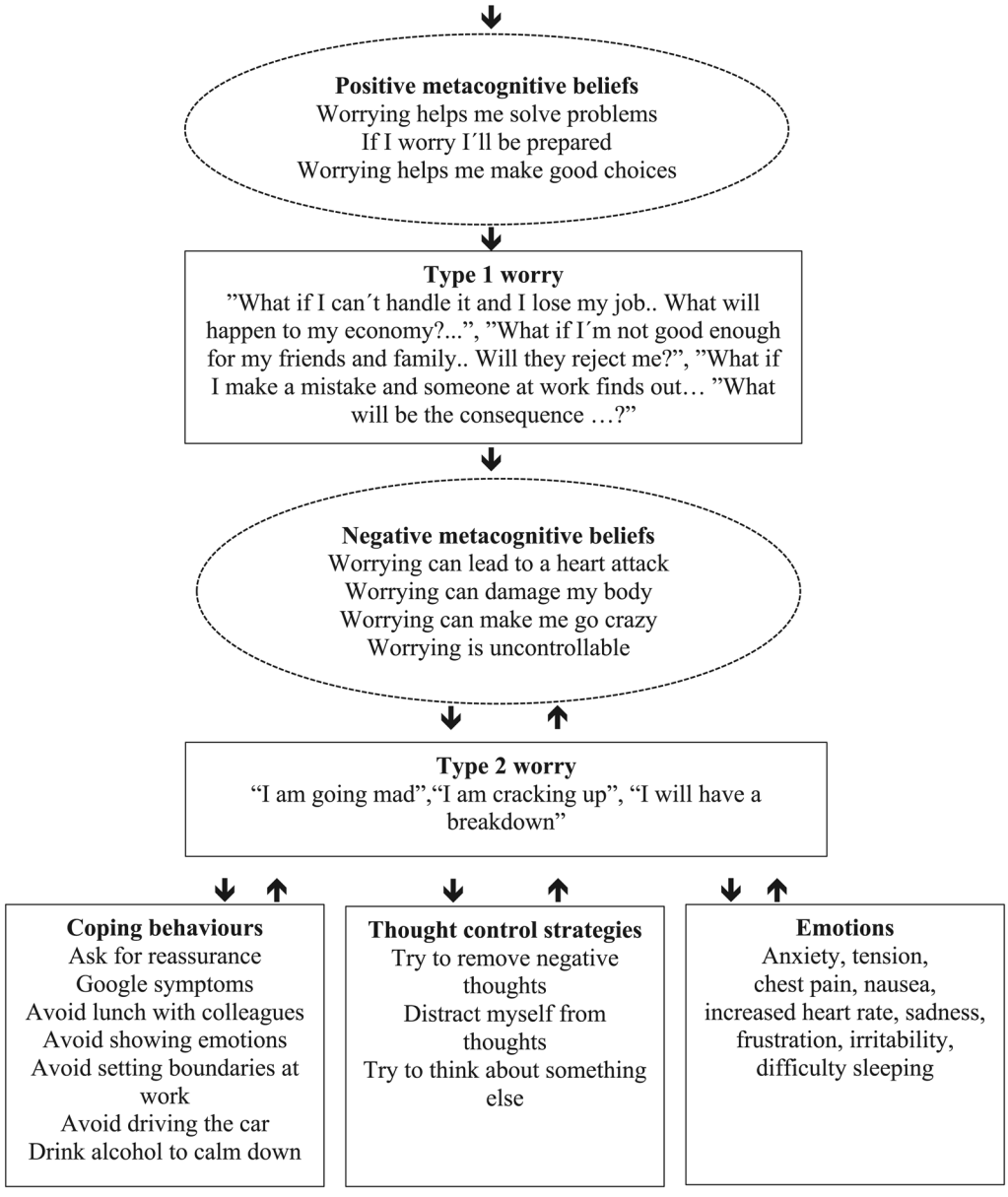

FIGURE 1 Shared case formulation based on the GAD model in Wells (2009). GAD, generalized anxiety disorder.

provided little, if any, long-term benefit. For example, all patients described that they somehow tried to suppress triggering thoughts and worries as a strategy to reduce anxiety. Patient 1 said that she usually listened to music or podcasts to distract herself; Patient 6 said that he often tried to replace negative thoughts with more positive thoughts; and Patients 2, 3, and 5 said that they mostly “tried not to think about it” when trigger thoughts occurred. To demonstrate that these strategies are maladaptive, the patients were introduced to a behavioral experiment called “the suppression experiment” (Wells, 2009) in which they were asked to suppress a neutral thought (the

thought of a blue rabbit) for 2 min. After the experiment, the therapists asked the group, "What did you notice when you tried to suppress this thought?." Some patients described the task as "impossible," while others reported that it worked for a few seconds before the rabbit reappeared. The therapists used the patients' experiences to show how suppressing thoughts is a maladaptive strategy by asking questions such as, "Where was your attention when you tried to suppress the thought?," "How is it possible to make a thought less important while at the same time giving it your full attention?" and "How did it feel when you tried to suppress the thought?," "What happened in your body?" The patients said they recognized from their own lives that trying to suppress or get rid of thoughts is exhausting. For example, Patient 2 described that she found it difficult to concentrate at work and in social situations because she spent so much energy and attention trying to suppress negative thoughts. The entire group agreed that although thought suppression was something they tried often, it had not solved their problem, and for most of them, it had only led to a greater sense of lack of control.

To further socialize the group to the treatment model and the effects of metacognitive beliefs, the therapists asked a series of questions, such as, "Do you think having positive beliefs about worry makes you worry more or less?" The group responded that they believed they worried more because they had the idea that it was beneficial. In addition, the therapists demonstrated the dissonance between the patients' beliefs that worrying is beneficial (positive metacognitive beliefs) but also uncontrollable and dangerous (negative metacognitive beliefs) and asked them, "How can both be true?" Patient 3 responded, "I have never seen this so clearly, but now I see that I have very conflicting beliefs about worrying, and I understand why this confuses me." Later, the patients were divided into groups of two to discuss hypothetical questions about the implications of their metacognitive beliefs, such as "What would be the consequence if you found out that worry is not helpful or harmful and that it is not uncontrollable?" All patients responded that they thought they would feel better and cope better if they were sure that worrying was not helpful, uncontrollable, or dangerous. In addition, these questions also seemed to foster hope in the group, and several patients began discussing what other things they would spend time and energy on if they did not have to worry so much, such as spending more time with their family, working more effectively, and being more open in social situations.

In the socialization phase of the treatment, homework was used to increase the patients awareness of how they were responding to negative thoughts and feelings, and what the consequences were. The first homework assignment was to go on a "trigger thought hunt" and record observations of thoughts, behaviors, and symptoms on a blank case formulation sheet. In the next session, the patients went over their homework together in the group. They described many examples of worries over the past week, such as worrying about accidents, getting sick, or forgetting something important. For example, Patient 2 said she had been worrying about starting a fire in her home: "I stared into the fireplace looking for signs of danger and looked up on the Internet what to look for. After a while, I called my dad to help me figure out whether or not there was actually a fire hazard." The therapist summarized what the patient described and asked the group, "Where does this fit into the case formulation?" to help them identify this as control strategies. Then the therapist asked Patient 2 about the consequences of worrying and using control strategies. The patient said she felt "anxious, unfocused, and was almost late today because it was hard to get out of it." The therapists tried to foster group cohesion and socialize the patients to the treatment model by asking them if they recognized themselves in each other's experiences and having them respond to what the other patients reported. Patient 5 then said that she had also worried a lot, and again the therapist asked the group to help label Patient 5's thinking style and control strategies. The therapist continued in this manner until all patients had said something about what trigger thoughts they had discovered, how much time they had spent worrying about them, and the consequences of worrying about those thoughts.

3.3 | Modifying metacognitive beliefs

After the first session, treatment focused on modifying metacognitive beliefs about worrying, beginning with beliefs about uncontrollability, moving to beliefs about danger, and ending with positive beliefs (see Wells [2009] for a detailed session-based treatment plan).

3.3.1 | Reducing worry and modifying metacognitive beliefs about uncontrollability

The uncontrollability belief was modified by verbal reattribution, for example, by questions such as "If worrying truly is uncontrollable, how does it ever stop?" and by behavioral experiments aimed at testing whether it is possible to reduce worrying. The patients were also introduced to an alternative response to trigger thoughts, in which they practiced letting thoughts come and go without engaging with them and postponing worrying or other responses until a specific time later in the day. In MCT, this technique is referred to as detached mindfulness (Wells, 2009). Wells (2009) describes several techniques that can be used to promote and practice detached mindfulness. In the group, a technique called the free association task was used. In this exercise, the therapists presented a series of neutral words (e.g., apple, forest, dog, and pizza), and the patients were instructed to quietly observe how thoughts spontaneously emerged in their consciousness. The goal was to encourage the patients to act as passive observers of these thoughts without engaging with or reacting to them. This exercise was repeated until all patients reported having achieved some experience of being able to simply observe their thoughts in a detached manner without worrying or trying to control the thoughts. Some patients, for example, Patient 3, reported difficulties in performing the task. She said that the thoughts went on in her head without her being able to do anything about them. She cried while talking about it and described what looked like a panic attack. The therapists asked, "Is it OK if we stop for a moment and examine what is happening to you right now?" Patient 3 said yes. The therapists asked questions to examine what Patient 3 was doing at that moment and during the exercise, for example, "What thoughts and feelings were triggered in you?" and "What did you do in response to these?" Patient 3 described that she had begun to feel anxious about not completing the task correctly and that the treatment would not help her. She tried to get rid of these thoughts and the negative feelings accompanying them by "trying to have an empty head." The therapists summarized what Patient 3 explained, saying, "It sounds like you started worrying that the treatment was not going to help you, and that triggered negative thoughts and emotions that you were trying to suppress, is that right?" When the patient became aware of her tendency to engage in a pattern of worrying and suppressing negative thoughts and emotions through socialization, the therapists suggested an experiment. They asked the patient if she would be willing to test the experience of observing the trigger thought and negative emotion without trying to resolve or eliminate it (using detached mindfulness). The patient agreed that she was repeating a pattern of unhelpful strategies and that she wanted to challenge this. She practiced first remaining passive and not engaging with the feelings she was experiencing here and now, and later when the group repeated the free association task.

After the patients had been introduced to detached mindfulness and worry postponement as an alternative to CAS in the session, they were asked to practice this as a homework task, starting with one of the trigger thoughts they had recorded in the "trigger hunt" homework task. After presenting the task, Patient 1 immediately began to worry, asking, "But what if we don't notice the trigger thought and start worrying without being aware of it?" The therapist took this comment as an opportunity to increase the group's awareness and asked, "It sounds like you're afraid you won't be able to notice the trigger thoughts." "What kind of thinking might this be an example of?" Patient 1 replied: "Worry." Patient 1 was asked to do the same thing that Patient 3 had done in the session, which was to practice detached mindfulness on the trigger thought and postpone further worrying about the homework until her worry time to test whether worrying is truly uncontrollable. Patient 1 said she did not know if she could do this, but she was willing to try.

In the following session, several patients said they were surprised to find that they were able to postpone worrying. For example, Patient 2 described a situation in which she realized that she was worrying about something she thought she had done wrong and stopped herself. She said, "Normally in this situation, I would worry all day and ask my colleagues for reassurance, but I decided to try not to, and it worked." When someone in the group had such experiences, the therapists asked them about the consequences of using detached mindfulness and postponing worry instead of their normal response. This was done to increase the patient's motivation and to challenge the belief that worrying is uncontrollable. Patient 2 responded, "I still felt anxious and stressed, but it lasted much

shorter than usual, and I didn't feel like it escalated like it sometimes does. When I got home from work, I didn't think about it anymore."

Several times during the treatment, patients reported worrying without trying to apply detached mindfulness and postpone worrying, even though this was their homework. When this happened, the therapist asked questions to find out what was preventing them from using their new strategies. For example, Patient 6 described a positive metacognitive belief about the need to worry to actively "prepare for the worst" in case it happened, and said that this prevented him from using the technique. Another patient, Patient 4, described avoiding driving as a control strategy rather than facing the situation and applying detached mindfulness because she was afraid of how anxious she would become. To promote motivation and facilitate the implementation of detached mindfulness and worry postponement, the therapists used socratic dialog to challenge these positive beliefs and show the patients why it is not useful in the long term to use control strategies to reduce worry and anxiety. In addition, the therapists designed homework assignments aimed at reducing unhelpful control strategies and reversing avoidance behaviors, which all the patients reported doing. For example, one task was, "Plan to do something that you would normally avoid because of worry. Use detached mindfulness and worry postponement with the trigger thoughts that come up." When the patients returned for the next session, each had reversed their avoidance behaviors to some degree; for example, Patient 4 had exposed herself to driving, Patient 3 had gone for a walk alone in the dark, and Patient 5 had practiced setting boundaries at work. All of them described it as scary and said that they had been more anxious as a result of this homework. Nevertheless, they reported that they wanted to continue practicing this because they had experienced that banning avoidance helped them in their daily lives.

3.3.2 | Modifying metacognitive beliefs about danger

Metacognitive beliefs about danger were challenged verbally, for example, by asking "How can worrying lead to a heart attack? What is the mechanism?" and by behavioral experiments conducted to test the patient's beliefs and hypotheses. For example, Patient 5 believed that worrying could lead to dangerously high blood pressure and thus a heart attack, so she avoided triggering situations and monitored her pulse for signs of stress. This hypothesis was tested in the session by measuring her blood pressure under two conditions: (1) when she sat in a chair and worried, and (2) when she walked around the room. The results showed that walking around the room increased blood pressure more than worrying, a finding that the patient found surprising. The therapists asked, "If walking around leads to higher blood pressure than worrying, do you believe that walking around is also dangerous to the body?" The discovery that worrying had little effect on blood pressure caused the patient to reduce her belief that worrying was dangerous to her body. Another patient, Patient 1, described a metacognitive belief that worrying could drive her crazy and cause her to lose control of herself. She tested this belief by worrying as much as possible, first in the therapy room and later while locked inside a dark storage room to make the situation more stressful. While Patient 1 was locked inside the storage room, Patient 4 said she was triggered and was worried about Patient 1 ("what if she actually goes crazy?"). The therapists asked Patient 4 to test if she could go crazy while worrying about Patient 1. When the door opened a few minutes later, Patient 1 came out smiling, and the whole group reported a significant reduction in the metacognitive belief that worrying and anxiety could make them go crazy.

At the end of the session, the group was asked to continue testing metacognitive beliefs about danger as homework. They prepared for the task by discussing how the beliefs could be tested and formulating testable hypotheses, such as "If I push worry too hard, I will not be able to talk" or "If I push worry too hard, I will become psychotic." When the patients returned in the next session, Patients 2 and 7 reported that they had not done their homework because they were afraid they would get worse ("I didn't want to push worry too much because I just discovered I can worry less" and "I was afraid that if I started worrying I would not be able to stop it"). The therapists helped the group become aware that this was another sign of type 2 worry and metacognitive beliefs about danger and uncontrollability, and repeated the socialization of how these beliefs increase anxiety. They then sought to

encourage motivation to test these beliefs by asking the hypothetical question, "What would be the consequence of knowing with certainty that worrying is not dangerous to your body or can make you crazy or lose your mind?" The patients agreed that they would feel less anxious if they knew this, and in the next session, everyone reported that they had tested some metacognitive beliefs about danger. In the next session, no patients reported being hurt, gone crazy, died, or lost their minds while doing the homework, as they had feared. This experience led to a decrease in both the belief that worrying is dangerous and in self-reported anxiety symptoms. When the patients no longer believed that worry and anxiety were dangerous or harmful, they also reported feeling more confident approaching situations they had previously avoided. For example, Patient 5 said she had challenged herself by giving presentations, something she had long avioded and Patient 1 said she had been more open with friends and family about her feelings and that this was a positive experience because she knew that she would not go crazy, even though it was scary and uncomfortable. Also, Patients 2 and 7 had tested their metacognitive beliefs by pushing worry, and they said this really made a difference for them in terms of their confidence that they could deal with worry and anxiety even though it was uncomfortable.

3.3.3 | Modifying positive metacognitive beliefs

After modifying the negative metacognitive beliefs, the focus of treatment shifted to the positive metacognitive beliefs. At this point, all patients reported spending less time worrying than before. The therapists used this experience to verbally challenge the positive metacognitive beliefs by asking the group questions such as, "Since you have been worrying less, have you noticed any negative effects on your ability to cope with challenges or on your overall well-being?" This elicited laughter from the group, and all patients unanimously agreed that reducing their worrying had led to a greater number of positive effects compared to negative ones. In other words, all patients had reduced their belief that worry was beneficial without the therapists directly addressing this. To further challenge their positive metacognitive beliefs, the patients were asked to perform an experiment as homework in which they were asked to increase and decrease their worry to assess its impact on daily outcomes consistent with their positive metacognitive beliefs. For example, Patient 6, who believed that "worrying helps me solve problems," was asked to increase worrying on the first day after the session and to ban worrying the next day to see if there was a difference in his problem-solving performance. In the following session, he stated that he did not notice any difference and that the problems he had worried about on the first day actually never occurred, but that he managed some other minor problems without having worried about them. This led to a decrease in his positive metacognitive beliefs.

3.4 | Group dynamics

In the group therapy literature, group cohesion is found to be an important mechanism of change and for reducing dropout rates (Burlingame et al., 2018). In addition, group cohesion is found to promote greater motivation to attend sessions and complete homework assignments in CBT group therapies for anxiety and depression (Christensen et al., 2021). Group cohesion can be understood as the sense of belonging as well as the extent to which group members coordinate their efforts to achieve goals (American Psychological Association, 2023; Bryde Christensen et al., 2021). The therapists in the MCT group-based therapy described here actively promoted group cohesion by facilitating open discussions in which patients could share their experiences with each other. They also encouraged the patients to practice the act of not worrying within the group setting, for example, not worrying about what other group members might think of them or whether they were progressing at a different pace than others in the group. The patients were also encouraged to speak up if something triggered a reaction within the group, whether from the therapists or the other patients. When disagreements or conflicts arose, this was used as

an opportunity to socialize the patients to the metacognitive theory. For example, at one point, Patient 1 felt hurt by a comment made by another patient and expressed a desire to withdraw from treatment. After agreeing with the patient, the therapists used this as an opportunity to explore what had happened by incorporating this into the case formulation. The patient said she realized that her typical strategy when facing conflicts was to "run away" and that she was about to repeat this in the group. After being motivated by the therapists, she decided to test whether she could deal with her feelings in a different way, and confronted the group about her feelings instead of leaving. The other patients supported her, and she later described this as an important corrective experience and a very meaningful part of the treatment.

3.5 | Relapse prevention

The last part of the treatment was focused on relapse prevention. In this section, the patients constructed their personal treatment summaries describing how they used to respond to negative thoughts, feelings, and symptoms (CAS) and how they now respond differently (often referred to as the "old/new plan"). Engaging in the summary phase of therapy promoted generalization as the patients recognized that their responses to different triggers were similar across different problems. The summaries included both general statements about what they had learned about their thinking style and control strategies, as well as more personal notes related to their specific worry themes. For example, Patient 3, who tended to be perfectionistic, wrote, "It is OK not to do all tasks at work perfectly," and Patient 7, who tended to avoid or postpone doing important tasks out of anxiety, wrote, "Think less, do more." The patients were instructed to use the summary as a reminder of the strategies they should continue to practice and implement in the future. As a means of preventing relapse, all patients were offered booster sessions if they relapsed within the next year.

3.6 | Addressing noncompliance with homework

Throughout the treatment, if someone did not do their homework, the therapists made sure to address this in the group to reinforce the importance of the between-session activities. This involved looking at why the patient had failed to do the homework and trying to clarify this at the beginning of the session. For example, if the patient was not sufficiently socialized to the treatment model to understand the meaning of the homework assignments, the therapists repeated the socialization. A common reason for noncompliance with homework in the group was hopelessness. Several patients had trouble completing homework at some point during the group therapy and gave up. In these cases, the therapists helped the group classify hopelessness as a result of a new type of persevering thought process (rumination) and challenged this by asking questions such as "Do you feel better or worse when you think this way?" "What kind of thinking might this be?" and "Can we try to postpone this kind of thinking like we have practiced postponing worrying?"

4 | OUTCOME AND PROGNOSIS

The aim of this case study was to investigate whether group-based MCT could be a useful treatment for GAD and to describe how homework can be used to facilitate this. The group's mean scores on GAD-7 and PHQ-9 during the treatment phases are shown in Figures 2 and 3. The results indicate a substantial reduction in symptoms of generalized anxiety over the course of treatment, with the average score on the GAD-7 falling from the clinical range to the normal range, indicating a cutoff score of less than 10 on the GAD-7.

The patients' subjective reports also indicated recovery at the end of treatment. For example, Patient 5, who had been on sick leave for several months due to anxiety associated with presentations, reported a significant and lasting reduction in her anxiety. As a result, she successfully returned to work on a full-time basis and no longer experienced fear or avoidance of presentations. Patient 3, who was at risk of dropping out of her studies due to anxiety, was able to successfully continue her studies because she finally felt confident and safe enough to attend classes at school. In general, all patients described a reduction in anxiety symptoms, spending less time worrying, a reduction in avoidance behaviors, and an overall increased sense of well-being.

Although depressive symptoms were not an explicit theme in the treatment, the average mean score on depressive symptoms, as measured by the PHQ-9, indicated that the group also recovered from depression over the course of treatment (see Figure 3). The finding that MCT can lead to symptom reduction for diagnoses other than the patient's primary diagnosis has also been found in other studies (Johnson et al., 2017) and can be interpreted as support for the MCT model, which considers CAS and metacognitive beliefs as central to the maintenance of psychological distress in various psychological disorders. This is further supported by the quantitative data on the patients' reduction in metacognitive beliefs in the current study. Figure 4 shows the group's mean scores on negative metacognitive beliefs about uncontrollability and danger of worrying, and the positive metacognitive belief that worrying makes one more prepared.

These metacognitive beliefs were central both during the treatment sessions and in the homework given between the sessions. The graphs in Figures 2–4 show that treatment was associated with reductions in symptoms as well as positive and negative metacognitive beliefs, which indicates that these coincide with each other. However, due to the design and limitations of the study, the results cannot provide any clarity with regard to causal relationships.

Qualitative data on the patients' subjective opinion of progress were collected at the end of treatment using an evaluation form. Here, all patients reported that, in their opinion, the treatment had helped them. Examples of what they said was important in treatment included “experiencing that anxiety is not dangerous and does not have to take up a lot of space,” “that thoughts and feelings are just thoughts and feelings,” and “that it is not useful to worry and that you can choose not to.” The patients also identified the support they had received from their peers and the sense of belonging as key factors that contributed to their healing process.

The patients adhered well to the homework assignments, where most of the patients seemed to complete the tasks between each session. However, there was no systematic measurement of homework adherence, so there is a possibility that this varied among the patients. Based on our experience, however, it seemed that the patients who spent more time on their homework and were more active in planning and reviewing the homework in the treatment session were often also the patients who seemed to have the best effect of the treatment in terms of symptom reduction and change in metacognitive beliefs. Patient 4, for example, expressed increasing difficulties

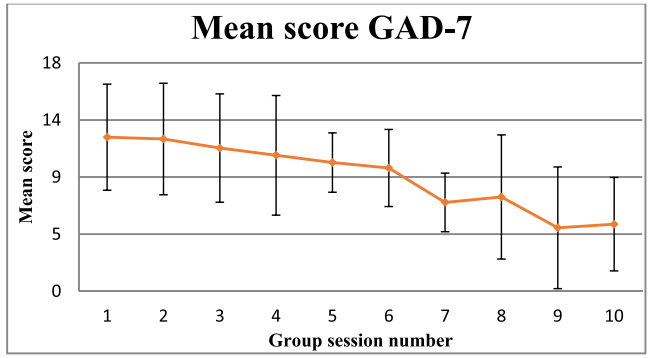

FIGURE 2 Group mean scores GAD-7. GAD, generalized anxiety disorder.

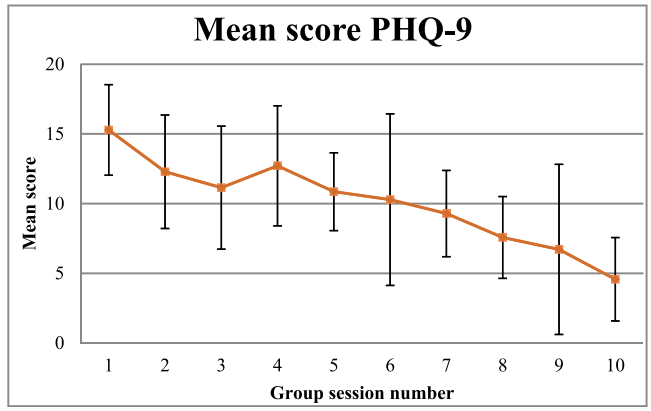

FIGURE 3 Group mean scores PHQ-9. PHQ-9, Patient Health Questionnaire-9.

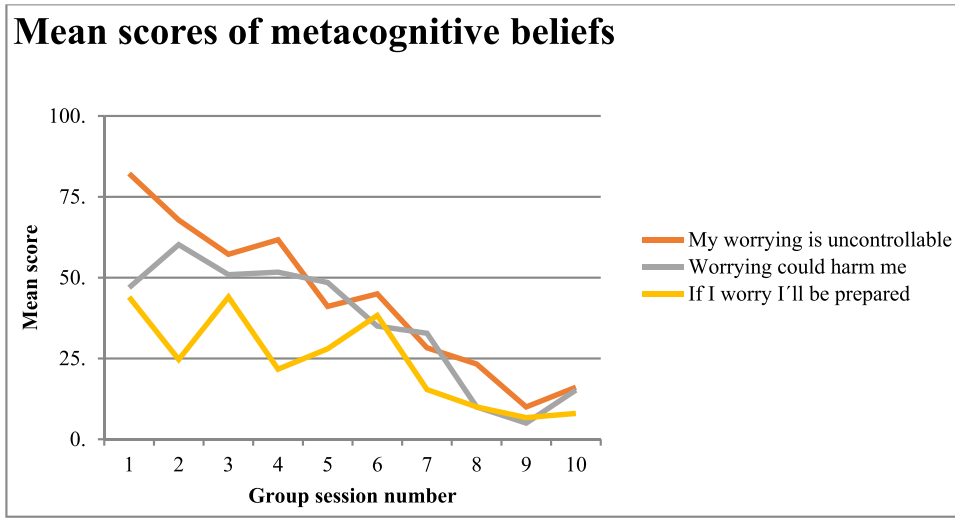

FIGURE 4 Group mean scores of metacognitive beliefs. Orange line: uncontrollability of worry, gray line: danger of worry, yellow line: Positive belief about worry.

completing homework toward the end of treatment. The therapists also observed an increase in her critical attitude and resistance during task completion and participation in discussions during therapy sessions. The patient did not have a clear explanation for the reason for this, but described struggling with the fact that treatment was coming to an end and she had not achieved all the goals she had set for herself. The therapists tried to motivate her to continue doing the homework but with little success. This was a patient who had more symptoms at the end of treatment.

Several patients reported that it took some time for them to realize the importance of working on their homework. Patient 1, for example, said at the end of treatment that she never thought she would recover so much in just 10 sessions, but that she realized that the changes she had made in her life between sessions were perhaps more important than what happened during the sessions. Several of the other patients agreed with this statement. Patient 7 acknowledged that he felt some resistance to doing the homework at the beginning of treatment. He said the forms and portfolio felt like he was going back to school, and that made him skeptical. Nevertheless, he did his

homework and said he realized that this was important for the treatment to be useful also outside of the therapy room.

5 | CLINICAL PRACTICES AND SUMMARY

This case study illustrates that group-based MCT can be used to treat GAD and describes how the use of homework can facilitate mechanisms of change. Overall, the group-based treatment of GAD was found to be useful to the patients, both in terms of reducing symptoms of anxiety and depression, but also in improving their functioning and overall life satisfaction. This highlights that multiple patients can be successfully treated simultaneously by addressing psychological processes they share, such as worrying, metacognitive beliefs, and the use of unhelpful control strategies.

The results in the current study are consistent with previous findings indicating that homework adherence is a strong predictor of treatment outcome (LeBeau et al., 2013). Facilitating homework adherence and addressing nonadherence should therefore be an important focus during treatment. Working with this group taught us that problems or nonadherence with homework were often the result of some CAS activity or metacognitive belief, such as fear of not being able to complete the task (example of worry), avoidance of the situation (example of unhelpful coping behavior), fear of being harmed by the elimination of their old control strategies (example of a metacognitive belief about danger), or an idea that they need to worry to cope (example of a positive metacognitive belief). This suggests that helping the patients become aware of the CAS-element or blocking metacognitive belief and challenging it often increased the patient's motivation to continue with their homework.

In group-based treatment, it can be more difficult to know if and why patients are not doing their homework than in individual treatment. For example, patients may choose to say little or nothing when homework is discussed in the group. As described above, we attempted to enhance adherence by giving structure to specific assignments through the use of a portfolio. Particularly in a group setting, we hypothesized that this could foster a group norm that facilitates homework adherence. If the group or individual participants continue to struggle, it is important to focus on whether there are any specific barriers based on the treatment model. A clear link between the treatment model and the specific homework assignments is of key importance.

The results in this study indicate that patients' awareness of their thoughts, feelings, and symptoms, and how they respond to these, increases rapidly during group-based treatment. This may be because they help each other identify common maladaptive coping behaviors and metacognitive beliefs, despite differences in worry content, symptom burden, and comorbid disorders. The coreduction in metacognitive beliefs and symptoms of GAD and depression supports the idea that metacognitive beliefs play a central role in the maintenance of psychological disorders such as these. In light of these findings, homework assignments aimed at changing or testing metacognitive beliefs appear to be an important way that homework can be used to facilitate therapeutic change. Homework gives patients more opportunities to practice new strategies and more situations in which to test their metacognitive beliefs. In addition, homework is useful because it can help patients apply and generalize what they learn in therapy to their daily lives. It gives patients ownership of their therapy and the opportunity to develop a sense of responsibility for their own progress, both during and after treatment.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author and ethical approval in Norway. The data are not publicly available due to privacy or ethical restrictions.

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PEER REVIEW

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