Emotion regulation therapy for generalized anxiety disorder comorbid with Major Depressive Disorder: A case study

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Abstract

Introduction: Emotion Regulation Therapy (ERT) is an in-progress treatment developed for Generalized Anxiety Disorder (GAD) comorbid with Major Depressive Disorder (MDD) based on ameliorating dysfunctions in emotion regulation strategies. However, ERT is a newly evolved treatment and has not yet been examined among Iranian samples. Therefore, the aim of the present study was to evaluate the efficacy of ERT for the comorbid condition.

Method: Treatment efficacy was assessed using single case methodology in one referred individual suffering from GAD and comorbid MDD.

Results: The subject showed decreases in anxiety and depression scores and increased scores in attending, allowance, decentering and reframing emotion regulations.

Conclusion: Emotion regulation therapy can be an efficient treatment for GAD comorbid with MDD.

Keywords: Emotion Regulation Therapy, Comorbidity, Anxiety, Depression

Introduction

The comorbidity of generalized anxiety disorder and major depressive disorder is a common phenomenon among mental disorders [1-5]. Epidemiological studies have indicated that about two third of people diagnosed with generalized anxiety disorder at some point during their lifetime, will also experience major depression eventually [1]. Therefore, this common phenomenon needs to be considered in clinical settings. One of the treatments that targets the comorbidity between GAD and MDD is emotion regulation therapy [4].

ERT is a novel integrative treatment based on the findings of affective science [6]. ERT believes that emotions serve as survival signals for organisms by eliciting reward and safety motivations [7]. However, individuals with GAD and MDD have difficulties in flexibly attending to different emotional states. They employ “more elaborate maladaptive reactive responses (i.e., worry, rumination, self-criticism)” in response to emotions [6]. Overtime, this style of emotional response causes emotional intensity and the clear signal of motivation can no longer be received from emotions. This in turn, leads to dysfunctions in motivation[7-9] and heightened subjective intensity [10].

In addition, individuals with GAD and MDD seem to have deficits in their emotion regulation strategies [11-13]. For example, Mennin et al. [14] have suggested that a lack of emotional acceptance is related to GAD and other anxiety disorders and it may be a non-specific factor of anxiety disorders. Fresco et al. [15] demonstrated that decentering has a significant negative correlation with depression and anxiety symptoms. Furthermore, in the models of Beck [16] and Ellard et al. [17], maladaptive
reappraisal has been identified as a core feature of anxiety and depression. Clasen et al. [18] and Mogg et al. [19] also noted that individuals with GAD and MDD show increased anxiety and significant reduction in emotional stimuli. Therefore, according to the ERT model, individuals with GAD and MDD have difficulties in the emotion regulation strategies of attending, allowance (allowance is equal to acceptance in the ERT model), meta-cognitive distancing and decentering, and reframing (it is equal to reappraisal). Attending refers to attention flexibility, which is "the ability to rapidly shift, sustain, or broaden one's attention from one stimulus to another as per contextual demands." [6]. Allowance or acceptance refers to the individual's ability to stay in contact with emotional information [20]. Decentering refers to the ability to gain perspective from one's thoughts and feelings [21]. Reframing or reappraisal means developing positive interpretations of the emotional situation in order to decrease stressful emotions [22]. These emotion regulation strategies play a mediating role in ERT.

Therefore, based on the aforementioned deficits existing in the domains of subjective intensity of emotions, motivations, and emotion regulation strategies, the aim of ERT is to improve the patient's attention to motivational and emotional signals. This therapy trains the client to make use of emotion regulation strategies in response to worry, rumination, and self-criticism. In order to achieve this goal, ERT has a phased structure in which the clients proceed in therapy first by "learning skills to increase mindful awareness of emotional and motivational states; then, learning skills to increase adaptive emotion regulatory congruent with contextual demands (counteractive...); and increasing values-informed behavioral actions that strike a balance between security and reward motivational pulls (proactive...)" (6, p287).

Despite the importance of focusing on the treatment of this comorbidity, ERT has not yet been examined among Iranian samples. The aim of the present study was to report the treatment of a client suffering from GAD and comorbid MDD by using ERT.

Method

One of the clients which had been referred from a psychological clinic, was included in the research as he satisfied the following research criteria: (a) age 18 or older; (b) has received a principal diagnosis of GAD/MDD comorbidity; (c) does not report current suicidal intent (suicidal ideation is admissible); (d) does not meet criteria for substance dependence disorder, or psychotic disorders and other axis I and axis II disorders; (e) no evidence of dementia, organic mental disorder or other neurocognitive conditions that would impair the client's ability to provide informed consent or participate in treatment; (f) not in receipt of concurrent psychological treatment; (g) has not received CT or behavioral therapy in the 2 years preceding referral (h) stable on medications (i.e. 3 months without change in medication type and dose) or without medication.

Primary psychiatric interview was conducted by a PhD student of clinical psychology and following the primary diagnosis of GAD comorbid with MDD, the client was referred to a psychiatrist for definite assessment based on the Structured Clinical Interview for DSM-IV-TR Axis I and Axis II disorders (Although DSM-V was published in 2013 but the Farsi form of SCID-I, II was not available at the time of the current study.) [23]. During a meeting, the study was explained to the patient and his consent was obtained. The case, here called 'Arman', was treated by ERT based on the stages defined in the ERT structured manual, which is described in the following.

ERT was delivered throughout 16 weekly sessions based on the structured manual. The 16 sessions are categorized in 4 phases. The first phase consists of the first 3 therapy sessions, which are focused on the therapy model and skill training in mindful attending. The second phase involves sessions 3 to 8 with the aim of skill training in emotion regulation strategies of allowance, decentering and reframing. The third phase consists of sessions 9 to 13, which address experiential exposure. The fourth phase comprises sessions 14 to 16, which center on concluding therapy and relapse prevention.

The first session of ERT involves teaching aspects of the ERT model that illustrate the connection between the experience of strong emotions and reactive responses, particularly worry and rumination. Furthermore, clients learn self-monitoring in order to increase their awareness about the role of emotional reactions in everyday life and to record their experiences in the Catch Yourself Reacting I. They are also trained in mindfulness by first being introduced to the skill Mindful Belly Breathing, which is used for increasing awareness of one's bodily sensations. They are encouraged to record all skill training exercises in the Mindfulness skills Recording Form until the end of the treatment. In the second session, clients are instructed on the role of motivations (security and reward) and their dysfunctions resulting in the experience of intense emotions. They also learn the second mindful awareness skill, Body and Muscle Awareness (BAMA), which helps them relax their body and pay attention to bodily sensations including intense and relaxed states. The third session continues the discussion about dysfunction of motivation and its relatedness to rigid action in clients. In addition, clients are trained in other mindfulness skills such as Mindful of Emotions. This skill is used for helping clients stay in contact with their emotions. The fourth session addresses transition to the second phase of treatment. Emotion regulation strategies that are healthier ways for responding to emotions are discussed. The clients then learn allowance, which is operationalized through the Open Presence Meditation exercise. In session 5, the training of the "on the spot" use of Mindfulness skills is commenced. Clients are instructed on using the on-the-spot version of Open Presence, namely The Three Minute Breathing Space. This is followed by training in "The Mountain Meditation Skill", which is based on the emotion regulation strategy of decentering. This skill helps them take a distanced perspective from their emotional situation. In session 6, the therapist introduces...
the on-the-spot version of the mountain meditation, which is called *Invoking the Mountain*. Clients learn to use this skill when they face emotional situations during everyday life. They are asked to record their experiences in the *Catch Yourself Reacting IV* form. The therapist also introduces a new skill based on mental special decentering which is called “*Finding an Observer’s Distance*”. These offline skills serve as the basis for in the moment skills, which will be addressed in the seventh session. In session 7, the clients are first introduced to an on-line practice called “*Bringing it With You*”. This skill is used for gaining distance. Then they review the discussion about reward and security motivations from phase I, explaining that the conflict between two motivations is a normal part of human life. They are taught how to resolve this conflict and are informed about the obstacles for conflict resolution. These obstacles include catastrophic elaboration and self-critical elaboration. In order to successfully resolve conflicts of motivations and to overcome these obstacles, clients learn the fourth principle of healthy responding, which is reframing. They are taught to generate courageous and self-compassionate statements for responding to these obstacles. The final session of phase 2, session 8, finalizes phase I and phase II’s skills as a full counteractive approach. At this stage, the clients have learned all of the emotion regulation skills. The therapist encourages them to use on-the-spot practices in daily life. During session 9, phase III is commenced. The aim of phase III is to encourage clients to become more proactive toward valued life goals and to confront the hindering motivations and emotions that may arise on this path. The therapist emphasizes the importance of commitment to valued actions. With this regard, clients learn to record their goals, actions and potential obstacles. At the end of the ninth session and the following sessions in phase III, clients are encouraged to make commitment to at least one valued action using the *Living Your Values Proactively* form and to record their counteractive response when obstacles are raised [24]. From session 10–13, the content of the sessions are similar. These sessions “involved five central modules: (1) Practice of skills in the beginning of the session; (2) Delineating salient values and discussing what goals and possible actions would be congruent with these salient values; Engaging in an in-session task where clients imagine a vivid and stepwise fashion what it would be like to take this action; Engaging in a subsequent in-session task aimed at addressing themes of internal conflict in clients’ expressed obstacles to valued living; and (5) Committing to both planned and spontaneous valued actions between sessions”[24]. Sessions 14 to 16 focus on relapse prevention. The therapist makes clients ready for the termination of therapy. Clients are taught how to respond to lapses[24].

**Patient**

Arman was a 38 years old man living in a city located in the central part of Iran. He had a diploma. When he entered the treatment, he met the criteria for GAD and MDD with no other comorbid disorders. He reported symptoms of chronic worry, muscle tension, fatigue, restlessness, insomnia (both early and late), difficulty of concentration and irritability. He also experienced anhedonia, insomnia, decreased productivity in work and activities, psychomotor retardation, and thoughts of death. MDD had begun 3 years ago, following his divorce. GAD had started since his adolescence. He had not received any previous psychological treatments but had taken Fluoxetine 10 years ago as a medication for irritability and anxiety.

**Results**

**Treatment**

**Phase I (sessions 1-3)**

The first phase of ERT (sessions 1 to 3) includes some techniques for enhancing awareness of physical and emotional signals. Therefore, it has 3 main focuses: 1) to increase awareness of emotions and motivations by teaching the model of ERT; 2) to improve cue detection of the antecedents and consequences of emotional events; 3) to teach mindful awareness skills [4].

According to the treatment manual, the client was first introduced to the ERT model, which describes normative emotion generation, emotion regulations and dysregulations, and also explains how normal emotion generation and regulation can transform into emotion dysregulation causing GAD and MDD. In addition, discussions were held about different symptoms of anxiety and depression, illustrating aspects of emotions. At the end of each session, a number of handouts were given to the client to support a better understanding of these discussions. The handouts included “responding to your emotions; reactivity and emotional clarity”, “understanding your emotions”, “emotions signal motivations”, and “motivations anchors”[24].

Furthermore, the client was encouraged to view his life and its emotional events through the lens of ERT. He was thus asked, as a weekly homework exercise, to report reactive behaviors such as worrying thoughts, ruminations, avoidance and behavioral inactivation. He recorded the emotional events and aspects of reactive responses on the “catch yourself reacting” form [24], which helped clarify emotions, motivations, and reactive responses. This form is used as a cue detection task and its completion continues until the last session, although as the treatment progresses and the client achieves a better understanding of the aspects of emotion generation and regulation, new parts are added to the form for recording.

The client was encouraged to practice by listening to mindful awareness and attending techniques (Mindful Belly Breathing, Broadening Body and Muscle Awareness, & Mindfulness of Your Emotions) in an offline (This implies that the client listens to the recordings and performs the exercises. He does not perform the techniques in emotional situations but only in approximately non-emotional conditions) manner 6 times a week (the vignette of each technique was recorded by the therapist). He recorded these 6 exercises on the “Mindfulness skills recording” form. Prior to
practice, the skills had been trained during sessions and some of the handouts centered around these skills, such as the handouts "What is Mindfulness?", "Skill Practice: Mindful Belly Breathing", "Skill Practice: Broadening Body and Muscle Awareness & recall BAMA", "Skills Practice: Mindfulness of Your Emotions" [24]. In addition to the psycho-educational skill trainings, the client was instructed to use Opposite Action instead of avoidance, inactivation and other reactive behavioral responses. Opposite Action suggests acting in contrast to imbalanced motivations in order to respond to distressing situations in more appropriate ways.

At the end of phase I, the client reported that the negative emotions in his life had decreased. He also believed that the opposite action techniques had been quite effective.

**Phase II (sessions 4-8)**

Based on the foundation set in phase I, and by learning more emotion regulation skills in phase II, the client will get ready to deal with his emotional events “counteractively” instead of reactively. At this phase, in addition to learning new emotion regulation strategies, the use of online emotion regulation strategies was considered. This implied that at the moment of facing an emotional event, the client should use emotion regulation skills instead of reacting reactively. At the end of phase II, all emotion regulation skills are taught. As arranged in phase I, at the end of each session the corresponding handouts were given. The handouts were written based on the skill training and included "Phase II: Mindful Emotion Regulation Skills", "Off-line Allowance Skill: Open Presence Meditation", "On-Line Allowance Skill: (Three-Minute breathing Space)", "Off-Line Distancing Skill: Gaining Distance (Perspective in Time)-Mountain Meditation", "On-Line Distancing Skill: Invoking the Mountain", "Off-line Distancing Skill: Finding An Observer’s Distance", "On-line Distancing Skill: Bringing It With You", "Off-Line Reframing Skill: Courageous and Compassionate Reframing". In the last session (session 8), the therapist summarized all the skills trained in phase II and gave the client the "ERT Toolbox" and "Being Counteractive" handouts in order to finalize the discussions about emotion regulation strategies [24].

Similar to phase I, the client filled the "catch yourself reacting" form for following emotion generation and expression in his mind and body, and used the emotion regulation techniques for managing his emotions. Furthermore, through phase II he filled the "Mindfulness skills recording" form based on his offline skill practices.

At the end of the last session of phase II, the client was given a practice for identifying values that would prepare him for entering phase III. This helped him review his values, and compare his current life state with his goals for fulfilling those values. The client recorded his values in domains such as intimate relationships, friendships, career, education, & health on the "Identifying Your Values" form, demonstrating a gap between his current life and his values [24].

Despite the client’s concern about the amount of emotion regulation skills at the middle of phase II, he reported becoming less reactive at the end of this phase. He experienced less anxious arousal and showed more interest in spending time with friends and expressed more willingness to perform well on his job. Furthermore, the frequency of his procrastination and behavioral inactivation was reduced.

**Phase III (sessions 9-13)**

Phase III focused on reducing the identified gaps between the client’s current life and his set goals and values as much as possible [24]. With this regard, he employed experiential exposure and emotion regulation techniques for counteracting high security and low reward motivations. The imbalance of motivations prevents commitment to one’s values. Based on the gap detection at the end of phase II, he undertook the following actions: 1) searching for the best English language school and registering for attendance; 2) carrying out some exercises at home; 3) making appointments with medical specialists such as a dentist and an urologist; 4) spending more time with friends; 5) searching for other job opportunities; 6) meeting girls in order to select a spouse.

This phase also involved working more on emotion regulation skills until they became overlearned. In sum, at the end of phase III, the client became more committed to his values, learned how to fulfill his values throughout life, and became more adapted using online emotion regulation skills.

**Phase IV (sessions 14-16)**

Phase IV was devoted to relapse prevention and aimed to prepare the client for ending the treatment [24].

At the end of the treatment, the client reported less anxious and depressive symptoms. His procrastination and avoidance behaviors were reduced, especially by utilizing the opposite action technique. In addition, his use of emotion regulation skills including attending, allowance, decentering and reframing increased significantly. These emotion regulation skills are thought to be the mediators of ERT in treating anxiety and depression. The client’s quality of life also increased in the domains of physical health, psychological health and social relationships, especially by strengthening commitment to values and making efforts for filling the gaps.

**Discussion**

The purpose of the current study was to investigate the effectiveness of ERT for treating GAD comorbid with MDD. The results showed reductions in anxious and depressive symptoms at post-treatment. In addition, the emotion regulation strategies (including attending, allowance, distancing, and reframing) that are considered as mediators in ERT [4] increased from pre-to-post treatment. Moreover, the client’s quality of life improved in the domains of physical health, psychological health & social relationships. Therefore, the results of the current study provide preliminary evidence for the effectiveness of ERT for the treatment of GAD comorbid with MDD.

A number of third wave cognitive behavioral therapies
have signified the mediating role of attending, acceptance (or allowance), decentering, and reappraisal (reframing), which indicates the importance of these strategies in the nature and treatment of MDD and GAD. For example, acceptance and commitment therapy, acceptance-based behavior therapy, mindfulness approaches and trans diagnostic treatment have used the training of the mentioned emotion regulation skills for treating anxiety and depression[17, 20, 25-28]. Given that ERT is an integrative intervention, it applies all of these emotion regulation skills in one protocol for the treatment of GAD and MDD [4]. In line with the findings of third wave therapies, the amelioration of GAD and MDD and the observed enhancements in the emotion regulation strategies of attending, allowance, distancing, and reframing emotion regulation strategies in the current study demonstrates the mediating role of these emotion regulation strategies in the treatment of GAD and MDD based on the ERT model.

The results of this intervention are in consistent with a number of preliminary researches that have evaluated the efficacy of ERT [6,29, 30]. One of these studies is a case study by Fresco et al.[6] conducting ERT on a client named Williams who only suffered from GAD. However, in the present intervention, ERT was conducted for treating the comorbid condition of GAD and MDD, which is more complex and is the main target for this kind of treatment. The 2 other studies involved an open trial (N=19) and a randomized clinical trial (N=60) [29, 30]. In both studies, the results showed reductions in GAD severity, worry, trait anxiety, and depression symptoms and improvements in the subjects’ functioning and quality of life. Yet only in the randomized control trial, a subgroup of patients with GAD comorbid MDD (N=30) were addressed and treated. In the open trial, depression was treated as a symptom not a disorder. Therefore, although ERT is tailored to the treatment of the comorbid condition, only the current case study and the randomized control trial of Mennin et al. [30] used it for treating GAD comorbid with MDD.

Although, the first application of this protocol in Iran as a case description method suggests that ERT may help people suffering from the comorbid condition of GAD and MDD, yet case studies are subject to some limitations. The generalizability of the results is limited to this specific client. Therefore, future research is needed for a thorough evaluation of ERT’s effectiveness.

The client provided some feedback about the different phases of treatment. He reported being under pressure during phase I and phase II due to the variety of concepts and tasks introduced. The model of emotion dysregulation and the attending techniques were also presented in phase I. The client stated that at first it had been difficult for him to understand all psycho-educational concepts and techniques. In addition, in phase II all the rest of emotion regulation techniques were presented. The client felt bombarded with techniques, and again struggled remembering and using them. Nevertheless, in phase III the client was perfectly acquainted with all of the techniques by practice.

Furthermore, in phase III ERT worked on values. This phase was very meaningful and effective for the client according to his feedbacks.

Conclusion
In summary, the single client who was treated with ERT made clinically significant improvements through therapy. Therefore, ERT seems to be tailored to the treatment of clients suffering from GAD comorbid with MDD. Given that ERT is an in-progress therapy, the provided feedbacks can be useful for its future enhancement.

References


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