

# The Effectiveness of the Metacognitive Model in Treating a Case of Post-Traumatic Stress Disorder

Yaghoob Vakili, MS<sup>1</sup>  
Ladan Fata, PhD<sup>2</sup>

<sup>1</sup> Iran University of Medical Sciences

<sup>2</sup> Iran University of Medical Sciences, Tehran Psychiatry institute

**Corresponding Author:**

Yaghoob vakili, MS  
Psychologist, Iran University of Medical Sciences  
Email: yaghoobvakili@yahoo.com  
Tel: 09126754044

**Objective:** The aim of this study is to evaluate the effectiveness of the metacognitive model in treating post-traumatic stress disorder.

**Method:** In a single-subject experimental trial of multiple baseline type, the treatment process was carried out on an 18-year-old male subject. The patient satisfied the DSM-IV criteria for PTSD and was assessed for pre-treatment and post-treatment. The scales used in this study included: Impact Event Scale-Revised (IES-R), Beck Depression Inventory (BDI-II), Beck anxiety Inventory (BAI), and Subjective Units Distress Scale (SUDs). In addition, all scales were again completed by the subject at 1-month, 3-month, and 6-month follow-ups.

**Results:** The treatment led to reductions in symptoms of PTSD, anxiety, depression and distress. Gains were maintained at follow-ups.

**Conclusion:** The treatment approach which is based on the metacognitive model, appears to be effective in the treatment of post-traumatic stress disorder.

**Keywords:**

*Cognitive therapy, Post traumatic stress disorder*

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**P**ost-traumatic stress disorder (PTSD) is characterized by symptoms of re-experiencing a trauma, reminders avoidance and hyper arousal (1). PTSD has an estimated prevalence of 0.4% to 2% in the general population and an estimated lifetime prevalence of 1% to 12% (2), which signifies this disorder as a serious public health problem.

Several forms of treatment have been applied to PTSD. Many treatments appear to be promising. However, a clear indication of the best alternative methods (3) have not yet been provided by the current literature. Primary psychological treatments for PTSD include prolonged imaginary exposure to traumatic memories (4-7) and cognitive restructuring of appraisals and beliefs emerging from trauma experiences (8,9). Meta-analyses demonstrate that patients' disorder improves with the mentioned treatments. However, a significant percentage of patients fail to respond to the treatment, indicate a partial improvement, or even discontinue the treatment (3,10). Ineffectiveness of prolonged exposure in the treatment of some PTSD patients has been reported (11-15). Exposure and cognitive therapy approaches are relatively brief interventions involving approximately 10 sessions. Implementation of these treatments requires a highly skilled therapist. Wells and Sembi (16) believe that for a treatment to be more widely accessible, brief, less demanding, and less potentially distressing interventions are needed; the metacognitive treatment of PTSD (17,18) is such an intervention. The goal of this treatment is to allow patients to develop flexible metacognitive awareness and control, and also to free them from worry/rumination, and threat monitoring (18).

This article reports a case of PTSD that was resistant to pharmacological treatment but responded well to a metacognitive therapy; and this therapeutic effect remained for a relatively long time.

## Case Report

### Case Presentation

The patient was an 18-year-old unmarried male student, with a High School Diploma, who was admitted to Iran Hospital for resistant PTSD and was referred for metacognitive therapy by the attending psychiatrist. He had no pre-morbid psychiatric history. His problem had started at the age of 17. He had been sexually raped by his friends. Evaluation data confirmed the diagnosis of PTSD.

In addition to experiencing daily intrusive flashbacks involving his friends, the patient complained of sleep disturbance, loss of concentration, hyper vigilance (including fear of facing his friends again), startle reaction, and inability to work. He also avoided contact with other friends.

The disorder had deteriorated his social and interpersonal relations. He underwent several treatments including full doses of antidepressants and benzodiazepines as a single treatment or in combination. The mentioned medication did not affect his state. He experienced drowsiness during daytime and his functional abilities were seriously impaired. At the time, metacognitive therapy was initiated for the patient and he received fluoxetine (40mg) and trazodone (75mg) daily. These medications continued during the assessment period. Although the mentioned medications indicated a positive outcome, the main effect was due to the metacognitive therapy illustrated

in the baseline treatment (Figure1). Other medications were discontinued.

**Assessments**

This study has utilized the intensive time-series design (19).The patient was asked to complete the IES-R, BDI-II, BAI, and SUDS before, during, and after the treatment sessions and also at follow-up sessions.

**Treatment Procedures**

The treatment procedures were planned based on metacognitive techniques (16). In the first treatment session, an idiosyncratic formulation of the patient's problem was presented based on the metacognitive model. Next, the patient took advantages/disadvantages analysis of worry/rumination. The patient was then trained to respond to his symptoms using the method of "Detached Mindfulness", which aims to enhance metacognitive awareness and to increase flexible control of responses. "Postponed worry exercises" were introduced in order to further enhance the patient's metacognitive awareness and to disengage the daily worry/rumination. Lastly, attention modification was used. The patient was asked to remember the times he paid attention to internal and/or external sources of threat and to remember the situations in which he felt vulnerable and the situations which reminded him of the trauma. He was instructed to consciously acknowledge the nature of his attentive focus and to stop threat monitoring. In order to apply this technique, the patient was encouraged to practice in situations where he felt vulnerable. After 8 sessions, the treatment program was established, and the patient was then followed for 1, 3 and 6 months.

**Findings**

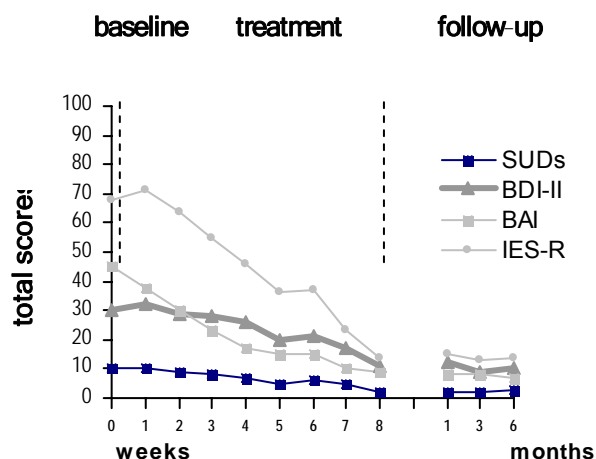
As demonstrated by the below figure, the treatment led to reductions in symptoms of PTSD, anxiety, depression and distress. Gains were maintained at 1-month, 3-month and 6- month follow-ups.

**Discussion**

The results of this study suggest that the metacognitive-focused intervention may be effective in the treatment of PTSD. The treatment of PTSD improves as a result of increased metacognitive awareness of the disorder. Metacognitive therapy has been established as an effective treatment for PTSD (18), and general anxiety disorder (20,21). The results of this study must be interpreted cautiously. The study involved only one patient, who may not fully represent of all PTSD cases. Nevertheless, the present results imply that continuing evaluations of this new treatment are warranted.

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**Fig. PTSD symptoms severity, depression, anxiety, and distress scores for patient during baseline, treatment, and at follow-up.**

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