



Effectiveness of emotion regulation strategies treatment on avoidance and arousal behavior in women with post-traumatic stress disorder due to COVID-19

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Email: hasanzadeh@iausari.ac.ir | Received: 19.06.2022 | Acceptance: 12.12.2022

Journal of
Applied Family Therapy

eISSN: 2717-2430
http://Aftj.ir

Vol. 4, No. 5, Pp: 506-521
Winter 2023

Original research article

How to Cite This Article:

Arjmandnia, N., Hasanzadeh, R., & Abbasi, G. (2023). Effectiveness of emotion regulation strategies treatment on avoidance and arousal behavior in women with post-traumatic stress disorder due to COVID-19. *Aftj*, 4(5), 506-521.



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Abstract

Aim: The aim of this study was to investigate the effectiveness of treatment of emotion regulation strategies on avoidance and arousal behavior in patients with post-traumatic stress disorder due to COVID-19. **Methods:** The research method was semi-experimental with a single-subject multiline basic design. The statistical population consisted of people who were admitted to the intensive care unit of Masih Daneshvari Hospital in Tehran between 2020 and 2021 due to COVID-19 and had post-traumatic stress disorder. Three women were selected by available sampling method and assigned to emotion regulation strategies treatment group. Then, three subjects received an 8-session protocol for treatment of emotion regulation strategies (Gross, 2008). Event-edited impact questionnaires (Garmer, 2003) were administered as research tools in four stages: baseline, third and sixth ninth and follow-up. Data were analyzed using SPSS software version 22 by repeated measurement analysis and data analysis using diagram drawing. The recovery percentage formula (Ogles, 2001) was used to measure the rate of recovery. **Results:** The results showed that the approach of emotion regulation strategies improved avoidance and arousal in patients with post-traumatic stress disorder due to COVID-19. The percentage of recovery of avoidance and arousal in patients with post-traumatic stress disorder caused by the disease was between 52% and 68%. **Conclusion:** It can be concluded that the approach of emotion regulation strategies improves avoidance and arousal in patients with post-traumatic stress disorder due to COVID-19 and this treatment can be used to reduce psychological problems in COVID-19 patients.

Keywords: *emotion regulation, post-traumatic stress disorder, avoidance behavior, arousal.*

Introduction

One of the aspects of health is dealing with oral and dental health, but attending the dental office and being on the unit for examination is often not so easy and relaxing (Chandrasakhar et al., 2017). Sometimes, this anxiety is combined with fear and panic that with the occurrence of confrontational behaviors in patients, it deprives the dentist of providing any kind of service. The severity of anxiety in patients may expand to debilitating dimensions and the feeling of impending death in the patient, him and his family, may discourage him from any diagnostic or dental treatment (Tels et al., 2015). Dental anxiety is defined as a psychological reaction of fear towards dental interventions because a person believes that these interventions are harmful and dangerous (Jankui et al., 2014). Fear of dental treatments is common, with approximately 6–15% of the general population suffering from dental anxiety (Grisolia et al., 2021). Dental anxiety ranks fifth among the most common anxiety-provoking situations (Keoningham et al., 2021).

Mindfulness training can play an important role in mental health in the form of group therapy, it can increase the characteristics of mental health, which includes comprehensive well-being, and its necessity can be felt to increase the improvement of life. Mindfulness, in simple words, means being aware of thoughts, behavior, emotions and feelings and is considered a special form of attention (Goldberg et al., 2019). According to Kabat-Zinn (1983), mindfulness means paying attention to the present in a specific, purposeful and non-judgmental way. Currently, mindfulness is rapidly becoming an effective and efficient approach to dealing with ever-increasing problems. If we look at mindfulness from the perspective of scientific research, we can say that currently, many clinical psychologists use mindfulness as a very effective medicinal tool to reduce stress and anxiety (Yeuxil and Yilmaz, 2020). The use of mindfulness and conducting research in this field has increased in recent years. Mindfulness-based therapies have been reported to be highly effective for the treatment of some clinical disorders and physical diseases due to the fact that they address both physical and mental dimensions. In the last two decades, a large number of interventions and treatments based on mindfulness have emerged (Brotto et al., 2019). Cognitive therapy based on mindfulness requires special behavioral, cognitive and metacognitive strategies to focus the attention process. Therefore, according to the stated content, the aim of the present study was to determine the effectiveness of cognitive therapy based on mindfulness on the cognitive regulation of emotion and perceived stress in women with dental anxiety. The current research sought to answer the following questions:

- 1- Was cognitive therapy based on mindfulness effective on the cognitive regulation of emotion and perceived stress in women with dental anxiety in the post-examination stage?
- 2- Was cognitive therapy based on mindfulness on the cognitive regulation of emotion and perceived stress in women with dental anxiety in the follow-up phase?

Method

The research method was semi-experimental with a single-subject multiline basic design. The statistical population consisted of people who were admitted to the intensive care unit of Masih Daneshvari Hospital in Tehran between 2020 and 2021 due to COVID-19 and had post-traumatic stress disorder. Three women were selected by available sampling method and assigned to emotion regulation strategies

treatment group. Then, three subjects received an 8-session protocol for treatment of emotion regulation strategies (Gross, 2008). Event-edited impact questionnaires (Garmer, 2003) were administered as research tools in four stages: baseline, third and sixth ninth and follow-up. Data were analyzed using SPSS software version 22 by repeated measurement analysis and data analysis using diagram drawing. The recovery percentage formula (Ogles, 2001) was used to measure the rate of recovery.

Results

The results showed that the approach of emotion regulation strategies improved avoidance and arousal in patients with post-traumatic stress disorder due to COVID-19. The percentage of recovery of avoidance and arousal in patients with post-traumatic stress disorder caused by the disease was between 52% and 68%.

Conclusion

The present research aims to evaluate the effectiveness of emotion regulation strategies in treating avoidant behavior and arousal in patients suffering from post-traumatic stress disorder (PTSD) resulting from COVID-19. Results have significantly demonstrated that cognitive emotion regulation therapy effectively reduces PTSD scores caused by COVID-19.

The first limitation of this study relates to the small sample size. Despite the researcher's efforts to find willing participants, the individual differences among patients with various psychological disorders necessitate a broader sample size. The study was limited by its use of convenience sampling and the fact that the researcher played both the role of therapist and evaluator. This situation could potentially introduce bias into the results. Another limitation refers to the failure to control some factors in the research design. The present study, being an experimental design with a multiple baseline across individuals, may cover this weakness to some extent. Moreover, no study can control all factors influencing the dependent variable, but there are always elements that affect the research variables and influence the results. Due to the scarcity of similar research, there is a limitation in fully comparing the obtained results with other studies. The research was conducted in Tehran; therefore, its generalization to other cities and rural areas should be done with caution.

Patients with PTSD, due to experiencing or witnessing a traumatic event, engage in negative self-projection, avoidance, arousal, and disorganization in cognition and mood. Due to their unpleasant psychological experience, they resort to inappropriate strategies for regulating their emotions. This deficiency in emotion regulation leads them to perceive a greater threat and exhibit more avoidant behavior, exacerbating their disorder. Therefore, it is recommended that emotion regulation therapy be employed to regulate emotions and subsequently reduce avoidance, arousal, and intrusive thoughts in patients suffering from PTSD due to COVID-19.

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