


CASE REPORT

Intervention with Eye Movement Desensitization and Reprocessing (EMDR) to Test Anxiety: A Case ReportKübra Özcan Çetin ^{1,*} Mehmet Rıdvan Varlı ¹ Emine Yavuz Ataşlar ¹ ¹ Department of Psychiatry, Ankara Etlik City Hospital, Ankara, Türkiye

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Abstract: Test anxiety is a condition that affects an individual's performance in evaluating their skills. There are various treatment options for test anxiety, however there is still no consensus on these treatment options yet. There are a considerable number of studies in the literature showing that Eye Movement Desensitization and Reprocessing (EMDR) is effective in the treatment of test anxiety. However, as in the case we will present, comorbidities are frequently seen as a confounding factor. In our case report, our 19-year-old patient had comorbid PTSD (Post-Traumatic Stress Disorder) along with test anxiety as a confounding factor. EMDR was applied to the patient for test anxiety and 1-year follow-up results were described. Our report recommends EMDR therapy as a new treatment alternative for the successful treatment and follow-up of test anxiety. Verbal and written consent was obtained from the patient for the case report.

Keywords: Eye Movement Desensitization and Reprocessing, EMDR, Test Anxiety, Exam Anxiety, Psychotherapy, Treatment.

Introduction

In Turkey, national exams that start in primary school have become an indispensable part of student life. In Turkey, an average of 3.5 million people apply for university exams every year, and the number of students accepted to the university they want is less than 1 million. Students struggle with numerous exams focused on success from the beginning to the end of their school life. In addition to many factors such as illness, social support, and intelligence that affect exam

success, another important factor that affects success is thought to be test anxiety.^{1,2} Test anxiety is defined as anxiety that leads to poor performance on tests and other formal assessment skills.^{1,3} In other words, this anxiety is a feeling of uneasiness along with fear that is felt when an individual's skills are being evaluated, although there is no obvious concern in normal times.^{2,3} However, this amount of anxiety can increase depending on the negative life events experienced by the individual. Although pharmacological

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approaches, especially selective serotonin reuptake inhibitors, can be preferred in the treatment of anxiety disorders, psychotherapies such as cognitive behavioral therapy have also become the first choice today.⁴

Eye Movement Desensitization and Reprocessing (EMDR) treatment was discovered by Shapiro and was initially seen as a desensitization treatment. It was observed that when both hemispheres of the brain were stimulated sequentially with bilateral eye movements, the discomfort caused by traumatic memories and negative experiences disappeared. EMDR is a relatively new method that uses a combination of important different approaches such as psychodynamic, cognitive and behavioral approaches and is becoming increasingly widespread.^{5, 6} Scientific research shows that EMDR reduces the vividness of emotions and images related to the memory, and the resulting desensitization allows the memory to be viewed more calmly and consciously.^{6, 7, 8} Although studies have shown that EMDR is effective in the treatment of Post-Traumatic Stress Disorder (PTSD), researchers have investigated the effectiveness of EMDR in psychiatric and related disorders such as depression, anxiety disorder, vaginismus, fibromyalgia, and specific phobia.^{6, 7, 8, 9, 10} However, there are few reports investigating the effects of EMDR on test anxiety.^{11, 12} Although it has been shown to be effective, its application in clinical practice is still limited.^{11,}

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Assuming that EMDR is not preferred in the treatment of test anxiety, our case reports the intervention of EMDR to the excessive anxiety

experienced by a student before and during the exam.

Case

A nineteen-year-old female medical student with no previous psychiatric history applied to the psychiatry outpatient clinic with complaints of excessive excitement, sweating, and tremors before and during exams. In the interview conducted before the session with the patient, who had previously used anxiolytic and antidepressant medications, it was learned that her complaints began after a negative incident she experienced with her teacher in front of her friends at school when she was 16 years old. It was understood that the patient began to have anxiety about school and her lessons after this incident, but she was able to cope with it and did not have any anxiety complaints about exams. The patient's complaints about exams began after she started medical school. The patient did not want to use medication due to its side effects. Beck Depression Inventory¹⁴ and Beck Anxiety Inventory¹⁵ were 11 and 15. EMDR was suggested as it was thought to be beneficial to the patient and written consent was obtained after the necessary information was provided.

The stages of EMDR consist of 8 stages. In the first stage, a detailed anamnesis was taken to assess whether the patient was suitable for EMDR treatment. Since the traumatic memory recalled was likely to cause intense distress in the patient, the patient was given extensive information and worked on self-soothing skills. In order to ensure patient safety for the second stage of EMDR treatment, relaxation, relaxation and self-soothing techniques were shown for 1-2 sessions before starting the

Table 1: Terms used in the EMDR Protocol and their equivalents in our case.

The image that comes to mind along with the moment when EMDR will be applied	Image	'the look of her friends'
The feeling that comes with the image	Emotion	'anxiety and fear'
The negative cognition created by the image.	Negative Cognition	'I am incompetent'
The desired cognition instead of negative cognition after EMDR	Positive Cognition	'I can succeed'
The numerical value given to the validity of positive cognition.	VoC	2/7 (Start of treatment) 7/7 (End of treatment)
The numerical value of the feeling of discomfort created by the moment when EMDR will be applied	SUD	10/10 (Start of treatment) 3/10 (End of treatment)
The area and sensation of the image felt on the patient's body.	Bodily sensation	chest tightness and sweating

SUD: Subjective Units of Disturbance, VoC: validity of positive cognition.

treatment. A place that would give the patient a sense of security and comfort was chosen. After the safe place study with the patient, the third stage was passed and the event that the patient experienced in high school was studied. The patient was asked to visualize the traumatic event. After the visualization, the "picture" was chosen as the "the look of her friends". The patient stated that he felt ashamed and humiliated during the traumatic event. The negative cognition created by the traumatic event was chosen as 'I am incompetent'. Instead of the negative cognition, the positive cognition of 'I can succeed' was considered. The emotion was 'anxiety and fear'. The SUD (numerical value of the feeling of discomfort created by the moment when EMDR will be applied) value was '10' and the VoC (numerical value given to the validity of positive cognition) value was '2'.

Tightness and sweating in the chest area were also considered as body sensations. The EMDR stages were followed and the sensitization stage was applied in the fourth stage. In the fifth stage, the establishment of positive belief was attempted. In the sixth stage, physical symptoms related to the traumatic event were scanned. In the seventh stage, the patient was ensured to leave the session safely and relaxed. After the session, the SUD value was '3' and the VoC value was '7'. In the patient's examinations 1 week after the first EMDR session, the complaints had partially regressed. The eighth stage of EMDR therapy, the re-evaluation stage, was applied at the beginning of the new session. In the patient's second EMDR session a month later, the same picture was used and it was observed that the patient's complaints had regressed to a level where she could cope. Since the patient had no additional complaints and no recurrences in the monthly meetings, the

patient's treatment was completed at the end of one year.

Discussion

Although test anxiety is a frequently encountered medical condition in daily practice, there is no consensus on its treatment. In our report, a patient who developed test anxiety after a negative life event and whose complaints rapidly regressed after EMDR intervention is presented. Our report shows that EMDR can be an important alternative in combating test anxiety, especially in cases where a psychopharmacological approach is considered to be avoided.

There are a considerable number of EMDR interventions in the literature, especially in the treatment of test anxiety, which causes poor academic performance during school years.^{11,12} According to Kavakcı et al.'s recent report; EMDR intervention has been shown to be effective in a 17-year-old patient with PTSD and test anxiety. Although the case's one-year follow-up period was reported, the presence of PTSD can be considered a confounding factor.¹¹ On the other hand, the effectiveness of EMDR on test anxiety has also been shown by clinical studies.^{12, 16, 17} However, there are no follow-up studies. In our report, in line with the literature, our patient who applied with test anxiety benefited from the EMDR session. Moreover, there was no recurrence in the patient's complaints in the one-year follow-ups. Our study is important because it shows that EMDR has a permanent effect on test anxiety. In addition, our report is important because EMDR is an effective treatment method in cases who cannot be diagnosed with PTSD according to the diagnostic system but who

develop negative cognitions about themselves after a traumatic memory and cause a decrease in functionality. On the other hand, EMDR is an approach that should be considered in the treatment of test anxiety because it provides a faster response to test anxiety compared to other psychotherapy and pharmacological treatment approaches. Moreover, it is important that EMDR has almost no side effects, especially when compared to pharmacotherapy methods. In addition, EMDR can be considered more economical because it provides a faster response compared to other non-pharmacological therapeutic methods. Therefore, EMDR can be considered a faster, more economical, better tolerated and effective method when compared to other psychotherapy and pharmacotherapy treatments in the treatment of test anxiety.

In conclusion, EMDR; It should be considered as an effective and rapid treatment method that should be preferred in reducing or controlling anxiety, especially in the treatment of test anxiety, which can affect people's life-shaping periods and beyond. Especially in countries like ours, where exams gain more value than just exams, the treatment of test anxiety is gaining importance. Clinicians should see EMDR as an important alternative in the treatment of patients who apply with test anxiety. Large-sample and controlled studies on test anxiety will be useful in demonstrating the effectiveness of EMDR.

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References

1. Adiele, D., Judith A, C., Morgan, G., Catherine, B., & Carolyne, L. Association of Academic Stress, Anxiety and Depression with Social-Demographic among Medical Students. *International Journal of Social Science Studies*, 2018; 6(6): 27-32. doi:http://dx.doi.org/10.11114/ijsss.v6i6.3288
2. Eller, T., Aluoja, A., Vasar, V., & Veldi, M. Symptoms of anxiety and depression in Estonian medical students with sleep problems. *Depression and anxiety*, 2006; 23(4): 250–256. https://doi.org/10.1002/da.20166
3. Ağargün M.Y., ÖSS'ye Girecek Olan Lise Öğrencilerinde Uyku Problemleri ve Kaygı Düzeyleriyle İlişkisi. *Düşünen Adam*. 1995; 8(3): 35-39. Dusunenadamdergisi.org. https://arsiv.dusunenadamdergisi.org/ing/Articledetails6381.html?MkID=636
4. Alemdar, H., Karaca, A., Konuk Şener, D., Halmatov, S. The Impact of Cognitive-Behavioral Play Therapy on Children's Anxiety Levels: A Systematic Review. *Balikesir Sağlık Bilimleri Dergisi*. 2024;13(1): 184-191. https://doi.org/10.53424/balikesirsbd.1349116
5. Shapiro, F., & Maxfield, L. Eye Movement Desensitization and Reprocessing (EMDR): information processing in the treatment of trauma. *Journal of clinical psychology*. 2002; 58(8): 933–946. https://doi.org/10.1002/jclp.10068
6. Shapiro, F., & Solomon, R. Eye movement desensitization and reprocessing therapy. In: S. N. Gold, ed., *APA handbook of trauma psychology: Trauma practice*. American Psychological Association. 2017; 193-212. https://doi.org/10.1037/000020-009
7. Kavakci, Onder & Semiz, M. & Kaptanoglu, Ece & Özer, Z. EMDR treatment of fibromyalgia, a study of seven cases. *Anadolu Psikiyatri Dergisi*. 2012;13: 75-81.
8. Torun F. Vajinismusun EMDR yöntemi ile tedavisi: iki olgu sunumu. *Türk Psikiyatri Dergisi*. 2010; 21: 243-248.
9. Asarlı Tokgöz, Z. Göz Hareketleri İle Duyarsızlaştırma Ve Yeniden İşleme (EMDR). *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*. 2018; 47: 526-545.
10. Semiz, M., Atik, S., & Erdem, M. Majör depresyon hastalarında travmatik yaşantılara EMDR uygulamasının tedaviyi güçlendirici etkileri: Olgu serisi. *Dusunen Adam: The Journal of Psychiatry and Neurological Sciences*. 2016; 91–95. https://doi.org/10.5350/dajpn2016290111
11. Kavakçı, Ö., Yıldırım, O., & Kuğu, N. Travma Sonrası Stres Bozukluğu ve Sınav Kaygısı için EMDR: Olgu Sunumu. *Turkish J Clin Psy*. 2010;13(1): 42-47.
12. Maxfield, L., Melnyk, W.T. Single Session Treatment of Test Anxiety with Eye Movement Desensitization and Reprocessing (EMDR). *International Journal of Stress Management*. 2000; 7: 87–101. https://doi.org/10.1023/A:1009580101287
13. Gosselin, P., & Matthews, W. J. Eye movement desensitization and reprocessing in the treatment of test anxiety: a study of the effects of expectancy and eye movement. *Journal of behavior therapy and experimental psychiatry*. 1995; 26(4): 331–337. https://doi.org/10.1016/0005-7916(95)00038-0
14. Hisli, N. Beck Depresyon Envanterinin üniversite öğrencileri için geçerliliği ve güvenilirliği. *Türk Psikoloji Dergisi*. 1989; 6: 3-13.
15. Ulusoy, M., Sahin, N.H. and Erkmen, H. Turkish Version of the Beck Anxiety Inventory. *Journal of Cognitive Psychotherapy*. 1998; 12: 163-172.
16. Spielberger, C. D., Anton, W. D., & Bedell, J. The Nature and Treatment of Test Anxiety. In: Zuckerman M., ed. *Emotions and Anxiety: New Concepts, Methods, and Applications*. Psychology Press; 2015: 317-344.
17. Benor, D. J., Ledger, K., Toussaint, L., Hett, G., & Zaccaro, D. Pilot study of emotional freedom techniques, wholistic hybrid derived from eye movement desensitization and reprocessing and emotional freedom technique, and cognitive behavioral therapy for treatment of test anxiety in university students. *Explore (New York, N.Y.)*. 2009; 5(6): 338–340. https://doi.org/10.1016/j.explore.2009.08.001