



Post-Traumatic Stress Disorder and the Effectiveness of EMDR Therapy

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Abstract

Post-traumatic stress disorder (TSSB) is a serious mental disorder that threatens the lives of individuals or causes intense fear, helplessness and horror, leading to loss of functionality. In recent years, both the psychosocial and biological aspects of the TSSB have been examined extensively, and among the treatment approaches, insensitivity and re-processing (EMDR) therapy has come to the fore. This article deals with the definition, historical development, clinical symptoms and biopsychosocial foundations of the PTSSB; It discusses the existing treatment methods and focuses on the effectiveness of EMDR therapy. Clinical research shows that EMDR offers a rapid and effective alternative compared to cognitive behavioral therapy (CIS) in the processing of traumatic memories. However, limitations such as the mechanism of the method is not fully understood and the therapist adequacy should be taken into consideration. After earthquakes and mass traumas in Turkey, EMDR practices increased and promising results were obtained in field studies. This study aims to provide a comprehensive assessment of both theoretical and practical evaluation by examining the TSSB and EMDR relationship by literature screening method.

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1. Introduction

Traumatic events are experiences that threaten the mental and physical integrity of individuals, disrupt the usual flow of life and leave permanent traces. Natural disasters, wars, terrorist attacks, occupational accidents and childhood abuse not only shake the psychological balance of the individual; It also has deep effects at the social level. After such experiences, post-traumatic stress disorder (TSSB) is considered a mental disorder that significantly restricts the daily functionality of the individual and leads to continuous changes in the world of emotions and thoughts (American Psychiatric Association [APA], 2013) ^[2]. TSSB was first observed in war veterans and entered the literature with concepts such as “war neurosis” or “Vietnam syndrome”. However, it is known that trauma-related mental disorders are as old as human history and only the terminology has changed. Herman (1992) ^[13] emphasizes that trauma is not only leaving destructive effects on the individual spiritual structure, but also creates permanent traces in social memory. Today, TSSB within the framework of DSM-5 criteria; Re-experience, avoidance, cognitive-emotional negativity and increased arousal symptoms are characterized by symptoms (APA, 2013) ^[2]. The effects of traumatic experiences are examined not only psychological but also in biological and social dimensions. In particular, the deterioration of the balance between the amygdala, hippocampus and the prefrontal cortex, the excessive release of stress hormones and the inadequacy of social support mechanisms play an important role in the emergence of the PTSSB (Van Der Kolk, 2014) ^[27]. Therefore, TSSB is a complex disorder that should be considered with a multidisciplinary approach. Cognitive behavioral therapy (CIS), drug treatments and group therapies have been at the forefront for many years; However, in the late 1980s, insensitivity and re-processing (EMDR) therapy developed by Francine Shapiro has drawn attention as an effective method in the re-processing of traumatic memories (Shapiro, 1989) ^[24]. EMDR reorganizes information processing processes of the brain through bilateral

EMDR reorganizes information processing processes of the brain through bilateral stimulation techniques and enables the individual to develop less emotional reaction to traumatic memories. In recent years, clinical research and meta-analysis show that EMDR gives effective results in the treatment of PTBS in a short time. For example, Bisson *et al.* (2013)^[5] states that EMDR is as effective as trauma-oriented CIS, and in some cases it provides a faster symptom decrease. However, the fact that the mechanism of the therapy cannot be fully explained and the differences of success due to the educational level of the therapist are still a matter of debate. This article examines the TSSB in terms of recognition, historical development, clinical symptoms and biopsychosocial foundations; It discusses the differences between treatment approaches and aims to systematically evaluate the literature findings on the effectiveness of EMDR therapy. It will also shed light on the practical reflections of EMDR applications in the context of mass traumas in Turkey.

2. Definition and Historical Development of Post-Traumatic Stress Disorder

Post-traumatic stress disorder (TSSB) is defined as a psychiatric disorder that develops after an event that threatens the life, integrity or safety of the individual and leads to continuous deterioration in the emotion, thought and behavior of the individual. According to the definition of the American Psychiatric Association in DSM-5, TSSB; The involuntary re-experience of traumatic events is characterized by continuous avoidance of stimuli, negative changes in cognitive and emotional fields and increased symptoms of stimulation (APA, 2013)^[2]. It is considered a clinically significant disorder when these symptoms last longer than a month and negatively affect the individual's social, professional or personal functionality. The conceptual history of the PTBS should be handled with the development line of modern psychiatry. The industrial revolution in the 19th century and the increasing technological accidents have led to the more visible of post-traumatic mental disorders. In this period, the "Railway Spine" syndrome, which was observed especially in the survivors of train accidents, is considered one of the first examples of the PTBS today (Young, 1995)^[31]. At the beginning of the 20th century, intense anxiety, nightmares, tremor seizures and function losses observed in the soldiers on the front-line during World War I were explained by the concepts of "Shell Shock" or "War Nevrozu". This period has been the first time the traumatic symptoms were systematically observing. However, these paintings were mostly stigmatized as "weakness" or "morale" and were not included in a category of psychiatric disease (Jones & Wessely, 2005)^[15]. II. After World War II, the concept of "Combat Fatigue" emerged, but still trauma-related mental disorders were not accepted as a separate diagnostic category. The intense psychological destruction in veterans returning from the Vietnam War accelerated the recognition of the PTBS as a clinical entity. The spiritual symptoms of the Vietnam veterans, the center of post-war social debates, and the field research conducted during this period led the TSSB to become a legitimate category in the scientific literature (Yehuda & Mcfarlane, 1995)^[30]. Trauma-related mental disorders were first introduced to the diagnostic category in 1980 under the name of "Post-Traumatic Stress Disorder" in DSM-III (APA, 1980)^[1]. This is an important turning point in the history of psychiatry because traumatic

events are not only a "normal stress response, it can be defined in clinically and is a psychiatric disorder that needs to be treated. Together with DSM-IV (1994) and DSM-5 (2013), the diagnostic criteria of the PTBS have been made more detailed, and especially cognitive and emotional negative changes are defined as a separate cluster of symptoms. In addition, it was accepted that the symptoms of the PTBS may be different from adults in children, which drew attention to the importance of developmental dimension in diagnosis. Modern researches are not limited to the veterans of the TSSB; Natural disaster victims, individuals with childhood abuse, immigrants, communities affected by terrorist attacks and health workers can also be widely seen (Kessler *et al.*, 2017)^[17]. This shows that the PTBS is a public health problem that should be handled both at the individual and social level. Herman (1992)^[13] emphasizes that trauma has permanent effects not only on the individual spiritual structure, but also on social memory. Therefore, in the historical development of the TSSB, not only the evolution of clinical diagnostic categories, but also the change of social perception has been decisive.

3. Clinical Symptoms and Diagnostic Criteria OF PTSD

Post-traumatic stress disorder (TSSB) is accepted as a multifaceted clinical picture that develops after individuals are exposed to life-threatening or intense fear and helplessness. Clinical symptoms are not limited to psychological levels; It manifests itself in cognitive, behavioral, emotional and physiological dimensions. For this reason, the diagnostic criteria of TSSB have been systematic, especially through DSM classifications. One of the most distinctive features of the PTBS is that the traumatic event involuntarily revives in the individual's mind. This is seen as flashbacks, nightmares with traumatic content, mental images of intense anxiety and event. During the re-experience, the individual becomes a state of consciousness as if he is re-experiencing the event; Heartbeats accelerate, sweating increases and the perception of reality may be impaired. Van Der Kolk (2014)^[27] describes this as "the infiltration of the past". For this reason, re-experience is one of the basic symptoms that seriously disrupt the daily functionality of the post-trauma. The PTBS individuals try to avoid all stimuli that will remind you of trauma. This avoidance behavior occurs both in the form of external (not to stay away from places, people or conversations that remind the event) and in the form of internal (avoidance of thoughts and emotions about trauma). Avoidance seems to be protecting the individual from anxiety in the short term, but in the long-term narrowing the living space leads to loss of social isolation, loneliness and functionality (Foa, Hembree, & Rothbaum, 2007)^[12]. Trauma may damage the basic beliefs of the individual about himself, others and the world. Negative generalizations such as "I am not safe", "the world is a dangerous place" or "I am worthless" are frequently seen. In people who have trauma, we may be observed to feel constantly guilty and embarrassment, alienation, emotional numbness and positive feelings. Jehuda and Lehrner (2018) emphasize that trauma is not limited to the event itself, but also permanently transform the individual's perception of identity and values. These symptoms can overlap with other psychiatric disorders such as depression and anxiety, which complicates the diagnosis. After trauma, the level of stimulation increases and the individual develops a constant alert mood. Sleep disorders, nightmares, excessive startling,

irritability, anger explosions, concentration difficulties and hypervigilance are included in this group of symptoms. Kessler *et al.* (2017) ^[17] states that these symptoms consume the individual's energy reserves and lead to loss of chronic fatigue and functionality. In addition, increased arousal can adversely affect the social relationships of the individual after trauma and cause conflicts. In children and adolescents, TSSB symptoms may occur in a different way from adults. For example, the traumatic event in young children can be repeated in the game; In adolescents, behavioral problems, anger fits or orientation to risky behaviors may be seen (Pynoos *et al.*, 2009) ^[21]. For this reason, different evaluation scales are used in terms of developmental and children's diagnostic criteria are taken into consideration. According to DSM-5, the following conditions must be met in order to diagnose TSSB (APA, 2013) ^[2]:

- The person is directly exposed to the traumatic event, witnessing or learning that someone else lives,
- At least one of the symptoms of re-experience,
- At least one of the avoidance behavior,
- At least two of cognitive/emotional negative changes,
- At least two of the increased stimulation symptoms,
- These symptoms last for at least one month,
- Symptoms lead to clinically significant distress or loss of functionality.

DSM criteria distinguish TSSB from the "normal stress response" and define it as a unique psychiatric disorder that requires clinical intervention.

4. Psychosocial and Biological Basis Of PTSD=

In order to understand the post-traumatic stress disorder (PTSD), both biological and psychosocial foundations should be handled together. Today, research revealed that trauma leaves permanent marks in the brain, makes stress hormones irregular and disrupts memory processing mechanisms; It also shows that lack of social support, stigmatization and cultural factors increase the severity of the disorder. Therefore, PTSD is considered not only psychological but also as a biopsychosocial disorder. From a neurobiological point of view, the functioning between the amygdala, hippocampus and prefrontal cortex is observed. While the hypersensitivity of the amygdala causes continuous alert to traumatic stimuli and intense anxiety reactions, the tendency to shrink in the hippocampus leads to scattered and fragmented storage of traumatic memories. This prepares the ground for the individual to feel like he is experiencing the event again during flashback. The prefrontal cortex, on the other hand, should normally control fear reactions by regulating the amygdala, while the PTSD cannot fully perform its function and the individual loses cognitive control against traumatic stimuli. In addition, the deterioration of trauma on the hypothalamus-hypophysis-adrenal (HPA) axis leads to imbalances at cortisol levels and causes stress response to chronicization. Genetic and epigenetic research also plays an important role in the formation of PTSD. For example, polymorphisms in the FKBP5 gene are effective in regulating stress hormones and increases the risk of development of PTSD in individuals who have experienced childhood abuse. In addition, epigenetic studies show that traumatic experiences are not limited to the individual, but can be transferred to the next generations. As a matter of fact, observation of similar biological stress reactions in children of trauma victims reveals that it is possible to transfer

between generations. At the psychosocial level, the social and cultural context of the individual plays a decisive role in the course of the PTSD. While individuals with strong social support networks show faster recovery in the post-traumatic period, symptoms are exacerbated in individuals left alone or stamped. Social perception directly affects the individual's help search behavior; While trauma in some cultures can be stigmatized with weaknesses, and in some cultures, what happens can be interpreted as fate or a divine exam. This directly affects how trauma is perceived and the process of adaptation to treatment. The psychosocial and biological foundations of the PTSD represent two complementary aspects. Lack of social support may further exacerbate stress reactions at biological level; Likewise, structural deteriorations in the brain can lead to the withdrawal of the individual from social relationships. Therefore, it is inevitable to adopt a holistic approach to understand the PTSD and to develop effective treatment methods. The assessment of both neurological changes in the brain level and social factors constitutes the most healthy ground for understanding and treating this disorder.

5. Treatment Approaches in Post-Traumatic Stress Disorder

Post-traumatic stress disorder (PTSD) is a disorder that requires a combination of different therapy methods, drug treatments and social support mechanisms due to its multidimensional structure. The most commonly used approaches in clinical applications include psychotherapy, pharmacological treatments and supportive group studies, and in recent years, alternative and complementary therapies have been included in the treatment. In the field of psychotherapy, especially trauma-oriented approaches come to the fore. Cognitive Behavioral Therapy (CBT) is the most widely used method in this field and aims to question and restructure the individual's trauma and negative beliefs. The Prolonged Exposure Therapy plays an important role especially in the CBT. This method allows the individual to re-live the traumatic memories in a controlled environment and to become insensitive to the memory and associate trauma with new cognitive schemes (Foa, Hembree & Rothbaum, 2007) ^[12]. However, "cognitive restructuring" techniques help the individual to change his negative beliefs such as guilt, shame or worthlessness. Research shows that trauma-oriented CBT is effective both in reducing symptoms in the short term and reducing the risk of recurrence in the long term. Pharmacological treatments are also frequently used in the management of the PTSD. In particular, selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs) are recommended as primary drug therapy in international clinical guides. These drugs reduce depression, anxiety, sleep disorders and startling reactions and increase the daily functionality of the individual. However, it is emphasized that drug therapy does not provide a permanent healing alone and helps to control more symptoms (Hoskins *et al.*, 2015) ^[14]. In addition, anxiolytic, especially benzodiazepines, dependence risk and long-term activities should be used carefully due to the limited activities. Group therapies and support groups also play an important complementary role in PTSD treatment. Trauma-experiencing individuals see that they are not alone when they come together with other people with similar experiences, which both facilitates sharing and increases the sense of social solidarity. Especially for war

veterans, disasters victims, immigrants and refugees, group therapies have been reported to have promising consequences. In addition, support groups increase the adaptation of individuals to treatment and help to provide more active participation in professional assistance processes (Charavastra & Cloitre, 2008) ^[7]. In recent years, alternative methods such as Mindfulness -based approaches, body -oriented therapies, art therapies and writing therapies have become widespread in the treatment of TSSB in recent years. Mindfulness and meditation practices allow the individual to observe traumatic thoughts without judging and strengthen his emotional regulation skills. Creative methods such as art therapy and music therapy contribute to the symbolic expression of traumatic experiences especially in children and adolescents. One of the most important determinants of success in TSSB treatment is the presence of social support networks. The support provided by the family, friend and social environment facilitates the adaptation of the individual to treatment and accelerates psychological healing. On the other hand, stigmatization, exclusion and social insulation adversely affect the treatment process and lead to chronicization of symptoms. It is seen that a single approach is not sufficient in the treatment of PTSD, and the most effective results are obtained by a holistic treatment plan. Psychotherapy, especially trauma -oriented approaches such as CIS, are at the center of treatment, while pharmacological interventions and group studies support this process. Alternative therapies and strong social support mechanisms contribute to both the psychological healing and social harmony of the individual. Nowadays, clinical practices show that TSSB treatment should be adapted to personally and that each individual's traumatic experiences, social environment and biological structure gives the most successful results of the application of interventions in accordance with the biological structure.

6. Basic Principles and Application Process of EMDR Therapy

The therapy of insensitivity and re -processing with eye movements and the therapy of Eye Movement Desensitization and Reprocessing - EMDR) was developed by American psychologist Francine Shapiro at the end of the 1980s and has become one of the widely used methods in trauma treatment. Shapiro (1989) ^[24] realized that disturbing thoughts were decreased with eye movements while marching and transformed this observation into a clinical intervention method. The main purpose of EMDR is to re -process traumatic memories in the brain and to enable the individual to become insensitive to these memories and to develop more compatible cognitive schemes. EMDR is based on the "Adaptive Information Processing Model. According to this model, traumatic experiences disrupt the brain's normal information processing system, and the event remains frozen in memory in an unprocessed way. Therefore, the individual reacts intensively as if he was re -experiencing the past in the face of any stimuli reminding the traumatic memory. Bilateral (two -way) stimulation during EMDR therapy - often helps to re -process the traumatic moment by providing synchronization between the two hemispheres of the brain through eye movements, sometimes via tactile or auditory stimuli. The application process of EMDR is based on a structured protocol consisting of eight stages. In the first stage, the history of the client is taken, the suitability of therapy is evaluated and the target memories are determined.

In the second stage, the therapist gives information to the client about the functioning of EMDR and creates a safe therapy environment. In the third stage, negative cognitions, emotions and physical sensations of the individual's traumatic moment are defined. In the fourth stage, bilateral stimulation is initiated; While the client revives the traumatic memory in his mind, he follows the movements directed by the therapist with his eyes or is subjected to alternative stimuli. In this process, the emotional burden of the moment is gradually decreasing. In the fifth stage, it is aimed to strengthen positive cognitions; For example, a new belief is placed in place of "I am powerless". In the sixth and seventh stages, body screening is made to reduce physical tensions of traumatic memory. In the eighth chapter, the last stage, the therapist evaluates the integrity of the process and makes plans for subsequent sessions (Shapiro, 2001) ^[25]. One of the most important features of EMDR is that the individual does not require the individual to explain the traumatic event in detail. This provides a great advantage especially for individuals who have difficulty in expressing trauma verbally. In addition, EMDR stands out with its ability to give effective results in a shorter time compared to other therapy methods. Clinical observations show that the intense emotional effect of traumatic memories after a few sessions significantly decreases. However, the efficacy of EMDR depends not only on the application protocol, but also to the training and experience of the therapist. The applications of therapists who have been inadequate or not in accordance with the protocol may not have the expected healing effects. Therefore, EMDR should only be applied by officially trained and certified experts. EMDR Therapy is a powerful method that enables the re -processing of traumatic memories in the brain and makes it possible for the individual to react less emotional to these memories. The structured eight -stage process contributes to the healing of the individual at the emotional, cognitive and physical level. EMDR draws attention especially with its effectiveness in cases where rapid intervention in traumatic experiences and in clients with verbal expression difficulties.

7. Research Findings on the Effectiveness of EMDR Therapy

EMDR Therapy has been one of the most researched psychotherapy methods in the treatment of post -traumatic stress disorder (PTSD) since its development. Clinical studies and meta-analysis show that EMDR is quite successful in reducing symptoms and processing traumatic memories. This method, which has been approved by national and international mental health authorities in many countries, is now accepted as among the primary interventions with cognitive behavioral therapy (CIS) in trauma treatment. Research findings reveal that EMDR provides significant improvement especially in symptoms of re -experience and avoidance. The rapid symptom reduction reported since Shapiro (1989) ^[24] since its early clinical experiences was also supported by later randomized controlled studies. For example, Bisson *et al.* (2007) ^[4] stated that EMDR was as effective as trauma -oriented CIS in TSSB treatment and provided similar results in some cases in a shorter time. In addition, Davidson and Parker (2001) ^[10] showed that the meta-analysis study had a significant effect on reducing the traumatic symptoms of EMDR, but the contribution of eye movements was controversial in some research. The more comprehensive meta-analysis made in the following years

offered strong evidence of the effectiveness of EMDR. In a study conducted by Chen *et al.* (2015) ^[8], EMDR has provided a significant decrease in symptoms with short-term interventions, especially in adults with post-traumatic symptoms, and attracted attention with shortness of treatment. Similarly, Cusack *et al.* (2016) ^[9] showed that the meta-analysis was effective in different populations such as EMDR, such as soldiers, refugees, disasters victims and children. In the studies on children, it has been reported that EMDR is a safe and effective method and that traumatic experiences allowed to be remembered with less emotional intensity (Rodenburg *et al.*, 2009) ^[23]. Another powerful aspect of EMDR is that it not only reduces the symptoms of TSSB in trauma victims, but also has positive effects on anxiety, depression and somatic complaints. It has been seen that EMDR practices contributed to social recovery in a short time in the survivors of natural disasters and in communities exposed to mass traumas. Field practices after earthquakes, terrorist incidents and migration processes in Turkey have shown that EMDR is a strong tool in reducing the effects of social trauma when applied together with group therapies. All these findings show that EMDR has become an important method of psychotherapy not only at the individual level but also in the management of social traumas. Today, the EMDR is among the evidence-based treatments recommended by the World Health Organization (WHO) and the American Psychiatric Association (APA) for the TSSB. However, in some studies, it is still discussed whether the EMDR's mechanism of action cannot be fully explained and that eye movements have a really specific contribution to treatment. However, the current findings reveal that EMDR is a strong option in the treatment of TSSB with its high efficiency level and wide application areas.

8. Criticisms and Limitations of EMDR

Although EMDR therapy has gained an important place in the international literature as a proven method in the treatment of post-traumatic stress disorder (PTSD), discussions about the scientific foundations and application processes of the method continue. One of the most frequently expressed criticism of EMDR is that the mechanism of action of treatment cannot be fully explained. Although Shapiro (2001) ^[25] argued that EMDR provides the re-processing of traumatic memories in the brain and that bilateral stimulation mobilized adaptive information processing processes, it has not been certain how this mechanism works at the neurobiological level. Some researchers argue that eye movements or other bilateral stimulation methods do not have a unique therapeutic effect, and that the actual effect is caused by cognitive restructuring and exposure techniques (McNally, 1999) ^[20]. Another criticism is that EMDR is not effective at the same level in each individual. Clinical observations show that some patients have a rapid and significant improvement in a few sessions, while in others, therapy has limited effect, or symptoms are partially continuing. It is stated that EMDR is not sufficient alone in individuals who have complex trauma stories and who have been subjected to long-term trauma such as childhood abuse, and it may be more effective to apply with other methods of therapy (Van der Kolk, 2014) ^[27]. Among the limitations of the EMDR, the adequacy and education level of the therapist is also an important factor. Although the EMDR is based on a structured eight-stage protocol, the therapist must have received special training in order to implement this protocol

correctly. The applications of therapists who have insufficient training or without experience may not have the expected healing effects, even the client may have the risk of creating a new traumatic experience in the client. For this reason, it is emphasized that EMDR should be implemented only by certified experts in accordance with international standards (De Jongh *et al.*, 1999) ^[11]. In the context of Türkiye, the difficulties encountered in the implementation of the EMDR are not only due to the unique limitations of the method, but also from the deficiencies in the general regulation of psychological services in general. Psychological counseling and therapy services in Turkey are still not fully clarified in terms of legal framework. As Yıldırım (2023) ^[32] states, gaps on professional licensing, accreditation and professional standards create differences in psychotherapy practices and affect the quality of service. This becomes even more critical in EMDR because the method is at risk of causing new traumatic experiences in clients when applied incorrectly. The main risks that the legal deficiencies in Turkey can give birth to EMDR can be summarized as follows:

- Ethical violations: EMDR application of people who do not have professional competence may endanger the safety of the client. Especially in rapid interventions after disaster, the risk of violating ethical standards increases.
- False Applications: Applications made by the therapists who have not received certified training without complying with the protocol may aggravate the client's symptoms instead of alleviating.
- Counseling Safety: The weakness of the control mechanisms creates uncertainty about who and under which conditions of the clients receive EMDR, which damages the relationship of trust.
- Scientific loss of reputation: Failure to apply the method with adequate standards makes EMDR overshadowed the scientific reliability of the EMDR and may lead to perceived as "ineffective" or "away from scientificity in society."

In summary, although there is strong scientific evidence for the effectiveness of EMDR, the fact that the mechanism of the method is not fully clarified, the fact that it is not effective at the same level in each individual and the differences of success due to therapist competence are seen as important limitations. In Turkey, the lack of professional standards, the uncertainty of the regulatory framework and the weakness of the control mechanisms constitute a serious obstacle to the widespread and reliable implementation of the EMDR. Therefore, EMDR should be evaluated from a critical perspective both internationally and in the national context; The method should be strengthened not only at the individual application level, but also in the context of national vocational policies and ethical standards.

9. Trauma and EMDR Applications in Turkey

Türkiye is a country that frequently witnesses different types of mass traumas due to its geographical position and historical and social processes. Mass crises such as large earthquakes, terrorist attacks, war and migration waves create intense mental traumas in individuals and communities. In particular, the 1999 Marmara Earthquake, 2011 Van Earthquake, 2020 Izmir Earthquake and 2023 Kahramanmaraş-based earthquakes have left deep psychological effects on the masses. Field research after such

disasters show that post-traumatic stress disorder (PTSD) rates in earthquake victims are quite high. Similarly, terrorist incidents and migration processes leave permanent psychological traces in individuals, especially children and adolescents are among the higher risk groups in terms of TSSB. In this context, EMDR therapy has become spread rapidly in Turkey in recent years and has become an important tool in intervention in mass traumas. After the 1999 Marmara earthquake, interest in trauma-oriented psychotherapy increased, especially EMDR studies implemented by volunteer therapists attracted attention. Following the 2023 Kahramanmaraş earthquakes, many national and international EMDR teams went to the region and conducted group therapies and individual interventions, and these studies have been reported to contribute to the psychological resistance of disaster victims. Such practices show that EMDR is an effective method not only in individual traumas, but also in mass disasters. The expansion of the trainings given in this field was effective in increasing EMDR practices in Turkey. EMDR European and EMDR Türkiye Association, certified training programs, many psychologists and psychiatrists to learn this method and to transfer to clinical practices. Today, hundreds of therapists have been trained in EMDR in Turkey and this number is increasing every year. In addition to training programs, the application of EMDR in group format provides a great advantage in terms of reaching a large number of people in disaster regions in a short time. Clinical observations and field applications support the effectiveness of EMDR in Turkey. Earthquake, terrorist attack and migration after trauma, studies conducted in individuals experienced rapid and permanent results in reducing TSSB symptoms of EMDR. In particular, group EMDR applications with children contributed to their recalling traumatic memories with less emotional intensity and their re-gaining security perceptions. In addition, EMDR sessions in refugee communities helped to process multidimensional traumas experienced by immigrants and revealed the applicability of EMDR in the intercultural context. However, there are some limitations of EMDR applications in Turkey. Especially in disaster regions, the inadequacy of the number of therapists, logistics difficulties and the fear of stigmatization of the search for psychological assistance due to the distance of the method limits the effective use of the method. In addition, the fact that EMDR is not adequately recognized throughout the society may adversely affect the motivation of clients to start therapy. EMDR is increasingly more and more important in the post-traumatic psychological recovery process in Turkey. The fact that it provides rapid and effective results in applications for both individual and mass traumas makes the method a promising therapy, especially in disaster regions. With the increase in the number of trained therapists, institutionalization of field practices and the development of mental health awareness in society, EMDR is expected to become an important part of post-traumatic psychosocial interventions in Turkey.

10. Conclusion

Post-traumatic stress disorder (TSSB) is a complex psychiatric disorder that occurs after events that threaten individuals' lives and has serious effects on both individual and social level. In the historical process, this disorder, which is referred to with different names such as "war neurosis" or "Vietnam syndrome, is discussed with a biopsychosocial

perspective and is tried to be understood in both neurobiological and psychosocial dimensions. Defined on re-experience, avoidance, cognitive-emotional negativity and increased stimulation within the framework of DSM-5 criteria, TSSB adversely affects not only the mental health of the individual but also social strength and social relations. Cognitive behavioral therapy (CIS), pharmacological interventions and group therapies have been used as basic approaches in the treatment of TSSB. However, insensitivity and re-processing (EMDR) therapy with eye movements developed in the last thirty years has become an important alternative in the treatment of trauma in terms of both providing effective results in a short time and re-processing traumatic memories. The eight-stage structured process of EMDR contributes to the transformation of the individual's negative beliefs, to reduce the emotional burden of traumatic memories and to develop more compatible cognitive schemes. Research and meta-analysis in international literature strongly support the effectiveness of EMDR. Clinical findings indicate that the method is as effective as CBD to reduce TSSB symptoms, and in some cases it provides similar improvements in less time. In addition, it has been shown that EMDR reduces not only TSSB symptoms, but also reducing post-traumatic anxiety, depression and psychosomatic complaints. Practices on children, refugees, war and disasters victims show the application of EMDR to large masses, regardless of cultural contexts. However, the fact that the mechanism of EMDR is not fully understood, the failure to have the same level of the same level in each individual and the differences of success due to the therapist's education are considered among the limitations of the method. When evaluated in Türkiye, mass traumas such as earthquakes, terrorist events and migration processes have increased the importance of EMDR. Especially after the 1999 Marmara Earthquake, the practices started on a large scale with the 2023 Kahramanmaraş earthquakes and both individual and group EMDR interventions were carried out through voluntary therapists. These practices have shown that EMDR has made significant contributions to the social recovery process in disaster regions. The spread of EMDR trainings in Turkey and the increase in the number of certified practitioners show that in the future, this method will become a more central part of psychosocial interventions. As a result, it is clear that a single method is not sufficient in the treatment of TSSB, and the most effective results are obtained with a holistic approach. In cases where psychotherapy, pharmacotherapy and social support elements are used together, the healing process is faster and more permanent. EMDR Therapy is considered a strong tool in this holistic framework and especially in the process of re-processing traumatic memories. The more clear clarity of EMDR's mechanism of action will strengthen the scientific foundations of the method; At the same time, the institutionalization of field applications will allow the use of EMDR on a wider scale in mass traumas. In this way, it will be possible to increase the psychological strength of both individuals and societies in the face of traumas.

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