EMDR THERAPY IN TREATING POSTTRAUMATIC STRESS DISORDER IN ADOLESCENTS - A CASE REPORT

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INTRODUCTION

The existence of child physical and sexual abuse was covered up for a very long time, all until the beginning of the 1960s. The recognition of the existence and frequency of various types of child abuse and neglect encouraged numerous experts to look for ways to protect children, as well as for causes that would be the basis of treatment and prevention. All types of child abuse do occur, but the topic is still rarely discussed in public. There are indications that rates of child abuse, especially sexual abuse, are much higher than reported. According to Ćorić (2008), studies show that 12-25% of girls and 8-10% of boys experience sexual abuse by the time they reach the age of 18. The same author states that between 30% and 80% of sexually abused children report that they were abused only when they reach adulthood. Sexual abuse is a traumatic experience that represents a major stressor for every individual, especially for children. It refers to various activities encompassing everything from watching pornographic content together, delicate cuddling, masturbation etc. to sexual intercourse. The child concerned can be either active or passive. Children of all ages - from babies to older adolescents – can be exposed to a type of abuse and neglect. Whitman (2002) claims that the most critical period for child sexual abuse is between the ages of 8 and 12 (according to Buljan Flander & Kocijan-Hercigonja 2003). For child physical abuse it is the period between the ages of 4 and 8, while in terms of emotional abuse the period between 6 and 8 years is the most critical. According to a large body of data, girls fall victims to abuse five times more frequently in comparison to boys. Sexual abuse is more frequently performed by men. The abuser is usually someone whom child knows and trusts. The most frequent type of incest occurs between brothers and sisters, as well as between fathers/stepfathers and daughters/stepdaughters (Popović-Deušić 1999).

According to the data of the National Committee to Prevent Child Abuse (USA), during 1999 3 million cases of abuse and neglect were reported. Every year 2000-4000 children in the USA die due to abuse or neglect.

All forms of abuse and neglect can overlap with each other; they can occur simultaneously or in different

periods of the child's life and they have both short-term and long-term psychological consequences in children and adolescents. When the child is exposed to a series of traumatic events, among which each can be an indirect or direct trauma caused by either a one-time or a repetitive event, it results in a specific form of traumatization — a complex trauma (Kira 2001 according to Profaca et al. 2016). Reactions of children and adolescents to such traumatic events occur on different levels — physical, emotional, cognitive, and behavioural.

Findings of numerous research studies show that early traumatic experiences, especially those repetitive, influence various organ systems and lead to lasting changes in certain brain areas. That explains why a traumatized child is often hypervigilant. Psychological effects of sexual abuse can include intrusive and emotional memories of the abuse that are most often evident solely in physiological reactions such as heavy breathing, elevated heart rate, and other somatic symptoms. A traumatized child often dissociates traumatic events in order to cope with strong feelings and thoughts about the abuse, especially those related to sexual abuse.

Sexually and physically abused children are at high risk of developing Posttraumatic Stress Disorder (PTSD) as one of the possible psychological consequences (Lacković-Grgin 2004, Gillies et al. 2016). According to the fifth edition of American Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the essential feature of Posttraumatic Stress Disorder is the development of characteristic symptoms that occur after an exposure to one-time or multiple traumas. In children, sexually abusive events also involve inappropriate sexual experiences not including violence or injuries.

PTSD includes re-experiencing symptoms (in the form of nightmares, recalling the traumatic events, and distressing thoughts), avoidance of reminders of the trauma, negative changes in thought or mood, as well as hypervigilance (feeling on edge, sleeping and concentration difficulties, irritability, and anger). As Streeck-Fischer and Van der Kolk (2000) claim, symptoms of PTSD in children are often disguised in cognitive, affective, emotional, social, and psychological problems.

As Vulić-Prtorić (2004) states, the research studies that aimed at investigating the correlation between PTSD symptoms and other reactions to traumatic and stressful events found that PTSD symptoms are most frequently related to psychosomatic reactions (the correlation amounts to 0.56) and then anxiety and depression reactions (the correlation ranges between 0.30 and 0.40).

The findings of the research studies demonstrate that a complex trauma causes a wider symptomatology than PTSD; therefore, children exposed to such traumatic events face attachment issues, emotional dysregulation, as well as issues with cognitions, self-esteem, control of behavior, dissociation, and health issues in general (Briere et al. 2010, Gersoni Rappaport 2013).

There are numerous treatment options for children and adolescents diagnosed with PTSD and one of the possible approaches is EMDR (Eye Movement Desensitization Reprocessing).

EMDR is an integrative psychotherapy approach based on information reprocessing and desensitization of anxieties related to stressful experiences and it uses a visual, tactile, or auditory bilateral stimulation. It consists of eight phases: patient's history and treatment planning, preparation, assessment, desensitization, installation, body scan, closure, and reevaluation. The approach takes into consideration all aspects (cognitive, emotional, neurophysiological, and behavioral) of a stressful or traumatic experience and it allows a fast desensitization of traumatic memories and cognitive restructuring leading to a significant decrease of symptoms (Shapiro & Forrest 2004, Hasanović 2014).

Numerous research studies show that EMDR (Eye Movement Desensitization and Reprocessing) therapy is very efficient in treating patients diagnosed with PTSD. In 1995, Society of Clinical Psychology of the American Psychological Association conducted a research on the efficiency of EMDR and other approaches in treating PTSD. The results show that EMDR is an efficient approach in treating PTSD and it has the highest level of efficiency within that diagnostic category in comparison to other approaches.

EMDR and individual Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) are, according to Bisson et al. (2013), recommended as therapies of choice following guidelines such as those published by the National Institute for Health and Care Excellence (NICE) of the UK. The study by Gillies et al. (2012) analyzed several research studies that had compared psychotherapies or other therapies for treating PTSD in children and adolescents and it showed that psychotherapies were efficient in treating PTSD in this age group a month after a therapy. The research studies encompassed several different types of trauma related to PTSD, including sexual abuse. Psychotherapies in the aforementioned studies included: cognitive-behavioural therapy (CBT), exposure therapy, psychodynamic counselling, narrative therapy, supportive counselling, as well as Eye Movement Desensitization and Reprocessing (EMDR).

Results of various research studies show that children and adolescents who went through psychotherapies will be less frequently diagnosed with PTSD and they will exhibit less PTSD symptoms in comparison to those who were not treated at all or to those who were treated otherwise (Gilles et al. 2016).

The main goal of the report is to show the effects of EMDR therapy in a female adolescent with PTSD caused by multiple trauma in childhood.

We used the standard eight-phase EMDR protocol. Beck Youth Inventory (BYI), The Stress Coping Scale for Children and Adolescents (SUO), Impact of Event Scale - Revised (IES-R), and the clinical interview were used for both initial and control evaluations.

BYI-II includes five self-report inventories used to assess symptoms of depression, anxiety, anger, disruptive behavior and self-concept in children and adolescents aged 7-18 years. It is a very useful instrument for establishing a diagnosis, determining a treatment and for monitoring the progress of children undergoing treatment.

Each inventory contains 20 statements and the child has the task of assessing how frequently a certain statement has been true for them, on a scale value of 0 (never) to 3 (always). The whole inventory can be used or only certain parts can be selected, depending on the purpose of the research and the type of data one wants to collect.

The Stress Coping Scale for Children and Adolescents (SUO) provides information on the usage frequency and perceived efficiency of certain coping styles in children and adolescents aged 9-18 years. It can be used for the assessment of dispositional as well as situational coping. It includes 7 subscales, each of them describing a certain coping strategy: Problem solving, Cognitive restructuring, Emotional reactivity, Distraction, Avoidance, Seeking social support from friends, seeking social support from family.

It consists of 58 items. Participants' task is to mark usage frequency and efficiency for every strategy on a 4-point scale (from 0 – "I never do that" to 3 – "It helps me almost always/a lot").

IES-R is one of the most frequently used self-report measures in the assessment of PTSD. It includes 22 items and it encompasses all three symptom clusters of PTSD (avoidance, intrusion, and hyperarousal). The scales include 14 out of 17 DSM-IV symptoms of PTSD.

On a scale value of 0 (not at all) to 4 (extremely) participants indicate how distressing each listed difficulty has been for them during previous seven days with respect to a certain stressful event. IES-R provides a scoring range of 0 to 88 and scores for three subscales. 88 is the maximum result and it indicates the most severe case of PTSD. Although it is not used in establishing the diagnosis of PTSD, scores that exceed 33 represent a cut-off for a probable diagnosis of PTSD. In this report, it was used to monitor the progress.

CASE REPORT

A 16-year-old female adolescent N.N., she is 2nd grade of high school. She lives in an incomplete family with the mother and two older brothers. During a hospitalization on the Pediatric Clinic – Cardiology she visits the psychologist, accompanied by her mother, within the diagnostic analysis initiated because of dg. Steno cardia, Losses of consciousness in obs. The organic cause of the aforementioned symptoms was excluded after a detailed examination.

N.N. complains of chest pain followed by shortness of breath and occasional temporary losses of consciousness. She claims that, on several occasions, she had panic attacks, especially during tram rides, after which she avoids using public transport. She has exhibited the symptoms for more than two years and they have intensified "recently".

During the first visit N.N. was very aloof in the communication with the psychologist, she responded briefly to the questions about the symptoms and was generally quite disinterested in further conversation. Therefore, the suggestion was that she fill in the questionnaires enlisting situations that young people experience and what they think and feel, while the psychologist engages in a conversation with the mother.

The conversation with the mother reveals that N.N. is the youngest of six children in the family, four of which are from the first marriage. She states that N.N. was born healthy, although the mother experienced several health issues during the pregnancy. The early psychomotor development was normal. The mother underlines that N.N. is a wanted child, her favourite. Until the parents' divorce they all lived together; they were a very close-knit and functional family. The mother describes N.N. as a good child. She negates that any traumatic experiences, separations, or other risk factor happened. Apart from N.N.'s current symptomatology, the mother expresses her concern about N.N. studying less and being shyer than before. She blames her ex husband for N.N.'s current state ("... it's because of the divorce... he's an alcoholic..."); she declares that she is also ill, that she has cancer. The mother denied the existence of other symptoms, such as e.g. behavioural problems. She claims that N.N. is normally a healthy child; only in the period between the ages of 3 and 7 she had frequent urinary tract infections often accompanied by nocturnal enuresis.

After the conversation with the mother was finished, the psychologist had a separate conversation with the girl N.N. Since she was reluctant to communicate verbally, the questionnaires she had filled in were used for establishing contact. Before the analysis of the results and the creation of a profile through the applied inventory, individual symptoms in the used scales were discussed with N.N. Since it was evident that N.N. opted for always or often in many statements on the scales of disruptive behavior and anger, they were

discussed first. The conversation reveals that many things the mother claimed were incorrect. Contrary to her statements, N.N. has had anger issues and behavior problems for quite some time. During the second encounter N.N. was significantly more inclined to communicate. She was interested in her scores, which was further used for a more detailed analysis of the problem.

During the conversation about her current symptoms and other issues, it reveals that she has "always" experienced shortness of breath and that she has often felt numbness in her arms and legs. Besides, she states that she often cries, she is frequently irritable, she has strong headaches, for years now she has had nightmares, she has sleep problems (insomnia, "I'm afraid to fall asleep"), that she wet the bed for a long time etc. In the period between the ages of 12 and 15 she would consume alcohol and drugs on an everyday basis (beer, sometimes strong spirits, "weed", and "pills"), she had behavior problems (I think about running from home; I like it when other people are afraid of me; when I'm angry, I break things etc.) etc. Having fallen under the bad influence of a group, she was incarcerated together with the whole group, but the mother "got her out" ("... since I was the only minor in the group, she denied that I was part of the group that had committed several criminal offences, she made a fuss and got me out...").

A conversation about family and relationships in it reveals that she was growing up in a highly disharmonic and dysfunctional family (until the age of 10, her mother was mostly absent because she worked, the father took care of the children, she and her brother "were always beaten by someone" – mom, dad, brothers, there were always problems at home etc.). She also reports on being assaulted by an adult man at the age of 10, while walking her dog in a park: "I told that to my mom and others at home, but they were not concerned, they scolded me...". She claims that she is still afraid to walk that park, that the man often "appears in her mind" ("I see his face and I hear him speak..."), that she dreams about him and that she "was able to fall asleep only if she had a knife under the pillow...".

She states that the mother was not right when she said it was the father "... who is to blame for everything". She says that after the parents' divorce she lived with her father for some time and it was back then when she was feeling best, but "mom and brothers accused me of 'having betrayed them', of 'abandoning an ill mother' etc. and if I do not go back "they didn't want to see me anymore", so I went back home and since then I've been feeling "really bad". Currently she lives with her mother, brother and stepbrother. Her stepsister and two stepbrothers are abroad.

The initial psychological evaluation indicates a significant contribution of psychogenic factors to the occurrence of the somatic symptoms (panic attacks were considered part of intrusive symptoms) and that other issues that N.N. shares are rooted in her childhood.

During the following encounter a detailed diagnostic evaluation involving several tests and a clinical interview was completed. N.N. answered questions in all five inventories of Beck Youth Inventory. The results indicated low self-esteem, moderate depression, an extremely high level of anger, disturbing behavior, and anxiety. The results of the Stress Coping Scale for Children and Adolescents (SUO) shows that N.N. mostly uses the strategies of Avoidance and Distraction, while she does not use at all the strategies Support from family and Support from friends.

On the Impact of Event Scale – Revised (IES-R) for stressful events related to incest N.N. gets the following scores: avoidance 20, intrusions 27, and hyperarousal 18. The results support the existence of intensive PTSD symptoms.

Social functioning and the relationships with family members and other people in general were not satisfying at all. The results show that N.N. has all symptoms that lead to the diagnosis of PTSD with dissociative symptoms, so psychotherapy is recommended. The mother also agreed that N.N. undergoes psychotherapy.

In the preparatory stage a good therapeutic collaboration was established. After a list of traumatic life experiences was compiled with N.N., through psycho education she was familiarized with the possibilities of EMDR approach and the focus was on the construction of resources and relaxation techniques ("Abdominal breathing" and "A quiet place"). The client's task was to practice relaxation techniques until the following encounter, especially in situations when she is distressed, and to monitor their effects. During the next session a targeting sequence plan was established and the choice of the first event to be desensitized was left to the client. She decided to start with the traumatic memories of the sexual assault by the stranger. The event was described as it follows: "...when I was 10, I took the dog for a late night walk and while I was waiting for it to go potty, I was approached by an older man that I would sometimes see in the neighborhood. He was drunk. He hugged me, started to touch my bottom and he knocked me down on the grass. I managed to get out and run away". The worst memory related to this event is when he knocked her down on the grass and was trying to kiss her. The negative cognition that occurred was "I am in danger" and the positive one "I am safe now". The level of the positive cognition on the validity of cognition (VoC) scale (that runs from 1 to 7, where 1 represents totally unbelievable and 7 totally believable) had a scale value of 3. The accompanying emotion was fear, and the level of distress on Subjective Units of Distress Scale (SUD) (of 0-10 where 0 represents a total relief and 10 the highest level of distress) had a scale value of 5. She felt body sensations in chest, neck and arms. A bilateral stimulation (BLS) (more precisely, eye movement) was started and there were no significant changes even after several sets. The further work resulted

firstly in a significant increase in distress accompanied by strong emotional reactions and physical sensations that would occur in different body parts. In the end, the distress was considerably reduced.

During the following session, the client reported deterioration in symptoms. She was constantly tense, her fear intensified, she cried, she had nightmares, headaches, stomach-aches accompanied by nausea, "bad images", and issues with her friends ("I think nobody can stand me"). Extremely distressed during the second EMDR session, she narrated that one evening, when she was 12, she had been a bit late home and her brother had fiercely "sent" her to her room. She changed and went to bed and he lied next to her and started stroking her...He took off her pajama bottom, ordered her to relax and started to penetrate her with his finger... Although she knew that what he was doing was wrong, she could not move...

The following morning she told her mother what had happened, but after she had responded that "that happens, it's fine", she never mentioned it nor the mother asked her about it again... During the following year her brother would occasionally come to her room in the middle of the night and stroke her... He moved after some time, but instead of ameliorating, her numerous symptoms deteriorated. Apart from panic attacks, ever more frequent insomnia, and various somatic symptoms, she also felt helpless and had strong negative beliefs about herself and others; she also had strong feelings of guilt, disgust, anger, fear and sadness. She could not relax nor she could stand if someone would approach her; she would be suddenly overwhelmed by anger etc.

In the following sessions the focus was on traumatic memories related to sexual abuse performed by the brother, as well as on other traumatic memories from early childhood. Certain aspects of the traumatic events were missing and she could not recall them. The most traumatic memory related to incest was the description of the very act of the finger penetration that was preceded by the word "relax" and by her inability to do something about it. The negative cognition she had was "I am weak" and the positive one "I am strong". The level of the positive cognition on the validity of cognition (VoC) scale had a scale value of 1, while the level of distress on Subjective Units of Distress Scale (SUD) had a scale value of had a scale value of 10. Fear and sadness were the accompanying emotions and she felt physical sensations in her legs and chest. A bilateral stimulation (i.e. eye movement) was initiated. During this and the following 8 sessions, N.N. was going through experiences related to incest, bit by bit, with much dissociation. After a session numerous questions would occur to her ("Why have I always had the aversion to men?", "Why couldn't I fall asleep knowing that he would check if I wet the bed?", "Why would I cry on the very thought that he would check it?", "Why did I go to the gynecologist?", "Why

was the examination so painful?", "Why did I feel that lower abdominal pain?", "Why ...?") accompanied by many images of other parts of the apartment... The distress decreased and increased multiple times and she had strong emotional reactions. Although the distress would decrease, the level of positive cognition ("I am strong") remained unaltered in the first two sessions. Only with the transformation of the positive cognition into the cognition "I can learn to be strong" did an improvement start taking place. During the desensitization, the feelings of sadness and fear were being transformed into anger, guilt, disgust, while physical sensations were moving inside the body (different parts of her legs, lower abdomen, head, neck and chest, arms; red blotches would appear on her legs). During the tenth session, the level of distress decreased to 0, the positive cognition was successfully installed, and VoC had a scale value of 7.

After the traumatic memories of sexual abuse were successfully reprocessed, the next target was traumatic memories related to the mother that were only partially reprocessed by the client. She did not consider certain subjects "important enough" to focus on them, although the cognition about herself and her behavior in specific memories related to her mother were verbalized as "I am worthless", "I am bad", or "I did something wrong". Having worked on the traumatic memory of her mother's reaction when she told her about the incest ("that happens, it's fine"), the client was feeling strong enough to talk to her mother, to share her opinion and explain which aspects of her behavior had generated negative feelings inside her.

The total number of therapy sessions was 22. 16 reprocessing sessions, in which the focus was on the traumatic experience that preceded the occurrence of the symptoms, were completed. Besides aforementioned targets, the client also reprocessed other traumatic memories from early childhood, when she first recognized similar emotions. She also worked on the relationship between her and her mother with the accent on the development of assertiveness in communication with her.

DISCUSSION

After 7 EMDR sessions, the client did not meet all the criteria for the diagnosis of PTSD, which supports Shapiro's claims (2002) about the results of the research study that investigated the efficiency of EMDR. Other research studies also demonstrate that there is a reduction of PTSD symptoms already after 2-3 sessions of active treatment (Ironson et al. 2002). On average, victims of one-time traumatic events experience remission of PTSD already after 3-6 sessions, while victims of multiple trauma require more sessions.

After the client had undergone EMDR therapy, she did not experience physical sensations or other subjective difficulties caused by the adolescent's memories of the traumatic events related to sexual abuse. The client

associated positive convictions with these memories: "I can learn to be strong" and "I'm not in danger anymore, now I'm safe". Although the reprocessing linked to her relationship with the mother was not completed, the client was very satisfied with the achieved (even though she was very angry with her mother, she gave up on further reprocessing because she had a feeling that "now is not the right time"... "the mother is ill"...). Her self-confidence, as well as the general self-image, considerably improved; she became more sociable, she did not have panic attacks, nightmares or other symptoms, she joined more extracurricular activities, and her academic achievement improved significantly.

At the end of the treatment the adolescent reported subjective improvement, which was also confirmed by other people (school staff, a friend, the mother) and by diagnostic instruments.

The retesting conducted using the Beck Youth Inventory showed that symptoms such as anxiety, depression, anger and disturbing behavior were within normal limits. The results of The Stress Coping Scale for Children and Adolescents (SUO) show that after the treatment N.N. uses a wider range of strategies, where the strategies Cognitive restructuring and Problem solving are dominant, while the usage of Avoidance and Distraction was significantly reduced.

After the treatment, on the Impact of Event Scale – Revised (IES-R) for stressful events related to incest she gets the following scores on subscales: avoidance 0, intrusion 2, and hyperarousal 2. Although the scores on certain subscales would temporarily increase during the treatment (between certain sessions), the scores following the treatment show a complete reduction of PTSD symptoms.

EPILOGUE

The achieved effects of the treatment were maintained through a year and a half later. Although during this period she experienced multiple stressful situations with her family members and even a case of inappropriate touching and comments by her other brother, she managed to stand up for herself in an assertive manner.

CONCLUSION

In the given case, EMDR therapy produced positive long-term effects, even though not all the traumatic experiences were reprocessed during the treatment. Therefore, the recommendation is to further use EMDR therapy in treating persons diagnosed with PTSD caused by multiple traumas. It is appropriate for different ages ranging from childhood to adulthood.

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- Šemsa Šabanović: made substantial contributions to conception and design, participated in revising the article and gave final approval of the version to be submitted.

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