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Final dissertation

A review on EMDR efficacy in the treatment of post-traumatic stress disorders

Supervisor:

Prof. Mario Bonato

Candidate: Valentina Rossi
Student ID number: 1186314

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To Aurel Zhupa:

because life can only be understood backwards,

but it must be lived forwards.

Alla Dottoressa Rossella Sterpone:

a cui dedico il mio sogno.

Perché dal Suo lavoro, è nata la mia più grande passione.

Mille grazie non basterebbero...

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Introduction

The first time I was introduced to the Eye Movement Desensitization and Reprocessing Therapy (EMDR) was in 2007 as a patient. Since I was personally involved, I thought it could have been interesting to analyze this controversial treatment, years later, from the point of view of a student graduating in Psychology.

From the literature search that I have conducted and from some psychotherapists' personal opinions, I realized that some skepticism prevails on the topic.

For this reason, I decided to present this treatment from an impartial point of view, discussing both the positive and the negative opinions that the scientific community has published so far.

This document was written to present the EMDR as a treatment applied to post-traumatic stress disorders and, specifically, by placing particular attention on a certain category of patients: children.

In the first chapter, the reader will find an allusion to the definition of post-traumatic stress disorders and a brief presentation of how such pathology could be treated through different psychotherapies.

The second chapter was intentionally focused exclusively on the EMDR, on how it was born, on the debate regarding its effectiveness, and on the complex mechanisms which would explain how this therapy was recognized, in 2013, by the World Health Organization.

In the third chapter, instead, the focus was placed on the EMDR utilized in young patients, and in particular, thanks to a collaboration with the Psychotherapist Rossella Sterpone and the “Azienda Ospedaliera SS. Antonio e Biagio e Cesare Arrigo” of Alessandria, I was able to present a real clinical case with the aim of providing a sense of pragmatism to the main topic.

Overall, I emphasized the subjectivity of the specific situations to choose the best therapy that fits each case at hand.

CHAPTER 1: POST-TRAUMATIC STRESS DISORDERS

1.1 Post-traumatic stress disorders

"A psychological trauma can be defined as a wound of the soul,
as something that breaks the usual way of living and seeing the world
and that has a negative impact on the person who experiences it." (EMDR Italia)

The typical reaction to a traumatic negative experience is one of distress, anxiety, and fear. Those answers have a basis for the survival instinct: they activate the remembering of the traumatic experience to help in the recognition and avoidance of similar threatening situations in the future (Breslau, 2001). However, in some individuals, those reactions are extremely amplified and they result in post-traumatic stress disorder (PTSD).

According to the DSM-5 a Post-Traumatic stress disorder is diagnosed if the following criteria are met in individuals older than 6: A) Exposure to real or threatened death, severe injury, or sexual violence either through direct or passive experience; B) Presence of one or more intrusive symptoms (distinct from depressive rumination) related to the traumatic event for at least one month; C) Persistent avoidance of stimuli associated to the traumatic experience for at least one month; D) Negative alterations in cognitions and mood associated to the traumatic event for at least one month; E) Marked alterations in arousal and reactivity for at least one month; F) The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of

functioning; G) The disturbance is not attributable to the physiological effects of a substance.

Even if the symptoms of Post-Traumatic Stress disorder, characterized by individual differences, usually appear in the first 3 months after the trauma, it is also possible to observe a delayed onset.

To understand how and why PTSD occurs, I will now briefly list some important theories that have investigated on the topic.

According to the Learning theory, chronic posttraumatic symptoms were viewed as severe fear reactions acquired through Pavlovian conditioning (Foa and Rothbaum, 1989) while, for the cognitive model of persistence, PTSD becomes impairing only when individuals process the trauma in a way that leads to a sense of serious and current threat. This sense of threat arises as a consequence of: excessively negative appraisals of the trauma and a disturbance of autobiographical memory characterized by poor elaboration and contextualization, strong associative memory, and strong perceptual priming (Ehlers and Clark, 2000).

Whatever the causes deriving from a traumatic event are, chronic psychological disturbances are typically common and longstanding, and for this reason, they frequently require therapeutic intervention.

1.2 Treatments for post-traumatic stress disorder

The fact that people who suffer trauma-related disturbances can be helped by exposure to the trauma itself, comes in part from the recognition that traumatic reactions are anxiety-related (Foa and Rothbaum, 1989). For this reason, studies

have suggested that PTSD patients are more responsive to treatments that specifically process traumatic memories than to either supportive counseling or stress-focused training (Van der Kolk et al, 2005).

The American Psychological Association (1998-2002), the Italian Ministry of Health in 2003, the American Psychiatric Association in 2004, the International Society for Traumatic Stress Studies in 2010 and most importantly the World Health Organization in 2013, recognized the EMDR as the most effective treatment for traumas and disturbances related to them (WHO, 2013). However, when deciding with which therapy to assist a client, a clinician should first identify the characteristics of both the patient's situation and of the treatment, and then decide the therapy that best fits the case. For this reason, besides the use of Eye Movement Desensitization and Reprocessing, other treatments are available and have been tested for the cure of this disorder.

In flooding therapy, for example, the client is asked to relive the traumatic event in exaggerated detail in order to produce intense anxiety on which the therapist can work (Shapiro, 1989). Prolonged exposure, which instead consists of a combination of imaginal and in vivo exposure therapy, as well as trauma-focused cognitive behavioral therapy (CBT), are considered as some of the most efficient treatments of choice for PTSD (Foa and Rothbaum 1989; Seidler and Wagner 2006).

Nonetheless, because many treatments (such as the ones just described) create intense subjective distress in individuals, there was a need for a desensitization procedure that could address traumatic memories in shorter periods and without creating as much exacerbated anxiety for the victims (Shapiro, 1989). It is at this

time that the Eye Movement Desensitization and Reprocessing therapy was proposed as a solution. In fact, tested subjects declared and defined EMDR as shorter in time, easier (from a psychological point of view) to be managed since exposure was not continuously sustained, and less distressing compared to the most commonly used procedures (Power et al., 2002).

CHAPTER 2: EYE MOVEMENT DESENSITIZATION AND REPROCESSING THERAPY IN THE TREATMENT OF PTSD

2.1 The origin of EMDR and the first experiment

Eye Movement Desensitization and Reprocessing (EMDR) was initially introduced by Francine Shapiro (with the name EMD) as a new treatment for traumatic memories but nowadays, as the literature demonstrates, is being applied to an increasingly wider variety of problems.

EMD was initially defined as an eight-phase treatment having as its primary and crucial component the generation of rhythmic, multi-saccadic eye movements while the client concentrated on the memory to be desensitized (Wilson, Silver, Covi and Foster 1996).

The effect of saccadic eye movements was discovered accidentally by the author when she noted that the eyes were automatically moving in a multi-saccadic manner while the disturbing thought was being held in consciousness. After those eye movements the thought disappeared completely and, if deliberately retrieved, was without its previously disturbing emotional correlate (Shapiro, 1989).

To test the effectiveness of her theory, Francine Shapiro in 1989 developed an experiment in which 22 subjects were randomly divided into either a treatment group (EMD procedure) or a control group (placebo treatment). Subsequent follow-ups were also obtained at 1 and 3 months after the initial session to check on the results gained.

I now will briefly explain some essential components used to judge the improvement of the subjects: the Subjective Units of Disturbance Scale (SUD) and the Validity of Cognition Scale (VOC).

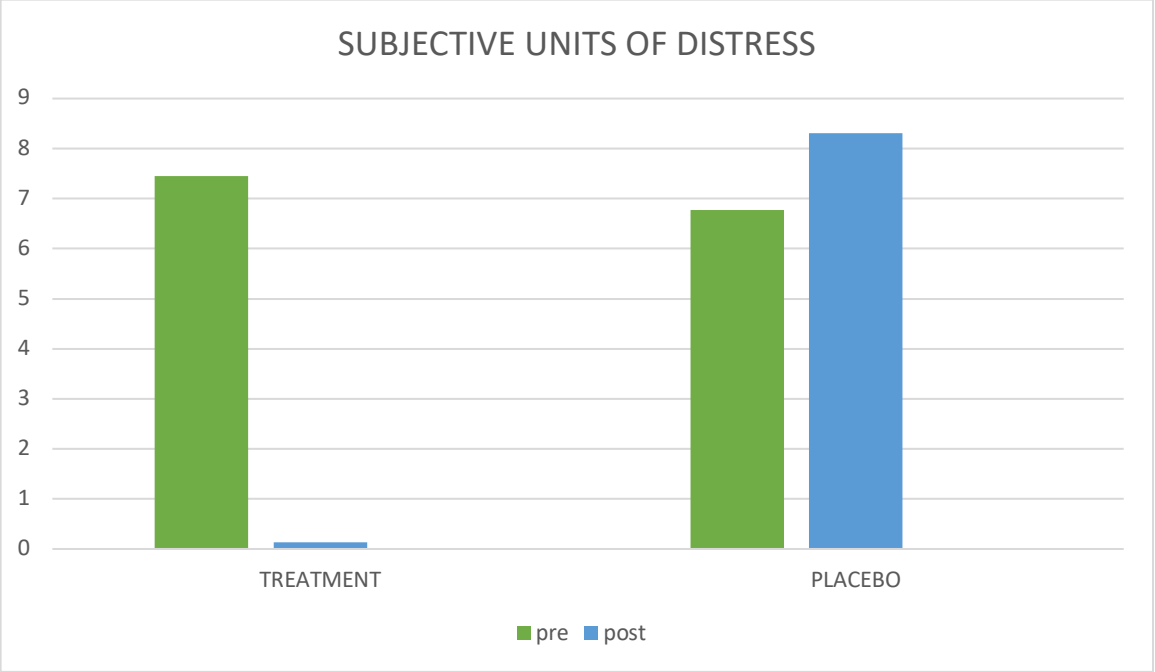
The SUD Scale was used to assess and keep under control the level of anxiety related to the traumatic memory during the whole therapy. It consisted of an 11-point scale in which 0 meant no anxiety and 10 the highest anxiety possible.

Instead, the VOC Scale was used when subjects were asked to supply a positive belief statement that reflected the desired feeling correlated to the traumatic memory. In particular, participants were asked to attribute a score, on the VOC scale, that represented the truthfulness and credibility of their desired positive cognition (Shapiro, 1989). This was extremely important because an inadequate or impossible positive cognition could have interfered with the re-elaboration phase.

Following these initial phases, the individuals were given instructions on how to proceed and, after a total number of induced saccadic eye movements, the subjective feelings of change reported by the participants were measured.

Doctor Shapiro considered the EMD procedure terminated “only when no other trauma or negative cognition was revealed, and when self-reported anxiety level was at 0 or 1” (Shapiro, 1989).

In the follow-ups, provided to determine the effectiveness of the treatment, participants were asked to visualize the original traumatic memory and to report the current SUDs rate.



Graph 1.1 Mean subjective units of disturbance for Treatment and Placebo condition (Shapiro, 1989).

As is observed in graph 1.1: “A simple effects analysis revealed that the interaction was due to a highly significant (*p<0.001)* pre-post drop in the SUDs level for the Treatment Group and no pre-post change *(p>0.05)* for the Control Group” (Shapiro, 1989).

Furthermore, a patients’ condition amelioration at follow-ups was demonstrated by the decrease (or total elimination) of previously reported subjective problems such as flashbacks, intrusive thoughts, nightmares, lack of trust, panic, and insomnia.

In general, from the study, it has been observed that thoughts related to the incident had disappeared in the majority of the cases while, if still present, were extremely rare and without an emotional impact. As the author stated in fact, “The responses showed that even a single session of the therapy successfully

desensitized the subjects' traumatic memories, altered their cognitive assessments of the situation in positive terms and provided higher levels of over-all functioning" (Shapiro, 1989).

Since all the patients involved in the experiment have been previously treated without evident improvements, the author was also able to conclude that the results were not due to the patients' expectancies but instead, were the mere outcomes of the method utilized. Moreover, those ameliorations were further confirmed by individuals not involved in the research such as family members.

However, the most important limitation related to this complex but apparently effective therapy that had to be further investigated was the "abreactive responses" which were triggered, that seemed to be too sudden compared to the ones normally activated during the normal healing procedure of a trauma.

The description of Shapiro's 1989 scientific research was intended to illustrate the first study conducted on the topic however, since the experimenter and the author of it were the same people, further studies on the effectiveness of the Eye Movement Desensitization and Reprocessing will be analyzed and presented.

2.1.1 The effectiveness of the EMDR: an endless debate

I will now present a chronological excursus of the main studies which are found in the scientific literature as either favorable or not to the Eye Movement Desensitization and Reprocessing therapy.

It seems that to test the real effectiveness of this therapy, the majority of the studies first administered EMDR and then established different follow-ups to determine the long-term effects that this treatment could provide. So far, EMDR showed a positive response up to a 35 months follow-up, in fact, a study conducted by Hogberg in 2008 demonstrated that 35 months after the initial treatment of the EMDR, the patients still maintained the same positive results.

In the meanwhile, contradictory results come from research works focused on whether the eye movements could be considered essential for the treatment outcome. In the beginning, it was thought that just the saccadic eye movements had a therapeutic function but, starting from 1990 alternative but efficacious forms of bilateral stimulation have been discovered and tested.

Indeed, the first experiment conducted on the topic dates back to 1994, when Renfrey and States assigned their patients to either one of three different EMDR conditions thought to have the same underlying mechanisms: 1) the standard one; 2) a condition in which eye movements were engendered through a light tracking task; or 3) a condition in which patients were requested to fix the visual attention on a specific position for the whole procedure. The outcome of the experiment turned out to be that, in either the three different conditions, significant positive changes were observed and, therefore, eye movements seemed not to be an essential component of the therapy. Similarly, in 1999 Cahill et al. recognized the effectiveness of the EMDR for PTSD stress reactions; however, they believed that eye movements contributed little, if anything to the procedure. In their experiment, they observed that by replacing the therapist's finger

movements (typical of the original protocol) with some other forms of stimulation such as tactile and auditory ones, the results did not differ.

In fact, even if the EMDR is known (as the name implies) for the eye movements which characterize its procedure and which generate positive effects, as confirmed by different meta-analysis (Davidson and Parker, 2001 and Power et al 2002), they constitute just one of the possible stimulation modalities.

However, so far, the only two studied and recognized secondary stimulations are the tactile and auditory ones. Tactile stimulations consist of alternating left and right rhythmic drummings on the palms of the patients while, when auditory stimuli are presented, the therapist alternatively pops his or her finger near the patient's ears (Shapiro, 2019).

Even if those secondary stimulations have been implemented in the EMDR procedure, the debate on the topic is still going on; and to respond to the numerous contradictions about the role of stimulations for the therapy's outcome, Francine Shapiro declared that "the EMDR methodology can afford powerful treatment effects without the use of eye movements or other external stimuli, but the addition of such increases the overall speed and efficacy of treatment" (Davidson and Parker, 2001).

However, the debate about the role of the EMDR does not limit to the topics just discussed in fact, over the years, many researchers have also investigated on the comparison between EMDR and other techniques or therapies more commonly utilized. Here follow the most important results deriving from different meta-analyses and articles that I have selected from the literature search.

According to a research conducted by Devilly and Spence in 1999 for example, Trauma Treatment Protocol (TTP) was both statistically and clinically more effective in reducing PTSD compared to EMDR. This final result derives from the fact that, in the post-treatment condition of the experiment the authors have conducted, 10 out of the 12 participants assigned to the TTP condition did not meet the criteria for PTSD, compared to only 4 out of the 11 in the EMDR condition. Moreover, in terms of clinical changes it seemed that, from the results, the TTP condition maintained or increased improvement of symptomatology at the 3-month follow-up, while the EMDR procedure seemed to decrease in efficacy.

A similar result comes from the work of Power et al. conducted in 2002, where they compared EMDR versus either exposure plus cognitive restructuring or waiting list control. The results demonstrated that, regardless of the type of treatment offered, the majority of patients did not achieve clinical long-term follow-up gains without additional psychological and/or psychiatric treatment. Those results clearly turn out to be not in favor of the EMDR, and seem to underestimate the effectiveness of this therapy.

Yet, on the other hand, the results of the meta-analysis conducted in 2001 by Davidson and Parker demonstrated large effect sizes in experiments where EMDR was compared to no treatment, to non-specific validated treatment, and when the effectiveness of EMDR was compared with pre- and post-treatment.

I think it also worth mentioning a study conducted by van der Kolk et al. in 2005 where EMDR was compared to psychopharmacology. The researchers found out

that the former seems to be more successful in achieving a reduction in PTSD symptoms with an adult-onset.

But also recently, in a meta-analysis published in December 2020 by Cuijipers et al., the EMDR received favorable opinions regarding its effectiveness; in particular it demonstrated large effect sizes when compared to control conditions in the short term and in the treatment of PTSD. However, this is not enough because these results do not fully convince the experimenters since they found few studies with a low risk of bias, and for this reason, they suggest further analyses in the field.

The scientific literature is full of meta-analyses and studies conducted on the topic, and this brief selection of some of them was only intended to demonstrate how recent, articulated, and various it is the debate that surrounds this controversial therapy.

2.2 The EMDR nowadays

During the years, the protocol of the EMDR has not changed much from the original one, however, it has been applied to a wider number of different situations. In general, the Eye Movement Desensitization and Reprocessing therapy is currently utilized to 1) help the patients to learn from negative past experiences; 2) desensitize the individuals regarding the triggers which elicit distressing emotions, and 3) learn more adequate models to act more appropriately in the future.

To understand how this therapy works, which will be discussed later, I thought it was useful to briefly explain the different phases which characterize the EMDR protocol which is being used nowadays.

This therapy is an eight-phase treatment characterized by history taking, client preparation, goal assessment, desensitization, installation, body scan, conclusion, and reevaluation of treatment effects (Wilson, Silver, Covi and Foster 1996).

1) **History taking:** During this phase, as the name implies, the therapist collects the patient's anamnestic information to establish a therapeutic plan. It is extremely important, at this time, to determine the eligibility of the subject for the therapy.
2) **Client preparation:** In this phase establishing a proper rapport between the patient and the therapist is considered optimal for the positive outcomes of the therapy. In the meanwhile, the patient will be prepared and informed about what will happen during the therapy and the proper amount of time is left to express questions and doubts about the procedure.
3) **Goal assessment:** Here the therapist identifies all the components of the target memory. Once the patient can identify the event on which the work must be done, both the negative and positive cognitions related to the target memory are established and evaluated, respectively, with the SUD and the VOC scales.
4) **Desensitization:** the aim of this phase is to reduce through the eye movements, as much as possible, the discomfort of the patient related to

the traumatic event. To do so, the SUD scale is used as a reference of amelioration. It is important to keep in mind that the therapist must not only take into consideration the patient's reported levels of distress; but must also observe the images, emotions, thoughts, sensations, and beliefs that the patient involuntary expresses.

5) **Installation:** In this phase, the VOC scale is utilized to induce the patient to see and perceive the traumatic event more realistically and adaptively. At this time the work is focalized on the patient's subjective feelings regarding the positive cognition and if ameliorations are not seen, the therapist is allowed to help the client identify a more realistic cognition.
6) **Body scan:** during this step of the therapy the focus is placed on the body tension and on the other physical sensations felt by the patient. If the individual reports unusual bodily sensations, those will be addressed in further desensitization sets. This procedure is considered extremely important because until the trauma is solved in every aspect, the individual will not completely heal.
7) **Conclusion:** In this phase, time is left to conclude the session and to release the patient into a positive mental state. If the patient shows signs of distress, the therapist may have to utilize methods, such as the safe place procedure, to induce a sense of calm. If necessary, more sessions of EMDR may be planned for the same week or day.
8) **Reevaluation of the treatment effects:** it consists of arranging different follow-ups to test the effectiveness of the therapy and to observe if the

patient did get better. If necessary, the safe place procedure and a brief desensitization set may be administered again.

In general, the current objective of the EMDR therapy is to achieve therapeutic effects as deep and global as possible in the shortest possible time interval and, at the same time, maintain the patient's stability within a balanced system (Shapiro, 2019)

2.2.1 The safe place procedure in the EMDR

The exercise of the safe place was first introduced by Neal Daniels and was later implemented as an extra and efficacious exercise to gain better results in patients treated with EMDR.

This exercise is composed of 8 phases, but in broader terms, it consists of creating an imaginary safe place that can be used to find a temporary relief during the elaboration of the traumatic event (Shapiro, 2019).

Here follows a brief explanation of the procedure's phases:

1. Identification of the image of a safe place that produces a calming and ensuring sensation on the patient.
2. The patient is asked to concentrate on the image previously identified, on the emotions which can elicit, and to identify in which parts of the body those sensations are felt.

3-4. The safe place and the positive emotions related to it are strengthened with the help of slow ocular movements.

5. The patient is asked to identify a word that can be associated with the safe place and to internally repeat it while the procedure is carried on.
6. The subject is taught how to individually produce those internal positive feelings without the help of either the therapist or of the eye movements.
7. The learning of the procedure is tested through the assisted use of it with a minor disturbing element.
8. If the patient will be able to effectively reduce the perturbations related to this secondary distressful element, then the procedure is ready to be used when necessary.

2.3 Mechanisms of action behind the therapy

The scientific community agrees on the fact that the EMDR is an efficacious therapy, however, how does this treatment work? How can bilateral stimulations provide ameliorations on patients?

Those are questions that started with the therapy itself, that have just been partially answered and that will probably keep busy the researchers until a final and definitive answer will be given. Moreover, it seems that it is this lack of a widely accepted scientific explanation for the EMDR that has led to skepticism by many therapists and potential clients.

Nevertheless, I will try to summarize the mechanisms of action that have been proposed so far in the literature.

The most important and effective method which seems to better explain the effectiveness of the EMDR seems to be *the Adaptive Information Processing*

(AIP) Model. In particular, the AIP model would explain the rapidity with which clinical results are achieved using this procedure. Moreover, it is starting from this idea of the information processing mechanism that the name of the therapy, from EMD changed to EMDR (Shapiro, 2019).

The roots of this model for the EMDR derive from the work of Shapiro (1989) and subsequently from that of Harper et al. which, in 2009, declared that the EMDR was successful because of the self-healing mechanism which was able to activate in the brain. In fact, the AIP Model states that in human beings there is an innate physiological system designed to transform the disturbing information into adaptive resolution, but only when no blockages (such as traumas) are found along this complex pathway; if those are present, instead, they are stored in a state-specific form (frozen in time in its neural network), and unable to connect with other memory networks that hold adaptive information (Solomon and Shapiro, 2008). Moreover, Doctor Shapiro hypothesized that when a memory is encoded in an excitatory, distressing, and state-specific form; its original perceptions can continue to be triggered by a variety of internal and external stimuli. Those, in turn will result in inappropriate emotional, cognitive, and behavioral reactions, as well as overt symptoms such as high anxiety, nightmares, and intrusive thoughts.

Besides the AIP Model, similarities between what happens during the REM sleep phases and during the EMDR procedure have been discovered.

In 1996, Hassard conducted an experiment in which he studied the correlation between the REM sleep phases and the eye movements which characterize the EMDR; in particular, he observed that the ocular movements verified in the REM

phases occur along the horizontal axis of the eye just like the ones of the therapy. Indeed, subsequently, Francine Shapiro was able to state that the relaxing response and the reduction of the strength and vividness of traumatic events during EMDR, were similar to the mechanisms occurring during the REM sleep. In fact, the primary function of REM sleep is the consolidation of memories, and the bilateral stimulations characteristic of the therapy simulate favorable neurophysiological conditions for the integration of episodic memories inside the correct neural networks (Shapiro, 2019).

The third theory for the EMDR proposed was the working memory one.

To understand this theory, I will briefly list the main important concepts which underlie it: from Baddeley's work we know that the working memory has a very limited capacity and for this reason, most of the time, is not capable of multi-tasking. In fact, in the presence of two tasks that both require attention, just one of them will receive the proper consideration by the attentional process.

This concept is easily applicable to the EMDR procedure. In fact, in this therapy, the patient is asked to simultaneously follow the therapist's finger while thinking about the distressful event and, for the same reasons just described, the ocular movements will overload the working memory by resulting in the fading away of the negative thought. After numerous repetitions, the remembering will become less vivid and less disturbing, leading the subject to a sense of wellbeing (Shapiro, 2019). The results of the studies conducted by van den Hout, Muris, Salemink, and Kindt in 2001 and by Cuijpers et al. in 2020, in which they observed that eye movements led to a reduction in vividness and emotionality of negative memories, further support the hypothesis of the working memory.

The scientific community has approved those theories as possible explanations for the effectiveness of this therapy, however many works are continuously trying to get to the deepest mechanisms of action of the EMDR and maybe, in some years, we will have more detailed and certain answers on the questions at hand.

CHAPTER 3: EMDR IN CHILDREN

3.1 Psychological trauma in children and the EMDR as a treatment

"A psychological trauma in childhood can be defined as the mental consequence of a sudden external event (or a series of highly stressful events) that cause a feeling of helplessness in the child and that leads to a breakdown of its usual coping skills" (EMDR Italia).

Most of the time, it is hard to properly communicate with children about the feelings and thoughts they have about their perceived and experienced traumas; therefore, it can be a challenge to diagnose a post-traumatic stress reaction in this subcategory of patients. For this reason, it has been established that when a child endures oppression, fear, or pain, combined with a sense of impotence, then we can consider that child as traumatized.

The inability to properly being able to speak about a trauma, derives from the fact that traumatic memories are often retrieved as sensory and emotional representations rather than rational memories. In fact, Levin et al. in 1999 were able to demonstrate that it is the right hemisphere to be activated during the recollection of such memories while the left one, especially the Broca's area (responsible for language), seems to be underactive.

Anyway, even if children have difficulties in verbalizing their emotions, they experience the same feelings of an adult, and they are able to perceive when something bad has occurred. In this latter case, the Western culture believes that not speaking about what happened to/with a child means protecting him/her but, in such a way, the child will use its imagination to reconstruct the events and this

will result in more devastating effects. Therefore, it is highly suggestible for a parent to first properly explain to their children (taking into consideration their age) the events as they occurred and answer to all their questions. If subsequently to the exposure to reality, the child does not seem to improve, it may be necessary to refer to a psychotherapist, which may decide the most suitable therapy for the specific case (Shapiro, 2019).

When treating a such delicate category of patients, a therapist must always take into account the age and the developmental level of the subject to modify, if necessary, certain aspects of the treatment (Ahmad,2008).

By thinking about the EMDR procedure, it is easy to imagine that some aspects may be too complicated: as for example the expression of subjective level of distress or the validity of cognitions. Some may not be able to convey a specific value, in terms of SUD, to the traumatic event or, for example, to understand whether a positive cognition is considered valid enough for a change to occur. In those cases, the numbers of the scales may be substituted by, for example: “not at all”, “little”, “often” or “all the time”. In this way, even if doesn’t seem, the child will express his/her feelings in a clearer way for both him/herself and for the therapist. Another phase extremely useful but which requires particular adjustment when utilized with children is the safe place procedure; here the patient is assisted and guided by the therapist to find the image which produces relaxation which, otherwise, would be too difficult to be autonomously identified.

3.2 Clinical case

I will now present a clinical case to demonstrate how the EMDR procedure could

not only be utilized as a treatment for post-traumatic stress disorders, but could also be used combined with regular psychotherapies that address different problems.

The clinical data presented here were kindly provided to me by Rossella Sterpone, the psychotherapist who saw the patient, and by the Hospital in which the treatment occurred (Azienda Ospedaliera SS. Antonio e Biagio e Cesare Arrigo of Alessandria).

The patient was a female child aged 9 who underwent psychotherapy for a post-traumatic stress disorder for approximately 5 months (January-May 2007), and which underwent a follow-up 3 months after the closure of the medical records.

Even if the patient presented to therapy for a traumatic event, the final diagnosis given was one of poor social skills; for this reason, the intervention scheme was aimed first at solving the traumatic event with the related anticipatory anxiety, and later at developing a training for social skills.

During the assessment procedure, the therapist gathered the patient's information from the mother which reported in details the traumatic event to which the child was exposed: some days earlier, in the middle of the night, the husband (and father of the child) was assaulted by a thief caught stealing inside the house. From the aggression, which was witnessed by the patient, the child reported fear of being at home and alone. The mother outlined that, this extremely fearful behavior was completely extraneous to the normally observed way of doing of the child (which has always been reported as independent and mature for her age) but, subsequently to the event, she was not able to stay without the mother

and in her family house, searching support in the neighbors.

During the meeting the psychotherapist provided to the parents some indications, based on the EMDR method, on how to transmit a sense of safety to the child. Those suggestions did not only derive from the EMDR procedure, but were also implemented with the cognitive-behavioral method; in fact, the parents were instructed to establish a therapeutic contract that would gradually make the child stay by herself for 5-10 minutes each day and, every time the patient was able to accomplish the task, she was rewarded by the therapist with some points.

This initial intervention aimed to do not deny what happened, but to work on the experience to re-install a sense of safety towards the house and towards the parents, which was missing since the exposure to the trauma; in the meanwhile, the in-vivo systematic desensitization was proposed to gradually acquire confidence in staying alone.

Subsequently to the meeting with the mother, the therapist met the patient. Through a simplified EMDR procedure, the clinician started to install some positive cognitions on the patient (the same ones suggested to the parents) and thought the safe place procedure to utilize in the moment of “forced” loneliness.

During the course of the treatment, the therapist reported relative amelioration in the patient. Once the problem related to the traumatic event seemed to have evolved adaptively, the work was focused on the social skills through problem-solving, cognitive restructuring and role-playing. Those techniques, after different sessions, brought significant improvements to the patient, which reported as having more stable, healthy, and secure social relationships.

Besides all the processes that I have just presented, to get a more complete

picture of the patient, different psycho-attitudinal and graphic projections tests have also been administered: the Wechsler Intelligence Scale for Children (Wisc III), Draw the Family test, Human Figure test, free drawings regarding the expression of emotions, the Baum Test (also known as the tree test) and the Crittenden test. The therapist decided to place particular attention to this latter test in order to measure the level of attachment to the parents after the exposure to the disturbing event, to determine if the patient could reprocess the traumatic event easily or not.

Overall, the results of these tests were in the normal range of the typical responses of sane individuals.

At the follow-up it was possible to see quick improvements in the patient, both deriving from the advices given by the therapist and by the parents. The event, thanks to the processes used in the therapy, was adaptively reprocessed and the social inhibition aspects were ameliorated. The patient did not need any further therapies or meetings in the following years.

Conclusion

The primary aim of my thesis was to investigate the effectiveness of the EMDR protocol applied to post-traumatic stress disorders; however this treatment, during the years, has also expanded far beyond this specific field of interest.

With the presentation of the clinical case, instead, I wanted to demonstrate how this therapy could not only be exclusively used for the treatment of PTSD, but could also be a flanking tool during the course of different psychotherapies such as the cognitive-behavioral one.

To conclude, from my work is clearly visible that despite the EMDR is now officially recognized as an evidence-based treatment for PTSD, there are still many unanswered questions that deserve further studies on the topic.

Despite this objective assumption however, I firmly believe that there will never be a complete agreement on the effectiveness of this therapy, mainly because of its originality and complexity compared to the rest of the treatments more commonly known and utilized.

This fact certainly does not play in favor of the EMDR but, if we look at the other side of the coin, it is convenient for this therapy to continuously be in the spotlight of such an open field of research. In such a way the time will probably be able to give us the answers that we are now searching for and will, perhaps, present to researchers new challenges to work with.

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