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RESEARCH PAPER

GROUP EYE MOVEMENT DESENSITIZATION REPROCESSING (EMDR) PSYCHOTHERAPY AND RECURRENT INTERPERSONAL TRAUMATIC EPISODES: A PILOT FOLLOW-UP STUDY

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Abstract

Objective: To explore the acceptability and the effectiveness of an Eye Movement Desensitization Reprocessing Integrative Group Treatment Protocol (EMDR-IGTP) for patients with a history of recurrent traumatic episodes of interpersonal nature.

Method: Seven women were recruited from a Trauma Centre and were offered EMDR-IGTP, consisting of 10 semi-structured group sessions. Participants were assessed through a set of standardised clinical measures before the treatment, at the end of it, and after 1 and 3 months since its conclusion.

Results: EMDR-IGTP was well accepted by all participants. After the intervention and at 1 and 3 months follow-up, patients showed a significant reduction of dissociative symptoms, traumatic symptoms and improved emotional regulation.

Conclusions: This study suggests that GITM-EMDR therapy can be a helpful treatment for people who experienced traumatic episodes of interpersonal nature and supports more extensive research in this direction.

Key words: EMDR, group EMDR, interpersonal trauma, complex PTSD

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Introduction

Trauma has been defined as 'exposure to actual or threatened death, serious injury, or sexual violence' (American Psychiatric Association, 2013). Exposure to traumatic experiences is widespread in our society: 60% of men and 51% of women in the general population report having experienced at least one traumatic event in their lives (Tjaden & Thoennes, 2000). Literature consistently shows that having experienced traumatic episodes is a strong predictor for the development of different psychopathological difficulties (Overstreet et al., 2017). Particularly, Post Traumatic Stress Disorder (PTSD) is a condition that can develop after an individual has experienced or witnessed a traumatic event. Patients with PTSD can experience a variety of symptoms that include repetitive intrusions into the consciousness of distressing memories of the event, strategies of avoidance of such memories, negative mood and cognitions, and alteration in arousal. PTSD has been traditionally included in the list of anxiety disorders until the last edition of the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (DSM–5, American Psychiatric Association [APA], 2013), where it has been placed in a new chapter as 'Trauma and stress-related disorders'. Indeed, while it is evident that many PTSD symptoms can be understood in the context of fear-based anxiety, research also proved that individuals who have been exposed to a traumatic event can also show a phenotype with different clinical characteristics. Such characteristics include anhedonic and dysphoric symptoms, symptoms of externalized anger and aggressiveness, or dissociative symptoms (Giourou et al., 2018). In particular, research and clinical observations have advanced the existence of a dissociative dimension in patients with early traumatic experiences (Farina & Liotti, 2013).

PTSD with dissociative symptoms has been recognised in DSM-5 as a specific subtype of PTSD where symptoms meet the criteria for post-traumatic stress disorder and, as a response to the stressful event, the person also experiences persistent or recurring symptoms of either of the following two criteria: i) Depersonalization (persistent or recurrent experiences of feeling detached from oneself, as if one were an external observer of one's mental processes or one's body); ii) Derealization (persistent or recurrent experiences of the unreality of the surrounding environment (APA, 2013)

Similar to dissociative PTSD, the 11th version of the *International Classification of Diseases* (ICD-11;

World Health Organization, 2019) proposes a broader diagnosis named 'complex PTSD' that includes the core PTSD symptoms plus an additional set of 'disturbances in self-organization'. Complex PTSD is expected following repeated experiences of traumatic events that are of interpersonal nature, such as neglect, violence, sexual, and psychological or physical abuse, especially during early development.

In both dissociative PTSD and PTSD complex, the individual shows an inability to integrate the traumatic experience with the vision of themselves and the world (Dimaggio et al., 2017)..

Trauma Treatments

At present, there are various psychotherapeutic approaches for the treatment of PTSD. Those showing greater effectiveness share the procedures of exposure and/or processing of the traumatic event (Greenberg et al., 2015). In particular patients today can benefit from two main types of structured treatments with high-efficacy data: Trauma-focused Cognitive Behavioral Therapy (TF-CBT)

and Eye Movement Desensitization and Reprocessing (EMDR) (Mavranezouli et al., 2020). The term 'TF-CBT' is used to refer to different treatment protocols. These include prolonged exposure (PE) which evokes anxiety and helps the patient to approach feared and avoided trauma-related material (Cooper et al., 2017; Foa et al., 2017*);* cognitive therapy (CT) which modifies irrational thoughts, beliefs and hypotheses through cognitive restructuring (Woodward et al., 2017); and cognitive processing therapy (CPT), which helps clients identify and understand beliefs about emotional responses to a traumatic event, increasing awareness of thoughts and feelings in the process (Ito et al., 2017*).* TF-CBT is recommended as first line treatment for PTSD (National Institute for Health and Care Excellence [NICE], 2018). However, some authors have observed high dropouts rates in patients treated with TF-CBT and suggested that prolonged exposure and a focus on trauma reprocessing may be not appropriate (Chen et al., 2018)

EMDR treatment is a structured psychotherapy approach that integrates components of different theoretical orientations (Shapiro, 2002). It is based on the Adaptive Information Processing (AIP) model, which conceptualizes disorders as unprocessed memories of distressing life events *(*Shapiro, 1989). According to this model, people do not always fully elaborate information related to traumatic or stressful experiences and clinical symptoms originate in memories stored in a dysfunctional way. The main contribution offered by EMDR treatment is the ability to access these memories through bilateral sensory stimulation. Different neuropsychological mechanisms are implicated in EMDR that lead to a weakening of dysfunctionally stored memories as well as their desensitization and integration (Pagani & Carletto, 2017).

The standardised EMDR procedure includes 8 phases: (1) history and treatment planning; (2) preparation; (3) assessment; (4) reprocessing and desensitization; (5) installation; (6) body scan; (7) closure; (8) re-evaluation of past, present, and future (Shapiro et al., 2007). The efficacy of EMDR for PTSD and trauma has been established by different studies and meta-analyses (Chen et al., 2018; Mavranezouli et al., 2020), particularly for events that led to life-threatening or to that threatened personal integrity (Greenberg et al., 2015). Since 2013, its use in clinical practice is supported by the World Health Organisation (WHO) as the elective psychotherapy for treating PTSD in children, adolescents and adults, and it is included as recommended evidence-based treatment by other international clinical guidelines (National Institute for Health and Care Excellence [NICE], 2018). Compared to TF-CBT, EMDR does not require prolonged exposure to traumatic memories or homework between sessions, and studies generally report high compliance and lower drop-out rates (Chen et al., 2018). Moreover, a recent study by the National Institute for Health and Care Excellence (NICE) guidance development group for PTSD found that individual EMDR therapy is more cost-effective than other trauma-focused approaches (Mavranezouli et al., 2020).

The efficacy of EMDR goes beyond trauma-related disorders and its efficacy has been demonstrated also for other psychopathological conditions and difficulties such as depression (Carletto et al., 2021), anxiety problems (Faretta & Leeds, 2017), eating disorders (Balbo et al., 2017) as well as for grief (Solomon, 2018) and in psycho-oncology (Faretta, 2018).

EMDR Group Treatment

EMDR has been mainly studied and offered as an individual treatment rather than a group intervention, although in clinical practice the group format has been frequently used to manage PTSD (Schwartze et al., 2019). Nevertheless, in the last year there has been a growing interest for the effectiveness of group EMDR and a recent systematic review suggests that the group format may be an effective tool in improving a wide range of mental health-related outcomes including PTSD, depression, and anxiety (Kaptan et al., 2021). However, the quality of the included studies and the samples treated are heterogeneous to support the effectiveness of this type of treatments for specific patients' population, especially for those who experienced complex trauma.

When compared to individual psychotherapy, Group Therapy presents the following strengths: 1) it encourages patients with PTSD, who are usually socially isolated, to cultivate relationships with other people; 2) it reduces the perception of experiences as different and alien to what the rest of the world is experiencing, promoting a feeling of being more understood in one's own experience; 3) the economic and time resources of the clinical staff of a center or service are optimized (Kaptan et al., 2021).

EMDR-Integrative Group Treatment Protocol (EMDR-IGTP)

One of the first application of EMDR in a group context regards the development of the EMDR-Integrative Group Treatment Protocol (EMDR-IGTP) (Jarero et al., 2008, 2013). This protocol was created by members of the Mexican Association for Mental Health Support in Crisis (AMAMECRISIS) when they were overwhelmed by the extensive need for mental health services after the hurricane Pauline ravaged the western coast of Mexico in 1997. The EMDR-IGTP combines the eight standard EMDR treatment phases (Shapiro et al., 2007) with a group therapy model, an art therapy format, and by using the 'Butterfly Hug' - a form of self-administered bilateral stimulation (Jarero & Artigas, 2010). It was hypothesized that such format

would have been able to reach a wider population than individual EMDR while enhancing its effectiveness. This group format does not use the Yalom and Leszcz (2005) interactive format and participants work quietly and independently on their personal material.

Maxfield (2021) suggested that this EMDR group therapy format can be considered as guided self-help treatment. The criteria for modifying the EMDR protocol was to provide mental health care in a disaster aftermath circumstances and meet the mental health population needs (Jarero & Artigas, 2010). This protocol (EMDR-IGTP) has been used in the original form in different contexts (e.g. natural disasters, wars and assaults) and in numerous cultures, both with adults and children (Kaptan et al., 2021). Furthermore, the method has been recently adapted for interventions on relational traumas (Jarero et al., 2013).

The EMDR-IGTP protocol includes 8 phases: 1) Client History: An individual session with each client to collect the client's history; 2) Preparation: Participants are provided with Psychoeducation on trauma, relaxation techniques and guided in establishing a safe place; 3) Assessment: Participants are asked to remember the critical event and choose the most disturbing part, then they draw this part of the event and are asked to rate it using the Subjective Units of Distress Scale (SUD) 4) Desensitisation: Participants are asked to look at their picture and to execute alternating bilateral stimulation with the Butterfly Hug, then they are instructed to draw another picture of their own choice, related to the event, and rate it according to its level of distress. Processing continues with participants looking at the second picture using the Butterfly Hug and the procedure is repeated twice more so that there are four images in total. The level of distress is then assessed by asking to focus on the drawing that is most disturbing and to identify the current SUD level; 5) Future vision: Participants draw how they see themselves in the future and title their drawings; 6) Body scan: Body scan to identify any other trace of pleasant or unpleasant memories; 7) Closure: Relaxation exercises; 8)Re-evaluation: it takes place immediately after the group intervention. There is a debriefing about any residual material remaining from the previous group sessions that may need individual attention or additional time.

Rationale and aims of the present study

Despite the growing interest in the use of group EMDR (Kaptan et al., 2021) and the fact that individual EMDR has been established as an evidence-based treatment for PTSD (World Health Organization, 2013), there is still a lack of knowledge on the efficacy of EMDR in a group setting on symptoms related to interpersonal traumas and on the maintenance of the outcomes on a long-term. Thus, the aims of this study are twofold:

1. To explore the acceptability of an EMDR-Integrative Group Treatment Protocol (EMDR-IGTP) psychotherapy.
2. To evaluate the clinical effects of EMDR-IGTP psychotherapy in the short-term and at 1 and 3 months after its termination.

Method

Participants

Participants were recruited by the team of a Clinical Centre for the trauma-treatment project located in Tuscany, Italy. In order to be eligible for the study, all clinical participants had to report a personal history of prolonged experiences of traumatic events of interpersonal nature (such as abuse, violence, neglect).

Participants were excluded if they had an organic brain disorder or any forms of intellectual disabilities, current or past diagnosis of psychosis, alcohol, or drug addiction. Potential participants were assessed for eligibility through a series of clinical measures as described below.

The study was presented as an opportunity to participate in a new form of treatment and participants were recruited through advertising campaigns (paper and online) provided by the Centre itself, and through the help of private mental health practitioners as well as local public services. If a participant decided not to join, they would still be offered a standard treatment.

Written informed consent was obtained from all participating patients, as approved by the ethic committee direction of the coordinating centre.

Administration procedures

Assessment measures were administered to the clinical subjects during a first individual psychodiagnostic interview in order to evaluate their eligibility for the group intervention. Measures were administered again at the end of the treatment and 1 and 3 months after its conclusion. Assessments were carried out by a clinical psychologist trained in psychodiagnostic assessment and psychotraumatology, who did not personally conduct the group therapy.

Measures

1) The Beck Depression Inventory (BDI-II) (Beck et al., 1961; Montano & Flebus, 2006) is a self-assessment tool consisting of 21 multiple-choice items. The test is suitable for the measurement of the severity of depression in adults and adolescents of at least 13 years of age. The items are built on a Likert scale from 0 to 3 points. Scores from 0 to 13 indicate "an absence of depressive contents", scores from 14 to 19 indicate a “mild depression”, scores from 20 to 28 indicate a "moderate depression" and finally scores from 29 to 63 indicate a “severe depression”. The test shows excellent psychometric properties with an internal consistency mean of 0.86. (Beck et al., 1961)

2) The Beck Anxiety Inventory (BAI) (Beck et al., 1961) is a self-report tool composed of 21 items that allows evaluating anxious symptoms in adults and adolescents. The items, on a Likert scale from 0 to 3 points, range from “Not at all” to “A lot, I could hardly bear it”. Scores from 0 to 7 and are indicated as “minimum anxiety” level, scores from 8 to 15 are defined as “mild” symptomatology, scores from 16 to 25 are defined as "moderate" anxiety, finally, scores from 26 to 63 are defined as "serious" symptomatology. The BAI was adapted and validated in Italian by Sica and Ghisi (2007), confirming good psychometric properties, such an excellent discriminative power and a high internal consistency (Cronbachs $\alpha = .92$).

3) The Dissociative Experience Scale-II (DES-II) (Carlson & Putnam, 1993) is a tool that detects the level and type of dissociative experience present in a patient without entering into the detail of the diagnosis. The scale is composed of 28 items in percentage scale with 11 points (from 0% to 100%) on which the subject indicates the percentage score that best corresponds to their experience. The score of the scale is given by the

sum of the scores of the individual items divided by the number of items. Scores lower than 20 are frequently found in non-clinical samples, while scores above 30 are generally associated with the presence of high level of dissociation (Lyssenko et al., 2018). The DES-II has been translated in italian by Schimmenti (2016) and shows high internal consistency (Cronbach's α=.94) , adequate item-to-scale homogeneity, and good split-half reliability.

4) The Difficulties in Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004*;* Sighinolfi et al., 2010), is a test for the assessment of difficulties in emotional regulation for the adult population. The test consists of 36 multiple-answer items from 1 "Almost Never" to 5 "Almost Always", which measure characteristic individual patterns of emotion regulation. The test includes six sub-scales. Scores are presented as a total score as well as a score for each of the 6 subscales. Higher scores suggest greater problems with emotion regulation. Total scores range from 36 to 180. There are no standardized clinical cut-offs for this measure, however prior research suggests that the clinical range on the DERS total score varies from averages of approximately 80 to 127 (Haynos et al., 2015). Psychometric properties are good and the Italian version of the scale shows an internal consistency of α =90 for the total score, while ranging from 0.74 to 0.88 for the sub-scales (Sighinolfi et al., 2010).

5) The Impact of Event Scale-Revised (IES-R) (Weiss & Marmar, 1997) is one of the most used self-report tools to evaluate PTSD symptoms. It is composed of 22 items on a 5-point Likert scale, from 0 "Not at all" to 4 "Very much". There is a general scale with a ≥ 33 cut-off and the presence of clinically significant PTSD symptoms is associated with a score above this number. There are also three sub-scales: intrusiveness, avoidance and hyperarousal, that describe the three symptom clusters identified by the DSM-IV-TR (APA, 2000). The Italian version of the scale (Craparo et al., 2013) shows good psychometric properties with satisfactory values of internal consistency (intrusion, α = 0.78; avoidance, α = 0.72; hyper-arousal, α = 0.83).

6) The Structured clinical interview for DSM-IV axis II personality disorders (SCID-II) (Gibbon et al., 1997) is an interview used to formulate the diagnosis of ten Personality Disorders, Non-Otherwise-Specified Personality Disorder and Passive-Aggressive or Depressive Disorders (included in 'Appendix B of the DSM-IV-TR, "Criteria and Acts Expected for Further Studies"). It is one of most used instruments to assess personality, with adequate interrater and internal consistency reliability (α coefficients ranging from 0.72-0.94) (Maffei et al., 1997)

7*)* Questionnaire of Traumatic Experiences (QET). To collect a description of the traumatic events, a list of events inspired by the Traumatic Life Events Questionnaire was used (Kubany et al., 2000). This questionnaire includes 22 potentially traumatic episodes and an item to investigate "other events" not listed in the questionnaire. The TLEQ was chosen as considered the "gold standard" for the assessment of traumatic events (Weathers & Keane, 2007), because it shows good psychometric properties (Kubany et al., 2000) and allows having a detailed picture of the type of events experienced by the subjects.

Treatment: EMDR-IGTP

Patients were offered group psychotherapy based on the EMDR treatment model developed by Shapiro (*2018*) and adapted to a group setting by using the EMDR-IGTP protocol described above (Jarero et al., 2008, 2013) and slightly adapted by the authors to the setting and patients' population. Tre treatment consisted in 5 main modules as described in Table 1.

The group were led by a supervisor therapist and a senior EMDR therapist, both with over 4 years of experience in the treatment of patients with PTSD and victims of abuse and mistreatment. During the project, the therapists received one-hour weekly supervision on the study protocol by a senior certified trainer with EMDR experience (EMDR Italy). In addition, the two leading therapists had a space of one hour per week for peer-supervision. All sessions were transcribed, and an independent evaluator verified the quality of the treatment by reading the transcripts and worksheets.

Statistical analysis

Statistical Package for Social Science (SPSS) version 21.0 was used to run the statistical analyses. Means and standard deviations were calculated for descriptive purpose. Non-parametric tests (Mann-Whitney and Friedman tests) were chosen because of the characteristics of the sample and their less sensitivity to outliers' values.

Results

Participants' characteristics

Potential participants (n=9) agreed to take part in the group treatment and 7 (all female) were included while the remaining two were excluded as they did not meet the inclusion criteria. Participants were between 18 and 47 years old (M = 33.71; DS = 10.70). Two were married and two were divorced. One had a stable relationship and two were single. Four had completed compulsory education: out of these, three were graduated. Five of them currently had a stable job.

All participants presented a history or repeated traumatization of interpersonal nature. Other presenting co-morbidities were anxiety disorders, obsessive-compulsive spectrum disorders, mood disorders (with the exception of Bipolar I) schizoaffective disorders and eating disorders (**table 2**).

Subjects included in the group also presented some personality disorders traits including borderline personality traits (3 patients), narcissistic traits (1 pt.), antisocial traits (1 pt.), paranoid traits (1 pt.), avoidant traits (3 pts.) and dependent traits (2 pts.). None of the participants was at risk of suicide.

Most participants of the clinical group had a history of pharmacological treatment: one patient had started SSRI with stable doses in the three years preceding the group; another participant had been following a treatment based on mood stabilisers for about a year. Three of them had used benzodiazepines occasionally from the age of eighteen. A stable dosage was maintained for the duration of the group treatment for all subjects taking medications while participating in the group. Three had previously undergone psychotherapeutic treatments. Two patients regularly had individual support interviews on a weekly basis. None of the selected subjects had previously received any form of EMDR treatment.

Table 3 shows percentages of the type of traumatic life events that participants in the clinical group experienced according to the QET checklist.

Characteristics of the traumatic experiences narrated

Table 1. *EMDR-IGTP modules*

Module	Number and type of sessions	content
1	**2 individual sessions**	**Assessment** of family background and development of the **individual case formulation** and therapeutic plan which considers the traumatic and negligence events, the dysfunctional beliefs and the presence of dissociative symptomatology. The therapist use the float-back technique protocol to accurately trace past events potentially related to the symptoms and to the current difficulties of the subjects.
2	**1 group session**	**Psychoeducation** on the function of trauma and on EMDR therapy
3	**1 group session**	**Stabilisation training**, to favor the regulation of the arousal and create a sense of security through the identification of a safe place or the memory of a pleasant feeling. Participants are asked to identify and to focus on specific positive autobiographical memories in which they felt they had the desired resources (eg strength, ability, competence or sense of adequacy, dignity and feelings of being loved)
4	**7 group sessions**	**Desensitisation and processing** of the traumatic memories, using the EMDR protocol from phase 3 to phase 8. Each EMDR group session work on individual traumatic memories of patients, in presence of the other group members. Drawing is also used in in the desensitisation process. Participants are instructed to think about the worse aspects of the event and to draw that image on the paper provided. After rating their level of distress, they focus on the drawing while tapping themselves according to the butterfly hug procedure. They are then asked to choose three more pictures to draw, rating the associated level of distress and reprocessing each of them by using the butterfly hug. After that, they draw a picture that represents their future vision of themselves, along with a word or a phrase that describes that picture. The drawing and the phrase were also paired with the butterfly hug. Patients are then invited to close their eyes, scan their body, and do the butterfly hug or tapping stimulation. Finally, they are asked to return to their safe/secure place.
5	**1 group session**	Consolidation through group discussion and sharing of the results achieved and of the resources identified at individual and group level. Conclusion of the course.

Table 2. *Participants co-morbidity of Axis-I disorders*

Axis-I disorders at DSM-5	N
Unipolar mood disorders	4
Bipolar II disorders	1
Anxiety disorders	2
OCD	1
Alcohol/drug addiction	1
Eating disorders	1
Somatic symptom disorder	3

by the participants are summarised in **table 4**.

Acceptability

All participants took part for the whole duration of the treatment and for the data collection at follow-ups, taking the drop-out level down to zero. Qualitatively, all patients declared a high acceptance and personal satisfaction for the group treatment and for the overall research-intervention programme (**table 4**). Most of the patients (6 out of 7) also expressed a desire to continue in the future with further meetings, which were not provided for the entire follow-up period.

Clinical scores pre and after treatment

As shown by the scores at the BDI and BAI scales, the sample presents a reduction in the depressive and anxiety symptomatology at the end of the treatment and after it, however this decrease did not result statistically significant (**table 6**).

With regards to the measurement of dissociative symptoms, we can observe a significant reduction in the severity of the DES score already at the end of the treatment. The level decreased from an initial mean score of 25.26 (SD=14.06), which is very close to that detected for Dissociative Disorders, to a final mean score of 17.13 (SD=8.46), considered a non-clinical score.

We can also observe a reduction in clinical scores of emotional regulation (DERS) that goes from a mean of 96.43 (SD = 24.35), which is above what is considered the clinical cut-off (≥90), to a post-treatment mean below this threshold (M = 86.43, SD = 19.24); these decreases also continue in the two following assessments, after one and three months.

Finally, when observing the results, we can also notice a significant improvement in the total IES-R scale and its subscales (**table 5**). It is especially interesting to note in the general IES-R a transition from a score of 43.86 (SD=13.13), considered to indicate the presence of PTSD for which the cut-off is ≥ 33, to a significant improvement at the end of the treatment (M = 37.57, SD

Table 3. *Types of Traumatic Experiences Experienced by Participants (n = 7)*

Types of Adverse Experiences*	Happened to me	I assisted to	**I found out**
Nat. Disaster	14,3%	42,9%	-
Fire/Explosion	-	-	42,9%
Fire/Veichle	57,1%	14,3%	14,3%
Work/Accident	-	14,3%	-
Exp/Tox/Subst	-	-	-
Physical Violence	28,6%	14,3%	14,3%
Weapon Assault	14,3%	-	14,3%
Sexual Violence	14,3%	-	14,3%
Unpl/Sex/Exp	42,9%	-	-
Fighting/Exp	-	-	14,3%
Captured	14,3%	-	14,3%
Physical Illness	42,9%	42,9%	-
Severe Suffering	14,3%	42,9%	14,3%
Sudd/Viol/Death	42,9%	14,3%	14,3%
Unex/Death/Pers	71,4%	14,3%	14,3%
Damage Caused	14,3%	-	-
Other Event	71,4%	-	-

Note. Nat. Disaster = Natural disaster (eg hurricanes, floods, earthquakes, etc.); Fire / Explosion = Fires or Explosions; Fire / Veichle = Fires of cars, ships, railways, airplanes, etc.; Work / Accident= Accidents at Work, at home or during creative activities; Exp / Tox / Subst = Exposure to Toxic Substances (eg poisons, chemical substances, radiation); Physical violence (eg beatings, punches, assaults, etc.); Weapon Assault = Being Assaulted with a Weapon (eg stabbed, hit by a bomb or gun); Sexual Violence (eg rape or attempted rape); Unpl / Sex / Exp = Other Unpleasant Sexual Experiences suffered without consent; Fighting Exp = Experiences of combat and fights experiences in both military and civilian contexts; Captured (eg held hostage, abducted, captive, etc.); Severe Suffering = Severe Human Suffering; Sudd / Viol / Death = Sudden or Violent Death (eg murder, suicide); Unex / Death / Pers = Unexpected Death of a Dear Person; Damage Caused = Serious Damage or Death Caused by the Subject; Other Event = Other Event or Stressful Experience.

= 24.60, $p<0.05$) that continues during the follow-ups, reaching a mean score that is no longer associated with a diagnosis of PTSD (M = 21.14, SD = 9.79; $p<0.05$).

This reduction is also observable for the IES subscales of intrusiveness and avoidance between the pre-test phase (intrusiveness M= 2.37, SD = 1.02, $p<0.05$; Avoidance M=1.91, SD=0.42, $p<0.05$) and the three-months follow up (intrusiveness M= 2.37, SD = 1.02, $p<0.05$; Avoidance M=1.91, SD=0.42, $p<0.05$). Regarding the hyperarousal subscale, even if a score reduction is observable, this does not reach a level of statistical significance.

Even when the scores are observed for every single participant, it is possible to detect (**figure 1**) an improvement in the scores of the total IES-R scale along the various evaluation periods. Participants showed initially, except for patient 5, a mean score well above the cut-off (≥33). Subsequently, at 3-months follow-up, all the participants presented a mean total score in the IES-R scale below the clinical cut-off, except for patient 2 (who remained stable).

Overall, results indicate that patients enrolled in the EMDR- IGTP had reduced symptomatic levels at the end of the intervention, especially in dissociative symptoms, difficulties in emotional regulation, and post-traumatic symptomatology. This observed improvement is maintained at the follow-ups at 1 and 3 months.

Discussion

The results of this pilot study appear to indicate that an EMDR-IGTP psychotherapy, offered on a weekly basis, may be effective when offered to women who experienced traumatic episodes of interpersonal nature. This treatment seems to act specifically on symptoms that are characteristics of complex trauma, like dissociation, difficulties in emotional regulation and PTSD symptoms, such as intrusiveness and avoidance.

Furthermore, by comparing the scores between the pre-test phase and the three-months follow-up it emerges that the results achieved through this type of group treatment are maintained and improved in the months after its conclusion.

This study suggests that patients with possible co-morbidity of PTSD and dissociative symptoms (Putnam, 2003; Gonzalez-Vazquez et al., 2018) may benefit from specific treatment focused on traumatic memories. The score at the IES-R (M = 43.86, SD = 13.13) indicates an initial significant level of symptom severity that becomes no longer clinically significant after 10 weeks of treatment (M = 21.14, SD = 9.79).

The evaluation of qualitative aspects indicates the modification of some negative cognitions (Hall-Clark et al., 2017*)* concerning feelings of adequacy, guilt and defect (**table 3**). Patients seem to begin to identify a greater sense of self-acceptance, a recognition of

Table 4. *Traumatic experiences reported by the participants*

Participant code	Traumatic experiences and symptoms
Patient A	Reports flash-backs and nightmares related to the death of her parents. She witnessed to the death of the mother, killed by a car, and of the father, who committed suicide and was found by the patient hanging from the bathroom's door. These flashbacks were repeatedly present during waking and sleeping times, generating states of anxiety and hyper-activation. Moreover, the patient shows low mood associated with rumination. The patient has repeatedly performed acts of self-harm, inflicting small cuts on her body and solely communicating the occurrence of such gestures to her therapist.
Patient B	Presents emotions of anxiety and anguish, accompanied by frequent crises of weeping and difficulty in sleeping, emerged after a diagnosis of breast cancer. As a result of this diagnosis, the patient was subjected to surgery and a chemotherapy cycle, currently underway. The woman reports recurring intrusive images and flash-back of the intervention. In addition, there have been increasing relational difficulties with the husband that led to the interruption of the relationship because of the reported inability of the man to support a situation of this magnitude. The woman also suffered the mourning of her father at the age of 11, following cancer.
Patient C	Reports a childhood characterised by repeated acts of physical violence, also addressed to her mother, as well as repeated sexual abuse from her father. Following an unwanted pregnancy, the man seems to have forced her to abortion. The woman experiences disturbing intrusive images related to an attempted stabbing episode on behalf of the father and reports to have attempted suicide three times
Patient D	Reports the death of her partner due to a cardiac complication as a primary trauma. The relationship began at an early age and lasted 13 years. This event is described by the woman as "the end of everything" and has generated a depressive phase. At present, experiences of significant sadness re-emerge, accompanied by a sense of emptiness and some mechanisms of cognitive avoidance. The patient, in a second moment, reports the mourning of the mother, who also died because of cardiovascular issues.
Patient E	Has a prolonged history of abandonment and neglect. She talks about intrusive images of anguish and anger coming from a childhood of deep isolation and "particular gestures of affection" on behalf of his parish priest. In adulthood, she establishes a romantic relationship with a man who threatens her, both psychologically and physically. The patient reports to not want or feel to leave this man, thus maintaining a relationship of profound emotional instability.
Patient F	Reports to have been the victim of various abuse since the age of 8, at first perpetrated by a neighbor, and later by a cousin. Both during childhood and in more recent times, distressing nightmares related to harassment have emerged. The patient has never reported such episodes to anyone, for fear of not being believed, as she has always been considered "the perfect daughter". Emotions and bodily sensations of profound disgust emerge along with experiences of shame for what happened. The presence of polymorphic dissociative symptoms is noted.
Patient G	Shows a masculine, irritable, and at times distancing, appearance. She narrates about the separation of her parents at an early age, followed by the abandonment of her mother, with whom she interrupted contact for some years. Intrusive images connected to the figure of the mother holding suitcases standing at the front door emerged. Later in time, her father was repeatedly arrested and she, albeit very young, begun to take care of the house, her younger brother and the family business. Experiences of profound loneliness and melancholy emerge

Table 5. *Fragment of texts provided by participants after the treatment conclusion*

Participant code	Response to the question: "What is the most positive thing you will take home?"
Patient A	I take home every word and thought shared with the participants of this group, who involuntarily remind me of how many different points of view exist for every situation. It is up to me to choose with what type of eyes to look at the suffering that is around me.
Patient B	Positivity. Some flashbacks of when I could have said/done different things, but today, now, here, I accept how things went and this leaves me with pleasant feelings, both in my mind and body.
Patient C	During the stimulation I could not visualise any images. However, the words 'strength' and 'you're strong' were echoing in my mind! And I felt like the negative belief, and even the feeling of anxiety and heaviness on my chest weren't there anymore. In the second and third stimulation, the words 'remember to be happy' and 'you deserve better' were echoing in my mind, I feel a sensation of joy and serenity.
Patient D	I feel happier when I look back to this last elaboration, as if this pain is dissolving, like something crumbling away from my hands…
Patient E	I don't want to think about it anymore, I want to think about other things, I feel calm and I'd like doing something to enjoy myself.
Patient F	Today the memory is far, as if it faded away and my mind moved elsewhere. Then I began to yawn, I yawned many times, I feel my mind empty and I feel relaxed.
Patient G	I have been strong, and I still am. If life has to bring more traumas like this, and I already know that this will probably be the case, I know that I will be able to tolerate the pain. I will feel unwell, it will be really awful but I know that I will tolerate the impact without falling apart.

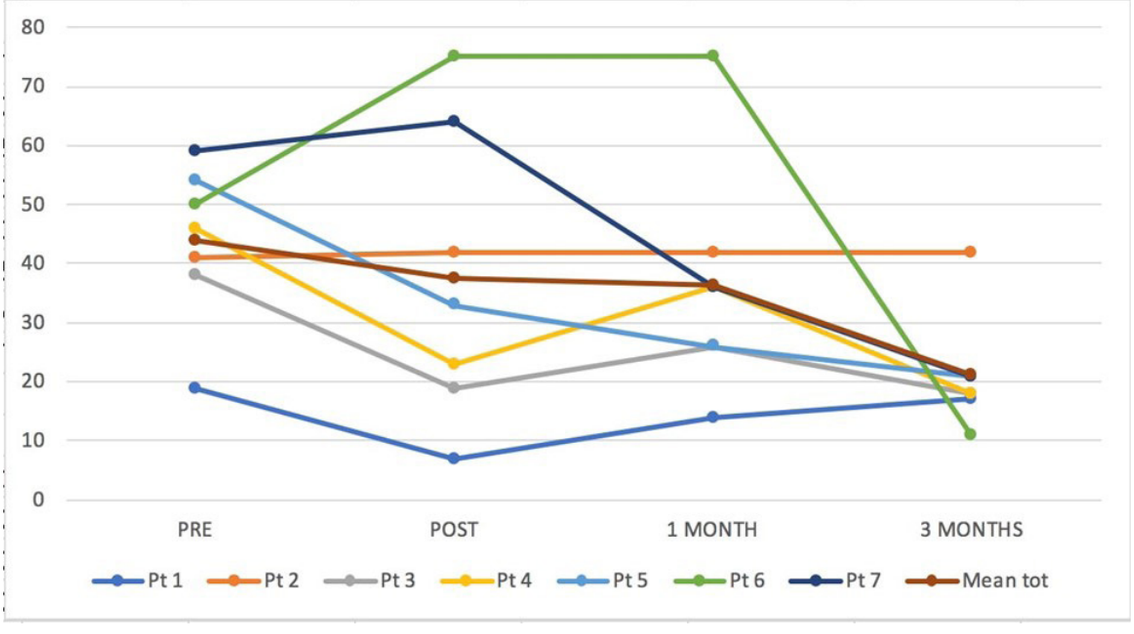
Table 6. *Means and standard deviations in the clinical scales at the different stages of the study*

	PRE-TEST	POST-TEST	1-month follow-up	3-months follow-up
DES*	25,26 (14,06)	17,13 (8,46)	13,21 (5,17)	10,59 (5,75)
DERS*	96,43 (24,35)	86,43 (19,24)	82,71 (11,76)	75,29 (11,16)
BDI-II	21,43 (9,54)	15,29 (11,81)	12,71 (9,16)	11,14 (8,07)
BAI	19,14 (11,42)	17,14 (14,29)	15,86 (7,95)	13,14 (9,72)
IES-R*	43,86 (13,13)	37,57 (24,60)	36,43 (19,32)	21,14 (9,79)
IES-AVOIDANCE*	1,91 (0,42)	1,63 (1,19)	1,69 (1,15)	0,94 (0,56)
IES-INTROUSIVITY*	2,37 (1,02)	1,73 (1,21)	1,64 (1,00)	1,08 (0,71)
IES-HYPERAROUSAL	1,76 (0,82)	1,95 (1,24)	1,59 (1,13)	0,93 (0,96)

Note. *BAI = Beck Anxiety Inventory; BDI-II = Beck Depression Inventory-II; DES = Dissociative Experience Scale; DERS = Difficulties in Emotion Regulation Scale; IES-R = Impact of Event Scale-Revised.*

** = Significantly different according to the Friedman test: DES X^2 (3)= 10.03, p <.05, n=7; DERS X^2(3)= 10.91, p <.05. n=7; IES-R, X^2= 10.05, p<.05, n=7; IES-AVOIDANCE X^2 = 1.49 p<.05 n=7; IES-INTROUSIVITY X^2 = 1.20 p <.05 n=7*

Figure 1. *Mean scores in the total IES-R scale of the single patients and of the whole sample in the pre- and post-treatment phase and at 1 and 3 months follow-up*



personal value, and a sense of greater security, with a loosening of the most archaic defence systems (Cherland, 2012). As the sessions progressed, patients showed greater access to a positive attitude toward themselves, less aversion to positive cognitions and aspects of resilience.

Furthermore, the treatment was well accepted by participants, who showed high adherence and treatment compliance. This appears to be in line with the compliance observed in other studies on EMDR for complex trauma (Chen et al., 2018) with average completion rates of 95.5%. This is relevant especially when comparing EMDR with TF-CBT, where drop-out rates were around 33-58% (Schnyder, 2005; Schnurr et al., 2007). The constant presence of participants throughout the group sessions immediately ensured an active participative spirit and increased the motivation for the intervention. Participants showed adherence to the procedures and rules defined in the initial phase, while simultaneously the will to share their own experiences and the emotional and cognitive responses that the memories evoked. Overall, patients reported constant processing of the targets, describing them as increasingly blurred and/or distant. Participants also described that they were able to "watch" and "feel" extremely difficult and painful events of their lives in a different way, being more able to attribute meaning to the symptoms previously experienced.

The integration of drawing to the processing proved to be a tangible and practical resource, which allowed participants to express their memories in an alternative way to the verbal form, keeping the focus on a defined

and definite object.

However, we also must note that for some patients the process was difficult during the first meetings, when feelings of profound fatigue and strong emotional suffering prevailed. These difficulties were gradually overcome with the continuance of the sessions and the group proved to be a valuable resource for patients, as it allowed mutual emotional support and an exchange of resources and skills (Linehan, 1993).

With the treatment progression, participants reported an improvement in their physical health state and a feeling of general well-being in their daily life.

Overall, the clinical results obtained in this pilot study are comparable with those obtained from trials on individual EMDR and TF-CBT and significantly higher when compared with non-trauma-focused psychotherapies and with data on the efficacy of other types of group therapy with victims of trauma and abuse (Chen et al., 2018; Liotti, 2004).

The improvement in symptoms connected to PTSD in the months after the end of the treatment is in line with what reported by some previous studies (Bisson et al., 2013) which show that the effects of treatments for trauma, such as EMDR and prolonged Exposure, seem to increase a few months after the treatment. In their study, Edmond and Rubin (2004) observe the maintenance of the results achieved with EMDR treatment at 18 months follow-up in women who have suffered sexual abuse in childhood. In a more recent study (Acarturk et al., 2016), improvements in PTSD symptoms were maintained after the EMDR treatment at 5-weeks follow-up. Results are more mixed regarding the effect of EMDR on depressive symptoms. While some studies report individual EMDR as an effective treatment for depressive symptoms (Carletto et al., 2021), data on such symptoms in patients with a main diagnosis of PTSD and treated within a group setting are fewer and more mixed. For example, Lehnung et al. (2017) observed a decrease in depressive symptoms after EMDR treatment but this reduction was not significant, while other studies (Passoni et al., 2018; Perilli et al., 2019) suggest a significant effectct.

The scores of emotional dysregulation and symptoms associated with dissociative experiences also improved significantly at the end of the treatment and in the subsequent follow-ups, showing consistency with what suggested by the case-control study by Gonzalez-Vazquez et al. (2018).

The present intervention, unlike other types of non-EMDR treatment, did not require participants to use their time outside the sessions in the form of homework. This probably allowed avoiding the frequent resistance of some patients in carrying out these tasks at home, preventing any emotional stress and tension within the group and/or the impairment of the therapeutic relationship.

The authors of this study, based on their clinical experience with victims of traumatisation and patients with a high level of psychopathological and relational complexity, also consider the constant attention to relational aspects as a key variable for the effectiveness of the present treatment.

This study, however, presents a number of limitations. Firstly, considering the level of complexity of such patients, the number of sessions could have been increased to ensure a more comprehensive work. Secondly, the sample size was small and constituted only by female participants and we cannot know if this latter characteristic may have produced or not any effects on the observed results. Thirdly, it lacks the comparison with a similar clinical group not exposed to the treatment. Finally, considering its design, the results cannot be attribute directly to treatment as the potential effect of other variables was not controlled.

Conclusions

Overall, the results from this pilot study appear promising, having shown a reduction in symptoms that reach levels that are no longer clinically significance in some key areas that generally compromise the wellbeing and functioning of patients suffering of PTSD. Furthermore, the GITM-EMDR treatment was well-accepted by participants which showed high compliance with the intervention. These outcomes may suggest a broader use of the GITM-EMDR protocol for people with a history of interpersonal trauma and not exclusively as an intervention in emergency psychology. The group setting appears particularly suitable for those who have experienced traumatic events of interpersonal nature as it provides a safe place where patients can connect between each other and overcome feelings of loneliness and alienation (Sloan, 2012). Since this study showed the possibility to intervene on the emotional dysregulation and dissociation components present in patients with high levels of trauma, future research should better explore the potentiality of an EMDR group-based approach with this population. Particularly, researchers should aim to work with larger samples and to investigate traumatic sub-types to better evaluate the effectiveness of this type of intervention. The possibility of acting on traumatic memories of episodes happened in a sensitive period of the patients' life through group EMDR should also be explored in different settings such private clinical centers, public mental health services and therapeutic communities.

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