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RESEARCH

Early treatment of rape victims: Presentation of an emergency EMDR protocol☆

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Summary This research aims to test the effectiveness of a new form of early treatment for the consequences of rape. Using several emergency EMDR protocols such as Shapiro's (2009) R-TEP (Recent Traumatic Episode Protocol) and Kutz, Risnik and Dekel's (2008) Modified Abridged EMDR Protocol, as well as the practice of psychological debriefing, we treated in one session 17 female rape victims within 24 to 78 hours after their aggression. Follow-up was done after 4 weeks and 6 months during which we measured the effects of this psychological support on posttraumatic symptomatology and psychological distress, as well as on certain indicators of the sexuality of these victims compared to their prior sexuality. The results show, after one session, an interesting reduction in the different measures which remains stable 4 weeks and 6 months after the treatment, as does the way in which the victims appear to take an interest in their sexuality. If this type of emergency intervention is not a complete substitution for in-depth psychotherapy, its contribution and pertinence in the context of immediate treatment offers interesting perspectives for treating victims of sexual aggression.

Introduction

The national survey on violence against women in France (ENVEFF) made in 2000 showed that 1.2% of the women surveyed stated having been victims of sexual fondling, attempted rape or rape at least once during their life (Jaspard et al., 2001; Hajbi et al., 2007). It is then possible to estimate that roughly 48,000 women ranging in age from 20 to 59 were victims of rape in the past year. Articles 222-22 and 222-23 of the French Penal Code define sexual aggression as ''all sexual attacks, committed with violence, constraint, threat or surprise'' and rape as ''an act of sexual penetration on another person with violence, constraint, threat or surprise''. Oral penetration can then be qualified as rape. The symptomatology of first time victims of rape is most often expressed as posttraumatic stress. After

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a violent attack, a victim can manifest several types of troubles: an Acute Stress Disorder and a state of posttraumatic stress or Posttraumatic Stress Disorder (PTSD) which will generally persist for more than 3 months. These disorders were inventoried by the American Psychological Association (APA) which created a classification (American Psychiatric Association, 1994) that is widely used at present. The state of acute stress can be defined as a brief and early form of PTSD, even if some manifestations are specific, particularly because of their dissociative nature. When the reactions of dissociation are important and develop at the same time as the traumatism or immediately after, they are qualified as peritraumatic dissociation. These acute states are particularly associated with the risk of developing a state of posttraumatic stress, and several authors have largely stressed the importance of the immediate reaction for predicting the seriousness and the duration of posttraumatic stress disorders (Marmar et al., 1996). The classic symptoms of peritraumatic dissociation are an inability to grasp the situation, torpor, stupor, the absence of emotional activity, depersonalization, derealization, the sensation that the mind is disconnected from the body, automatic motor behaviors (walking, wandering, running away, etc.) or even agitation. These troubles can arise immediately or secondarily when all danger is removed or when something recalls the accident. These acute states of troubled reactions usually disappear spontaneously in a few hours or a few days (Briole et al., 1994). In the context of rape, numerous sexual problems are also observed: diminishment of the libido, sexual abstinence, vaginismus. Total sexual abstinence, adopted in the case of phobic behaviors, is reported in more than 25% of the cases. Effectively, rape has important negative repercussions in affective functioning, especially in the form of a reduction in sexual satisfaction. A reduction in the frequency of sexual intercourse and often abstinence are observed during the first months. These troubles are found among almost half of the victims 1 year after the aggression, and can be manifested by anorgasmy, vaginismus and sexual aversion. Very often, these after-effects have a negative repercussion on a couple's life: one out of two women leaves her husband or companion 3 years after the rape. Indeed, the partner very often suffers from a psychological crisis and shock following the rape of his partner.

Hence, EMDR therapy can seem to be an interesting psychotherapeutic response to control the effects of rape. Since 1989, numerous publications have shown the effectiveness of the EMDR method, particularly in the area of psychotherapeutic treatment of PTSD. Initially intended for treating subjects who underwent traumatic experiences, this approach was then developed to find indications for the treatment of several psychopathological troubles (De Jongh et al., 1999; Shapiro, 1989, 2001).

The classic EMDR protocol consists of eight phases (Shapiro, 2001) which should allow the assimilation and integration of the various aspects of a traumatic experience on the somatic, sensorial, cognitive, behavioral and emotional level (Shapiro, 2002; Van der Kolk, 2002). According to Shapiro (2002a), these non-integrated experiences, or rather mnemonic information which is left untreated and stored in a dysfunctional way, would be at the origin of divers symptoms and psychological troubles such as PTSD, anxiety and depressive states. EMDR would reactivate the natural system of information processing and would facilitate the adaptive resolution of the previously distorted material (Bergmann, 1998, 2000, 2010; Shapiro, 2002; Stickgold, 2002; Van der Kolk, 2002). The treatment plan is formulated in order to target the experiential factors contributing to the present dysfunction, and the present mechanisms which reactivate the material in the present in relation to the past event, as well as to related future situations (Shapiro, 1995).

The effectiveness of EMDR in the treatment of PTSD was clearly shown in 16 randomized control tests. The results generally indicate that EMDR is more effective than the absence of treatment (Wilson et al., 1995, 1997), than pharmacology alone (Van der Kolk et al., 2007) and than less standardized approaches (Marcus et al., 1997, 2004), and that EMDR is as effective as behavioral or cognitivobehavioral treatment methods (Rothbaum et al., 2005). The results of five meta-analyses corroborate these data (Bisson and Andrew, 2007; Bradley et al., 2005; Davidson and Parker, 2001; De Jongh et al., 1999; Maxfield and Hyer, 2002; Van Etten and Taylor, 1998).

Two types of methods of intervention for the treatment of victims can be distinguished: preventive methods often implemented early with aim of controlling the expression of trauma among the victims as soon as possible, and the curative methods whose aim is rather to treat the trauma itself. EMDR therapy mainly falls into the field of the curative methods, although some studies tend to show its pertinence in a more preventive approach with a typology of so-called early intervention protocols, which can be emergency protocols (in the first few hours) or protocols of recent events (2 days to 3 months after the incident). The objective of the emergency interventions, such as defusing or debriefing the victims, is rapid treatment in order to quickly reduce the symptoms of a state of acute stress or, more globally, immediate reactive troubles. In this line, Quinn (2007, 2009) proposed the Emergency Response Protocol (ERP) while Judith Guédalia & Frances Yoeli (Luber, 2010) developed the EMDR Emergency Room and Wards Protocol (EMDR-ER). However, the protocols for recent events aim for a more integrative and more precise treatment of the traumatic event. Protocols such as the Recent Traumatic Episode Protocol (R-TEP) by Elan Shapiro and Brurit Laub (which undoubtedly remains among the most accomplished and the most integrative of the so-called recent events protocols) and the Modified Abridged EMDR Protocol by Kutz et al. (2008) which, based on a revised and precise protocol enabled a significant reduction of emotional disturbance among patients-victims of attacks or accidents, are implemented within two to four hours after the traumatic incident. Our intervention lies halfway between these two approaches whose distinction is not always evident. Effectively, we focus on victims of rape or attempted rape in the hours following the attack (24 to 72 h). We tested a large number of these early intervention protocols, both emergency protocols and protocols of recent events, which were satisfactory on some levels and unsatisfactory on others. Therefore, we chose an integrative approach likely to take into account the specificity of immediate psychological care and the contributions of the different actors in this domain, particularly in EMDR, as well as the adherents of a more conventional approach, that of psychological

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debriefing, such as the Critical Incident Stress Debriefing of Mitchell (Mitchell, 1983; Mitchell and Everly, 2000). This psychological emergency protocol coming from EMDR therapy was named URG-EMDR.

The aim of this paper is to test the effectiveness of a new type of early treatment on the consequences of rapes. Based on the integration of several EMDR protocols and on the practice of psychological debriefing, we treated 17 female rape victims in a single session. After a 4-week and then a 6-month follow-up, we evaluated the effects of this psychological support on posttraumatic symptomatology, psychological distress, and on certain indicators of the sexuality of these female victims compared to their prior sexuality.

Method

Participants

Seventeen women participated in this research. The participants were directly approached ($n = 6$) at the research center by psychologists involved in the study, or they were oriented by their family doctor ($n = 5$) or by regional associations offering aid to victims ($n = 6$).

The participants had to meet certain criteria in order to be included in the study:

- had been a victim for the first time in their life of sexual aggression, in other words, of sexual assault committed with violence, force, threat or by surprise, of rape (act of sexual penetration on another person entailing the use of violence, force, threat or surprise) or attempted rape;
- the consultation must take place between 24 h and 72 h after the sexual aggression;
- had filed a complaint with the police;
- give her consent after being fully informed about the framework and the procedure of the research protocol;
- reside in France and have no need of an interpreter to speak and understand the French language;
- to be between 18 and 60 years old;
- the clinical manifestations observed can be attributed to the recent incident of sexual aggression;
- agree to participate in the study for a period of 6 months by answering the researchers' questions before the single EMDR session, after the session, after 1 week, and then after 6 months;
- do not suffer from mental troubles;
- do not use drugs or alcohol;
- do not have a contraindication for EMDR psychotherapy (state of health, neurological troubles, troubles and/or ocular pains, dissociative state, etc.).

Material and procedure

This study falls within a particular framework, that of early emergency treatment, which is quite similar to what happens when victims benefit from defusing or psychological debriefing. However, the processes at stake and the objectives are different from those which are used in psychotherapeutic treatment. Effectively, it does not simply focus on alleviating the effects of the trauma, allowing the victim to vent his/her emotions or participating in a preventive approach in order to avoid the onset of a state of posttraumatic stress. The goal is more ambitious because it also aims to directly contribute to the healing process by relieving the patients of the reactional symptoms which follow in order to help them find a state of psychological health almost identical to the one they had before the sexual aggression. However, it would be awkward and incorrect to reduce EMDR treatment to the use of such a protocol, even if it proves to be effective. Indeed, if this study falls completely within the field of EMDR therapy which is in full development, it cannot be reduced to it, because such an approach is limited by the many principles and precautions which constitute the richness of the standard EMDR approach. Therefore, our proposition could intervene before a more global treatment.

When contacted by the victims, we proposed meeting them and their being included in this study. The framework of the steps of this psychological treatment is mainly inspired by the CISD developed by Mitchell, apart from the fact that we introduced a specific protocol largely inspired by what is used in EMDR therapy in the approach. The average duration of the URG-EMDR treatment (phase 3 to 7) was 1 hour and 45 minutes (Tables 1 and 2). A kit containing

Table 1 Characteristics of the participants in the treatment group.

Variables	Characteristics of the group treated with the early intervention URG-EMDR protocol ($n = 17$)
Nature of the sexual aggression	Rape: 100% (17/17)
Age (in years)	m = 32.2 (sd = 9.1)
Sex	Women: 100% (17/17) Men: 0% (0/17)
Socioprofessional category	Manager: 23.5% (4/17) Employee: 47% (8/17) Student: 29.4% (5/17)
Level of education	Junior High School: 17.6% (3/17) Technical School: 23.5% (4/17) High School: 41.2% (7/17) College+: 17.6% (3/17)
Marital status	Married: 75% (4/17) Cohabitation: 25% (9/17) Single: 23.5% (4/17)
Elapse of time between the aggression and the intervention (in hours)	24 h: 29.4% (5/17) 48 h: 41.2% (7/17) 72 h: 29.4% (5/17)
Duration of the EMDR treatment	1 to 2 h: 76.4% (13/17) 2 to 3 h: 17.6% (3/17) 3 h and more: 5.8% (1/17)
Mean duration (standard deviation)	m = 1 h 53 minutes (sd = 48.7 minutes)

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Table 2 General description of the seven phases of the URGent EMDR treatment protocol (URG-EMDR).

	Phases of the URG-EMDR protocol
Phase 1	Rapid anamnesis, particularly concerning a possible traumatic history, but also an evaluation of the level of security (could lead to work beforehand on being in security before the treatment). An evaluation of the level of social support is also conducted General presentation by the victim of the traumatic event of which she was a victim. Identification of the sensitive points or moments with the victim (inspired by the ''hot spots'' taken from the REP of Shapiro, 2001). The psychotherapist only has a general view of the situation at this level
Phase 2	Introduction to psychotraumatism and psychotherapeutics: concerning the former, information is given on the psychological impacts which events, such as rape or attempted rape, can have. This step is in keeping with what is done in psychological debriefing (Mitchell and Everly, 1993, 2000). The latter consists of a general presentation of EMDR therapy and an explanation of the protocol which will be used and its specificity
Phase 3	The victim is asked to imagine (metaphorically) that the traumatic incident (sexual aggression, attempted rape, rape, etc.) that she experienced was taped in her mind as if it was done with a video camera. She is then asked to rewind the tape to the beginning, and even to go back just before that (taken from the R-TEP of Shapiro and Laub, 2008, 2009). The victim is then asked to view the tape and to stop it with her virtual remote control as soon as she is confronted by an aspect of the episode which brings out emotions (example: the moment when I get the feeling that I am being followed, the moment when he touches me, etc.). Therefore, it is possible to have several critical points or intermediary targets in the same traumatic episode (cf. *Point of Disturbance* of the R-TEP of Shapiro and Laub, 2008, 2009) which can have more or less weighting
Phase 4	Verification of the primary global SUD of the traumatic episode in its entirety: ''At the moment, you went over everything that happened before your eyes. How do you place yourself now on a scale going from 0 to 10, with 0 corresponding to no distress at all, and 10 to the worst distress that you could imagine?'' (inspired by the R-TEP of Shapiro and Laub, 2008, 2009, although not intervening in the same phases of the protocol).
Phase 5	When each of the critical points (or intermediary targets) is raised, the therapist evaluates: The emotion: ''When you go back to this critical point (say which one), what emotions do you feel (there could be several)?'' The SUD: ''When you think about this critical point (say which one), how would you place yourself on a scale going from 0 to 10, with 0 corresponding to no distress at all, and 10 the worst distress that you could imagine?'' Nothing is asked about the corporal localization as is done in most of the emergency protocols. In our experience, the rape and the physical attack render things too delicate at this time of the treatment. Therefore, we recommend against doing it here
Phase 6	First desensitization: the victims had to follow the bilateral movement of the therapist's hand from left to right with their eyes. These series of lateral movements last from one to several minutes in function of the emotional reaction of the patient (about 80 to 85 back and forth movements per minute, which is a rather high frequency). All the reactions of the person (memories, awareness, divers associations, corporal sensations, emotions, etc.) can be found during this phase. At each pause between each series of bilateral movements, the patient reported ''what came to her'' during the period of drifting attention which surrounds the ocular movements. The SUD is then evaluated after each series of bilateral movements. If the associations are related to the critical point or intermediary target of the traumatic episode, the victim is asked to continue and to concentrate on the lateral movements. However, if the associations are not related to the critical point, the patient is asked to go back to the critical point (Kutz et al., 2008). Going back to the target is accompanied each time by a verification of the SUD as in phase 4. When SUDs of 3 or 2 are reached, the patient can then go on to the following critical point or intermediary target (it is, of course, incoherent at this stage to obtain SUDs of 0 because most of the time, other critical points remain to be treated). The patient is then asked to take up the course of the traumatic episode and to stop as she did for the first critical point when she considers that a new critical point appears in the scenario of the traumatic event. All the critical points are then treated one after the other
Phase 7	Final global verification of the SUD of the traumatic episode in its entirety: ''Just now, you went over everything that happened to you before your eyes. How do you place yourself now on a scale going from 0 to 10, with 0 corresponding to no distress at all, and 10 to the worst distress that you could imagine?'' (largely inspired by the R-TEP of Shapiro and Laub, 2008, 2009). We do not hope to have a SUD of 0, but it is essential to obtain a final global SUD at least three times lower than the primary global SUD

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Table 3 Mean scores and standard deviation of the different variables according to the phases of evaluation.

	Phases of evaluation			
	Pretest	Posttest	After 4 weeks	After 6 months
Total IES	52.9[a] (8.7)	19.4[b] (6.2)	18.4[b] (6.5)	19.05[b] (6.1)
IES-Intrusion	26.8[a] (4.8)	9.58[b] (3.7)	8.2[b] (3.8)	8.9[b] (3.36)
IES-Avoidance	26.05[a] (8.3)	9.88[b] (3.2)	8.2[b] (3.8)	8.9[b] (3.3)
Global SUDs	8.7[a] (1.09)	2.47[b] (1.17)	2.05[b] (1.14)	2.41[b] (1.37)
Level of desire	0.47[a] (0.62)	0.50[a] (0.72)	3.82[b] (1.07)	3.7[b] (1.04
Level of excitation	0.35[a] (0.60)	0.52[a] (.79)	3.87[b] (1.04)	3.82[b] (1.07)

The different letters between the means indicate a significant difference of contrasts (threshold at least $P < .05$).

several questionnaires was given to each of the female participants. The study was presented as an evaluation of the treatment that we had proposed and as a contribution to the development of psychotherapeutic methods for the treatment of female rape victims. The protocol was then explained and in light of the information provided, the patients were asked to give or not their consent (signature of fully informed consent) in order to be included in the research protocol. The inclusion phase lasted for 12 months, from September 2010 to September 2011. Before beginning the treatment (pretest phase), the participants were asked to answer questions using several scales. The same evaluation phase was repeated after the single session (posttest phase), after 4 weeks, and then 6 months later.

Before beginning the first phase, the participants filled out an identification sheet (age, sex, socioprofessional category, etc.), a scale measuring the state of the PTSD (IES), two questions related to their sexuality, and the SUD which is an indicator specific to EMDR therapy.

The French version of the Impact of Event Scale (IES) was used (Horowitz et al., 1979; Zilberg et al., 1982) to evaluate the severity of trauma-related symptomatology (i.e., the extent of intrusive symptoms and avoidance protocol). The IES is a 15-item self-report questionnaire measuring two dimensions of posttraumatic psychological distress: intrusions and avoidance. The IES is one of the most widely used PTSD-related scales and has been applied across many different trauma samples (Joseph, 2000). The frequency of each symptom is scored on a four-point scale, ranging from ''not at all'' (0) to ''often'' (5). The scores for the total IES range from 0 to 75, with higher scores denoting higher levels of distress. However, it is acknowledged that the IES alone does not diagnose PTSD. For the French version of the IES, a score of 26 is the suggested cut-off point for a clinically significant level of trauma-related symptomatology (Kieber et al., 1992). Cronbach's alpha for the current study was 0.91 for the IES intrusions scale and 0.83 for the avoidance scale.

Two questions dealt with sexuality on a scale going from 0 = definitely less to 5 = completely the same: ''Would you say that your level of desire or interest in your sex life is comparable to what it was before the aggression?''; ''Would you say that your level of sexual stimulation (or excitation) is comparable to what it was before the aggression?''.

The Subjective Unit of Distress (SUD) (Wolpe, 1990; Wolpe and Abrams, 1991) is a Likert scale going from 0 to 10 which evaluates the degree of distress caused by a mental image, a target or a critical point activated and treated during the psychotherapeutic process. It is a very subjective evaluation of the patient's negative sentiment during the treatment, which is an integral part of the EMDR protocol. In this study, the primary global SUD was measured in the pretest phase, and the global final SUD in the two posttest phases at 4 weeks and at 6 months (Table 2). Intermediary SUDs were also the object of descriptive analyses shown in Fig. 1.

The URGent EMDR treatment protocol (URG-EMDR) was developed after experimenting with several protocols for several months. It cannot be considered as an original contribution, but rather an integrative approach which combines the key points of the basic protocol of Francine Shapiro (2001), of the Recent Event Protocol of Francine Shapiro (2001), of the R-TEP protocol of Shapiro and Laub (2008, 2009), of the Modified Abridged EMDR protocol of Kutz (Kutz et al., 2008) and the Emergency Response Procedure of Quinn (2009), as well as some principles related to psychological debriefing.

We hypothesize (H1) that a treatment with the URG-EMDR protocol will lead to a reduction in the indicators of posttraumatic stress evaluated with the IES, whether it concerns the global score or scores for intrusion and avoidance. In a similar vein, we assume (H2) that this reduction of the symptoms will remain stable with time, that the short-term effects of the treatment will be maintained (after 4 weeks) as well as the medium-term effects (after 6 months). Regarding the different SUD measures, we hypothesize (H3) that that will be a significant decrease in the patients' distress between the pretest and the posttest phases, and we expect this decrease will be maintained after 4 weeks and after 6 months. Finally, we hypothesize (H4) that the return to a normal sex life (perceived as such) for these rape victims will occur with time. If we do not expect radical changes during the posttest phase, we expect a significant improvement after 4 weeks and 6 months.

Results

An analysis of variance (MANOVA) was conducted with the different dependent variables according to the phases of evaluation (pretest vs. posttest vs. 4 weeks vs. 6 month follow-up).

A MANOVA was conducted on each of the five dependent variables for each of the four phases of evaluation. A significant effect of the variable phase of evaluation, Wilks's λ (3, 14) = .09, $P < .001$, was observed. In all the cases, as

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Table 4 Bivariate correlations according to the period of evaluation between the questions dealing with perceived sexuality, the IES measure and the final SUD.

	After 4 weeks		After 6 months	
	Level of desire	Level of excitation	Level of desire	Level of excitation
Final SUDs	−.68**	−.56*	−.82**	−.60**
Total IES	−.73**	−.46	−.58*	−.47*
IES Intrusion	−.46	−.21	−.40	−.42
IES Avoidance	−.62**	−.51*	−.57*	−.50*

** $P < .01$.
* $P < .05$.

shown by the contrast analysis (Table 3), the scores obtained on the different DVs during the pretest phase are significantly higher than those obtained during the posttest phase ($P < .001$), whereas those obtained after the EMDR treatment (posttest vs. 4 weeks vs. 6 months) are not statistically different.

More precisely, if the three scores obtained on the IES for the same phases of evaluation are examined (the total Wilks's score λ (3, 14) = .09, $P < .001$, Wilks's score for intrusion λ (3, 14) = .07, $P < .001$ and Wilks's score for avoidance λ (3, 14) = .18, $P < .001$), it appears after the contrast analysis that the scores are significantly lower during the posttest than the pretest phase. This reduction then becomes stabilized as no difference appears between the scores after 4 weeks and 6 months.

A comparable phenomenon is observed with the SUD measure, Wilks's λ (3, 14) = .069, $P < .001$, since the reduction in the mean score is significant between the pretest and the posttest, and then the mean scores do not differ.

Finally, concerning sexuality, Wilks's λ (3, 14) = .12, $P < .001$ and Wilks's λ (3, 14) = .09, $P < .001$, an improvement on the levels of desire and excitation are observed after four weeks which then becomes stabilized.

As indicated in Table 4, perceived sexuality, in terms of desire and excitation, is significantly correlated with the value of the final SUD specific to each of these periods. It should also be underlined that if the total score obtained on the IES correlates with these same measures, this is likely due to the sub-score for avoidance which still presents significant results, whereas the score for intrusion shows no statistically significant correlation with the variables related to sexuality.

In order to refine our results, the number of critical points or intermediary targets treated for each victim was enumerated. This data, as well as the number of subjects and the mean duration of the treatment necessary, is given in Table 5. No relation was found between the duration of the session and the results obtained for each of the phases regarding the IES scores, the evaluation of the SUDs, and the two answers to the questions related to sexuality (P = ns). Therefore, no relation exists between the quantity of the targets treated, the amount of time necessary to do so, and the patients' progression at 4 weeks and at 6 months, particularly concerning the scores on the different scales, which are in no way influenced by such parameters. In other words, the difficulty of treating the targets is not at all predictive of the patients' progression. Finally, it must be pointed out that logically, the duration of the treatment (phases 3 to 7) is strictly in function of the number of intermediary targets to be treated.

Fig. 1 represents all of the mean SUDs for the group of nine victims who dealt with four to five critical points or intermediary targets.

Fig. 1 shows that all of the five SUDs decrease in a rather characteristic way. It should be noted that the means of the different SUDs for the five intermediary targets at the beginning (the first SUDs requested during the intermediary target treatment) are not statistically different between them (P = ns), in the same way that the duration of the treatment of the different targets remains identical, and even seems to be longer for the fourth and fifth targets (15 to 20 minutes on average for targets 1, 2 and 3 vs. 25 to 30 minutes for the last two). Therefore, treating the first intermediary targets does not facilitate treating the following targets at all. Everything works as if the intermediary targets were completely autonomous, with a traumatic weighting which evolves in function of the traumatic context. Thus, once targets 1, 2 and 3 are treated, nothing prevents the emotional burden of the other targets which remain to be treated to increase, thereby requiring more treatment time.

Table 5 Number of critical points or intermediary targets treated, number of victims and mean duration of the treatment from phase 3 to 7 of the URG-EMDR protocol.

Number of critical points or intermediary targets treated	Number of victims	Mean duration (and standard deviation) of URG-EMDR treatment from phase 3 of the protocol
4 to 5	9	1 h 22 minutes (11.75 minutes)
6 to 7	4	1 h 49 minutes (10.89 minutes)
8 to 9	3	2 h 43 minutes (11.26 minutes)
9 to 10	1	3 h 16 minutes
Total	17	1 h 53 minutes (48.7 minutes)

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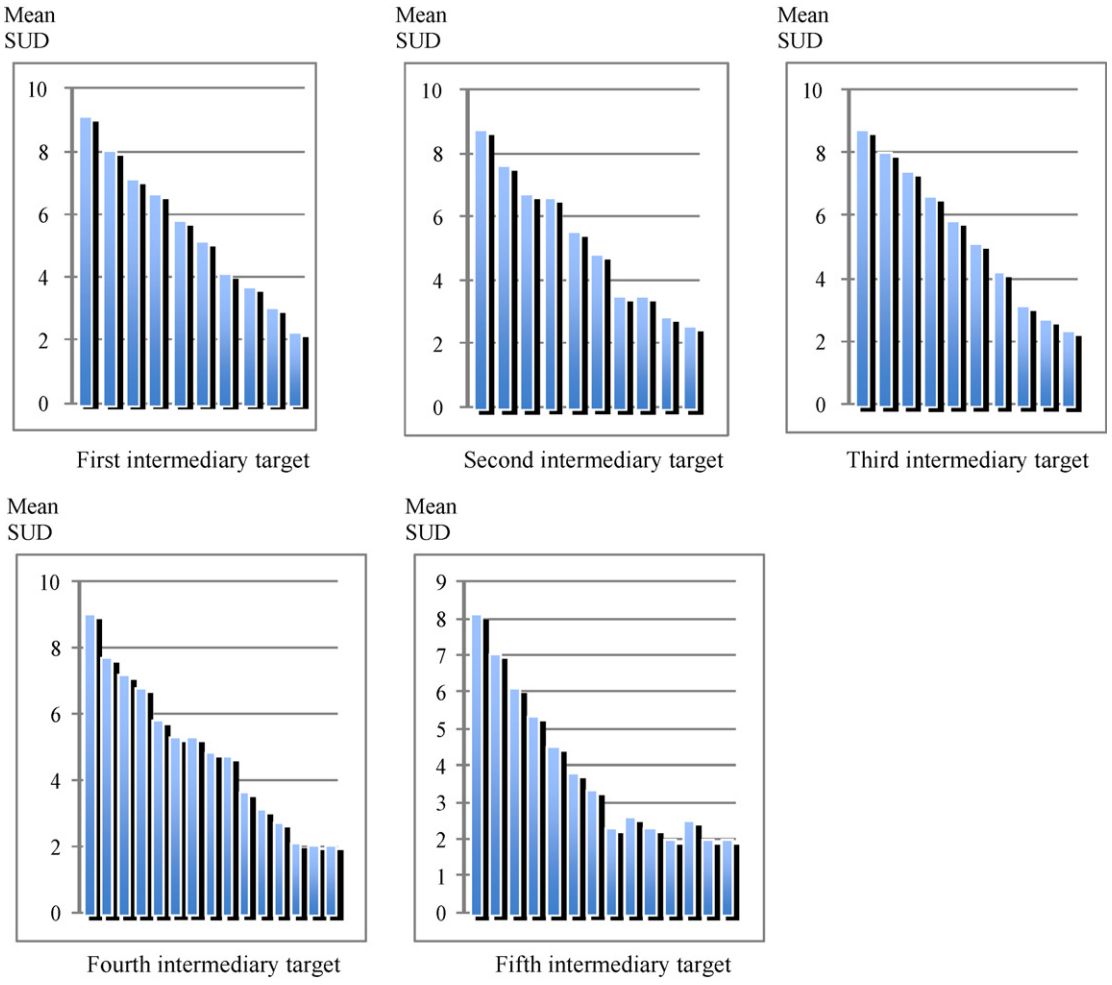

Figure 1 Evolution of the mean SUDs for the subjects ($n = 9$) who dealt with four to five critical points or intermediary targets.

Discussion

This study aimed to evaluate the effectiveness of an early treatment for rape victims on the reduction of the symptoms of a posttraumatic stress state and of the SUD which evaluates the level of psychological distress, and on a return or not to a normal sex life. The results tend to conform with our expectations. Effectively, it was observed that after a single session, the URG-EMDR protocol led to a decrease in the scores related to a posttraumatic stress state evaluated with the IES. This reduction concerns the total IES score as well as the scores for intrusion and avoidance. Moreover, this reduction of the symptoms proves to be stable over time because the effects for all of the measures of the IES are maintained after 4 weeks and then after 6 months. Nothing can be said about what happens after 6 months, but it is undoubtedly satisfying to observe a stability of the effects which appear to be deeply rooted in all of the subjects. Concerning the different SUD measures, a significant decrease in the patients' distress can be seen between the pretest and the posttest phases. Obviously, we are far from reaching the SUD threshold of 0 as is done with a standard protocol. Nevertheless, the gain is consequential because it was possible to lose five to six SUD points in one session, which, according to us, is remarkable in the framework of an early treatment. And this result is maintained after 4 weeks and then after 6 months. Finally, in our opinion, the return to a normal sex life (perceived as such) requires time and on no account can its treatment be reduced to a single session in the framework of an emergency protocol. Admittedly, the results improve after 4 weeks and 6 months, but the patients' evaluation of their sexuality is somewhat far from what it would seem to have been before the rape. Such a result shows that this type of treatment leaves something of the trauma unresolved. This something is far from being only limited to PTSD, which, in light of our results, leads the subjects to scores which could appear to be sufficient. The experience of sexual violence and its consequences have a profound effect on the subjects which goes beyond the simple symptomatic manifestations to which the subjects are too easily reduced. Something has to be rebuilt and re-elaborated, which will undoubtedly require time and psychotherapeutic work that is even more extensive and more ambitious than applying an emergency protocol in one session.

Concerning the correlations observed at 4 weeks and at 6 months between the indicators of sexual desire and the level of excitation and certain variables measured during the same periods, it appears that the final SUDs are indicators strongly linked to the evolution of sexual health. The

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SUD is an indicator of emotional distress. Therefore, the emotion or perceived stress when faced with a traumatic situation necessarily affects the victims' return to a normal sex life. Undoubtedly, reducing the SUD to 0 (which would indicate a total reduction of the PTSD symptoms) would be the condition sine qua non for implementing or at least beginning a work of psychocorporal reconstruction and a narcissistic recovery. It is well known that psychotherapy, in addition to reducing the symptoms, contributes to the work of psychological reconstruction which is not the aim and the function of an approach such as the URG-EMDR. The return to a normal sex life could only be obtained at this cost, which inevitably would require a more complex work of psychotherapy.

A sexological treatment, which would include the partner if need be, can be envisaged. Effectively, in addition to the SUD evaluation 6 to 12 months after the early treatment with the URG-EMDR protocol, a sexological evaluation of the impact of the event on the sexuality seems to be indicated in order to show possible troubles: decrease in desire, vaginismus, etc.

A sexual-therapeutic treatment including attentive listening, sex education and treatment (relaxation therapy, EMDR, psychotherapy) is then indicated.

Conclusion

However, it must be underlined that such an early treatment approach does not have an absolute therapeutic ambition, but rather aims to reduce the traumatic impact and thereby mobilize the victims' capacity to adapt, and to avoid the onset of chronic troubles. In this perspective, the results obtained regarding the amount of time (Table 5) devoted to the treatment (in other words, beginning with phase 3 of the protocol presented here) are satisfactory. All of the subjects responded positively to the protocol, even if the duration of the treatment proved to be long for some of them. It can then be considered that the approach is psychologically economic. This idea, often criticized by the adherents of a traditional psychology, consists of accepting that, in an emergency situation, the relation between cost and benefit must also be taken into account in order to evaluate the pertinence of the treatment. Not only was a significant decrease in the different psychotraumatic indicators and in distress observed with this approach, but this was done on average in 1 h 53 minutes. As experienced psychologists, specialized in emergency psychological intervention, we look forward to the possibilities that the EMDR has to offer as more than a simple vent for emotions.

The URG-EMDR protocol integrates several approaches already tested in this domain. Sometimes streamlined, often too complicated in their approaches according to us, such an approach is an interesting response to early individual treatment, whether it be urgent (several hours after the events) or not (several days).

While the results are interesting, this study has several limitations which somewhat reduce the significance of the results obtained. First, it was not possible to randomize the subjects and to compare groups of victims based on distinct treatments (URG EMDR vs. debriefing for example). Undoubtedly, future research in this area will make such types of comparisons in order to verify the value of one or another of the approaches.

Such an approach cannot concern groups of victims, which constitutes an important operational limit particularly in case of a catastrophe involving a large number of victims. A work of reflection should be carried out in the future on this point, integrating debriefing for more vulnerable targeted victims, or reflecting upon how the dimension of the group could be integrated. The existing group EMDR protocols were elaborated by clinicians intervening in natural or human catastrophes, and even in situations of armed conflict (Jarero et al., 2006; Jarero and Artigas, 2010). It is interesting to note that these interventions seem to be accompanied by a decrease in the symptoms of posttraumatic stress as well as an increase in resilience in case of retraumatization. In addition, the protocol for groups includes the identification of persons who will require supplementary individual treatment when the level of distress is not sufficiently reduced during the group intervention.

Finally, it seems possible to improve the pertinence of the intervention by adding a complementary secondary desensitization phase after phase 6. All the critical points would be treated once at this stage, and during this phase, they would be treated again one by one, allowing the patient to go over all of the critical points, and even to envisage new elements which were not present the first time. Effectively, the aim of primary desensitization is to offer a new view of the traumatic episode and all of the critical points. Therefore, it is possible that some critical points or intermediary targets will be treated again with a SUD which is more extensive than the one used during the primary desensitization.

Research on debriefing was undertaken in the 1990s. Often adulated, sometimes criticized, this approach at least has the merit of existing and offering comfort to victims. The aim of our approach is not to put into question the concept of early intervention, but to contribute to its evolution and its development by increasing its effective potential.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

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