Chapter 5: Method and Procedure

The present control-trial investigation is an attempt to study the effectiveness of cognitive behavioral therapy (CBT) and eye movement desensitization and reprocessing (EMDR) in the treatment of child victims of domestic violence in Iran.

Sample

A recruitment letter signed by the investigator and the school principal was sent to the parents of 422, third to fifth grade girls and boys (ages 8–12 years) in four primary urban schools in a low middle income area of Kermanshah city, Iran. Volunteers were asked, with their parents’ consent, to complete Lifetime Incidence of Traumatic Events (LITE; Greenwald, Rubin, Russell and O'Connor, 2002; Cohen, Deblinger, Mannarino and Steer, 2004), a checklist allowing the respondent to endorse exposure to a variety of adverse events. Of these, 165 endorsed having been victims of domestic violence. These students and their parents, then participated in a semi-structured interview in respective schools, conducted by the researcher, to determine the quantity and severity of the domestic violence (either physical abuse or/and parents or family members conflicts, also they had been asked about parents’s divorce, addiction and death). Out of 422, 165 children of this community were recognized as victims of domestic violence. Out of 165, eight parents never attended for more assessment (despite of 3 times invitation), five of them refused the treatment, nine reported no problem situation about their children behavior, one of the children had also been sexually abused, one was under another psychological intervention and one was with low IQ status, so 26 did not fulfill the inclusion criteria. Hence, out of these 165, one hundred thirty nine subjects
who fulfilled inclusion criteria were taken. Out of those, 40 subjects were assigned to CBT, 40 to EMDR and 59 to control group. In CBT group out of 40, eleven subjects had less than 5 treatment sessions (five because of ongoing violence and six due to their parents’ neglect of attendance in the treatment sessions) and four did not come back for post measurement, so fifteen subjects (9 boy and 6 girls) discontinued and 25 continued more than 6 CBT treatment sessions. In EMDR group, out of 40, four left the treatment after one session and seven dropped out due to ongoing violence and five did not come back for post measurement. Hence, 24 children remained in the EMDR treatment sessions and 16 (9 boy and 7 girl) were excluded. Also, in control group out of 59, five participants never returned for post-assessment and dropped out. Ultimately out of 139, one hundred two subjects remained in the study and fulfilled the inclusion criteria. So the ultimate sample consisted of equal numbers of boys (51) and girls (51) aged 8-12 years old, out of whom 49 fulfilled the termination criteria of treatments, either EMDR (24) or CBT(25) and 53 were assigned to the control group. Consent procedures were repeated for those eligible for participation in the treatment study, and all consented. All participants were in the same socio-economic status, a de facto condition of attendance at the school where the study took place. In all groups (CBT, EMDR and control), participants were matched regarding age and gender. The randomization procedure for each subgroup of participants concluded picking their names out of the hat while alternating group assignments.

Inclusion criteria. Inclusion criteria include following:

- Living in family violence condition, including physical abuse or/and witness of family or/and parents conflicts.
• Being a primary urban school student.
• Being in age of 8-12 years old.

Exclusion criteria. Exclusion criteria include followings:
• Children who reported violence within family but had no posttraumatic symptoms.
• Children who reported violence within family but their parents or responsible grownups were not present in the treatment sessions.
• Children who did not complete at least fifty percent of therapy sessions.
• Children from the families where the domestic abuse was continuing during treatment phases.
• Children who reported sexual abuse.
• Children who were under another psychological treatment program.

Ethical Consideration
The ethical standards of research were maintained. The participants were made aware of the purpose of the study. They were assured that the data collected from them will be used purely for research purposes and complete confidentiality will be maintained. Thereafter, written consent of all the parents and subjects was taken.

Scales
• Farsi version of the Rutter Teacher Scale was developed to assess whether a child had a potential mental disturbance (Rutter, 1967). It contains 26 statements in which teachers rate the extent of problematic behavior exhibited by the
child in school, such as hyperkinetic behaviors, antisocial externalizing behaviors, internalizing difficulties, relationship problems, and dysfunctional habits. Scores can range from 0 to 52, with 9 and above considered the clinical range. This Persian language version omits two of the original items and includes six additional items, has good psychometric properties, and has a clinical range of 13 and above (Yousefi, 1998).

- **Subjective Units of Distress Scale (SUDS)** (adapted from Wolpe as described in Shapiro, 1995), measures intensity of subjective distress in response to a particular stimulus, such as a traumatic memory. It is a widely used measure which has been shown to correlate with several physiological measures of stress. Non-reactivity to a traumatic memory is considered a primary indicator of recovery. This 11-point scale uses 10 as the highest level of distress and 0 as the lowest level, or absence of distress. In this study, the SUDS was used as one of the termination criteria for EMDR sessions, but not as an outcome measure.

- **Farsi version of Child Report of Post Traumatic Symptoms (CROPS; Greenwald, 1997).** The questionnaire has 26 items containing child’s report of the extent and intensity of traumatic symptoms after experiencing a traumatic incident. It’s reliability is 80% and cut off point is 19. It is consisted of 3 factors: factor one is depression and guilty feeling, factor two is psychosomatic symptoms and factor three is avoidance thoughts and behaviors (Greenwald, 1997, Greenwald and Rubin, 1999).

- **Farsi version of Parents Report of Post Traumatic Symptoms (PROPS; Greenwald, 1997).** This is an equivalent form to CROPS that has 33 items, and contains parents, report of the extent and intensity of post traumatic symptoms. The reliability is reported to 79%. It’s cut off point is 16. It is consisted of 3 factors: factor one is intrinsic
symptoms, factor two is extrinsic symptoms and factor three is psychosomatic symptoms (Greenwald, 1997; Greenwald and Rubin, 1999). The Farsi translation of the above instruments were carried out. The reliability of Farsi version was measured by Cronbach \( \alpha \) test in 31 person so the result in PROPS obtained 83% and in GROPS 84% (Vinayak, Jaberghaderi, Rezaee and Shakeri, 2010).

- Farsi version of Life Incidence of Traumatic Events scale (LITEs; Greenwald, Rubin, Russell, and O’Connor, 2002; Cohen, Deblinger, Mannarino and Steer, 2004) containing two forms equivalent to child and parents report. It has 16 items about life incidence of traumatic events that was used here as the primary screening tool to recognize children who were victims of domestic violence.

**Procedure**

Following recognition of victims of the domestic violence, their parents participated in a meeting in each school which consisted of parents commitment to stop physically abusing the subjects or/and their conflicts during the treatment period. They also had been requested to actively participate in the treatment sessions. The pre-treatment assessment was conducted with the help of two trained psychologists who did not know the children and blinded to the assignment. For each participant, parents completed the PROPS, the child completed the CROPS, and the participant’s teacher completed the Rutter. The measures were all paper-and-pencil, and respondents (children and parents) generally completed the forms with the help of a psychologist assistant. (because most of parents were illiterate or semi literate and also those subjects who were under 10 years old, completed the forms through an interview before and after treatments). Treatments were conducted during school hours and also
summer holidays, at the psychological counseling room of each school (schools were open during holidays because of some leisure activities and also it was convenient for parents and children to attend the sessions in their school counseling room than the other clinical setting). Two weeks after each participant’s final session, the post treatment assessment was conducted in the same manner as described above, with the same respondents for a given participant with the help of another two trained psychologists who did not know the children and blinded to the assignment (summary of research process is described in Figure 1). Participants who required further treatment (those who failed to meet termination criteria and had given up their treatment and also some of control group had been sending for referral following the post treatment assessment.). CBT as well as EMDR modules which were cross culturally valid had been used. These were the standard forms for treatment intervention and had been successfully used for Iranian population. Baseline scores of boys and girls were taken separately before starting the treatment.

Treatment Conditions

Each treatment was manualized, with reference to published texts for more detail. In this study, the CBT procedure was based on Kolko and Swenson (2002). Although the activities were standardized, they were tailored to the needs of individual participants. The EMDR procedure was based on Shapiro (2001), with age-appropriate modifications suggested by Greenwald (2007). To make the treatment conditions as equivalent as possible, while also allowing each of the treatments to be conducted (within limits) according to its own standards. Implementing a treatment approach on its own terms (the way a practicing clinician would do it) supports ecological validity. The
Figure 1
Flow chart of the research process

Intake Session

Baseline Assessment
LITES to recognize DV Victims

Exclusion

Inclusion

Randomization

CBT  EMDR  Control

Pre-treatment assessing of subjects and their parents (CROPS, PROPS, Rutter and SUDs)

Delivering the treatments

Post -treatment assessing of subjects and their parents (CROPS, PROPS, Rutter and SUDs), two weeks after last session of treatment

trade-off is that the conditions were not exactly equivalent across treatments.

The design reflected an attempt to balance the interest in both internal and external validity. In the CBT condition, the focus was on skill development (e.g., symptom management) and cognitive, behavioral, social and affect-focused intervention for both children and parents which were mostly abuse-focused. With respect to child and parent's problems, CBT sessions were varied. For example, anger management was implemented for those children who showed their anger by smacking other kids or depression intervention was done only for depressive parents. In the EMDR condition, the skill development focus was much more limited, and the focus on the identified trauma memory was as strict. For example, a minor and major upsetting memories were totally related to domestic violence targeted. The EMDR therapist was not allowed to systematically work through all trauma memories (as would normally be done in clinical practice). In CBT sessions, children and parents were actively involved in the varied activities like drawing, role play, check lists and so on. However, in EMDR, only children were actively attended and parents were not involved in the treatments sessions. Eight phase protocol along with drawing and using of tapping and/or eye movements were implemented.

Duration of sessions was limited to 45-60 minutes. In the CBT condition, all sessions took 60 minutes. In the EMDR condition, most sessions were closer to 45 min with some taking the full 60 minutes. Differences in number of minutes per session were not systematically tracked.

In the CBT condition, there was homework for every session (for both parent and children), such as checklists, drawings, activities and listening to tapes of the exposure
narrative. It is estimated that participants in the CBT group completed about 10–15 hours of homework in total, but homework time was not systematically tracked. Homework in the EMDR condition was minimal, limited to drawing a ‘safe place’ on one occasion between sessions early in the treatment.

Termination criteria was treatment specific, but with a maximum of 12 sessions. CBT treatment also had a minimum of 6-session in order to complete certain activities. EMDR had not designated minimum number of treatment sessions. CBT treatment terminated prior to 12 sessions if the primary abuse-related anxiety symptoms would be at a severity rating of 25 percent or lower. EMDR treatment terminated prior to 12 sessions if the SUDS were 0–2 and positive self-statements related to the abuse were made whole-heartedly, as indicated by a 6 or 7 rating on a 7-point scale. Parents also attended a single psycho-educational session, the same for all three groups, provided by the child’s therapist, within the first 2 weeks of treatment.

**CBT sessions content.** included following:

1. Initial treatment consideration: preparation and prerequisites, overview of treatment and setting goals (parents and child session).

2. Understanding the child’s experience and behavior: perspectives on child’s experiences with family hostility and violence, contributors to coercive and stressful interactions and how to respond to different problems situations (child session).

3. Cognitive interventions: clarifying and changing the child’s view of violence, normalization of the child’s abuse-related feeling and reactions, psycho-education about physical abuse (child session).

5. Promoting children’s effective coping and social competence and getting social support, developing relationships and getting along with friends and family (child session).

6. Cognitive intervention: parental perspectives on violence, expectations and distortions, stress management and family characteristics, views on hostility and violence, expectation of our children and thinking in negative or distorted ways (parent session).

7. Affect-focused interventions: self management and affect regulation of abuse-specific triggers, self management and regulation of anger, self management and regulation of anxiety and posttraumatic disorder and self management and regulation of depression (maltreating parent/s or/ and adult session).

8. Behavioral management techniques: parenting and behavioral management, specific techniques and guidelines for rewarding behavior, and specific techniques and guidelines for punishing behavior (maltreating parent/s or/ and adult session).

9. Family treatment: initial goals, family skills training and application (family session)

**EMDR sessions content.** EMDR is a treatment for traumatic memories and their sequelae requiring the client to attend a distracting (or “dual attention”) stimulus (typically the therapist’s fingers moving back and forth in front of client’s face and sometimes audio tones or hand taps are used) while concentrating on the trauma memory.
Briefly, EMDR treatment consists of (1) Taking history and planning treatment. (2) Explanation of and preparation for EMDR. (3) Preparation of the target memory. The client is asked to focus on the worst moment of the memory in a multi-modal manner including image, thought, emotion, and physical sensation or subjects have been requested to draw the traumatic memory and focus on the worst part of their drawings. (4) Desensitization of the memory. The therapist asks the patient to hold the target image in mind while concentrating on the stimulus for about 30 seconds or subjects have been requested to keep in mind the worse part of drawing during the bilateral stimulation. The client reports briefly what comes up and is guided by the clinician to refocus on that during further exposure to the distracting stimulus. This continues until the client reports no remaining distress related to the memory and SUDs scale decreased to 0-2. (5) Guiding the client to embrace a relevant positive belief regarding the event. (6) Identification and processing of any residual disturbing body sensations. (7) Closure of the session. (8) Re-evaluation, in which the patient comments on previously processed targets as a basis for guiding further intervention. The EMDR procedure in the present study was based on Shapiro's (2001) protocol, with age-appropriate modifications suggested by Greenwald (2007). In this study, mainly the therapist's moving hand was used as the distracting stimulus.

Scoring and Statistical Analysis

Scoring for all the given tests was done as per the instructions provided in the scoring manuals of the tests. Keeping in mind the objectives of the proposed study, the scores were subjected to various statistical treatments and analysis i.e. frequency,
means, standard deviations, independent and pair t- ratio, analysis of variance (ANOVA), Pearson chi-square, Cohens’ d, Reliable Change Index (RCI).