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Trauma-focused cognitive behavioral therapy a clinical trial to increase self-efficacy in abused the primary school children

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Abstract:

BACKGROUND: Child abuse and violence toward children has become a complex phenomenon in nowadays societies leaving hurt children with numerous complications such as lowered self-efficacy. Hence, this study was conducted to assess the effect of trauma-focused cognitive behavioral therapy (TF-CBT) in physically abused children self-efficacy.

MATERIALS AND METHODS: This study was a randomized clinical trial. From this statistical population of all abused children aged 9–12 in Kermanshah in 2016–2017, 40 were divided into intervention and control groups randomly. Tools used in this study were Maurice self-efficacy questionnaire and child abuse questionnaire. Data analysis was done using Chi-square test, paired *t*-test, and independent *t*-test.

RESULTS: It was revealed that the mean difference between two groups was not meaningful before intervention. After TF-CBT in intervention group, self-efficacy mean scores of social (17.95 vs. 24.20) and emotional (15.05 vs. 19.05) domains showed meaningful differences, whereas academic self-efficacy mean score did not change significantly (14.10 vs. 14.65) ($P < 0.086$). In control group, social (16.20 vs. 15.55), emotional (13.90 vs. 14.35), and academic (13.40 vs. 13.90) mean self-efficacy scores were not of significant difference ($P > 0.001$).

CONCLUSIONS: TF-CBT can be used as an appropriate therapy intervention to improve social and emotional self-efficacy in abused children.

Keywords:

Child abuse, self-efficacy, trauma-focused cognitive behavioral therapy

Introduction

Child abuse and violence toward children has become a complex phenomenon in human societies at the present time as well as a subject of studies in various cultures and social backgrounds.[1] The malicious effect of child abuse on developmental, cognitive, emotional and behavioral eras do not remain limited to childhood but the adversities prevail to upcoming years of adulthood.[2]

Although interactions with others, especially family members, children gain the skills of communication as well as interpreting others behaviors and experiencing their own emotions.[3] Loss of parental flectional support experience among abused children would make them vulnerable to a wide range series of problems, namely, low self-esteem and increased risk of physical and mental complications.[4]

Sense of self-efficacy defined as the personal perception of ones abilities to change behavior, level of motivation, and through

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patterns and emotional reactions[5] is one of the psychological aspects of mental health mostly gained through familial support which can play a prominent role in personal social and affective health.[6] As Bandora believed, self-efficacy is among the factors of highest importance related to social, communicational wellness which results in one's contentment of life.[7] The main source of self-efficacy formation is assumed to be social and familial support. For lack of educational, psychological, and supportive attendance of parents in abused children, the level of sense of self-efficacy is lower in them compared to other children.[8-12] The importance of positive parental behavior in self-efficacy formation, also the prominent role of secure relationship with parents in preventing childhood mental problems as well as better educational functionality and higher sense of self-efficacy has been revealed in numerous studies.[13-17]

Regarding the at-risk population, the prevalence of child abuse was 0.60 among girls and 0.53 in boys (for most of the cases abusive encounters possibly began from early years of primary school) reported through a meta-analysis of 38 studies in 21 countries worldwide;[18] so, dealing with effective therapy modalities to diminish abused children's suffering is noteworthy. A wide variety of therapeutic approaches to alleviate affective and behavioral problems of child-adolescent abuse cases have been recently introduced by researchers among them and as a new option is trauma-focused cognitive behavioral therapy (TF-CBT) in abused children. TF-CBT was first introduced by Deblinger *et al.* and was basically designed to lessen the sexually abused children problems. The method was then utilized for other hurtful experiences such as physical and mental abuse.[19]

Many studies have made comparisons between TF-CBT and other therapy methods such as supportive therapy, child-centered play therapy, and community-based therapy which reported remarkable recoveries for abused children after TF-CBT.[20,21] In this modality, the child is managed in a controlled environment to re-expose to signs which recall him/her the unpleasant experiences. The goal of such a remaking is to help the child to internalize his/her thoughts and emotions and get verbally or nonverbally emotionally relieved.[22]

Regarding the two facts that child abuse has been of high prevalence in Iran in recent years,[23,24] and TF-CBT is a new and rarely utilized therapy option for treatment of abused children, especially to improve the sense of self-efficacy in them, we designed to assess the effect of TF-CBT on increasing social sense of self-efficacy in physically and abused boys in this study.

Materials and Methods

This study with the code IR2016011923705N3 registered at Iranian clinical trial registration center is a quasi-experimental (preintervention, postintervention with the control group) research the statistical population of this research consisted of all abused boy primary schoolers studying in primary schools of Kermanshah in 2016–2017.

Identification stage: In this, stage 263 students were selected through multistage cluster sampling. for this, among 3 education district 2 and from 10 boy primary schools of this district 1 school were selected randomly who's all the students were assessed and 40 physically abused children were identified through child abuse questionnaire and separate interviews with parents and children themselves.

The questionnaires were first completed by children and after that interviews were held with parents whose children had highest scores. Finally, children with highest scores regarding the questionnaire completion results with a history of abuse confirmed by parents were enrolled in a study as samples.

Random selection (distribution) stage: In this stage identify children were divided randomly into intervention and control groups (20 for each group).

Inclusion criteria for this study where physical child abuse 9–12 years of age no concurrent other psychological treatments during a study and exclusion criteria for prominence psychotic symptoms in child and chronic diseases.

In the pretest stage, after identification of abuse children the first objective of a study was explained to them and after receiving questionnaires as they were asked to read the questions with precision and choose answers regarding their own specific is with no answers left blank.

In the intervention stage, TF-CBT based on Cohen's[25] protocol was performed in 10 therapy sessions twice weekly as explained separately hourly afterward. Intervention therapy was held by a child psychologist of doctorate degree.

During the first session noted as therapy goals and expectations determination, primary questionnaires was achieved and TF-CBT, as well as therapy group rules, were briefly identified explained.

In 2nd, 3rd, and 4th sessions concentrating on positive self-aspect, awareness toward trauma and reactions to trauma, management of affective responses to trauma,

and recognition of various facial emotion expressions were the topics dealt with. In the 7th and 8th sessions the emphasis was on topics of cognitive confrontation, cognitive distortions, and detection of negative thoughts and the ways of challenging such thoughts. Narrating the trauma thought story telling was also dealt with. In the 9th and 10th sessions, coping with trauma-induced fears, trauma recall, and increasing environmental supports were the discussed items. It is notable that it was after coordination with school principal and teachers which therapy sessions were held for the children as explained above.

In posttest stage, after the end of intervention the self-efficacy questionnaire was performed and the scores for each participant by a 2-week interval.

Children's and adolescents self-efficacy questionnaires

This questionnaire which is a derivation of Bandura *et al*. self-efficacy questionnaires is made by Maurice. Children and adolescents self-efficacy questionnaires have 23 items with three subscales of social, educational, and emotional self-efficacy. Maurice notified the three characteristics construction of the scale in social, academic, and emotional fields. The reliability of the scale was reported to be good, and the internal consistency calculation result in 0.8. In Muris research, in addition to the assessment of convergent and divergent reliability of scale, total reliability of scale was reported as 0.70, and reliabilities of social, emotional, and academic self-efficacy subscales were 0.87, 0.80, and 0.87 respectively.[26,27]

In Iran, Thmasebian[28] reported the total internal consistency equal to 0.73, and for social, emotional, and academic self-efficacy, 0.66, 0.84, and 0.74 respectively.

Child abuse questionnaire

To questionnaires child abuse, Iranian child abuse questionnaires were utilized. Khanizadeh *et al*. made the questionnaires for and specified to Iranian society. This questionnaire has three subscales of emotional abuse, physical abuse, and total score named total misbehavior. The designers of questionnaire have reported the reliability of subscales through two methods of retesting and Cronbach alpha as 0.92 and 0.95 respectively.[29]

This research has the ethics code 1395.250 from Kermanshah University of medical sciences. To comply with ethical considerations the process of research started after children's and parents' consent and participants were said they are allowed to leave the study whenever they wish. The control group also received therapy intervention after the end of the process of research for ethical considerations.

Data were analyzed using SPSS statistical software version 17.0 (IBM Corp.: Armonk, NY). For descriptive data analysis Chi-square test, to inferential data analysis and to comparison of intra-group and inter-group means independent and paired *t*-test were used. $P < 0.05$ was considered statistically significant.

Results

In the present study, 40 physical abused with the age range of 9–12 years were selected by cluster sampling from elementary schools of Kermanshah, Iran, and were randomly assigned to intervention and control groups. Demographic characteristics and descriptive findings are shown in Table 1. The results showed that the baseline was not different between two groups.

As it is shown in Table 2, the difference between groups for social ($P > 0.12$), emotional ($P > 0.33$), and academic ($P > 0.32$) self-efficacy means have not been significant before the intervention. Furthermore, the mean of social self-efficacy for the intervention group is of meaningful difference compared to control group ($P < 0.001$). For emotional self-efficacy, the difference between groups was also of significant ($P < 0.002$). On the other hand, the mean of academic self-efficacy in the intervention group did not significantly differ compared to control group ($P > 0.487$).

Table 3 shows that in the intervention group, there was a meaningful difference between the mean of preintervention and postintervention scores for the social and emotional self-efficacy ($P < 0.001$), whereas for academic self-efficacy, preintervention and postintervention mean scores were not meaningful different ($P > 0.086$). In control group, the difference between preintervention and postintervention mean of

Table 1: Demographic characteristics in two groups

Variables	Group number (%)		χ^2	*P*
	Intervention group	Control group		
Age (year)				
9	5 (25.0)	6 (30.0)	1.08	0.78
10	6 (30.0)	5 (25.0)		
11	4 (20.0)	6 (25.0)		
12	5 (25.0)	3 (15.0)		
Father's educational level				
Diploma and high school	14 (70.0)	16 (80.0)	0.71	0.35
Over diploma	6 (30.0)	4 (20.0)		
Father's job				
Employee	5 (25.0)	3 (15.0)	0.625	0.34
Self-employed and unemployed	15 (75.0)	17 (85.0)		
History of addiction in family				
Yes	6 (30.0)	8 (40.0)	0.44	0.37
No	14 (70.0)	12 (60.0)		

Table 2: Independent *t*-test results to compare mean of scores between groups before and after intervention

Variables	Mean±SD	
	Before intervention	After intervention
Social self-efficacy		
Intervention	17.95±3.88	24.20±4.08
Control	16.20±3.20	15.55±3.26
Significance level of *t*-test	0.12	0.001
Emotional self-efficacy		
Intervention	15.05±4.26	19.05±4.69
Control	13.90±3.12	14.35±4.02
Significance level of *t*-test	0.33	0.002
Academic self-efficacy		
Intervention	14.10±3.46	14.65±3.48
Control	13.10±2.86	13.90±3.27
Significance level of *t*-test	0.32	0.487

SD=Standard deviation

Table 3: Results of dependent *t*-test for in-group compression of pretest and posttest mean scores of experiment group

Groups	Variable	Mean±SD	Statistical results	
			Paired *t*-test	*P*
Intervention	Social self-efficacy	6.25±4.08	6.83	0.001
	Emotional self-efficacy	4.0±2.10	8.50	0.001
	Academic self-efficacy	0.55±1.35	1.81	0.086
Control	Social self-efficacy	0.65±2.05	1.41	0.174
	Emotional self-efficacy	0.45±2.69	0.67	0.505
	Academic self-efficacy	0.80±3.96	0.96	0.345

SD=Standard deviation

scores for social ($P > 0.174$), emotional ($P > 0.505$), and academic ($P > 0.345$) self-efficacy were not significant.

Discussion

Data analysis revealed that TF-CBT meaningfully increased social self-efficacy in the intervention group compared to control group. Since we could not track research reporting the use of TF-CBT to enhance social self-efficacy in our literature review, similar studies are noted here.[30-32] Khaneh Ke and Ajappa reported an increase in high school student's self-efficacy after cognitive behavioral therapy.[33] Latifi showed the effects of CBT on improving social and interposed relations as well as self-efficacy among students[34] in Kumar and Sebastian study, academic achievement and self-efficacy were reported to increase after CBT in adolescent students.[35]

As an explanation for the finding, it could be noted that during TF-CBT sessions emphasis is on issues such as participating in social activity, building interpersonal relationships, and clear and transparent expressing of thoughts which can lead to improved physically abused children's social self-efficacy.[36] In addition, in TF-CBT there are techniques which affect on emotions and behaviors of children including though and emotion detection, thought stopping and security feeling enhancement which can bring about an increase in social self-efficacy. Another hand, group session provided the abused children for better interactions toward each other building a background for achieving trustful relationships. This trust and the confidence to express abilities of social communication may lead to improved sense of self-efficacy in physical abused children which is also a result of sharing the common experience of failure and achievement among children.[37]

The other finding of this research was a meaningful increase of emotional self-efficacy in physically abused children after TF-CBT. Since we could not find studies assessing TF-CBT effects on social self-efficacy in our data search, similar studies are mentioned afterward. Jafari *et al*. performed CBT on substance dependents to improve their social and emotional self-efficacy, and they reported a significantly enhanced emotional self-efficacy after treatment.[38] The fact that TF-CBT is in part educating children to think logically about the events happening in their lives and encounter property with unfunctional feelings and thoughts to take new attitudes, this new opportunity to implement introduced new ways of feeling and thinking for them empowers the assumption, and also, the result of this study that after such a therapy their emotional self-efficacy increase. Furthermore, utilizing skills such as trauma narrating skill through literary writings, painting, and trauma analysis can help the child to cope with negative cognitions of the traumatic events which all can result in improvement of emotional self-efficacy.[39,40]

Another finding of this study was that the mean difference of academic self-efficacy variable between the intervention and control groups was not statically meaningful. This finding was incongruent with Nayebaghayee *et al*. which concluded that CBT could raise the academic self-efficacy in a group of high school students.[41]

The result is also not congruent with the Bardideh *et al*. study which reported enhanced self-efficacy in all three aspects after they assessed the effect of CBT on 9–11-year aged students in improving emotional, social, and academic self-efficacy.[42] To give a reason for why TF-CBT did not end in increased academic self-efficacy, it could be said that because TF-CBT protocol does not include a directed focus on academic promoting abilities which demands forming specific abilities around the educatory assignment fulfilling in specified subjects and the main focus of TF-CBT is on cognitive reconstruction, gradual relief of stress, role-playing, and emotional regulation related to the trauma so the obtained result is justifiable.

Although the study showed the effectiveness of TF-CBT in increasing social and emotional self-efficacy in physically abused children, repeating the study to determine the extent and the mechanism of this therapy method's effectiveness is obviously needed.

Conclusions

Regarding the conclusion that TF-CBT and facilitate and improve social and emotional self-efficiency in abused children it is adjustable regarding the conclusion that TF-CBT and facilitate and improved social and emotional self-efficacy in abused children it is adjustable to make school consultant and psychologist familiar with the whole package of TF-CBT process after coordination with Office of Education to use its guidelines for abused students.

Furthermore, it is usable two referral centers such as welfare centers in which abused children are held in general. It can be said that since in TF-CBT various techniques such as through stopping are included during which, for example, it is said that negative thoughts are like bad music that can be turned off and trainings are through playing painting and concrete educations they are suitable for abused as school children.

Low sample volume, quasi-experimental method of research, and inclusion of no other type of abuse but physical were among the limitations of our study. For the future, similar studies use of this therapeutic modality. On a bigger sample and for other types of abuse such as sexual abuse and neglect is recommendable.

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Conflicts of interest

There are no conflicts of interest.

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