

# Efficacy of Child-Parent Relationship Training (CPRT) on Reduction Separation Anxiety Symptoms in Children Aged 6-7 Years

Zohre Abbasi<sup>1</sup>, Sholeh Amiri<sup>2\*</sup>, Houshang Talebi<sup>3</sup>

Department of Psychology and Educational Sciences, University of Isfahan, Isfahan 81746-73441, Iran

**Abstract:** Background Separation Anxiety in children is a disorder with negative impacts on social harmony and relationships with peers. Without proper treatment, it may, over time, lead to other anxiety disorders or negative performances in various aspects in adulthood. It is associated with many problems and, therefore, the identification of effective treatment for this disorder, including Child –Parent Relationship Training (CPRT) to alleviate separation anxiety in children was the purpose of this research. Methods This was an experimental study with pre-test, post-test and follow-ups (2 and 3 months) along with a control group. Using multi-stage cluster sampling, 388 children was selected from pre-school and first grade levels in the city of Qom (Iran). After screening, 76 children showed symptoms of separation anxiety disorder; from them, 31 children were selected randomly and divided into experimental and control groups. The experimental group received CPRT, individually; while the control group received no intervention. "Child Symptom Inventory" was used to collect data in four stages: pre-test, post-test and two follow-ups (2 and 3 months). Analysis of variance with repeated measurements test applied to data. Results statistical tests showed significant difference between control and experimental groups. In addition, the results showed that the variables of time and interaction between treatment, gender and age were statistically significant ( $\alpha=0.05$ ). Also, the 2- and 3-months treatment period showed significant reduction in separation anxiety in children.

Conclusions In general, the results of the present study confirm the effectiveness of CPRT in reducing symptoms of separation anxiety in children of both sexes aged 6-7 years. With respect to the effectiveness of CPRT, the use of this protocol is recommended.

**Keywords:** separation anxiety, children, child-parent relationship training (CPRT).

## Introduction

"Anxiety disorders" have high prevalence rates of 5 to 17% of children and adolescents (Costello, Angold & March, 1995; Warner, Reigada, Fisher, Saborsky & Benkov, 2009). Of these disorders, the prevalence of separation anxiety disorder has been reported in 4% of children - more in girls than boys (Costello, chlorine and Angold, 2001; Battaglia et al., 2015; Dehghani, Amiri, Molavi & Neshat-Doost, 2013). The incidence of this particular type of anxiety in infants is a natural response for survival and is also a part of the natural growth process which subsides gradually (Rapee, 1991; Gruner, Muris, Merckelbach, 1999; Costello, Iger and Angold&, 2005). The disorder occurs in preschoolers and in children who are entering school for the first time; and it is identified when a disproportionate excessive anxiety is appeared upon their separation from the source of attachment (APA<sup>1</sup>, 2000). Therefore, it is expected to distinguish this problem in several ways during the growth stage: the severity of fear, the persistence of fear and the degree to which fear interferes with the overall performance of the child.

Almost 70% of school children accept separation anxiety when separated from their parents; but 15% have persistent fears about their separation (Starr & Davila, 2012). Children may also become preoccupied with a fear that accidents will harm caregivers or themselves during the period of separation. They usually insist that caregivers stay with them, and may become angry or develop physical illnesses

<sup>1</sup>- American Psychiatric Association

due to separation (APA, 1994). Most of them refuse to go to school, summer camps and do activities with friends because they want to avoid separation (Jennifer, Kristen, Chantal, Katherina and Silvia, 2010). In addition to hindering academic activities, it leads to lower social compatibility, and poor relationships with peers (Boelena, Reijntjes & Carleton).

Relatively poor outcomes in the treatment of SAD introduced a new direction based on the attachment theory in the mother-child relationship (Rutter, 2010). With the formation of mother-child attachment relationships, the mother acts as a secure base and facilitator of the search; and emotionally refuels the child. Accordingly, the child looks for new challenging and unpredictable opportunities; and an "internal working model" develops in the child that affects all other relationships. Also, safe and healthy development of children is sensitive and responsive to one or more symbols of attachment, leading to emotional regulation (Maugham, Cicchetti, 2002), self-control and problem-solving skills (Brotherson, 2006). Lack of opportunity for the formation of attachment leads to two clinical patterns of attachment disorder (Rutter, 2010). In their study, Ainsworth (1989), Rogosch and Cicchetti (2004) showed that insecure attachment disorders are directly related to disorders such as anxiety and that they prepare the children to understand that the world is a dangerous place. Thus, a message is conveyed to the children that they are unable to face challenging situations (conflict) (Rappi, 1998 and Barber, 1996); so that they feel insecure and develop intensified anxiety (Barkley, 2002).

Many researchers have tried to provide appropriate solutions appropriate for the treatment of anxiety disorders caused by developmental problems in children (Anglo et al., 2013; Weiss et al., 2012; Kendall et al., 2008; Silvia, Meyer & Andrea, 2013). As far as the introduction and suggestion of treatment protocols for separation anxiety disorder in children is concerned, findings have shown that without proper treatment, this disorder may, over time, lead to other anxiety disorders and negative performance in various aspects during adulthood (Chorpita, 2007). Therefore, in order to have healthy adults and contribute to the prevention and treatment of separation anxiety disorder, this issue must be taken more seriously in childhood (Tabae Emami, Nouri, Malekpour and Abedi, 2011). In this regard, various treatment strategies such as individual therapy (Walsh, Barrett & DePaul, 2007), behavior therapy (Weisz & Chorpita, 2012), cognitive-behavioral therapy (Bodden et al., 2008), consultations with parents and families (Mousavi, Farzad and Navvabinejad, 2010), group therapy (Weisz & Chorpita, 2012), or a combination of these strategies (Silverman, Pina & Viswesvaran, 2009; Weisz et al., 2012) were used. But all these strategies were beneficial only in short-term clinical trials (Affrunti, Woodruff-Borden, 2015). As far as the prediction of separation anxiety in children cognitive variables is concerned, the study conducted by Ingram, Overbuy and Fortier (2001) showed that negative automatic thoughts and improper cares have a direct relationship with separation anxiety (Young, klosko, Weishaur, 2003; Harris, Curtin, 2002; Stallard, 2007). But Victor, Bernalt, Bernstein and Layne (2007) showed that although some children are treated with cognitive-behavioral therapy (CBT), some of them have a minimum response to medical treatment (James et al., 2013).

Today, those trying to understand the most important factors of growth and development of children insist on a child - parent relationship. They regard these interactions as the basis of the development of emotional, cognitive and social growth (Bowlby, 1969; Brotherson, 2006; Cassidy and Shaver, 2008). They believe that the development of different anxieties such as children's separation anxiety during their growth is subject to a kind of "object relations" and especially the mother - child relationship. This relationship is the first and one of the important relationships that human beings have benefited from (Waite, Creswell, 2015). Some preliminary data show that in cognitive-behavioral children therapy, educating parents to embrace their role in treatment programs has led to better results (rapee, 1991). Barkley (2002) believes that educating parents increases their understanding of the nature of the disorder and raise their confidence in the parenting role. Studies have demonstrated that, with this method, therapeutic effects last for 4 to 5 years after the training (Gael, Orsmond, Marsha, Jan, Greenberg & Frank, 2006). CPRT- mostly used for parents of children with emotional problems aged 2 to 10 years- helps children change their negative perceptions about parents and achieve self-esteem and confidence, which positively contributes to reduced anxiety (Lindo et al, 2012). Due to its unique characteristics among treatments, CPRT which is a method of teaching communication techniques to parents for how to behave with children at home- has attracted the attention of other researchers (Kazdin, Oliver, Wright Guerin & Coffman, 2009). Rean (2004) asserts that the relationship between mother and child, while playing with children, is effective in the development of children's social skills abilities and their beliefs to reduce separation anxiety. Accordingly, it seems that trainings to modify the parent-child relationship can be structured and specifically effective in reducing children's separation anxiety (Pedro-

Carrol & Reddy, 2005; Landreth, Bratton, Kellam & Blackard, 2006). Therefore, the aim of this study was to determine the effectiveness of Parent-Child Relationship Training (CPRT) to alleviate the symptoms of separation anxiety in children of both sexes aged 6 and 7 years. Thus, the fundamental issue of this research is whether CPRT improves or alleviates the symptoms of separation anxiety in children in the long term.

## Methods

### *Participants*

This study was experimental with pre-test, post-test and follow-ups (2 and 3 months) along with a control group. The statistical population consisted of 26740 students of both genders aged 6-7 years studying in pre-school and first-grade levels in the academic year of 2014-2015 in Qom (Iran).

After screening, 388 participants were selected in three stages using stratified cluster sampling method. Based on the screening for separation anxiety, 76 participants were diagnosed with separation anxiety symptoms and 31 of which were randomly assigned to experimental and control groups. Using a pre-test, it was assured that both control and experimental groups are on the same level. Then, the experimental group received CPRT treatment based on specified sessions; and the control group received no specific intervention. Inclusion criteria included having the symptoms of separation anxiety disorder and obtaining the highest score on the scale used, having 6 and 7 years of age, and willingness to participate in research by parents. Having any developmental disorder, the absence of more than 3 times in the experimental group, having illiterate, divorced or widowed mother were the criteria for exclusion from the study. In this study, it was attempted to consider the ethical aspects, in addition to technical aspects. Some of these considerations were as follows: Mothers participating in the project were authorized to cooperate. The consent of parents and the school teachers of the students (participants) were gained orally; and data related to the participants were preserved confidentially.

### *Measures*

To study the demographic factors, a researcher-made questionnaire (inventory) was used; and in order to measure separation anxiety, the Children's Separation Anxiety Symptom Inventory (CSI-4) and clinical interview were used. In the intervention stage, the program for "Improving parent-child relationship," developed by Landreth, Bratton, Kellam & Blackard (2006) was also used.

**-Demographic Factors Investigation Form:** this form is a researcher-made inventory to investigate demographic factors. It consists factors such as age, gender, grade and area.

**- Child Symptom Inventory (CSI-4):** is one the common screening tools for the most common psychiatric disorders in children. The initial version of the questionnaire called Sprafkin, Loney, Unita and Gadow (SLUG) checklist was developed by them in 1984 based on the 3<sup>rd</sup> edition of Diagnostic and Statistical Manual of Mental Disorders. CSI-3-R Version of this manual was later developed following the revision of the 3<sup>rd</sup> edition of Diagnostic and Statistical Manual of Mental Disorders in 1987. Then, CSI-4 was revised by Gadow and Sprafkin in 1994 with the publication of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders. Its last edition has two parents and teacher checklists. In the present study, parent checklist that contains 79 statements. This checklist includes a list of 21 symptoms of behavioral and emotional disorders. The validity of the measures of this questionnaire has been determined by the experts of the American Psychological Association (APA). Children Symptom Inventory (CSI) has been evaluated in several studies; and its reliability, validity, sensitivity and specificity have been calculated. In a study conducted by Graison and Carlson (1991) on CSI-3-R, the sensitivity was reported to be equal to 0.93. "Sensitivity" and "Specificity" of this inventory, with an Iranian sample, were determined using psychiatric diagnosis based on different cut scores; and the best score was determined for each disorder. The sensitivity of this test was obtained between 0.75-0.89; and its specificity was obtained between 0.91 and 0.97. The reliability of this questionnaire (inventory) was calculated to be equal to 0.91 using the split-half method for the checklist of teachers; and 0.85 for the checklist for parents. The validity of this questionnaire was equal to 0.748 using Cronbach's alpha (Mohammadesmaeil and Alipour, 2001). To check the validity of the content, CSI-4 inventory used in the research conducted by Mohammadesmaeil and Alipour was approved by 9 psychiatrists. This inventory is scored using "Screening cut-off score" and "Symptom severity score" methods. Symptom severity score method was used in this study; in a way that the options "never," "rarely," "sometimes" or "often" were scored 0,1,2,3 respectively. Children's Anxiety Symptoms Checklist is a part of the Child Symptom Inventory (CSI-4) which assesses the children's

separation anxiety symptoms and has 10 articles in the group I (D). In this inventory, the number of questions that measure separation anxiety is 88-89-90-91-92-93-94-95-96-97 which covers the group of separation anxiety disorder of the inventory. The Cronbach's alpha coefficient for the pre-test and post-test was equal to 0.895 and 0.884, respectively. These numbers are higher than 7.0 which is considered as a proof for the validity of the research.

- **Diagnostic interviews:** in order to determine the dominance of separation anxiety disorder over other anxiety disorders, complement the results of the Child Symptom Inventory, and diagnose differentially the generalized anxiety disorder, an interview by a child psychiatrist was conducted based on revised criteria of diagnostic-statistical manual of mental disorders.

- **Child-parent Relationship Training Program:** (CPRT) In the intervention stage, the "Improving parent-child relationship," training program developed by Landreth, Bratton, Kellam & Blackard (2006) was used. This program has been derived from Filial therapy, which focuses on the child-parent relationship.

**Research methodology**

In this study, sampling was carried out after coordination with the Ministry of Education. For the aim of screening for sampling, at first 2 districts were selected from 4 educational districts of the city of Qom; and then 4 schools were randomly selected based on random numbers table. Next, the sample of each school was selected from among pre-school and first-grade students, according to the population size and sample based on Cochran formula; and the students in each class were randomly selected. Through principal-teacher cooperation, after inviting mothers and filling out the CSI inventory by the mothers; and after getting the psychiatrist's views about the existence of the symptoms of separation anxiety disorder, and the dominance of this disorder over other anxiety disorders, those with this disorder were randomly assigned to two groups of experimental (n=15, 5 boys and 10 girls) and control (n= 16, 7 boys and 9 girls) - first we gave a code to each child and then based random number generator in Excel software we select cases for each group- after obtaining verbal consent from parents. The viewpoint of Child Psychiatrists based on the DSM-5 diagnostic criteria for the diagnosis of separation anxiety disorder included the following:

- Excessive and repeated stress and distress when separation from home or the loved ones to whom they have an attachment.
- Development of an extreme concern in the child over occurring an accident which separates him/her from those he/she loves.
- Refusal to go to school or elsewhere because of the fear of separation from beloved ones.
- Not going to the bed without the presence of his/her beloved ones at home or in nearby; or not sleeping away from them.
- Having repeated nightmares about separation from beloved ones
- Developing of physical discomfort or the pain when separating from beloved ones or hearing about separation from them (American Psychiatric Association, 2013). Thus, the treatment was carried out in a group, individually with mothers, in ten sessions (one session in each week) using CPRT method.

Table 1: General topics of treatment based on the Child-Parent Relationship Training (CPRT), from Landreth, Bratton, Kellam & Blackard (2006)

Sessions	Title of sessions	Training plan
Session 1	Reflective responding	1. Introduction of therapist and objectives of CPRT 2. Reflective responding 3. Practicing with role playing and work sheets 4. Providing home assignments 5. Summing up the session by the mother
Session 2	Effective time in the play	1. Reviewing the topics of the previous session and reviewing the home assignments 2. Reviewing the basic principles of play sessions at home 3. Showing and introducing a series of plays needed for the play sessions 4. Choosing a specific time and place for play sessions at home

		5. Role plays and providing the basic skills
<b>Session 3</b>	Do's and Don'ts in the play sessions	1- Friendly exchange of information and review of the home assignments 2. Instructions, Do's and Don'ts of play sessions 3- Practicing through role playing 4. Decision making and conclusion
<b>Session 4</b>	Delimitation principles	1- Reviewing the topics of the previous session and reviewing the home assignments 2-Expression of delimitation principles and its stages 3- Practicing through brainstorming, role-playing and worksheets 4- Decision making and conclusion
<b>Session 5</b>	Physical interaction with the child	1- Reviewing the topics of the previous session and reviewing the home assignments 2- Reviewing the skill of delimitation 3. Learning how to have physical and verbal interaction with children 4. Practicing through discussion 5. Decision making and conclusion
<b>Session 6</b>	The skill of offering a choice, training the responsibility and decision-making	1- Reviewing the topics of the previous session and reviewing the home assignments 2- The training on offering a choice 3. Expressing the common problems faced by parents in play sessions 4- Summing up and specifying the home assignments
<b>Session 7</b>	Training the responses that cause self-esteem in children	1-Paying attention to the problems associated with previous sessions and answering the possible questions about reflective listening 2-Setting the limits (delimitation) and provision of advanced choices 3-Training the responses that create self-esteem in children 4-Summing up the contents and providing the home assignments together with the worksheets
<b>Session 8</b>	Creating a skill to encourage rather than praising	1- Reviewing the topics of the previous session and answering the potential questions 2- Training and acquisition of skills to encourage rather than praising 3-Training in mastery of using encouragement rather than praising 4- Summing up and specification of home assignments together with worksheets
<b>Session 9</b>	Review of sessions	1 - Review of the discussions of previous sessions and review of home assignments 2 -Reporting the practices related to the encouraging responses at home 3 - Training the advanced delimitation and right of choice as a result of insubordination 4 - Generalization of delimitations to the out of play sessions 5 - Decision making
<b>Session 10</b>	Review of sessions	1- Introduction of the resources proposed for the parents 2- Training the skills to pay attention to the fact that good events occur gradually

3-Summing up and presentation of home assignments  
 4-Taking the test, ending the session and setting the time for Follow-up Test 1

During this period, participants in the control group received no intervention. However, all participants in the experimental and control groups were given a pre - test in the first session. At the last session, the questionnaire was filled out by the mothers of the two groups. Also, following the second and third months after the post-test session, while calling them and making the appointment for a face to face meeting, urging participants in the two groups were evaluated (follow-up test). After scoring the questionnaires based on the purpose of the study, statistical analysis was performed.

**Statistical Data analysis**

In this study, to compare research variables between control and experimental groups, the normal distribution of scores was evaluated using Kolmogorov-Smirnov test. Then, Multi-way analysis of variance followed by an internal factor (repeated measure) was used to compare control and experimental groups in line with evaluating the effectiveness of intervention in CPRT procedure.

After entering the data collected from questionnaires (inventories), the calculations were carried out and evaluated using SPSS version 22. In this study, the multi-way analysis of variance was used for repeated measurements. The four evaluated factors were as follows: experimental groups in the two levels of the group treated with CPRT and the control group, four times of measuring the separation anxiety (pretest, posttest, follow-ups 1 and 2), and the effect of gender and age (6 and 7 years old). The preconditions for using this method were 1) normal distribution for groups and 2) sphericity.

Kolmogorov-Smirnov and Shapiro-Wilk tests were used for normality; and Mauchly test was used to establish the condition of sphericity.

**Table 2:** Check the normality levels measured at different times

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
Pre-test	0/326	31	0/000	0/717	31	0/000
Post-test	0/183	31	0/051	0/923	31	0/068
Follow-up1	0/151	31	0/071	0/917	31	0/050
Follow-up2	0/133	31	0/175	0/942	31	0/092

In the study of measurement levels' normality at different times, and based on the Table 2, the results of Kolmogorov - Smirnov and Shapiro –Wilk tests showed that all groups participated – except for the data related to pre-test- have a normal distribution due to the significance level (p-value) of sig  $\geq 0.05$  and  $\alpha = 0.05$ .

**Table 3:** Mauchly's test of sphericity

Intra-group effect	Mauchly	Chi-square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Time	0.242	30.785	5	0.000	0.691	0.992	0.333

Mauchly sphericity test shows that the assumption of sphericity has been violated and it has not been established. (P-value=0/000)

**Results**

Descriptive Statistical analysis for demographic features of participant was describe in table 4 and 5 for experimental and control groups.

**Table 4:** Demographic details for experiment group

Intervention	Gender	Age	Sample	Time	Mean	Standard deviation
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CPRT 15 children	boy	6 years	ϒ	Pre-test	10/50	0.707
				Post-test	5.50	0.707
				Follow up 1	4.00	0.000
				Follow up 2	4.50	0.707
	boy	7 years	ϒ	Pre-test	13/00	3.606
				Post-test	5.67	2.517
				Follow up 1	5.67	2.517
				Follow up 2	7.00	2.000
	Girls	6 years	ϒ	Pre-test	11/00	2.582
				Post-test	7.43	3.155
				Follow up 1	5.86	2.478
				Follow up 2	6.57	2.370
Girls	7 years	ϒ	Pre-test	11/67	2.082	
			Post-test	8.00	4.000	
			Follow up 1	7.33	5.859	
			Follow up 2	6.33	4.933	

**Table 5:** Demographic details for control group

Intervention	Gender	Age	Sample	Time	Mean	Standard deviation
Control group 16 children	boy	6 years	ϒ	Pre-test	11/67	1.528
				Post-test	12.00	4.583
				Follow up 1	11.67	3.512
				Follow up 2	10.67	1.528
	boy	7 years	ε	Pre-test	6.5	5.260
				Post-test	8.00	2.449
				Follow up 1	7.5	2.887
				Follow up 2	4.00	3.367
	Girls	6 years	ο	Pre-test	9/00	3.808
				Post-test	10.80	3.633
				Follow up 1	11.00	2.646
				Follow up 2	10.40	1.140
Girls	7 years	ε	Pre-test	11/50	1.000	
			Post-test	11.50	1.915	
			Follow up 1	11.50	1.732	
			Follow up 2	9.00	4.243	

Due to the violation of the sphericity assumed, all calculations should be carried out based on the absence of such a hypothesis. Therefore, the Greenhouse-Geisser test that is more conservative than all calculations was used in this study.

**Table 6:** Analysis of variance with repeated measures (intra-group effects)

References	Sum of squares	df	Mean-square	F	Sig.
Time	159.572	2.074	76.951	10.823	.000
Groups * Time	177.636	2.074	85.662	12.049	.000

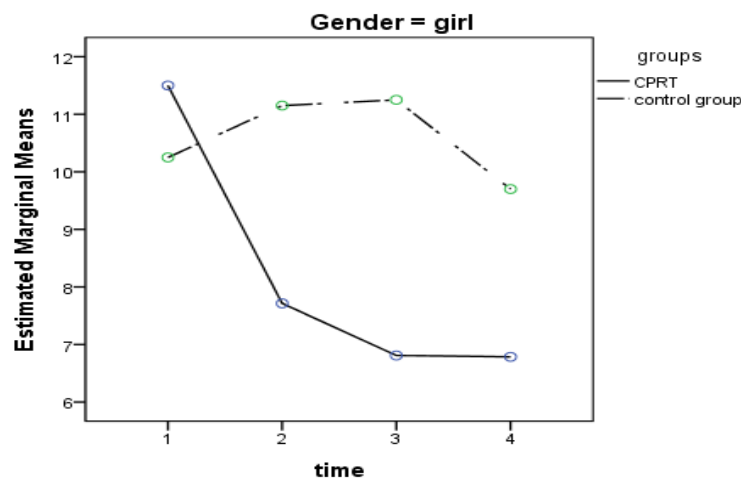
Gender * Time	8.282	2.074	3.994	.562	.580
Age * Time	8.229	2.074	3.969	.558	.582
groups * Time * gender	7.351	2.074	3.545	.499	.617
Age * groups * Time	10.999	2.074	5.304	.746	.484
Age * Gender * Time	2.128	2.074	1.026	.144	.873
* groups * time*age*gender	6.038	2.074	2.912	.410	.674
Error	339.092	47.694	7.110		

Outcomes from Table 6 show that the null hypothesis about the two sources of change; i.e. the time of measurement, and the interaction between groups and time is rejected at the level of 5% error; and the effects are significant. Due to the significant interaction between group and time, follow-up tests to determine the real difference between the means was conducted using *the Bonferroni method* at the level of  $\alpha = 0.05$ .

**Table 7:** Analysis of variance between groups (CPRT)

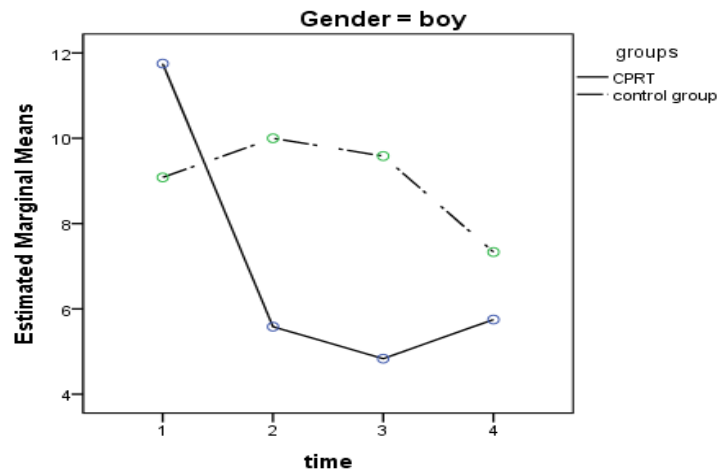
Source	Sum of squares	Df	Mean squares	F	Sig
Intercept	8255.811	1	8255.811	542.114	.000
Groups	132.573	1	132.573	8.705	.007
Gender	53.952	1	53.952	3.543	.043
Age	6.524	1	6.524	.428	.519
Groups*Gender	.906	1	.906	.060	.809
Groups*Age	81.173	1	81.173	5.330	.030
Gender * Age	36.577	1	36.577	2.402	.135
Groups*Gender*Age	72.611	1	72.611	4.768	.039
Error	350.265	23	15.229		

The specified results in Table 7 show that there is a significant difference between the experimental and control groups at the level of  $\alpha = 0.05$  ( $p$ -value= 0.05). The children’s gender control variable is significant at the level of  $\alpha = 0.05$  ( $p$ -value= 0.05). This means that both boys and girls are different from each other in terms of separation anxiety. Also, variance analysis table shows that two variables of groups (CPRT and control) and the age of children have a significant interaction with each other, which means that the difference in these two age groups is not equal. On the other hand, the interaction of the 3 variables of group therapy, gender and age is significant ( $\alpha=0.05$  and  $p$ -value=0.039). This indicates that the significance level of interaction between treatment group and age is different in boys and girls.





**Figure 1: Average repeated scores for girls in both control and CPRT groups iteratively CPRT**



**Figure 2: Average repeated scores for boy children in both control and CPRT groups**

Figure 1 and 2 shows the status of separation anxiety means before and after treatment, together with follow-up1 and follow-up2. In general, as far as the CPRT method is concerned, in 3 measurement times, and after the pre-test, separation anxiety is decreased; while there was no significant decrease in anxiety in the control group. In the pre-test, no difference was observed between the treatment group receiving CPRT and the control group. In the post-test of the group receiving CPRT, a considerable reduction in separation anxiety was observed in children; while in the control group, an increase in the separation anxiety was observed.

### Discussion and conclusion

This study was conducted on the effectiveness and sustainability of CPRT in alleviation of the symptoms of separation anxiety in children aged 6 and 7 years. Intervention results showed that there is a significant difference between the experimental and control groups at the level of  $\alpha=0.05$ . It means that CPRT is an effective way to treat separation anxiety. In explaining these results, it can be said that the use of this method reduced symptoms and improved the separation anxiety in children, compared with the control group that received no treatment. The findings of this study are consistent with the findings of those studies that consider the mother-child relationship as the first and one of the most important relations that human have benefited from (Rutter, 2010). They believe that the emergence of all kinds of stresses, such as separation anxiety during the child's development period is subject to a kind of "object relations", especially the "mother-child relation" (Bowlby, 1969). Therefore, improved relationship caused by the use of CPRT method- which is accompanied by training the skills such as "offering the right of choice", "giving responsibility" and "decision-making" to parents in training sessions, in order to empower the children, leads to improved self-esteem in the children due to the establishment of favorable conditions, as a consequence of good behavior. In this situation, children develop a sense of independence and thus it will be more possible for them to achieve emotional independence and thematic relationships with the transition from dependence; and consequently the separation anxiety will be reduced. These findings are also consistent with the finding of Brotherson, 2006; Cassidy and Shaver, 2008. In explaining this finding, it should be noted that improved mother-child relationship and maternal responsiveness result in emotional regulation (Megam and Cicchetti, 2002) leading to reduced negative images of the parent; which finally, with the formation of attachment, separation anxiety is reduced (Ainsworth, 1989 and Rogosch and Cicchetti, 2004).

This finding is consistent with the mother-child attachment theory which has a new direction in relations (Rutter, 2010; Gael, Orsmond, Marsha, Jan, Greenberg and Frank, 2006); so that with the development of attachment between mother and child, the mother acts as a secure base and facilitator for the child, upon which the child searches new, challenging and unpredictable opportunities. Based on early

attachment experiences, all other relationships are affected; and the child controls him/herself and attempts to problem-solving skills (Rogosch and Cicchetti, 2004; Bratherson, 2006; Rutter, 2010). Also, as far as the improved Mother-child relationship through training sessions is concerned, with the establishment of skills in "reflection of feeling" to the children, and amendment of guidelines related to "Do's and Don'ts of play sessions", aiming at increasing the psychological security of children, the mothers and children's self-confidence are increased; and thus the positive confidence of children is increased when they face with challenging circumstances. Subsequently, the separation anxiety is reduced. Therefore, as the results of this study are consistent with the findings of Lindau et al. (2012), the effectiveness of CPRT can be endorsed.

In examining the variable of gender, the findings showed that there is no difference between girls and boys in terms of the effect of CPRT intervention. This finding is not consistent with Dehghani & al. (2013) but is consistent with the findings of Landreth and Bratton (2006), Kazdin (2006) and Oliver, Wright Guerin and Coffman (2009). These researches make it clear that CPRT is effective in reducing separation anxiety. Accordingly, it could be explained that treatment with CPRT can be effective in reducing separation anxiety in children of both sexes (Peder and Carl Verdi, 2005; Costello, Keller and Angold, 2001; Bataglia et al., 2015). As far as the investigation of the long-term effects of CPRT is concerned, and according to John Bowlby (1969), which argues that improved mother-child relationship can have a positive effect on this relationship in the long term and reduced separation anxiety disorder; and with the evaluation of educational models that are focused on improving mother-child relationship (Barkley, 2002), the "physical interaction" between mother and child will lead to the improved communication between mother and child in this pattern. Therefore, the result of this relationship is evident in the sustainability of treatment. Barkley (2002) also believes that CPRT will lead to their increased understanding of the nature of the disorder and increase their self-esteem in their parenting role; so that the therapeutic effects will last for 4 to 5 years after the training. In this study, analysis of the status of separation anxiety before and after training, along with two follow-ups (1 and 2), showed that after carrying out the CPRT method in each 3 times of measurements, it is observed that the separation anxiety is reduced after the pre-test; while in the control group, no reduction is observed.

This finding is consistent with the studies conducted by Landreth, Bratton, Kellam and Blackard (2006) and White and Kristol (2015). Given this finding, it is recommended to improve Father-Child relationship in the future studies to provide the possibility to study based on the gender of the parent and to examine what consequences this will have on the improvement of children with anxiety problems.

In general, this study specifies that CPRT is effective in reducing separation anxiety. Accordingly, it could be explained that given these findings, CPRT can be defined as a structured and effective method in reducing children's separation anxiety (Peder and Carl Verdi, 2005). Therefore, the child therapists and clinics are recommended to further consider the use of this intervention method in dealing with children's issues, including anxiety problems. Also, comparison of CPRT with other methods used in other controlled studies is recommended to follow and generalize the results of this research and evaluation of the effectiveness of this therapeutic approach in other anxiety disorders. As in this study, individual training has been used, it is suggested to study this method of training in groups and to compare the results with each other. In addition, because of the well-groundedness of the purpose of this method, carrying out longer follow-ups in future studies and those researches investigating the CPRT method in a broader population and in other ages are recommended for the treatment of behavioral disorders and promoting mental health in children. Each research is faced with some limitations; and thus this study is not an exception. As this study was conducted on a sample of students of both sexes aged 6 and 7 years in the city of Qom, it should be cautious in generalizing the results to other individuals.

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### **Key Messages**

- Separation Anxiety in children is a disorder with negative impacts on social harmony and relationships with peers.
- These disorders, has been reported in 4% of children - more in girls than boys.

-CPRT is a method of training with communication techniques to parents for how to behave with children at home.

- CPRT is an educational method that can, through education in mother, improve mother-child communication problems.

### **Conflict of interest**

The authors have no conflicts of interest to disclose.

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