

## Effect of Attachment-Based Therapy on Behavioral Disorders in Girls with Attachment Problems

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Article information	Abstract
<p>Article history: Received: 30 Apr 2012 Accepted: 21 June 2012 Available online: 5 May 2013 ZJRMS 2014 Sep; 16(9): 12-17</p> <p>Keywords: Attachment-based therapy Behavioral disorders Attachment problems Attachment</p> <p>*Corresponding author at: Department of Psychology, University of Isfahan, Isfahan, Iran. E-mail: <a href="mailto:m_jahanbakhsh63@yahoo.com">m_jahanbakhsh63@yahoo.com</a></p>	<p><b>Background:</b> Multidimensional and complex nature of children's behavioral disorders requires assessment and usage of modern treatments. The present study investigated the effects of attachment-based therapy on behavioral disorders (depression, over anxiety and oppositional defiant) in girl students of primary school who had attachment problems.</p> <p><b>Materials and Methods:</b> This study is an empirical plan with pretest-posttest and control group. The target samples were 34 individuals of 388 second and fourth grade students of primary school that had highest scores on attachment problems and behavioral disorders (depression, over anxiety and oppositional defiant). Evaluation implemented using Randolph attachment disorder questionnaire (RADQ) and Ontario mental health test. Mothers were presented in 10 group sessions of attachment-based intervention and its effects investigated in their girl's behavioral disorders (depression, over anxiety and oppositional defiant).</p> <p><b>Results:</b> Reduction rate of behavioral disorders general scores (depression, over anxiety and oppositional defiant) of experimental group compared with control group showed significant decreases in posttest and three months follow up.</p> <p><b>Conclusion:</b> The attachment based therapy offered for mothers of the girls with attachment problems was effective to reduction of behavioral disorders (depression, over anxiety and oppositional defiant) symptoms in their children and the mother's continues attention to interventional methods showed more improvement in follow up evaluation.</p> <p>Copyright © 2014 Zahedan University of Medical Sciences. All rights reserved.</p>

### Introduction

Talking about mother-child relationship, Bowlby [1] believes what is essentially important for a child's mental health is experiencing a warm, intimate and continuous relationship with mother or nanny. Many types of neurosis or character disorders are the result of being devoid of motherly care or a lack of fix relationship between the child and an attachment figure [2]. Insecure attachment correlates with stress, anxiety, disorganized expression of external excitement and over dependence on others for assistance [3]. The first experiences of mother-child relationship can result in insecure attachment [4]. Van Wagner [5] states that failure in forming a secure attachment in the first months of life can have negative influence on the behavior of the person in both childhood and adulthood. The term "behavioral disorders" refers to a group of psychic problems in children and adolescents which is not secondary to physical problems or disabilities and is not in the category of psychosis [6]. Primitive behavioral disorders are considered as a reaction to a not-pleasant environment and show themselves in different ways [7]. Signs of anxiety stress, depression and anger can be a result of experiencing negative emotional experiences of attachment relationship both in the past and the present [8]. Some studies indicated that ambivalent attachment showed the strongest association with anxiety [9]. On the other hand when a child cannot trust those around him

defends him with oppositional behavior. Oppositional defiant disorder (odd) is defined as a recurring pattern of negative behavior, disobedience and hostile behavior towards people in authority [10]. Understanding the factors underlying attachment problems helps the treatment of behavioral disorders caused by them [11]. Hanson and Spratt [12] point out that the number of children with attachment problems is increasing in recent years. Werner Wilson and Davenport [13] estimate that about 1 million children in USA and about half of adopted children suffer from attachment disorders. Thomas [14] believes the best way to treat children with attachment disorders and the problem caused by it is attachment therapy. Attachment therapy mainly focuses on changing the point of view children have about adults and the world children with attachment problems who are under treatment learn that adults can be trustworthy and helpful and can provide them with safety and in contrary to what they think, adults don't harm and limit them. Fowler [15] emphasizes that in order to be affective; the treatment must also focus on the family, and the main care-givers of the child as well as the child himself. The main goal of family treatment concerning attachment therapy is providing a safe and reliable base for the child in the family [16-17]. Based on research findings, it is expected that the treatment of behavioral disorders whose root is in attachment problems is effective [18].

## Materials and Methods

This clinical research was carried out in 2011, in Isfahan University. This research which is experimental and applied used a pretest and a post test and comprised a control group. It examined the subjects who were randomly selected for 3 months. Among elementary 338 second graders and fourth- graders, those girls whose score in Randolph attachment questionnaire and Ontario behavioral disorders of children's mental health form was higher were selected. After being sifted out, 34 people were selected and were randomly put in a control and an experimental group; each with 17 subjects. The interference based on attachment involved ten 90 minutes sessions of group treatment lasting 2 months and a half for mothers in the experimental group. During the treatment, one person from the experimental group resigned so the researcher had to omit one member of the control group randomly. The subjects were trained to keep their life conditions fix during the research in order to avoid the effect of interfering variables on the dependent variables in the research. For moral concerns, the subjects in the control group who were totally 16- received attachment therapy for 5 sessions. Subject were unforced to participate or continuing the intervention and they had been ensured that results of the research would be reported totally and without subject's names. For moral attentions, after the end of follow up stage participants of control group also received 5 session group attachment based therapy. It is worth mentioning that the treatment was done by a trained graduate student of MA in psychology. The research design was a mixture of the treatment formats below: Brisch's the principles of sensitizing mother [19]; Freiberg's principles of proper response to child [20], Pawl and Lieberman's basics of sympathizing behavior of the treatment provider toward the mother [21], Erwin attachment and relationship techniques [22], Cross's pattern of attachment therapy [23], Epstein and Rubin's methods of decreasing behavioral disorders of children in school [24], Nichols's technique of storytelling to children with attachment problems [25], Lefebvre-Mcgenva revolutionary attachment therapy [26], stress-management technique, game therapy, scenario- making and so on. In this research only one subject from the experimental group resigned. The reason for such a low number of people who designed in the fact that the mothers were educated and interested in helping the behavioral disorders of their children and also the fact that the treatment provided for them was free of charge. The level of satisfaction with the treatment, the materials trained in each session, treatment guidelines and the results of the treatment were evaluated through a 6-grade scale in the end of the treatment. The range of the scores given was between 4 to 6 ( $4.5 \pm 0.9$ ). The treatment was done by a M.A graduate of psychology who had been trained for attachment- therapy for 6 months. The first session was spent on introduction, the explanation of attachment, attachment problems, recognizing the symptoms of behavioral disorders in

children, the relationship between behavioral disorders in children and insecure attachment in them, the analysis of attachment disorder and the following problems for children (like depression, over anxiety and oppositional defiant) and the need for treatment for those children suffering from behavioral disorders. The second session focused on the rationale behind attachment-therapy, specifying the aims of treatment, explaining mental and psychological needs of children, the necessity of answering children's needs, teaching the technique of availability of mother, teaching and practicing the technique of scenario-making and making and practicing scenario about how to react to child's needs. In the third session, the importance of positive verbal relationship between mother and child in emotional revolution of child was specified, the technique of verbal relationship with child and the technique of story-telling were taught, making scenario about mother- child verbal relationship through questions and answers and scenario about the position of the child in the family and making children feel important and have self- esteem were practiced. The importance of positive relationship with the child, the necessity of continuing positive behavior in order to mend the impaired sense of trusting parents in children with attachment disorders, avoiding pretending and having unreal behavior and role-playing in relationship with the child, teaching the technique of touch (physical touch especially eye-contact), scenario- making about how to show real affection to child, practicing hugging, fondling and kissing with mothers were all explained and done in the fourth session. The fifth session concentrated on teaching the technique of parent-child game playing and creating the conditions of games and group fun for children, fascinating friendship relationship between the child and his peers, encouraging him in making connections and taking active part in groups in school, scenario-making about parents' active participation in games with children, as well as parents' having fun and making their children laugh. In the sixth session, the importance of active participation in child's affairs in order to enhance positive interaction between mother and child was specified. Moreover, scenario making about how to participate in child's affair and interact with him while avoiding force was practiced and the technique of reinforcing child's interaction with classmates and peers was taught. The seventh session revolved around the investigation of unsolved behavioral disorders in children and discussing the degree of effectiveness of attachment-therapy on previous behavioral disorders in children, teaching how to make home a happy and exciting place for children to reduce the level of depression in both mother and child, training reinforcing verbal skills of children, and scenario making about making a positive communication atmosphere among family members and avoiding the seclusion of the child. Teaching the technique of stress-management in a family focused on reducing the level of anxiety in the child, teaching the technique of reassuring the child of being protected by parents for ever and presenting a nice future for him, and

scenario-making about increasing happy entertainment of parent and children were all done in the eighth session. In the ninth session, the technique of parents' observers towards oppositional defiant behavior of children, scenario-making about how to ignore and just observe target behavior of children, teaching the technique of reinforcing positive behavior were practiced with mothers. And finally in the tenth session, the problems in the application of the techniques taught were disused, and the mothers were justified about the importance of continuing the application of the techniques to mend mother-child attachment and the level of achievement to the goals of the treatment was discussed. Moreover all the materials taught so far were summarized. In each session, in addition to review and doing the exercises of the previous session, some homework was also given.

**Instruments: -Randolph Attachment Disorder Questionnaire (RADQ):** Randolph attachment disorder questionnaire was introduced for attachment disorders. This questionnaire is a 25-question check- list of the frequency of reports by parents of children between 5 to 18 years old which consists of the frequent problems caregiver of the child has observed within the last two years [27]. This check list has been translated by Movahed [28] and its psychometric specificities are extracted. This questionnaire is in likerts scale and each question has a score between zeros to four. The total score of the questionnaire ranges from zero to one hundred. Scores higher than 30 in this questionnaire indicate attachment problems in children. Chronbach alpha for Randolph attachment disorder questionnaire is 83% which indicates the proper internal consistency coefficient of the questions of this questionnaire. This internal consistency coefficient is comparable to the internal consistency coefficient using the method of dividing to two halves by Randolph in which 84% for the group with behavioral disorders but not behavioral disorder. The sensitivity of the questionnaire is 100 and its specificity is 90. In other words this questionnaire has recognized 100% of the patients as patient and 90% of healthy individuals as healthy. This high rate of sensitivity and specificity is an indication of the power of the test in recognizing group membership of individuals [28].

**-Ontario mental health questionnaire:** This questionnaire was prepared by Boily in 1993 for evaluating the mental health of child and is based on the behavior of the child with in the last 6 months and is used for individuals between 6 to 16 years old. The scale consists of 2 sections. Section (A) which involves external disorders like over activity, lack of attention, behavioral disorders and oppositional defiant while section (B) focuses on internal disorders like depression, stress of separation and over anxiety. Since 3 disorders of depression, over anxiety and oppositional defiant disorder were selected to focus on in this research, merely the related subscales were used. Amiri et al. [29] reported that, the reliability of the test was reported 0.8 using test-retest method. This reliability is computable with the other checklists of behavioral disorders in children. The ability of the test in diagnosing clinical visits of parents to

treatment centers was reported 82% [30]. Also recognition validity of over anxiety form was 65%, all being significant in  $\alpha = 0.001$ . In another research the reliability of the test for over anxiety, oppositional defiant and depression was calculated which were 85, 79 and 78% expectedly [30]. After collecting information, the data were analyzed by SPSS-18 software. To describe the samples, descriptive statistics including frequency distributions, mean value, and standard deviation were used in this research. In addition, covariance analysis was used in order to achieve the objects and hypotheses of the study. Data had a significance level of  $p \leq 0.05$ .

## Results

The subjects of the study were female students in elementary school suffering from behavioral disorders and attachment disorder (with age  $9.66 \pm 1.12$ ) and their mothers (with age  $34.5 \pm 3.69$ ) also have participated. 72.5% of mothers had diploma, 10% upper diploma, 14.5% bachelors of science and 3% master of science license. The treatment sessions of attachment therapy was done for the mothers and its effectiveness was investigated on their daughters. The analysis of the *t*-test showed that there was no significant difference between the two groups- the experimental and control groups-in demographic features ( $p > 0.05$ ). Table 1 shows the central tendency of the dependent variable, the total score of behavioral disorders, among the groups in different stages. Since obtaining a higher score represents severity of the symptoms, it can be seen that the mean posttest score of behavioral disorders in the experimental group is significantly lower than that of the control group ( $p = 0.001$ ). There was also true for the follow-up stage ( $p = 0.01$ ). The second table shows the analysis of covariance for comparing the posttest and follow-up stages of two groups after controlling the pretest. As it can be seen there is a significant difference between pre-test and posttest scores ( $p < 0.001$ ). Since only pre-test is related to the scores of behavioral disorders in posttest and follow up, it is considered an interfering variable and therefore it was controlled. In other words, that part of the variance of the scores of behavioral disorders which is related to the pretest is subtracted from the total variance of the scores. That why the pre-test was entered as a covariate in the analysis of covariance to remove its effect on the variance of group membership.

**Table 1.** Comparing between mean and standard deviation of the behavioral disorders scores

Group	Processes	Mean± SD
Control	Pretest	25.56±6.41
	Posttest	26.62±6.45
	Follow up	27.25±6.34
Experimental	Pretest	24.5±4.89
	Posttest	18.38±6.39
	Follow up	16.62±4.66

**Table 2.** Results of covariate analysis of effect of the group membership on behavioral disorders

Dependent variable	Processes	Research variables	Df	F	Sig	Eta square	Power estimation
Depression	Posttest	Pretest	1	65.69	0.001	0.69	0.99
		Group membrane	1	18	0.001	0.38	0.98
Pretest		1	117.43	0.001	0.65	0.99	
Group membrane		1	61.93	0.001	0.50	0.97	
Pretest		1	92.69	0.001	0.76	0.99	
Group membrane		1	11.04	0.002	0.27	0.89	
Over anxiety	Follow up	Pretest	1	207.84	0.001	0.87	0.98
Group membrane		1	76.98	0.001	0.72	0.99	
Depression		Pretest	1	55.97	0.001	0.65	0.99
Group membrane		1	30.05	0.001	0.50	0.99	
Pretest		1	78.74	0.001	0.51	0.99	
Group membrane		1	84.66	0.001	0.53	0.99	
Over anxiety	Follow up	Pretest	1	61.03	0.001	0.67	0.99
Group membrane		1	14.77	0.001	0.33	0.96	
Oppositional defiant disorder		Pretest	1	177.99	0.001	0.85	0.99
Group membrane		1	165.02	0.001	0.85	0.99	
Pretest		1	177.99	0.001	0.85	0.99	
Group membrane		1	165.02	0.001	0.85	0.99	

**Table 3.** Results of posttest-follow up dependent *t*-test of two groups

Groups	Average	<i>t</i>	Df	sig
Experimental group	0.68*	2.20	15	0.03
Control group	0.18**	0.67	15	0.14

\*  $p < 0.05$ , \*\*  $p > 0.05$

Even after controlling the effect of the pretest, the two groups are significantly different in the posttest and the follow-up scores of depression, over anxiety, oppositional defiant and total score of these behavioral disorders.

The group membership shows repeatedly 38%, 50%, 27% and 72% of the changes of the total score of these symptoms in the pretest and 50%, 53%, 33% and 85% of these changes in the follow-up stage. Table 3 represents the results of *t*-test among the groups in posttest and follow up stages that shows that reduction of behavioral disorders scores in experimental group in follow up stage in compare with posttest stage is statistically significant ( $p < 0.05$ ) but there is no significant difference between these stages in control group ( $p > 0.05$ ).

## Discussion

The main result of mother-child interaction is a kind of emotional attachment between the two. This attachment and emotional relationship with mother, makes the child feed secure especially in times of fear and insecurities. The aim of this research was to investigate the effect of attachment therapy on the symptoms of behavioral disorders in girls with attachment problems. The result of the analysis of multi-variable covariance for controlling covariates showed that the experimental group obtained significantly lower scores in depression symptoms, over anxiety, oppositional defiant and the total score of these behavioral disorders than the control group after the means had been moderated and the interfering variables had been controlled. According to results of the post-test scores, it seems that attachment therapy was effective in curing the symptoms of behavioral disorders. Another important finding was that the scores in the follow-up stage proved that the treatment of attachment problems had a dramatic effect on the subjects. This is partly due to

the relationship between behavioral disorders and attachment problems in children and represents that behavioral disorders might be seen as signs of the existence of problems in the life of the child and with improving the relationship between the child and parent, these problems can be removed. It is probable that secure children and adults show secure attachment behavior in times of stress and fear [31]. On the contrary, people with insecure attachment style show psychological and behavioral disorders due to their inability and inflexibility in giving proper response to unpleasant situations; and attachment therapy can be very useful for them [32]. Hanson-Spratt believes attachment problems are highly related to sexual and physical abuse [12]. Understanding the factors underlying attachment problems can be very helpful in treatment of behavioral disorders caused by attachment problems [33]. The results of this study are similar to findings of some studies that had been carried out about attachment and attachment therapy [11, 12, 23, 25, 27] that indicates that attachment is the source of many behavioral problem and disorders in children and attachment therapy is a useful intervention that can be done for them. Khanjani [34] also found out through his research that children under 3 who are under the care of some one other than their mothers (a relation or kindergarten) for over 35 hours a week, are in danger of insecure attachment and behavioral- social problems. The treatment is rationale for attachment therapists for helping behavioral disorders was the hypothesis that attachment is a basic and essential stage of development, and that the lack of a secure attachment may cause the behavioral disorders. The children are like thermometers: they reflect every problem in behavior and support of their parents in the form of symptoms.

The mothers alongside being trained for the techniques of attachment- therapy were also trained for some techniques to control and decrease the behavioral disorders in their children. So, the behavioral disorders of these children were targeted from two sides. On the one hand, the ways of mother- child relationship were corrected and factors contributing to secure attachment were provided. On the other hand, the techniques such as

observer parents for negative behaviors, reinforcing positive behavior, mothers' stress management for decreasing the level of anxiety and stress in children helped the behavioral disorders to decrease. As it was seen in the results, these techniques made the treatment of behavioral disorders more effective than the other factors. The researcher believes this happened because of the two reasons below: First, attachment problems are the cause and behavioral disorders are the effect. It's crystal clear that making the effect disappear is much easier than removing the cause. Second, completely modifying the pattern of parent-child relationship is very time-consuming and the parents are used to need a lot of time to adapt themselves with this behavioral patterns and trust it, but, the ways of modifying children's behavior produced results sooner and if the techniques are used correctly, they're a better treatment for behavioral disorders in children: Since the results of the treatment in the follow-up stage was not only strong but also showed more improvement and less attachment problems, it is probable that attachment-therapy has helped parents to create a more correct and a new relationship with their children and modifying the pattern of child-parent relationship is the most important feature of this sort of treatment. After being aware of the problems of their training and their behavior with the child, parents very probably try to correct their mistakes in their relationship, since they're interested in their children's mental health. Continuing this new relationship decreases the problems and symptoms in the child. Meanwhile the parents are equipped with techniques to deal with any future problems in behavior of the child just in case. One of the advantages of the present research was its innovation.

It was the first research in Iran which was conducted to investigate the effect of attachment-therapy on behavioral

disorders. Considering the findings of this research and the findings of similar researches on anxiety and temporal problems in children with behavioral disorders, it's clear that attachment therapy can be used as a selected way of treatment for decreasing behavioral disorders in these children. Every research has some limitations. So does this research. It was carried out on girls studying in an elementary school in Isfahan so the results should be generalized with caution. Besides the treatment was a group intervention that it can be repeated as case study method and be compared with this results too. Using of self reported instrument was another limitation that can be replaced with other instruments. Moreover, this research was merely done on girls. Further research on the investigation of the effectiveness of attachment-therapy on other behavioral disorders and in a bigger population and in both genders can be of a great help for the treatment of behavioral disorders of children.

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### Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

### Conflict of Interest

The authors declare no conflict of interest.

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