A comparison of the effectiveness of behavioral management training to parents and the children narrative therapy on reducing the symptoms of Attention Deficit / Hyperactivity Disorder

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Abstract

According to the clinical importance of the Attention Deficit, Hyperactivity Disorder is one of the most common neural-behavioral disorders in children as well as its impact on the family system. This study is aimed at comparing effectiveness of the behavioral management training to parents and narrative therapy on symptoms of the children who are afflicted by the Attention Deficit/ Hyperactivity Disorder. This quasi experimental study is of the pretest-posttest with the control group. Statistical community included all of the children, out of 30, suffered from ADHD, between 7 to 12 years old, in the city of Sari, in companion with their mothers, who were selected and assigned to three groups. The first group, received 8 sessions of narrative therapy, the second one received 9 sessions of behavioral management training to mothers based on Barkley’s model, and the third group, received nothing. Parental Stress Index Test was utilized in order to collect data, and analyzing data fulfilled in the form of analysis of variance. The results showed that there is a significant difference between the treatment groups of behavioral management training to parents and the narrative therapy. Conclusion: Findings of the study shows that the method of narrative therapy is more effective in reducing the symptoms of Attention Deficit /Hyperactivity Disorder and this therapeutic approach can be utilized as well as the pharmacotherapy.

Key words: Attention Deficit/Hyperactivity Disorder Symptoms, Narrative Therapy, Behavioral Management Training to Parents.
Introduction:

ADHD, is a neural-transitional disorder which is defined through three main characteristics of: Attention Deficit, Hyperactivity and impulsivity. (Chen et al, 2005). The disorder has been considered as a fundamental problem by psychiatrists, psychologists, parents and teachers. The importance of ADHD is due to its high prevalence and its negative impact on all aspects of a child’s life such as educational problems (Faraone et al, 2001), poor social skills (Bagwell et al, 2000) and disrupted parent-child relationships (Johnston & Mash, 2001). Characteristics of children with ADHD such as impulsivity, self-organizing problems, reduced self-control, emotional disability and a lack of verbal inhibition, has negative effects on their family (Chutko et al, 2010). In families of children with ADHD, interactions within the family, is accompanied by a high level of incoherence and inconsistency. Because this kind of children, never obey their parents and other members of their families, don’t do their assignments, and have more negative behaviors rather than their peers, so that, these conditions are followed by inefficiency of family functions (Johnston & Gmesh, 2006). These children parents experience a higher level of the parental tensions and the feeling of inadequacy (Anastopoulos et al, 1992) and it has been seen among these children mothers, the increased marital conflicts and a high level of depression (Fischer et al, 1990) and stress (Baker & McCal, 1995). These mothers, In fact, have more negative attributions for mistreatments of children, especially aggressive behaviors and oppositional disorders of them (Johnston & Freeman, 1997), and these negative attributions might have an important role in the negative parenting behaviors like strict and inconstant discipline (Johnston, 1992). Furthermore, Mothers of children with ADHD, suffer from emotional stress, because of self-blame, blame received from others (their family members and teachers) for their children’s disorders, and lack of family protection (Harborne, 2004), so that, all of these cases, lead to a low mental health (Sanaei kamal, 2013) and a low quality of life in mothers of this sort of children (Yazdani et al, 2014). Therefore, teaching parents, is common more than any other sort of family interventions and could be effective in improving the symptoms of ADHD (Hajebi, Dr. Shooshtari & Khaje-din, 2005; Arabi et al, 2013). Also, Kangar-loo and Lotfi-kashani and Vaziri (2011) showed that teaching parents the behavioral principles is effective in reducing disruptive behaviors in children with ADHD. Also, in a study, Khooshabi, Shamsaei, Jadidi & Nikkhah (2013) showed that a combination treatment (by Ritalin, behavioral management training and neuro-feedback) is more effective than any of these treatments alone in reducing ADHD symptoms and improving the quality of child-mother relationship. The results of Danforth et al study (2006) show a decrease in the symptoms of hyperactivity and disobedience of a child with ADHD after behavioral management training to parents.

Narrative therapy is one of the new therapeutic approaches, propounded in the field of treatment of children with ADHD, which could be used as an effective implement in order to change and orient the child’s behavior. The narrative therapy is considered as a version of play therapy which is applied in order to help children identify and express their experiences (Rahmani & Moheb, 2010). Narratives, in narrative therapy, by providing opportunities, creating a bed for...
emotional expression, replication and raising the child perception, could be considered as a significant source of improvement in children’s problems and disorders (Crawford et al., 2004, Friedberg & Wilt, 2010). Narratives, in fact, form a framework for self-creating and educating and promoting the self-understanding and the efficiency in interpersonal relationships (Dean, 1998). Won Han et al., 2015, showed in a study that the narrative therapy, as a complementary therapeutic approach, could improve self-control and child-parents interactions in children with ADHD. Painter, Silverman & Cook (1999) examined the effects of narrative therapy and behavioral treatment to parents in disobedient-pertinacious children. The results, showed a reduction in the frequency and intensity of the disobedience. Also, the study evidence show that the narrative therapy results in improvement of social competencies and skills in establishing relationship with peers (Rahill, 2002) and a reduction in aggression in children (Nasir-zade & Roshan, 2010). All in all, given the critical need for psychological interventions and lack of efficiency of drug therapies, in the parents of children with ADHD, it seems necessary to identify the strategies to manage the children positively and to reduce their symptoms accompanied by improving the quality of their lives. Therefore, the aim of this study is to evaluate comparatively the effectiveness of the behavioral management training to parents, and also narrative therapy, in reducing the ADHD symptoms in children with this kind of disorder, in the city of Sari.

Research Methodology:

This study is a quasi-experimental one of pretest-posttest type with the control group. The target society included all children of 7 to 12 years old with ADHD and their mothers in the city of Sari. Before providing the therapeutic interventions, the amount of the disorder symptoms as a dependent variable was evaluated (pre-test). Then, people, on the basis of gender, IQ, Social-economical status, and severity of disorder, considering the research objectives, were divided into 3 harmonious groups. Since then, training sessions, were run for two groups within 3 months. In this case, the first group, received 8 sessions of narrative therapy training as a group for 30 to 45 minutes, the second group received 9 sessions of behavioral management based on Barkley’s pattern as a group for 90 minutes, and the third groups received no training. After that, data were analyzed using the one-way variance.

Parental Stress Index:

It could be evaluated the level of stress in the child-parent relationships, using this questionnaire, with 120 items. The permanency of this scale has been proven in various tests. For example, its internal similarity was calculated 93%, through Cronbach’s alpha method in a sample of mothers from Hong Kong. Its discriminant validity was 0/93 (Conners, 1973). In 2008, in a study, Dadsetan and Ahadi, also, calculated the internal similarity of this test, 0.88, through the Cronbach’s alpha method, and its permanency, 0.94, through the test-test method by 10 days.
Findings:

At first, before analyzing the one-way variance, its assumptions (i.e. the regression harmony, equality of variances, normal being of data distribution) were examined and confirmed. Table 1, shows the standard average and deviation of ADHD symptoms in the group of behavioral management training and narrative therapy, on the basis of pretest and post-test.

<table>
<thead>
<tr>
<th>no.</th>
<th>Standard deviation</th>
<th>age</th>
<th>group</th>
<th>stage</th>
<th>Intervention groups</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>5/39</td>
<td>39</td>
<td>test</td>
<td>Pretest</td>
<td>Behavioral Management to parents</td>
<td>symptom of ADHD</td>
</tr>
<tr>
<td>10</td>
<td>84/7</td>
<td>35</td>
<td>Contr</td>
<td>pretest</td>
<td>Training to parents</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>7/79</td>
<td>29</td>
<td>test</td>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10/67</td>
<td>38</td>
<td>Contr</td>
<td>pretest</td>
<td>Narrative Therapy</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5/7</td>
<td>33</td>
<td>test</td>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>7/84</td>
<td>35</td>
<td>Contr</td>
<td>Pretest</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>5/21</td>
<td>20</td>
<td>Contr</td>
<td>Pretest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>9/84</td>
<td>37</td>
<td>Contr</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

According to Table 1, the standard average and deviation of the level of ADHD symptoms, after teaching parents the behavioral management, in the experimental group, is 29.43±7.79, and in children of the control group is 38.6±10.67, and after narrative therapy intervention in the experimental group is 20.1±5.21 and in children of the control group is 37.4±9.84. Also, the results show that the average of experimental group compared to the control group, after the intervention, is reduced which means the experimental group has less ADHD symptoms, and compared to the control group.

The analysis of the one-way variance was studied in order to compare the effectiveness of the two difference methods (i.e. behavioral management training to parents and narrative therapy) on the symptoms of children with ADHD.
Table 2- the results of analyzing the variance of control groups, behavioral management training to parents and narrative therapy

<table>
<thead>
<tr>
<th>Level Of Meaningfulness</th>
<th>F</th>
<th>Average Of Squares</th>
<th>Degree Of Freedom</th>
<th>Sum Of Squares</th>
<th>Sources Of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/000</td>
<td>/018</td>
<td>504/591</td>
<td>2</td>
<td>1009/182</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>41/986</td>
<td>27</td>
<td>1133/615</td>
<td></td>
<td>Within Groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>29</td>
<td>2142/797</td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

The findings of Table 2, show that the meaningfulness level is less than 5%, so the null theory is rejected. In other words, it is possible to judge, with assurance of 95%, there is a significance difference between effectiveness of the two mentioned therapeutic methods (i.e. the behavioral management training to parents and the narrative therapy) and a witness group, in reducing the hyperactivity symptoms of children of 7 to 12 years old in the city of Sari.

It was utilized the post hoc tests for pairwise comparison of the averages. In this study, due to the heterogeneity of variances of groups, it was applied the Dunnett’s post hoc test which its results are shown in Table 3.

Table 3- Dunnett’s Test Results to draw a pairwise Comparison between the control group with two treatment methods

<table>
<thead>
<tr>
<th>Meaningfulness Level</th>
<th>Standard Deviation</th>
<th>Average Difference</th>
<th>Compared Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/000</td>
<td>1.28</td>
<td>6.63</td>
<td>Narrative Therapy - Behavioral Management Training to parents</td>
</tr>
<tr>
<td>0.136</td>
<td>3.404</td>
<td>-7.558</td>
<td>Control-behavioral management training to parents</td>
</tr>
<tr>
<td>0.005</td>
<td>3.455</td>
<td>-14.197</td>
<td>Control – Narrative therapy</td>
</tr>
</tbody>
</table>

As seen in Table 3, there is a significant difference between two therapeutic groups (behavioral management training and narrative therapy) in reduction of ADHD symptoms in the level of 5%. Also, the results show that the control group (except the therapeutic group of behavioral
management training to parents) has a significant difference with the therapeutic group of narrative therapy, in the reduction level of hyperactivity symptoms in children of 7 to 12 years old in the city of Sari.

Discussion and Conclusion:

Findings of the study show that the narrative therapy approach has been more effective, compared to the approach of the behavioral management training to parents, in reducing the ADHD symptoms in children, and the treatment based on behavioral management training results in reducing the ADHD symptoms significantly more, compared to the control group. This finding is consistent with the finding of Vanhan’s study (2015). This finding suggest that the therapeutic approaches based on narrative, cause the stimulation of mind and self-exploration activities of children and could motivate their insights and change their behaviors strongly. This kind of therapy, can suggest a pattern in order to overcome the child’s resistance, learn new concepts, and a pattern for the appropriate behavior (Divinyi, 1995). The assumption is that children’s storytelling gives them a chance to explore their own problems and facing them in an unlimited, safe and fantastic space(Karlson,2001). In fact, children, in the narrative therapy, see themselves qualified enough to fix the problems, with establishing relationships and identification with the narrative’s characteristics, specifically with the protagonist, and with a successful fulfillment of a difficult skill in the narrative, which this could reduce the children’s stresses and tensions and their hyperactive behaviors and encourage their positive behaviors indirectly. Children, in the narrative, become more flexible as a result of doing things in a specific way, without feelings of compulsory and external force and by suggesting new and innovative solutions. In fact, the narrative therapy is an empowering factor among family members, and the reduction of individual problems is due to the cognitive changes caused by the narrative therapy (O’Connor et al, 1997).

Also, the treatment based on the behavioral management training compared to the control group causes a reduction in ADHD symptoms significantly. This finding, is consistent with the study results of Hajebi et al(2005), Dunforth et al(2006), Kangarloo et al(2012), arabì et al(2013). It should be noted that, in this context, first of all, parents should know that they don’t cause the disorder and that many of the children problems could be treated (Alizadeh, 2004). So, the required information because the parents agree that their children’s occasional unreasonable behaviors aren’t intentional (Kangarloo et al, disorder 2012) and that the disorder could affect all aspects of their children’s lives and result in problematic behaviors in their children. In fact, as the evidence shows, this kind of children’s parents, specially their mothers, suffer from the feelings of sin, stress and depression, and also considering that the high levels of stress in mothers will result in the problematic parenting methods, and there is a relationship between the anxiety level of a mother and the ADHD level of her child (Mirzaaghasi et al,2014) and also the anxiety of parents, in its turn, has effect on their punitive methods and cause an increase in the children negative behaviors directly (Rabiner & Malone, 2006). Therefore, it seems necessary
to receive behavioral management training for parents. So the parents could be taught how to communicate properly with children, how to encourage their positive behaviors and ignore some of their negative ones, how to control the children with ADHD, by receiving the education about proper and effective parenting and symptoms of the disorder and its causes and in conclusion, the changed parental interactions towards improving the disorder symptoms of their children will be effective.

In general, according to the persistence of ADHD symptoms to adulthood, and its irreversible financial and psychological losses which afflict the society and family of children with ADHD, and also themselves, it should be paid attention specifically to the existing applicable, fundamental and effective therapies such as the behavioral management training to parents and the narrative therapy. Also, due to the time limitation and this fact that the study suffers from lack of a long-term follow-up, so it’s suggested that the following studies will be done on a broader pattern, by increasing the number of sessions.
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