Efficacy of cognitive behavioral group therapy on depression and anxiety of mothers with mentally retarded children

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Abstract

Introduction and goal: cognitive behavioral group therapy is active, structured and has some time constraints which stresses the role of thinking in etiology and continuation of problems, correction of destructive thinking patterns which is thought of a common aspect of all impairments. The current research has been conducted with the aim of examining then effects of cognitive behavioral group therapy on anxiety and depression of mothers with educable boy mentally retarded children. Methodology: This research, which is a semi-experimental research, was comprised of pretest and posttest along with control group. From among all mothers with educable boy mentally retarded children in the city of Tehran, in March 2013 and the three month of 2014, the number of 16 people was selected and placed into two 8 people groups of control and experimental through random. Thereafter, all the subjects were measured by way of Beck Anxiety and Beck Depression scales. The experimental group subjects were placed under 12 ninety minute weekly sessions of cognitive-behavioral group therapy. In the end, the questionnaire was again administered to the two groups. To analyses data, statistics of frequency and percentage, average and standard deviation were used in then descriptive level while in the inferential level, Covariance analysis was applied. Findings: findings obtained indicate that the mean depression scores in the posttest of the experimental group was significantly lower than that in the control group and the mean anxiety scores in the posttest of the experimental group was significantly lower than the mean scores in the control group. Conclusion: Cognitive behavioral group therapy will significantly lead to reduction of depression and anxiety among mothers with mentally retarded children.

Keywords: Cognitive behavioral group therapy, anxiety, depression, Retarded, Educable.
Introduction

Depression is among the most prevalent psychological disorder among women is a highly common impairment among mothers (Cummings and Davis, 1994). Research results suggest that though some mothers deal with problems well; however, in general, mothers with disabled children, compared to others mothers have physical disorders, depression, anxiety stress and some more nervous pressures and less self-confidence. Also, they feel loneliness and have problems in their own communitarians with the relatives (Khamis, 2007). Mothers’ psychological health affects social, emotional, cognitive and behavioral development off children and the quality of their attachment. Koreman and Brambly (1990) have pointed out that depressed mothers are out of reach from a affective point for the child and their isolation causes the child to live in an affective poverty (Moosavi, 2003; Pelchat et al., 1999; Beck et al., 2004; Hu, 2006). These impacts double regarding the disabled and exceptional children. Studies by Beck and his colleagues (2004) concerning mother-child relations have indicated that these relations have been at a high rate among families with disabled children (Pilowsky, et al., 1995). To treat depression and anxiety of mothers, one can resort to various methods (drug therapy, psychotherapy, or compound therapy). Cognitive behavioral interventionist method is a suitable method for depression and anxiety (Chronis, et al., 2006; Hyun, et al., 2005; Chen et al., 2006; De Rubeis et al., 2005). Cognitive behavioral therapeutic approach states depression signs derive from impairment in the thinking processing function and maladaptive behaviors by which this processing occurs. Since such a disorder is learned in the thinking and behavioral function, people qualified with depression signs could learn more adaptable and recent skills which might raise their own moods and increase their affordability to deal with daily unpleasant events.

On the other hand, the fundamental principle of cognitive –behavioral therapy maintains that if the individual changes his thoughts and behavior, some positive change will consequently occur in his moods. Although some parents of children with special needs feel comfortable in individual counseling, these kinds of people are more satisfied with participating in group sessions, because it will be possible for them to effectively retell their common pains, thus feeling less loneliness. Also, some issues are raised in group counseling that cannot be provided in individual counseling (Clark et al., 1999; Barlow et al., 2006; Lockwood et al., 2001). Therefore, the necessity of applying cognitive-behavioral therapeutic method can be justified in form of group sessions. The current research has been performed for assessing depression and anxiety signs of mothers with mentally regarded children and it deals with the impacts of cognitive behavioral interventionist method among these mothers. It was assumed that depression and anxiety of mothers would be improved after participating such group counseling sessions.

In a research on mothers of hard of hearing children whose children had their names registered in special rehab centers for hard of hearing children, Movallali Pur, Mohamad Reza Tajrishi Pur and Asad Malayeri (2012) concluded that general health and depression signs among mothers with hard of hearing children had risen and decreased respectively after participating in cognitive behavioral sessions compared to the period prior to participating in such sessions. In their own research, Khodaei, Kanzaee, Kazemi, Ali Abadi (2013) found out that group cognitive behavioral interventions would be effective on anxiety and depression of patients affected with heart seizure. In their own research, Saee, Sepehr Manesh and Ghanbari (2012) who had conducted a test on patients suffering from hemophilia at the Kashan Akhavan hospital showed that cognitive behavioral group therapy would
considerably reduce anxiety and depression of such patients. Umranl and Mirzayian (2012) in a research under the title of efficacy of cognitive behavioral group therapy on the life expectancy of patients affected with multi Sclerosis found out that cognitive behavioral group therapy would lead to increasing life expectancy among MS patients. In a research on adolescents residing in boarding schools in the city of Taybad in the 2011-2012, Fathi and Mohamadian (2011) demonstrated that cognitive behavioral group therapy would lead to reduced depression and anxiety and stress and increased hopefulness among adolescents. Ranjbar, Ashk Torab and Dadgari (2010) were concerned themselves with efficacy of cognitive behavioral group therapy on level of depression and concluded that there was a significant difference between control and experimental groups. Pedram, Mohamadi, Naziri and Ayeen Parast (2010) demonstrated in their own research that cognitive behavioral group therapy had positive effects on reducing anxiety, depression and increase hopefulness among people. In a study carried out in regard to examining and comparing depression and anxiety disorders and mental health of mothers with exceptional children with mothers of normal children, results indicated that the mothers of exceptional children, comforted to mothers of normal children did have lower mental health and existence of disability and retardation in the family, would result in emergence of some mental and affective problems among members of the family, particularly, mothers (Narimani, Aghamohamadian and Rajabi, 2006).

In Brazil, Durte (2009) carried out a research with the aim of examining the effects of cognitive behavioral group therapy on depression among hemophilia patients where the results indicated that group therapy would improve life quality of depressed patients, improve sleeping and increase the quality of social interactions among them. The mean Beck test scores after the intervention compared to the prior time would reduce considerably. Lee (2007) showed in his study that level of self-efficacy and (life quality) among patients participating in group therapy has shown a rise and on the other hand, depression symptoms saw declines. Kekor (2007) showed that cognitive behavioral therapy would have considerable effects on reducing depression. Chen, Lew and Chung (2006) concluded in their own researches that cognitive behavioral, therapeutic methods has salient impacts on treating depression among depressed people and result in increased self-confidence. Chronis et al., (2006) proved the impacts of contrive behavioral group therapy in treating depression of mothers with children suffering from ADHD. Other researches have considered cognitive behavioral group therapy on reducing depression (Stephan, Heider and Grichen, 2009; Russjelo, Bernal and Rivera Medina, 2008).

As per the above, the current research hypotheses are formulated as follows: a) cognitive behavioral group therapy would lead to significant reduction of the anxiety of mothers with boy educable mentally retarded children; b) cognitive behavioral group therapy would lead to significant reduction of mothers with boy educable mentally retarded children

Methodology
The current research is a semi-experimental research involving pretest and posttest along with control group. The statistical population off the research is comprised of all mothers of boy educable mentally retarded children in the city of Tehran. The research sample consists of 16 people of mothers of boy educable mentally retarded children through convenient sampling method. To choose the subjects' sample of this research, first a letter of introduction of the bureau of Education of the said city was offered to the Shahid Dastgheib Exceptional School
and after coordination and identification of mothers of boy educable mentally retarded children, as many as 16 people (two 8 people groups) were selected who were placed into two control and experimental groups. To analyze data in a descriptive level, statistics of frequency and percentage, average and standard deviation and in the inferential level, covariance analysis were used.

**Research tools**

**Beck anxiety questionnaire:** This questionnaire includes 21 questions and each question involves four answers (0-3) which is a state of increased intensity. Range of scores is from 63-0 (Kaviani et al., 2009). This questionnaire stresses more on physiological aspects of anxiety. Three items of which relate to anxious mood, three others relate to specific fears and the rest of the questions, measure ADHD signs. Beck and Clark (1988 quoted by Kazemi) reported the internal constancy of this scale as 0/93 and reported 0/75 for the retest reliability. The reliability of this test in Iran was reported 0/78 via Cronbach's alpha (n=34). Also, in examining then validity of this test with the application of an empirical method, differential validity of the anxious and normal groups was 0/001 equaling to 12/3 at the T level (Kazemi, 2003). In this research, reliability coefficient was estimated by way of Cronbach's alpha where this coefficient was 0/76.

**Beck depression questionnaire:** This questionnaire has 21 questions and the subject chooses one of the four choices, indicating intensity of depression. Each question is assigned a score between 0-3 and the overall questionnaire will have a range of scores from 0-63. Fata, Birshak, Atef, Vahid and Dobson (2005) estimated the reliability of this scale and they found that reliability coefficient is 0/86, internal constancy is 0/92 which were estimated By Cronbach's alpha.

**Research administration method**

In the current research, firstly control and experimental groups were selected by way of convenient sampling methods and prior to exercising intervention in the case of the experimental group, the pretest was administered by using the Beck's Depression Questionnaire and Kettle's anxiety questionnaire for both groups; the experimental group was exposed to 12 sessions of cognitive behavioral therapy, with the time of the sessions lasting for 1/5 hours and they were used to be held once in a week. Thereafter, after the training of cognitive behavioral group therapy on the experimental group, the posttest was held for both groups under equal conditions after the end of the intervention. The difference between pretest and posttest of both groups was investigated from a statistical point of view. For the same purpose, training cognitive behavioral skills in group form was considered as an independent variable so that its effects would be defined on anxiety and depression of mothers having boy mentally retarded children as the dependent variable. In the end, results were analyzed via statistical descriptive and inferential methods.

First session: In the outset of the session, the therapist, after welcoming and creating motivation in the clients reviews then structure and main rules for them; practice: he asks them to show their own capabilities for each other; later, the therapist will elaborate thinking and sense of holiness as well a criteria that we determine for ourselves and others; practice: then, he deals with creating comfort in mind and in the end, he specifies assignment for them.

Second sessions: in this session, the therapist address elaboration of depression cognitive theory after reviewing the first session assignment; thereafter, he asks them to deal with their own categorization of beliefs. Latter, he address description of anxiety, rage and
identification of consequential thoughts and for the purpose of practice, he asks the clients to deal with the identification of their own thoughts as being pertinent with the group therapy. The therapist, in later parts will explain the way the clients can resist against therapy. Then, he asks them to identify possible resistances as well as prevention ways.

Third sessions: in this session, the therapist, after reviewing the previous session's assignment will engage in injecting thoughts; and for practice, he demands them to apply their own abilities injecting thoughts. Later, he explains and elaborates vertical spear and redefines the notion of relaxation got them and in the end, he gives them the future assignment.

Fourth session: the therapies, in the outset of the session continues with the reviewing of the session's assignment; them he deals with the vertical spear and outlines the progressive vertical spear for the clients and for practice, he demands them to do the rest. Thereafter, the therapist will explain all sorts of beliefs for the clients and for practice, he demands them to deal with the categorization of their beliefs and give the assignment for the future session.

Fifth session: in the onset of the session, the therapist deals with reviewing the fourth session's assignment; then, he deals with the elaboration of the main list of beliefs. The therapist, for the practice demands them to list their beliefs and give then assignment for the future session.

Sixth session: In this session, the therapist, having after reviewed the previous session assignment will speak about change of beliefs' for practice, the therapist demands the clients to prepare a list of beliefs and he then explains an elaboration of testing beliefs and analyzing realities. Thereafter, the therapist for the practice demands the clients to fulfill objective analyses; later, the therapist will deal with the elaboration of criterion analysis and in the end, he determines assignment for the clients.

Seventh session: in the outset of the session, assignment of the previous session is repeated and later, the therapist elaborates usefulness analysis for the clients and for practice, he demands the clients to deal with usefulness analysis; therefore, the therapist will explain discussion of equality analysis and demands the clients to do the same and thus specifies assignment for their future.

Eighth session: Initially, the therapist reviews the assignment of the previous session, then, he explains a rational analysis for the clients. For practice, he demands the clients to do a rational analysis; later the therapist will explain rational analysis discussion and he demands them to do the same. In the end, the therapist will determine assignment for them.

Ninth session: Initially, the therapist reviews the previous session's assignment and the he speaks about hierarchy and asks the clients to conduct a hierarchy; later, he speaks about opposite beliefs and in order to get the clients to do practice, he demands them to deal with opposite beliefs.

Tenth session: the therapist, in the initial stage will review the previous session's assignment and elaborates perceptual change discussion. For practice he gives perceptual change cards to complete and then get them to elaborate cluster inhibition beliefs.

Eleventh session: the therapist will review the session and explains the self-punishment and self-awarding for the clients and asks them to do that thing collectively.

Twelfth session: the therapist will review the session and explains program review; the therapist offers a program for follow up and post therapeutic assessment and in the end, there stands the closing program.
Findings
Table 1: Average and standard deviation of pretest and posttest scores of groups in research variables

<table>
<thead>
<tr>
<th>variables</th>
<th>Experimental group</th>
<th>Control group</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>pretest</td>
<td>posttest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Average and SD</td>
<td>27</td>
<td>6/05</td>
<td>27/40</td>
<td>6/39</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>Average and SD</td>
<td>37/80</td>
<td>4/68</td>
<td>38/40</td>
<td>4/92</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 1, in the pretest, average and standard deviation of depression pertaining to each of the experimental and control groups were 27, 6/05, 27/40 and 5/73 respectively and also in the posttest, the average and standard deviation of each of the experimental and control groups were 17/90, 4/63, 4/68 and 6/39 respectively. Additionally, in the pretests stage, average and standard deviation of anxiety for each of the experimental and control groups were 37/80, 4/68, 39/20, 5/41 and also, in the posttest, average and standard deviation of the two groups were 25/80, 4/46, 38/40 and 4/92 respectively.

Table 2: Test of covariance analysis for investigating efficacy of cognitive behavioral group therapy on anxiety

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Freedom degree</th>
<th>F</th>
<th>Sig.</th>
<th>Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety pretest</td>
<td>1</td>
<td>25/86</td>
<td>0/00</td>
<td>1/06</td>
</tr>
<tr>
<td>group</td>
<td>1</td>
<td>70/82</td>
<td>0/00</td>
<td>0/8</td>
</tr>
<tr>
<td>error</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

As seen from Table 2, the f value in the anxiety score in the pretest was 25/86. Thus the first hypothesis is confirmed.

Table 3: Test of covariance analysis for investigating efficacy of cognitive behavioral group therapy on depression

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Freedom degree</th>
<th>F</th>
<th>Sig.</th>
<th>Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression pretest</td>
<td>1</td>
<td>39/29</td>
<td>0/00</td>
<td>0/69</td>
</tr>
<tr>
<td>group</td>
<td>1</td>
<td>42/23</td>
<td>0/00</td>
<td>0/71</td>
</tr>
<tr>
<td>error</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen from Table 3, the f value in the anxiety score in the pretest was 39/29. Thus the first hypothesis is confirmed.
Conclusion
This research, which is a semi-experimental research, was comprised of pretest and posttest along with control group. From among all mothers with educable boy mentally retarded children in the city of Tehran, in March 2013 and the three month of 2014. The first hypothesis was "cognitive behavioral group therapy would lead to significant reduction of the anxiety of mothers with boy educable mentally retarded children" which was confirmed. The finding is consistent with results by Pedram, Mohamadi, Naziri and Ayeen Parast (2010) who demonstrated in their own research that cognitive behavioral group therapy sessions had positive effects on reducing anxiety, depression and increase hopefulness among people. In their own research, Khodaee, Khanzade, Kazemi, Ali Abadi (2013) found out that group cognitive behavioral interventions would be effective on anxiety and depression of patients affected with heart seizure. The second hypothesis was this" cognitive behavioral group therapy would lead to significant reduction of mothers with boy educable mentally retarded children" which was also confirmed. The result of this research are constant with Movallali Pur, Mohamad Reza Tajrishi Pur and Asad Malayeri (2012) who concluded that general health and depression signs among mothers with hard of hearing children had risen and decreased respectively after participating in cognitive behavioral sessions compared to the period prior to participating in such sessions. The findings are also in line with researches by Nasrabadi, Atef Vahid, Ahmad zade (2003) who showed that cognitive behavioral group therapy would reduce anxiety and depression among people suffering from mood disorders. This research is also consistent with findings by Saee, Sepehr Manesh and Ghanbari (2012) who had conducted a test on patients suffering from hemophilia at the Kashan Akhavan hospital showed that cognitive behavioral group therapy would considerably reduce anxiety and depression of such patients.
Cognitive behavioral group therapy is one if the common psychological therapeutic approaches which is combined of two therapeutic and affective cognitive and behavioral manners and it is in fact a short term therapy which is less costly compared to other therapies. This sort of therapy is founded on a general principle that negative patterns and thoughts have immense effects on personal affection. In this therapeutic method, the patient is assisted to determine his own distorted and ineffectual thinking patterns (Howton et al, 1988).
References

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