



# The Effectiveness of Group Counseling Based on Metacognitive Therapy and Dialectic Behavior Therapy on Reducing Anxiety in Boy Adolescent of Divorce

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## Abstract

**Background:** Anxiety among teenagers may disturb their life, and it is no controlling results in severe problems. Therefore, the present research was designed and conducted by the aim of investigating the effectiveness of group counseling training based on metacognitive therapy & dialectic behavior therapy on reducing anxiety in boy adolescent of divorce.

**Methods:** The present research conducted by quasi-experimental method and used a pretest-posttest with control group design. The statistical population of the current research included all boy students of divorced parents in Karaj in 2017-2018. Among them, 36 persons selected by convenience sampling method, and they were assigned into experimental and control groups (12 individuals per group) randomly. Before the intervention, the Beck Anxiety Inventory executed on participants. Group counseling therapy based on metacognitive therapy and dialectic behavior therapy provided for the experimental group subjects in sixteen 90-minute sessions, while the participants of the control group received no intervention. Posttest executed for all three groups after completing the training. The research data were analyzed by covariance analysis and by SPSS-22 software.

**Results:** Covariance analysis findings indicated that metacognitive therapy and dialectic behavior therapy groups had significant decreasing than the control group after interventional ( $P > 0.05$ ). Also, results indicated that there was no significant difference between the effectiveness of metacognitive therapy and dialectic behavior therapy on anxiety decreasing among boy teenagers of divorced teenagers ( $P < 0.05$ ).

**Conclusion:** Based on the results of the present research, we can state that dialectic behavior therapy and metacognitive therapy by changing negative cognitions reduce anxiety among divorced children.

**Keywords:** Metacognitive therapy; Dialectic behavior therapy; Anxiety; Divorce.

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## Introduction

Divorce is an unpredictable event in the family effect on each member by different methods. Increasing mental problems, suicide, hostility, depression, loneliness, and educational problems are known as divorce results.<sup>1</sup> The family structure changing by divorce may result in social loneliness for all family members<sup>2</sup> mental well-being of divorced children has been very important for researchers and therapists. Amato believes that the relationship between divorce and psychological health among children is very complicated. Also, divorce is not a mere process but is a process that results in the short term and long term effects.<sup>2</sup> Based on studies, not being the father may result in more negative psychological reactions for boys than girls.<sup>3</sup> Divorced boys usually receive little attention and

do not have enough support from mothers, teachers, and coevals.<sup>4</sup> By Pickhardt, parents' divorce has a more negative effect on boys than girls, may result in noncompliance and problems with family.<sup>5</sup> Children in different ages have different attitudes from divorce, for example, teenagers know that they are not guilty of their parent divorce, but they may lose their trust to communications constancy & honesty.<sup>6</sup> Anxiety is the other negative results of divorce. Divorced children and teenagers show affective annoys, fear, and no confidence. They have antisocial behaviors in school and society, and the rate of depression and anxiety is a lot among them,<sup>7</sup> anxiety has affective and cognitive process, therefore when a person is anxious, his/her affection, cognition, and thought is disturbed, thus perception, thought, cognition and affection effect

on anxiety concept. Also. Based on Beck cognitive model, anxiety-related with schema disturb about threatening or danger that such schemas become active by selecting processing of coordinated information with schemas.<sup>8</sup>

Different studies have executed about different therapeutic approaches.<sup>9-12</sup> One of these attitudes is metacognitive therapy. Achievement in anxiety therapy field should base on underlying mechanisms of morbid anxiety. Thus Wells metacognitive model has been accepted for having exact therapeutical instruction. This model states that anxious and hostile persons have positive beliefs about their behaviors as a fit tool to defeat threatening.<sup>13</sup> Cognitive-attentional syndrome by well appears in the form of anxiety, rumination, threatening constancy, concentration on danger, thoughts defeating, and some behaviors such as cognitive, behavioral, and emotional avoidance. The person does defeat with perceived no coordination and regulating negative emotions that may have indirect result in the long term and may result in emotional disorder continuity.<sup>14</sup> Therefore, metacognitive therapy is a new attitude to understand the mental health problems reasons and curing persons with cognitive, emotional, and behavioral disorders such as anxiety and aggression.

Dialectic behavior therapy is one of the other therapeutical methods to decrease emotional and behavioral decreasing among children and teenagers.<sup>15,16</sup> Linehan created this technique in 1993.<sup>17</sup> Dialectic behavior therapy is a combination of cognitive-behavioral psychoanalysis and mindfulness training of psychological disciplines techniques, and its aim is helping clients to accept their emotions and also changing their emotional experience. Dialectic behavior therapy aim is accepting life. Thus some skills are trained to clients. The essential skills are mental awareness skills, identification, and description of feelings, accepting all feeling, regarding emotions without any trying to avoid bad feeling and interpersonal skill.<sup>18</sup> Metacognitive therapy and dialectic behavior therapy are two kinds of new therapies in the field of psychotherapy as the third process of behavior therapy. Both of them have been used to cure severe psychological disorders such as borderline personality and dependent personality disorders.<sup>19</sup> Thus it seems that using them to decrease divorced child problems indicates their efficacy. This research has tried to study the efficacy of these two therapies, and their efficacy comparison, its constancy rate on divorced children. With regarding metacognitive therapy and dialectic behavior therapy on decreasing aggression of divorced boy teenagers, the present research was designed and conducted by the aim of investigating the effectiveness of group counseling training based on metacognitive therapy & dialectic behavior therapy on reducing anxiety in boy adolescent of divorce.

## Methods

The present study conducted by the quasi-experimental

method and used a pretest-posttest with control group design. The statistical population of the current research included all boy students of divorced parents in Karaj in 2017-2018. Among them, 36 persons selected by convenience sampling method, and they assigned into experimental and control groups (12 individuals per group). Inclusion criteria included all students with divorced parents, having the high score in Beck anxiety questionnaire, not having severe physical and mental illness and exclusion criteria included teenagers who had been accepted to child accepting, participation in similar training programs, being absent more than three sessions. Before the intervention, a pretest executed on three groups, then metacognitive and dialectic behavior therapy executed in 16 sessions of 90-minutes (4 sessions per week). Metacognitive therapy program based on Wells protocol and dialectic behavior therapy program based on Linehan sessions structured by group. The content of two therapies sessions have been presented in Tables 1 and 2 summarily. Post-test executed after finishing sessions for measuring intervention effect during one session from two groups. Follow-up appraisal was done to study interventions constancy after two months of posttest executing. Also, some explanations were given to participants to regard moral necessities about research aims; they were told about being the secret of information and informed satisfaction received from all subjects. Data analysis have done by covariance analysis test and using SPSS-22 software.

## Beck Anxiety Inventory

This scale was designed by Beck et al in 1990 to measure anxiety that measures the severity of clinical anxiety symptoms.<sup>20</sup> This scale includes 21 items that are scored by never (0), mild (1), average (2) and severe (3). Person's score is between 0-63. The internal constancy of this questionnaire has calculated 92%, and its reliability 0.75 by Beck et al,<sup>20</sup> validity, reliability and internal constancy of this questionnaire have reported by Kaviani and Mousavi 0.72, 0.83 and 0.92 respectively.<sup>21</sup>

## Results

Mean, and standard deviation of ages among therapy groups, metacognitive, dialectic behavior therapy and control group were  $15.33 \pm 3.16$ ,  $16.40 \pm 0.98$  &  $16 \pm 1.13$  respectively.

Descriptive statistic related to mean & standard deviation of anxiety scores for control, metacognitive therapy, and dialectic behavior therapy groups have indicated at three measurement stages (pretest, posttest & follow-up) in Table 3. As it is clear, experimental groups had scores decreasing at posttest and follow up stages than pretest. (control group had no changing). Then, primary presumptions, including the constancy hypothesis of the covariance matrix, variances homogeneity, and data normality, were studied and accepted.

**Table 1.** The Summary of Metacognitive Therapy Based on Wells Method

Sessions	Session Content
1 & 2	Case formulating writing, introducing model & making prepared, identification & nominating rumination, exercising attention training technique, homework
3 & 4	Reviewing homework, introducing & exercising faulted mindfulness, introducing rumination postpone, homework
5 & 6	Reviewing homework, identification stimuli & using faulted mindfulness, exercising attention training technique, study activity level and avoiding confronting homework
7 & 8	Reviewing homework, studying rumination postponing challenging with positive believes about rumination, homework
9 & 10	Reviewing homework, studying extensive using of faulted mindfulness, continuing the challenge with positive believes about rumination, studying activity level, exercising attention training technique, homework
11 & 12	Reviewing homework, studying & challenging with negative believes about emotion, anxiety & aggression
13 & 14	Reviewing homework, working on new programs studying and changing fear from symptoms returning, homework
15 & 16	Reviewing homework, preventing from recurrence, working on metacognitive believes, predicting next stimuli, and discussion about using way from the new program, programming reinforces mental sessions.

**Table 2.** The Summary of Dialectic Behavior Therapy Program Based Linhal Method

Sessions	Skill	Session Content
1 & 2	Introduction and generalized consciousness training	After stating aims & rules, group members become familiar with three states, including mental, logical & emotional in generalized consciousness skills field. Group members have received some explanations mental states are mental, logical, emotional & wisdom
3 & 4		Exercising mental states of the previous session, training "what" skill such as generalized consciousness including "What" & "How" skills exercised practically. This exercise is trained first because of being the central core of DBT
5 & 6		
7 & 8	Emotional regulating training	Reviewing previous sessions exercises, and training some emotional regulating skills including the definition of emotion & its items
9 & 10		The other part of emotional regulating, skills such as emotions identification model and its labeling trained
11 & 12		Reviewing previous skills, training emotions acceptance skills even being negative and training some skills to decrease vulnerability to negative emotions
13 & 14	Distress tolerance training	The training part of annoyance tolerating item, i.e., strategies including distract skills and self-relaxation
15 & 16		Reviewing previous training, making better skills of times and benefit & loss in dealing with unhappiness or aggression feeling were exercised by the group. Also, training skills generalizing way to the outside of the therapy session.

**Table 3.** Mean and Standard Deviation of Anxiety Scores at 3 Stages of Measurement Among Groups

Group	Stage	Number	Mean	Standard deviation
Control	Pretest	12	15.67	5.678
	Posttest	12	14.83	6.103
	Follow-up	12	14.67	5.228
Metacognitive therapy	Pretest	12	15.83	6.351
	Posttest	12	10.17	3.881
	Follow-up	12	11.67	4.887
Dialectic behavior therapy	Pretest	12	17.67	5.959
	Posttest	12	13.08	5.518
	Follow-up	12	14.17	5.622

Table 4 indicates the covariance analysis test results to compare anxiety score for metacognitive therapy and control groups at posttest stage. There is a significant difference between experimental and control groups ( $F=140.035, P=0.01$ ). Based on scores mean decreasing in a metacognitive therapy group at posttest, we can state that group counseling based on metacognitive therapy in anxiety decreasing among boy teenagers of divorced parents has been effective.

Table 5 indicates the covariance analysis of test results to

compare anxiety scores among dialectic behavior therapy and control groups at posttest. Based on acquired values, there was a significant difference between the two groups ( $F=140.035, P=0.01$ ). Thus been effective and results in anxiety decreasing among boy teenagers.

Based on acquired values in Table 6, there was not a significant difference between the effectiveness of metacognitive therapy and dialectic behavior therapy upon anxiety decreasing among boy teenagers of divorced parents ( $P>0.05$ ).

**Table 4.** Results of Covariance Analysis to Study Metacognitive Therapy Effect Upon Anxiety

Changes Source	Sum Squares	df	Mean squares	F	P	Effect Value
Pretest	370.238	1	370.238	37.909	0.001	0.644
Group	137.071	1	137.971	14.035	0.001	0.401
Error	205.095	21	9.766			
Total	706	23				

**Table 5.** Covariance Analysis Results to Study the Dialectic Behavior Therapy Effect Upon Anxiety

Changes Source	Sum Squares	df	Mean Squares	F	P	Effect Value
Pretest	562.798	1	562.798	65.015	0.001	0.756
Group	70.717	1	70.717	8.169	0.001	0.280
Error	181.785	21	8.656			
Total	762.958	23				

**Table 6.** Multivariate Covariance Analysis Results to Compare Therapeutical Methods Effect on Anxiety

Effects	Test	Values	F	df	df Error	P
Group	Pillai's effect	0.26	3.451	2	19	0.053
	Wilks Lambda	0.734	3.451	2	19	0.053
	Hotelling trace	0.363	3.451	2	19	0.053
	Roy's largest root	0.363	3.451	2	19	0.053

**Discussion**

The present study aimed to study the effectiveness of metacognitive and dialectic behavior therapy on anxiety decreasing among boy teenagers of divorced parents. Based on research results, group counseling based on metacognitive therapy on anxiety decreasing of boy teenagers has been effective. Therefore, the research hypothesis based on metacognitive therapy effect on anxiety decreasing among boy teenagers of divorced parents is accepted. This finding is favorable with Melli et al,<sup>11</sup> McEvoy et al,<sup>22</sup> Normann et al,<sup>23</sup> Hosseini et al,<sup>24</sup> Rees & van Koesveld,<sup>25</sup> Valizade et al,<sup>26</sup> Azimi et al,<sup>27</sup> and Bahadori et al<sup>28</sup> findings. We can explain that cognitive therapy acts to prevent destructive thoughts and believes and tries to defect inconsistent thinking strategies about annoyence and inflexible support upon behavior. Cognitive theories have presented little explanations about the origin of ineffective models of thinking and behavior. Based on metacognitive attitude, anxiety is one of the basic forms of metacognitive inconsistence forms results in anxiety and depression disorders. Anxiety results in disturbing some cognitive-attentional process with person's effective performance, therefore, divorced children experience anxiety after becoming independent from their parents and this results in a lot of cognitive-attentional processes disturbing with person's effective performance.<sup>29</sup> The present study findings indicated that group counseling based on dialectic behavior therapy on anxiety decreasing among boy teenagers has been effective. Therefore, the research hypothesis based on dialectic behavior therapy effect on anxiety decreasing among boy teenagers of divorced parents is accepted. This

finding is favorable with Kroger et al,<sup>30</sup> Van den Bosch et al,<sup>31</sup> Montazernia et al,<sup>32</sup> Hajjalizadeh & Norizadeh,<sup>33</sup> and Mami et al<sup>34</sup> findings. Decreasing among boy teenagers of divorced parents removes severity from client aims by extending attitude, in fact, dialectic behavior therapy includes four interventional items such as mindfulness, annoyance tolerating, emotional regulation, and interpersonal efficacy. Mindfulness and annoyance tolerating are known as acceptance items and emotional regulation and interpersonal efficacy as changing variables. Therefore, dialectic behavior therapy by these items may decrease daily stress, interpersonal contradictions solving ability, improving ache tolerance, accepting emotions through centralized attention to the present time, reforming emotional incorrect believes and finally removing anxious factors. Therefore, we can state that dialectic behavior therapy is one therapy to decrease teenager's anxiety among divorced boy teenagers.<sup>35</sup> Also, the present study results indicated that there is no significant difference between the rate of cognitive therapy and dialectic behavior therapy on anxiety decreasing among boy teenagers of divorced parents. Although there is no research about effectiveness comparison of these two therapies, executed studies have confirmed them. The results of this finding are favorable with Johnson et al,<sup>10</sup> Norman et al,<sup>23</sup> Galle Girian & Dierh<sup>36</sup> and Mami et al<sup>34</sup> findings. Based on executed studies, dialectic behavior therapy indicated similar effectiveness with the other therapeutical methods on decreasing cognitive-emotional problems decreasing. For example, Mami et al stated that both therapies are effective on depression decreasing, and there is no difference between these

two therapies.<sup>34</sup> Findings generalization is one of the limitations of the present study. Most participants of the present study were from weak categories of economic-social people. Therefore, we can not generalize the present study findings to all boy teenagers of divorced parents. The other limitation of the present study has researched. In the present study, some divorced children were studied during one period, and this results in creating a problem in studying changes related to divorce. This study has been executed on boy teenagers of divorced parents solely, and thus we have limited to generalize results to the other sexual and aged groups.

### Conclusion

Based on research results, both of these therapies, i.e., metacognitive and dialectic behavior therapy, has been active on anxiety decreasing, and there is no significant difference between the effects of these two therapies. Thus, these two therapies are useful as appropriate therapies to decrease the anxiety of teenagers by divorced parents. We suggest to training workshops executing in the field of metacognitive strategies and dialectic behavior therapy for usual and divorced students with high aggression.

### Conflict of Interest Disclosures

The authors declare that they have no conflict of interests.

### Ethical Statement

All ethical principles considered in this article. The participants were informed about the purpose of the research and its implementation stages and signed the informed consent; they also assured about the confidentiality of their information; Moreover, They were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them.

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