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Comparison of the Effectiveness of Cognitive Behavior Therapy and Mindfulness-Based Cognitive Therapy on Quality of Life and Parent-Child Relationship in Women with Generalized Anxiety Disorder

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Abstract

Background: There is a growing body of literature on the effectiveness of second and third wave psychotherapies for treating generalized anxiety disorder.
Objectives: The aim of the present study was to compare the effectiveness of cognitive- behavior (CBT) group therapy (Borkovec model) and mindfulness based cognitive therapy (MBCT) on quality of life and parent-child relationship in generalized anxiety disorder (GAD) among female participants.
Methods: A semi experimental design using pre and post-test and a four-month follow up was used. The statistical population comprised of females with generalized anxiety disorder, who had at least one primary school-aged daughter in the first and third district of Tehran. The sample consisted of 36 females with GAD. Participants' selection was based on availability and they were assigned randomly to 2 groups of CBT and MBCT. The research was conducted in the first half of 2014. The following measurement tools were used, GAD-7 questionnaire, world health o quality of life scale (WHO-QOL BREF), and Parent Child Relationship Scale (CPRS). Data were analyzed via Repeated measures analysis of variance test.
Results: Although the results showed efficacy of CBT and MBCT after the intervention and during follow up ($P < 0.001$), there were no significant differences in quality of life and parent-child relationship between the two groups ($P > 0.05$).
Conclusions: It could be inferred from the results that MBCT could be utilized similar to CBT as an effective treatment in adjunct to pharmacotherapy for females with GAD.

Keywords: Anxiety Disorders, Cognitive Therapy, Mindfulness, Parent- Child Relations, Quality of Life

1. Background

Generalized anxiety disorder, an intractable and debilitating disorder has a prevalence of between 4.3 and 5.9 during lifetime (1). The main characteristic of this disorder is extreme and uncontrollable anxiety with a number of physical and cognitive symptoms, including tension, difficulty in breathing and problems with sleeping, and concentrating (2). This disorder is chronic and associated with relapse. Generalized anxiety disorder has a high comorbidity with disorders, such as major depression, other anxiety disorders, and substance and alcohol abuse (3). Research shows that GAD is a chronic anxiety disorder that reduces quality of life (4).

Quality of life is a complex structure, for which several concepts have been proposed. Quality of life includes three fields, which are role playing, psychological well-being, and general health status (5). Generalized anxiety disorder by creating problems in professional role playing, well-being, and general health causes impairments in quality of life (4).

Also, many patients with GAD experience interpersonal problems. Issues, such as insecure attachment style and childhood trauma, have been proposed in the etiology of this disorder, which are generally seen in Borkovec pattern of worry and GAD (6).

The pattern of interpersonal GAD (7), interpersonal problems resulting from childhood maladaptive attach-

ment relationships, leads to interpersonal cognition bias, defects in interpersonal skills, and maladaptive habitual communication methods with others. This leads to communication problems with others, especially the spouse and children. On the other hand, communication problems lead to reduction of life satisfaction and low quality of life and has an important role in maintaining signs and symptoms of the disorder (8). In many cases, the main complaints of women, who seek medical services, are communication problems with their children. The intensity of the patient's communication problems, especially with their child, plays a major role in resonance of GAD. This indicates that the disorder could cause problems in the quality of the relationship with the child (9).

The results of a recent meta-analysis indicated that cognitive behavioral therapy is effective for the treatment of this disorder; moderate to high efficacy was indicated in the study group compared with the control group (10). The basic treatment components of CBT for GAD include cognitive restructuring, relaxation, and self-care. The basic techniques are often used with other cognitive-behavioral techniques, such as exposure, problem solving, stimulus control, and planning complete the treatment. Cognitive behavioral therapies propose numerous models for the treatment of generalized anxiety disorder, among which Borkovec model provides empirical support and standard treatment (11).

Despite the effectiveness of this treatment, some of the symptoms even after completion of therapy (12) still persist, which is why other treatments are administered. Of new treatments regarding GAD, there are third wave therapies that are mainly based on acceptance (13). Among the third wave therapies, there is mindfulness-based cognitive therapy, which emphasizes on being in the present moment without judging oneself (14). Furthermore, MBCT is based on the theoretical framework of the information processing theory and mindfulness-based stress reduction program, created by Kabat Zin, which integrates the aspects of cognitive-behavioral therapy for major depressive disorder (15). In the recent years, MBCT has been suggested as a treatment model to reduce symptoms of anxiety, and mindfulness-based awareness training can be effective in patients with GAD. Roemer and Orsilo (16) suggest that knowledge-based mindfulness training could be an alternative approach to reduce worries. Although many studies have investigated the effectiveness of MBCT on relapse of depression, its effect on reducing symptoms of anxiety among patients with anxiety disorders is rarely examined. The first study by Evans et al. (17) was conducted to determine the effectiveness of this therapy on Generalized Anxiety Disorder. The results showed that after the implementation of the treatment, significant reduction in scores of Beck anxiety and depression and worry were observed.

Another study by Kim et al. (18) examined the effectiveness of mindfulness-based cognitive therapy, which was conducted as an adjunctive therapy to medicate patients with panic disorder and generalized anxiety disorder. The results indicated that treatment in the experimental group led to significant improvement in anxiety and depression compared with the control group.

Another study by Craigie et al. (19) showed significant improvement in pathological worry, stress, and quality of life, which was also maintained in the post-test. Also, during the therapy, there was a low amount of drop outs. The treatment of patients was evaluated as a valid intervention.

Mindfulness-based cognitive therapy is among the newer treatments, yet its principles are different from the principles of cognitive behavioral therapy with different mechanism of change and its effectiveness must be compared with standard treatment (Borkovec pattern). Also, due to defects in the quality of life and relationship to others, especially ones' spouse and child in this disorder, it seems that these variables should also be checked during the healing process. It has been shown that CBT can improve QoL in patients with GAD as well as interpersonal relationship via avoidance reduction, problem solving, and beliefs about worry. However, the effect of MBCT on QoL and interpersonal relationship is not clear. The effects of MBCT have been indicated on acceptance, awareness, and self-compassion (20). The question is whether these mechanisms effect QoL and parent-child relationships.

2. Objectives

The objective of this study was to compare the effectiveness of group cognitive-behavioral therapy and mindfulness-based cognitive therapy on quality of life and child-parent relationships.

3. Materials and Methods

3.1. Design

This study was a semi-experimental study and compared two groups with random assignment, during pre- and post-test and follow-up. The participants were matched based on intrusive variables, such as socio demographic variables. The research was carried out based on the Helsinki declaration guidelines and was registered on the Iranian registry of clinical trials (IRCT, number IRCT 2012121711789N1)

3.2. Sampling

The study population included all women with generalized anxiety disorder, who had a daughter in elementary school in the first and third district of Tehran. They were between the ages of 25 and 55, with at least primary school education. Sampling was available so that several primary schools for girls in district 1 and 3 of Tehran were selected in an available manner. The mothers that earned a higher score of 7 (cut-off point) in questionnaire GAD-7 and volunteered to take part in the study underwent semi-structured interviews, and once diagnosed with GAD, they were asked to participate in the research. None of the participants took drugs for treating GAD and didn't have any other psychiatric disorders. A written informed consent form was given and those who signed the agreement form were treated as samples. The research was conducted in the first half of 2014. In order to diminish the biases, primary assessment, pre- and post-test and follow up assessments, and also session's administration were held by different people.

Patient inclusion criteria included a primary diagnosis of generalized anxiety disorder without any comorbidity using semi structured clinical interviews and having a minimum grade education. The exclusion criteria also included psychotic and bipolar disorders, which were diagnosed using semi-structured clinical interviews, being treated for psychological or pharmacological disorders, history of psychological treatment before the study, a disabling physical disease that was difficult for enterprise in the group, addiction to alcohol or drugs, and a severe personality disorder (according to Million and Everly (20), a severe personality disorder is borderline personality disorder, schizotypal, and paranoid). The sample consisted of 36 patients, who were randomly assigned to experimental and control groups (18 patients, who were replaced) via the Cohen formula.

Borkovec cognitive behavioral therapy consisted of ten 90-minute sessions, which were held once a week based on the Borkovec protocol (21). In this study, to implement mindfulness-based cognitive therapy, Segal et al.'s protocol (22) with match for generalized anxiety disorder was used. It consisted of 8 sessions carried out once a week.

3.3. Measures

3.3.1. Generalized Anxiety Disorder-7 questions (GAD-7)

The 7-question scale for generalized anxiety disorder (23) is a short diagnostic scale that could identify possible cases of generalized anxiety disorder and determine the severity of clinical signs. Spitzer et al. (23) reported the internal consistency of this scales as excellent (0.92 for Cronbach's alpha) and test-retest reliability as good (0.83). In Iran, a study by Naeeniyan et al. (24) estimated Cronbach's alpha of 0.85 and test-retest of 0.48.

3.3.2. The World Health Organization Quality of Life Questionnaire (Short Form) (WHOQOL-BREF)

This is a questionnaire established by the World Health Organization, which assesses quality of life; this questionnaire has 24 questions scored on a 5-point Likert scale to assess the quality of life in different aspects (25).

Nejat et al. (26) found in their research test-retest reliability in the physical dimension of 0.77, psychological dimension of 0.77, social relationships of 0.75, and environment dimension of 0.84. Also they reported Cronbach's alpha of 0.81 (22).

3.3.3. Child and Parent Relationship Scale (CPRS)

This scale was developed by Pianta for the first time in 1994, which contains 33 domains that measure the perception of parents about their relationship with the child (27). Questionnaires were translated by khodapanahi et al. (28) and content validity was evaluated by the researchers. Positive relationship and Cronbach alpha of each was 0.84, 0.69, 0.46, and 0.8.

3.4. Statistical Analysis

The statistical analysis was performed using SPSS statistical software, version 22.

4. Results

In order to compare the categorical variables between the 2 groups, the chi-square was used. The K-S test was implemented to determine the normality of the variables, followed by parametric tests. Repeated measures analysis of variance test was applied to compare the parametric data at 3 measurement time points. Data were expressed as mean and standard deviation and P values of < 0.01 were considered statistically significant.

The average age of participants in the cognitive behavioral group was 34.46, the standard deviation was 3.44, and the mean age of mindfulness-based cognitive therapy group was 33.73 with a standard deviation of 3.63. In addition, in the cognitive behavioral group, 5 patients (33.3%) were employed and in the mindfulness-based cognitive therapy group, 6 patients (40%) were employed.

Table 1 shows the mean and standard deviation mediator variables between the two groups in pretest, posttest, and follow-up.

To analyze data, analysis of variance (ANOVA) with repeated measures was performed. Before applying the analysis, the assumptions, which included equality of variance

Table 1. The Mean and Standard Deviation of Variables in the Two Groups in Pretest, Posttest, and Follow-Up

Variables	Pretest		Posttest		Follow-Up	
	CBT	MBCT	CBT	MBCT	CBT	MBCT
Quality of life	75.86	76.86	101.26	102.93	101.53	102.40
	3.24	3.04	2.98	3.80	2.98	3.04
Parent-child relation	38.20	37.66	46.46	48.46	43.13	44.73
	2.58	3.51	2.29	3.79	2.29	2.79

and covariance matrix consistency were examined. Levine test results showed that in all the variables, there was no significant difference between the variances so there were equality variances (F = 0.001 and P = 0.97). The box test to determine the covariance matrix showed that the 2 groups were equal (F = 0.31, P = 0.93). Since the default is using repeated measures is the homogeneity of the covariance matrix of the dependent variable, the Muchly test was used. The results of this test showed that it was not a significant indicator and it was a homogeneous variance of the dependent variable. Consequently, the repeated measures test could be used.

As shown in Table 2, CBT and MBCT were effective for the improvement of quality of life and parent child relationship in the post test and follow up with an effect size of 0.97 and 0.78, respectively. However, there wasn't any difference between them. Therefore, both CBT and MBCT improved quality of life and parent child relationship at the same.

5. Discussion

The objective of this study was to compare the efficacy of cognitive behavior therapy and mindfulness-based cognitive therapy on quality of life and child-parent relationship among women with generalized anxiety disorder. The results of the statistical analysis showed that both treatments were able to improve quality of life and the relationship with the child in post-test and follow-up stage and there was no significant difference in treatment effect of these two variables. According to the results of this study, the effectiveness of cognitive behavioral therapy on quality of life is in line with the studies of Cuijpers et al. (11), Andersson et al. (29), Arch et al. (30), and Paxling et al. (31).

In fact, GAD consequences affect all aspects of a person's life and cause impairment in academic performance, professional and social life. Barera and Norton (32) found that patients with GAD report significantly lower satisfaction with quality of life than non-anxious patients (overall mean quality of life questionnaire (QOL) was 60.0 compared to 47.2 among the non-distressed individuals). These people also have low level of social functioning. In fact, the worry that is the main component of the disorder plays an important role on reduced quality of life. Cognitive-behavioral therapy deals with cognitive restructuring in people by identifying negative thoughts, positive self-talk, and challenges in negative thoughts. People with this disorder suffer a collapse due to anxiety and unpleasant physical conditions, and in addition to these ongoing worries, positive beliefs about worry, inability to tolerate uncertainty and ineffective problem solving are all factors that reduce the quality of life; thus, improving the mentioned factors boosts quality of life. Moreover, the use of relaxation techniques to reduce the signs and symptoms of anxiety and worry, which is the main component of this disorder, as well as the use of behavioral techniques to reduce the anxiety of exposure to worry and systematic desensitization, etc. could reduce anxiety, which leads to improvement in quality of life.

According to the effectiveness of mindfulness-based cognitive therapy in improving quality of life of patients with generalized anxiety disorder, it should be noted that the results are in line with the results of Evantz et al. (17), Kim et al. (18), and Criage et al. (19). This treatment allows the participants to understand the relationship between thoughts, feelings, and physical sensations through attention control training with yoga, and physical checks; as a result, anxiety automated processing is reduced. Thus, viewing one's thoughts and feelings without judgment makes it easy for people to see, which events come and go without considering it as their own, all of which leads to reduction of anxiety. These techniques provide a different way of coping with emotions and distress. It is assumed that the lack of relationship with negative thinking creates a person's ability to not become involved in mental ruminations (33). Thus, by reducing depression and anxiety through mindfulness-based cognitive therapy techniques, it could be expected to improve the quality of life of patients because it is assumed that quality of life depends on one's lifestyle assessment of the impact of individual beliefs.

According to the effectiveness of CBT on the relation-

Table 2. Analysis of Variance in the Dependent Variables Between the Two Groups

Source Changes	Sum of Squares	DF	Mean Square	F	Significance Level	Effect Size
Quality of life						
Time	13175.822	1	6587.91	794.94	0.001	0.97
Time and group	2.75	1	1.37	0.16	0.84	0.074
Error	464.08	28	8.28			
Parent-child relationship						
Time	1393.68	1	696.64	101.49	0.001	0.78
Time and group	27.83	1	13.91	0.105	0.14	0.067
Error	384.48	28	6.86			

ship with the child, the results show that there is no difference between effectiveness of mindfulness-based cognitive and cognitive behavioral therapy in improving parent-child relationships. In both groups, parent-child relationship has improved significantly and substantially. Based on the effectiveness of cognitive behavioral therapy on improving parent-child relationships, the current results are consistent with the findings of the study of Glasheen et al. (34) and Vallotton et al. (35). Parents, especially the mother's mental disorder is often associated with problems in parenting (36) of maternal primary and child bad experiences, which lead to an insecure attachment in childhood and adult diseases (37). According to general surgeons (2006), 40% to 70% of American adults have experienced a period of psychological disorders at some stage of their lives; there is very little likelihood of not having psychological problems among parents. Periodic and repetitive mental disorder of parents affects the child over their period of development and is a major threat to children's development. In addition, this is the most important reason for untreated disorders among children, psychological trauma of parents, and dysfunctional family (38).

People with this disorder have difficulty in tolerating uncertainty and always wait for the occurrence of a negative event. In addition, due to extreme vigilance and constant worry, and a lot of control over others, especially the wives and children, this illness could have a huge impact on the parent-child relationship and increases conflict and dependence in relation to the child (39). The use of cognitive techniques in cognitive-behavioral therapy, which includes teaching the basics of psychological, cognitive restructuring, a positive image, coping with worry and timing of concern could help mothers to have less concern and they think less about negative consequences in the event of problem. Thus, in this disorder, cognitive behavioral therapy could improve parent-child relationship indirectly by reducing anxiety and other intermediate cognitive components.

According to research findings, mindfulness-based cognitive therapy is effective in improving anxiety of mothers with generalized anxiety disorder. There has not been any research regarding the effectiveness of this treatment on parent-child relationship. In fact, mindfulness is a way to communicate better with life, which can relieve anxiety states and enriches a person's daily life. Mindfulness allows the person to adapt to the present moment providing direct insight on the role of the mind in creating undue anxiety. With the practice of mindfulness, patients realize that thoughts and emotions are not facts; thoughts are just thoughts. As a result, they are taught to observe their thoughts and emotions in every moment. All these factors reduce anxiety and worry of the patient. Anxiety can affect relationships with others, including the spouse and children. When the mother is permanently anxious and believes any specific environmental stimuli as exaggerated and unrealistic, her relationships with others may be disrupted. As a result, the practice of mindfulness gives the opportunity to reduce their anxiety and develop a relationship with their child that is more favorable.

Cognitive Behavior Therapy takes a long time and many sessions with the same efficacy, so it is better to pay attention to third wave psychotherapies because the main characteristic is worrying. It seems that due to worrying that is the central component in GAD, it would be better to cure it with third wave psychotherapy, such as MBCT.

Among the limitations of the current research is the use of available sampling, implementation of research in two districts of Tehran and female participants, which make it difficult to generalize the results; therefore, it is recommended for random sampling to be used in future research, including other regions and cities with the inclusion of males.

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Footnotes

Authors' Contribution: Fereshte Momeni conceived and designed the study based on the literature, collected the clinical data, managed the data sampling and performed group therapies. Shahriar Shahidi supervised data sampling and participated in referring the participants and obtained approval from the ethics committee. Fereshte Mootabi supervised the inclusion and exclusion and CBT and MBCT methods in both therapies, and revised the manuscript critically for important intellectual content. Mahmood Heydari performed the statistical analysis and interpreted the clinical data. Saeedeh Dadashi drafted the manuscript. All the authors read and approved the final manuscript.

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References

1. Kishita N, Laidlaw K. Cognitive behaviour therapy for generalized anxiety disorder: Is CBT equally efficacious in adults of working age and older adults? *Clin Psychol Rev*. 2017;**52**:124–36. doi: 10.1016/j.cpr.2017.01.003. [PubMed: 28119196].
2. American Psychiatric Association . *Desk reference to the diagnostic criteria from DSM-5*. **51**. Middletown, Connecticut: Choice, Current reviews for academic libraries; 2013.
3. Goodwin H, Yiend J, Hirsch CR. Generalized anxiety disorder, worry and attention to threat, a systematic review. *Clin Psychol Rev*. 2017;**54**:107–22. doi: 10.1016/j.cpr.2017.03.006. [PubMed: 28448826].
4. Mogotsi M, Kaminer D, Stein DJ. Quality of life in the anxiety disorders. *Harv Rev Psychiatry*. 2000;**8**(6):273–82. [PubMed: 11133822].
5. Patrick DL, Chiang YP. Measurement of health outcomes in treatment effectiveness evaluations: conceptual and methodological challenges. *Med Care*. 2000;**38**(9):14–25. [PubMed: 10982087].
6. Borkovec TD, Newman MG, Castonguay LG. Cognitive-behavioral therapy for generalized anxiety disorder with integrations from interpersonal and experiential therapies. *CNS Spectr*. 2003;**8**(5):382–9. [PubMed: 12766694].
7. Newman MG, Castonguay LG, Borkovec TD, Fisher AJ, Nordberg SS. An open trial of integrative therapy for generalized anxiety disorder. *Psychotherapy (Chic)*. 2008;**45**(2):135–47. doi: 10.1037/0033-3204.45.2.135. [PubMed: 19881891].
8. Newman MG, Castonguay LG, Borkovec TD, Fisher AJ, Boswell JF, Szkodny LE, et al. A randomized controlled trial of cognitive-behavioral therapy for generalized anxiety disorder with integrated techniques from emotion-focused and interpersonal therapies. *J Consult Clin Psychol*. 2011;**79**(2):171–81. doi: 10.1037/a0022489. [PubMed: 21443321].
9. Neece CL, Green SA, Baker BL. Parenting stress and child behavior problems: a transactional relationship across time. *Am J Intellect Dev Disabil*. 2012;**117**(1):48–66. doi: 10.1352/1944-7558-117.1.48. [PubMed: 22264112].
10. Cuijpers P, Sijbrandij M, Koole S, Huibers M, Berking M, Andersson G. Psychological treatment of generalized anxiety disorder: a meta-analysis. *Clin Psychol Rev*. 2014;**34**(2):130–40. doi: 10.1016/j.cpr.2014.01.002. [PubMed: 24487344].
11. Chambless DL, Ollendick TH. Empirically supported psychological interventions: controversies and evidence. *Annu Rev Psychol*. 2001;**52**:685–716. doi: 10.1146/annurev.psych.52.1.685. [PubMed: 11148322].
12. Desrosiers A, Klemanski DH, Nolen-Hoeksema S. Mapping mindfulness facets onto dimensions of anxiety and depression. *Behav Ther*. 2013;**44**(3):373–84. doi: 10.1016/j.beth.2013.02.001. [PubMed: 23768665].
13. Eustis EH, Hayes Skelton SA, Roemer L, Orsillo SM. Reductions in experiential avoidance as a mediator of change in symptom outcome and quality of life in acceptance based behavior therapy and applied relaxation for generalized anxiety disorder. *Behav Res Ther*. 2016;**87**:188–95. doi: 10.1016/j.brat.2016.09.012. [PubMed: 27718414].
14. van Ravesteijn HJ, Suijkerbuijk YB, Langbroek JA, Muskens E, Lucassen PL, van Weel C, et al. Mindfulness-based cognitive therapy (MBCT) for patients with medically unexplained symptoms: process of change. *J Psychosom Res*. 2014;**77**(1):27–33. doi: 10.1016/j.jpsychores.2014.04.010. [PubMed: 24913338].
15. van der Velden AM, Kuyken W, Wattar U, Crane C, Pallesen KJ, Dahlgaard J, et al. A systematic review of mechanisms of change in mindfulness-based cognitive therapy in the treatment of recurrent major depressive disorder. *Clin Psychol Rev*. 2015;**37**:26–39. doi: 10.1016/j.cpr.2015.02.001. [PubMed: 25748559].
16. Roemer L, Orsillo SM. Mindfulness, a promising intervention strategy in need of further study. *Clin Psychol Sci Pract*. 2003;**10**(2):172–8. doi: 10.1093/clipsy.bpg020.
17. Evans S, Ferrando S, Findler M, Stowell C, Smart C, Haglin D. Mindfulness-based cognitive therapy for generalized anxiety disorder. *J Anxiety Disord*. 2008;**22**(4):716–21. doi: 10.1016/j.janxdis.2007.07.005. [PubMed: 17765453].
18. Kim YW, Lee SH, Choi TK, Suh SY, Kim B, Kim CM, et al. Effectiveness of mindfulness-based cognitive therapy as an adjuvant to pharmacotherapy in patients with panic disorder or generalized anxiety disorder. *Depress Anxiety*. 2009;**26**(7):601–6. doi: 10.1002/da.20552. [PubMed: 19242985].
19. Craigie MA, Rees CS, Marsh A, Nathan P. Mindfulness based cognitive therapy for generalized anxiety disorder, a preliminary evaluation. *Behav Cogn Psychother*. 2008;**36**(5):553–68. doi: 10.1017/s135246580800458x.

20. Alsubaie M, Abbott R, Dunn B, Dickens C, Keil TF, Henley W, et al. Mechanisms of action in mindfulness-based cognitive therapy, (MBCT) and mindfulness-based stress reduction, (MBSR) in people with physical and/or psychological conditions: A systematic review. *Clin Psychol Rev*. 2017;**55**:74–91. doi: 10.1016/j.cpr.2017.04.008. [PubMed: 28501707].
21. Millon T, Everly GS. *Personality and its disorders, a biosocial learning approach*. New York: John Wiley and Sons; 1985.
22. Bernstein DA, Borkovec TD, Hazlett Stevens H. *New directions in progressive relaxation training, a guidebook for helping professionals*. Westport, CT: Praeger, Greenwood; 2000.
23. Segal ZV, Teasdale JD, Williams JM, Gemar MC. The mindfulness based cognitive therapy adherence scale, inter rater reliability, adherence to protocol and treatment distinctiveness. *Clin Psychol Psychother*. 2002;**9**(2):131–8. doi: 10.1002/cpp.320.
24. Spitzer RL, Kroenke K, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med*. 2006;**166**(10):1092–7. doi: 10.1001/archinte.166.10.1092. [PubMed: 16717171].
25. Naeniyan MR, Shaeri MR, Sharifi M, Hadiyan M. The reliability and validity 7 questions scale generalized anxiety disorder. *Clin psychol Personal*. 2011;**3**(4):41–50. Persian.
26. No authors listed . What quality of life? The WHOQOL Group. World health organization quality of life assessment. *World Health Forum*. 1996;**17**(4):354–6. [PubMed: 9060228].
27. Nedjat S, Montazeri A, Holakouie Naieni KKM, Majdzadeh SR. The world health organization quality of life, (WHOQOL, BREF) questionnaire: translation and validation study of the Iranian version. *Iran J Health Sch*. 2006;**4**:1–12. Persian.
28. Driscoll K, Pianta RC. Mothers and fathers perceptions of conflict and closeness in parent child relationships during early childhood. *Early Child Infant Psychol*. 2011;**7**:1–24.
29. Khodapanahi MK, Ghanbari S, Nadali H, Seyed Mousavi P. Quality of mother child relationships and anxiety syndrome in preschoolers. *Dev Psychol*. 2012;**10**(37):29–37. Persian.
30. Andersson G, Paxling B, Wiwe M, Vernmark K, Felix CB, Lundborg L, et al. Therapeutic alliance in guided internet-delivered cognitive behavioural treatment of depression, generalized anxiety disorder and social anxiety disorder. *Behav Res Ther*. 2012;**50**(9):544–50. doi: 10.1016/j.brat.2012.05.003. [PubMed: 22728647].
31. Arch JJ, Eifert GH, Davies C, Plumb Vilardaga JC, Rose RD, Craske MG. Randomized clinical trial of cognitive behavioral therapy (CBT) versus acceptance and commitment therapy (ACT) for mixed anxiety disorders. *J Consult Clin Psychol*. 2012;**80**(5):750–65. doi: 10.1037/a0028310. [PubMed: 22563639].
32. Paxling B, Almlov J, Dahlin M, Carlbring P, Breitholtz E, Eriksson T, et al. Guided internet-delivered cognitive behavior therapy for generalized anxiety disorder: a randomized controlled trial. *Cogn Behav Ther*. 2011;**40**(3):159–73. doi: 10.1080/16506073.2011.576699. [PubMed: 21770848].
33. Barrera TL, Norton PJ. Quality of life impairment in generalized anxiety disorder, social phobia, and panic disorder. *J Anxiety Disord*. 2009;**23**(8):1086–90. doi: 10.1016/j.janxdis.2009.07.011. [PubMed: 19640675].
34. De Raedt R, Baert S, Demeyer I, Goeleven E, Raes A, Visser A, et al. Changes in attentional processing of emotional information following mindfulness based cognitive therapy in people with a history of depression, towards an open attention for all emotional experiences. *Cognit Ther Res*. 2012;**36**(6):612–20. doi: 10.1007/s10608-011-9411-x.
35. Glasheen C, Richardson GA, Fabio A. A systematic review of the effects of postnatal maternal anxiety on children. *Arch Womens Ment Health*. 2010;**13**(1):61–74. doi: 10.1007/s00737-009-0109-y. [PubMed: 19789953].
36. Vallotton C, Harewood T, Froyen L, Brophy Herb H, Ayoub C. Child behavior problems, Mothers and fathers mental health matters today and tomorrow. *Early Child Res Q*. 2016;**37**:81–93. doi: 10.1016/j.ecresq.2016.02.006.
37. Oyserman D, Bybee D, Mowbray C, Hart-Johnson T. When mothers have serious mental health problems: parenting as a proximal mediator. *J Adolesc*. 2005;**28**(4):443–63. doi: 10.1016/j.adolescence.2004.11.004. [PubMed: 16022881].
38. Myhr G, Sookman D, Pinard G. Attachment security and parental bonding in adults with obsessive-compulsive disorder: a comparison with depressed out-patients and healthy controls. *Acta Psychiatr Scand*. 2004;**109**(6):447–56. doi: 10.1111/j.1600-0047.2004.00271.x. [PubMed: 15117290].
39. Siegel DJ. *The mindful therapist, a clinicians guide to mindsight and neural integration*. **xxvii**. 1st ed. ed. New York: W.W. Norton and Company; 2010.