Original Article

The Effectiveness of Dialectical Behavioral Therapy on the Success of Breast Feeding in Traumatic Childbirth: A Randomized Controlled Trial

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Abstract

Objective: Traumatic childbirth may expose mothers to physical and psychological postpartum disorders. The reduced rate of exclusive breast feeding is an essential consequence of this problem. The goal of this study was to see if dialectical behavioral therapy could help with the onset and duration of exclusive breast feeding after a traumatic delivery.

Method: This clinical trial study included, 210 primiparous women with traumatic vaginal births were admitted to Bahar hospital in Shahroud. A standard protocol was designed and administered. The group allocation imbalance happened by chance and was averted by utilizing block randomization with a size of four and sequentially numbering the intervention or control groups with a sealed concealed envelope Participants in the intervention group had one individual session and four group counseling sessions by the researcher, while the control group participants obtained a routine care. Breast feeding self-efficacy was measured using a related questionnaire before the intervention, six and 12 weeks postpartum. Exclusive breast feeding was determined using a related form at the end of each month until the fourth month.

Results: The outcome of repeated measure ANOVA Before the intervention, based on the greenhouse geisser test indicated no statistically significant difference in breast feeding self-efficacy (P = 0.07) or infant weight between the two groups. (P = 0.98). Nevertheless, a statistically significant difference between the mean score of breast feeding selfefficacy and infant's weight was discovered by a post hoc test utilizing the Bonferroni correction, (P = 0.001) between the two groups after the intervention. Therefore, in the intervention group, the level of exclusive breast feeding was higher than in the control group, and four months after birth, more infants in the intervention group were exclusively breastfed (58% vs 32%) (P < 0.001). The analysis of data using the GEE model showed that the odds of adherence to exclusive breast feeding in the intervention group were 3.4 (0.95 CI: 2.04-5.7).

Conclusion: Dialectical behavior therapy is a powerful tool for minimizing the negative features of traumatic childbirth and increase the success of breast feeding mothers. Therefore, it can be used as a supportive method for mothers.

Key words: Breast Feeding; Consultants; Childbirth; Dialectical Behavior Therapy; Traumatic

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Traumatic childbirth is defined as an event that can occur at any stage of the delivery process. In general, it includes physical and mental injuries, such as severe bleeding or intolerable pain, or a mother's thoughts and emotions, such as loneliness, loss of self-esteem and disappointment, or fear of severe injury and death (1). In Australia, 33% to 45.5% of 499 mothers studied between four and six weeks after delivery had suffered traumatic childbirth (2). According to the results of a study, one out of every three mothers experience psychological childbirth traumas, and the total trauma incidence is 20% to 30%. The most critical consequences of psychological childbirth trauma are reducing women's self-efficacy in accepting maternal roles, the weakening of the relationship between mother and child, and the reduction of mother's infant attachment in the early days after birth (3).

Breast feeding is one of the most critical mental and physical aspects of mother attachment and maternal roleplaying. The results of a meta-analysis in 2016 showed that exclusive breast feeding is one of the most critical consequences of traumatic childbirth (4). In a study, persistent physical pain was the most common cause of failed or unsatisfactory breast feeding in mothers with traumatic delivery (5). The World Health Organization (WHO) presently advises that at least 40% of newborns be breastfed exclusively between four and six months after birth (6). However, the exclusive breast feeding rate is much lower than the recommended rate in developed and developing countries (6). In a study survey, 75% of mothers started breast feeding, but 6 and 12 months after birth, this rate decreased to 43% and 23%, which was far from the WHO's final target for 2020, which is 60% by the end of the sixth month and 34% by the end of the first year after birth (7).

Although the most crucial reason to cease breast feeding is inadequate milk production, the other reason is mothers' negative perceptions of breast feeding and low breast feeding self-efficacy (8). One of the components of social cognition theory is breast feeding selfsufficiency or self-efficacy. In other words, belief in one's own ability to engage in healthful habits, such as exclusive and effective breast feeding. In this sense, Dennis believes there is a link between women' breast feeding self-efficacy and the length of time they breastfeed exclusively (9).

The employment of psychological counseling methods reduces the negative effects of traumatic delivery, such as sadness and anxiety, boosts mothers' self-efficacy and confidence, and promotes mother-newborn connection (10). Cognitive-behavioral therapy (CBT) is one of the most successful behavioral therapies in this area (11). CBT helps the mother to think differently and be able to encounter unexpected and unpleasant events with more correct behaviors because of this new thinking. The effectiveness of CBT in increasing exclusive breast feeding in particularly vulnerable groups has been

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demonstrated recently (10). Dialectical behavioral therapy (DBT), a third-wave treatment technique and a supplement to cognitive behavioral therapy (CBT), is increasingly utilized to treat a variety of cognitive disorders that are unsolved using old techniques like CBT (11). In a study by Miri et al., DBT was able to reduce irrational beliefs in women with postpartum depression (12). In a study, this method was able to reduce nurses' job stress and increase self-efficacy (13). In another study, this method was able to reduce the symptoms of binge eating and negative body image and increase self-efficacy (14). There are four skills in this treatment: mindfulness, emotional control, distress tolerance, and effective communication. The capacity to pay attention to and articulate ideas and feelings in the face of continual change is known as mindfulness. Mindfulness is taught alongside current understanding of the psychological processes of pregnancy, labor, delivery, breast feeding, postpartum adjustment, and the psychological needs of the newborn (11). Emotional regulation is the ability to cope effectively with primary and secondary emotions by understanding them completely. One study found a direct relationship between lactation self-efficacy and emotion regulation ability. The ability to adjust emotions in harsh postpartum conditions would increase more successful maternal-infant attachment, breast feeding, and reduce postpartum depression (8).

Distress tolerance is the ability to distract from unpleasant events without blame and find an appropriate coping response. Effective communication skill is a combination of courage, the perception of the individual's emotions and reactions, and then the same process within one's self. In fact, DBT is a new therapy that has attracted the attention of many reputable scientific centers worldwide and has been used to intervene in crises and the treatment of distressed patients (15).

The goal of this research was to see if dialectical behavior therapy treatment affected parenting abilities in primiparous mothers who have experienced traumatic childbirth, and the experience of painful childbirth has prevented them from being able to communicate effectively with their infant and successful breast feeding.

Materials and Methods

Study Design and Population

All primiparous mothers in Shahroud were referred to Bahar Hospital and hospitalized for labor were included in this clinical trial research. Every day, the researcher visited the hospital and got written informed permission from individuals who satisfied the study's inclusion requirements; after that, the participants were included in the study. 294 mothers were evaluated for inclusion and exclusion criteria in this research. The study's protocol was assessed and approved by the Shahroud University of Medical Sciences Review Board. The group

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allocation imbalance was created by chance and was avoided by using four-block randomization with a sealed hidden envelope containing group allocation information created by a practiced researcher who was not participating in the proceedings. The post-intervention surveys were likewise filled out by someone other than the researcher, and the analyzer was unaware of the groups.

After the selection of mothers according to the study criteria, finally, 210 mothers entered the study Participants were allocated to intervention and control groups at random. (Figure 1). They were randomly assigned to the intervention and control groups using block random allocation methods (Blocks 4). Within separate, opaque envelopes, the assignment forms (A or B) were placed. Then, an envelope was chosen for each sample, and mothers were assigned to either group A or

group B, depending on the type of assignment. A methodologist did the assignment.

Inclusion and Exclusion Criteria

Primiparity, vaginal delivery, a healthy and term infant, speaking Farsi, the capacity to read and write, and traumatic childbirth assessed using a standard technique were among the inclusion criteria for mothers. A history of neurological diseases.

Exclusion criteria included pharmacotherapy or psychological care before and during pregnancy, stressful events such as the death of a family member during pregnancy, the need for the mother or infant to be hospitalized prior to any intervention due to acute and serious problems, any issue preventing breast feeding, and missing more than two intervention sessions.

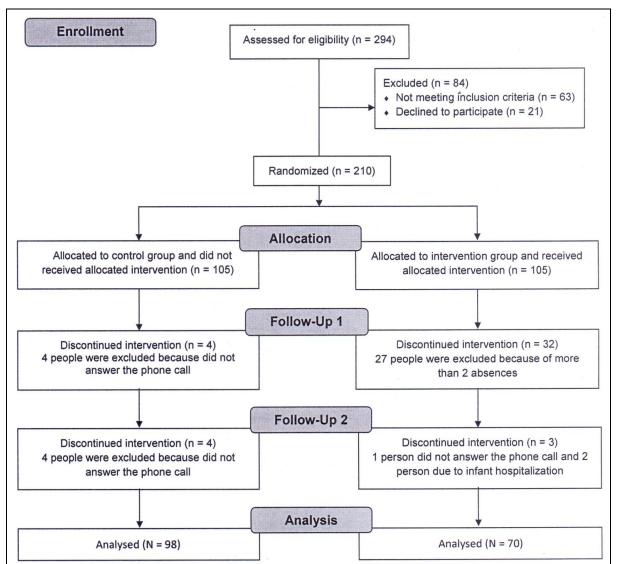


Figure1. Flow Profile for Selection of Study Population

Materials and Methods

According to the study of Ramezani *et al* (18) and using the mean comparison formula between the two groups, the test power of 90% and the first type error of 0.05, the sample size was considered 70 in each group. According to the information of the Ramezani study, the mean and standard deviation of the control group were considered 10 and 6, respectively, and the mean and standard deviation of the intervention group were considered 6.8 and 5.5, respectively (18). Due to the interventional nature of this study and the probability of lost to followup, the sample size was increased to 50%.

Measuring Tools

For all participants, three questionnaires, including a demographic information form, the breast feeding selfefficacy questionnaire, and an exclusive breast feeding questionnaire, were completed.

Demographic and maternity information was gathered through a designed questionnaire. The questions were confirmed and reviewed by psychologists and midwifery specialists. The mother's age, education, residency, economic situation, attitude toward pregnancy, original desire to exclusively breastfeed, infant gender, and pregnancy and delivery side effects were all included in the questionnaire at the start of the research.

1. Traumatic childbirth assessment form

Traumatic childbirth assessment form, as the most notable inclusion criteria, was completed during the first 24 hours postpartum by a qualified midwife as a researcher.

Traumatic delivery was defined according to the DSM-5 classification, (19). The features of a traumatic incident were defined by these criteria in the field of psychology. On this theory, the occurrence of a traumatic experience should satisfy two main requirements of challenge and emotional reaction. The traumatic delivery scale has four items, the first two of which are about dangers and the second two of which are about the mother's emotional responses. If you responded yes to items one and two, plus one of questions three or four, you are likely to have a stressful delivery (20).

The following were the four questions: (1) "Did you or believe you or your baby were in danger during labor?" (2) "Have you or your child been exposed to serious injuries?" (3) "Did your labor strike you as a difficult and distressing experience?" (4) "Did you feel scared or powerless when giving birth?"

The validity of the Persian version of these questions for screening traumatic delivery, as well as their consistency with the concept of traumatic birth, were validated by three psychiatrists (19).

2. Breast feeding self-efficacy scale (BSES)

To assist in the evaluation of maternal self-efficacy in breast feeding, the breast feeding self-efficacy scale (BSES) has been created by Dennis in 1991 (21). This questionnaire was designed based on the theory of selfefficacy proposed by Bandura (22). The content validity of this scale was confirmed by a panel of experts and through interviews with mothers with experienced breast feeding. This scale is a 33-item, self-administered instrument.

Subsequently, the BSES has been refined and shortened by Dennis in 2003 from 33 to 14 items and renamed as breast feeding self-efficacy scale-short form (BSES-SF). The short version of the breast feeding self-efficacy questionnaire (BSES-SF) has 14 questions beginning with "I always can" scored on a 5-point Likert scale from one to five. The scores one to five show "never" or "I'm not sure" to "always" or "I'm sure." The range of the total score is 14-70, with the highest score indicating the highest level of breast feeding self-efficacy. Construct validity was assessed using factor analysis. Significant mean differences in this score between breast feeding and bottle feeding mothers at four and eight weeks postpartum were used to test the predictive validity of the BSES-SF (23). The scale's reliability and validity were found to be acceptable in the United States and Italy (24) as well as other countries such as Iran (25). The typical forward-backward translation process was used to convert the English version of BSES-SF into Persian. The BSES-SF items were not changed (i.e., they were not deleted or renamed). The mean overall BSES-SF score was 50.80 8.91. For the BSES-SF, the Cronbach's alpha coefficient for internal consistency was 0.910. The scale's validity was confirmed by confirmatory factor analysis (2/df = 4.42; CFI = 0.96;NFI = 0.95; IFI = 0.96; RMSEA = 0.095 and SRMR = 0.054). The BSES-divergent SF's validity was demonstrated by a substantial negative connection with the Edinburgh Postnatal Depression Scale scores (r = -0.273; P < 0.001). In conclusion, the Persian version of the BSES-SF is a trustworthy and valid instrument for assessing Iranian women' nursing self-efficacy (25). An infant feeding checklist was used to measure the adherence to exclusive breast feeding. The infant feeding approach was evaluated by asking the mother to record all fluids and foods taken by the newborn (including breast milk, formula, other fluids, semisolids, and solids) at four weeks postpartum and then every month for the next four months, infant's weight at birth and the end of each month, weight gain in exclusive breast feeding group, not following exclusive breast feeding, duration of exclusive breast feeding, and the reasons for not following exclusive breast feeding or stopping breast feeding were gathered (23). EBF was defined according to WHO definitions (26).

The breast feeding self-efficacy questionnaire was completed for the first time in the early 24 hours postpartum and the second time immediately after the intervention in the Sixth week after delivery. The third time, in the 12th week of postpartum in both groups. The monthly form of exclusive breast feeding was completed at the end of each month until the fourth month postpartum in both groups.

Intervention

The intervention group got one DBT session in the postpartum unit for 40 to 60 minutes within the first 24 hours following delivering. The intervention was implemented by a well-trained MSc student in midwifery consulting. The group counseling session was done once a week for five weeks. Each session was designed to accommodate the comfort of mothers and their unique circumstances, such as the infant's desire to be held by his or her mother, the necessity for ongoing nursing, and other considerations. Consultation based on open and honest dialogue with the mother, dedication to secrecy, acceptance of feelings following a traumatic event, active listening, and other related problems were the ethical prerequisites for intervention in this study. Before the major meetings, the content of consultation sessions was documented and validated by a psychologist through an individual presentation. After obtaining approval from a specialist advisor on the correct practice of dialectical behavioral therapy, the researcher performed it for the intervention group.

The description of the intervention protocol was presented in Table 1.

After completing the surveys, the control group got regular postpartum care. By phone calls or by a person outside the study, in both groups, the mean score of breast feeding self-efficacy was assessed immediately after the intervention and at the sixth and 12th weeks postpartum to analyze the influence of time on the intervention.

At the first follow-up (the sixth week after delivery), 27 intervention group individuals were dropped from the trial due to excessive absenteeism, while six control group participants were dropped due to not answering the phone. Three participants were removed from the intervention group (two for not answering the phone call and one for a hospitalized infant) and three from the control group (also for not answering the phone call) at the second follow-up (the 12th week postpartum). In the end, 168 people stayed in the study (Figure 1).

The breast feeding self-efficacy questionnaire was completed for the first time in the first 24 hours postpartum, the second time immediately after the intervention in the Sixth week after delivery, and the third time, in the 12th week of postpartum in both groups. The monthly form of exclusive breast feeding was completed at the end of each month until the fourth month postpartum in both groups.

The post- intervention questionnaires were also filled out by a person other than the researcher. The data analysis was done by a person unaware of the groups.

Data Analyses

All data was examined using SPSS 16 once it was collected. The effects of time and the time-group interaction on breast feeding self-efficacy between the groups were investigated using repeated measures ANOVA, and the independent t test was used to compare the infant's weight immediately after birth and at the end of each month until the fourth month after birth. To compare qualitative factors such as demographic data, the chi square test was used and the exclusive breast feeding status. The data were analyzed to treat method. Significance level was set at less than 0.05.

Ethical Consideration

This study was approved by the Ethics Committee of Shahroud University of Medical Sciences Shahroud, Iran (code: IR.SHMU.REC.1396.14.), and was registered in the Iranian Registry of clinical trials (code: IRCT20180108038265N1).

Sessions	General goals	Technics and exercises
The first session (individual)	Using the five senses, as well as familiarity with a judgmental point of view, and its downsides are all examples of mindfulness. Mindfulness includes focusing on the five senses, mental control, enhancing emotional regulation, increasing behavioral control, and improving attention and memory, among other things.	Focus for one minute, practice light handles, describe excitement and
The second session (group)	Understanding of the primary concept of emotion control, as well as the introduction of main and secondary arousals, Pleasant and negative excitement vision training, beliefs that restrict individuals from participating in positive experiences, directions for improving positive emotional experiences, and acting against bad emotions are all topics covered in this course.	Recognize feelings, complete the emotion record form, and jot down ideas regarding eating, exercising, and sleeping patterns, among other things.
Third session (group)	Mindfulness may be used to alleviate emotional pain as well as to recognize and appreciate happy feelings.	Fill out the holism evidence recording form, as well as the pleasurable activity record form, and

Table 1. Summary of Dialectical Behavioral Therapy Counseling Topics for Intervention Program

Fourth session (group)	A basic characterization of distressing feelings, as well as abilities in assessing the cost and benefit of problematic behaviors, as well as explanations of how to moderate urges and practical measures to do so.	Writing a program of distraction (through relaxing activities, focusing on work or another subject, etc.), writing a program of self-relaxation using the five senses, performing imaging exercises from a safe place and identifying superior strength and better communication with Superior power, writing self-encouraging confrontational thoughts and
Fifth session (group)	Assessing the amount of social support received and concentrating on enhancing present connections to aid the client in boosting the efficacy of interpersonal interactions, All communication kinds (inactive, aggressive, inactive-aggressive, and definite), as well as all communication styles (inactive, aggressive, inactive-aggressive, and definite) are educated and explained (inactive, aggressive, inactive- aggressive, and definite).	Identify interpersonal values; fill out conflict registration forms, risk assessment forms, and risk-taking plans, among other things

Results

The demographics and obstetrics of the two groups were compared using the chi square test, it was determined that there was no significant difference in baseline characteristics (P > 0.05).

The mean score for breast feeding self-efficacy was computed before the intervention. According to the findings, the mean score of these variables' pretest did not differ substantially between the two groups (P = 0.07).

The outcome of repeated measurements The main impact of time on the mean score of nursing self-efficacy was found to be significant in an ANOVA based on the greenhouse geisser test [F (1.51, 258.42) = 18.25; P < 0.001] (Table 2). As a result, we compared the means of nursing self-efficacy in terms of time categories between the two groups. At the 6th (P = 0.001) and 12th (P = 0.001) weeks after birth.

A statistically significant difference in the mean score of breast feeding self-efficacy between the intervention and control groups was discovered using a post hoc test with the Bonferroni adjustment. Table 3 compares mean score comparisons. Average adherence to exclusive breast feeding at the end of every four months was higher in the intervention group than the control group (P = 0.001).

In general, the total amount of exclusive breast feeding in the intervention group was more than the control group in the four months after delivery (58% in the intervention group vs 32% in the control group) (P =0.001) (Table 4).

The analysis of data using the GEE model showed that the odds of adherence to exclusive breast feeding in the intervention group were 3.4 (0.95 CI: 2.04-5.7) times higher than those of the control group.

The repeated measures ANOVA showed a significant main effect of time on the mean score of infant's weights based on the greenhouse geisser test [F (1.97, 343/31) = 15/63; P < 0.001]. As a consequence, we compared the two groups' performance in terms of time categories. A statistically significant difference in the mean score of all these factors was discovered using a post hoc test with the Bonferroni adjustment between the intervention group and control group at the end of the first, second, third, and fourth month postpartum. These results are presented in the table in terms of mean and standard deviation at both times (Table 5).

Table 2. Comparison of the Effect of Time, Intervention, and the Interaction of Intervention and
Time on Breast feeding Self-Efficacy

Time	Intervention Group	Control Group	Bonferroni Post-Doc Test
Breast feeding self- efficacy	Mean (standard deviation)	Mean (standard deviation)	P-value*
Before intervention	50.04 (7.48)	52.13 (7.49)	0.07
6th week postpartum	53.87 (8.42)	49.11 (9.79)	< 0.001
12th week postpartum	57.73 (8.38)	52.03 (12.97)	< 0.001

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Table 3. Comparison of Adjusted Means of Breast feeding Self-Efficacy Using Repeated Measure
analysis of variance

Variable	Time Effect		Intervention Effect		Time*Intervention Effect	
Variable	F	P-value	F	P-value	F	P-value*
Breastfeeding self-efficacy	17.54	< 0.001	7.22	0.008	18.25	< 0.001

Table 4. Percentage of Exclusive Breast feeding within Four Months and a Total of Four Months inBoth Groups

Time	Intervention Group N (%)	Control Group N (%)	P-value*
One month after childbirth	60 (77.9)	57 (56.4)	0.003
Two months after childbirth	68 (85.3)	59 (58.4)	< 0.001
Three months after childbirth	63 (83.4)	59 (57.2)	< 0.001
Four months after childbirth	59 (79.7)	54 (56.8)	0.002
Total of four months after childbirth	43 (58.8)	31 (32.6)	< 0.001

*Chi-square test

Table 5. Mean and Standard Deviation of Infants' Weight, at Birth, and Within Four Months

Newborn Weight Gain	Intervention Group	Control Group	Bonferroni Post-Hoc Test	
j	Mean (Standard Deviation)	Mean (Standard Deviation)	P-value*	
Mean birth weight	3200 ± 357	3201 ± 359	0.98	
Mean weight of one month after birth	4166 ± 398	4009 ± 358	0.007	
Mean weight of two months after birth	5040 ± 403	4825 ± 363	< 0.001	
Mean weight of three months after birth	5853 ± 400	5704 ± 424	0.019	
Mean weight of four months after birth	6687 ± 385	6584 ± 414	0.094	

Discussion

The goal of this research was to see if DBT affected breast feeding self-efficacy and exclusive breast feeding after a traumatic delivery. Comparing the mean breast feeding self-efficacy scores and adherence to exclusive breast feeding within four months of birth showed that the participants in the intervention group had higher levels of breast feeding self-efficacy and exclusivity than the controls. This observation is in line with a study that investigated the effects of traumatic childbirth on breast feeding. Some studies claim that traumatic childbirth reduces breast feeding success due to various reasons, such as permanent physical pain after a difficult delivery, fear, anger, lessened mother's self-esteem, painful childbirth memories, and decreased mother's attachment infants. These factors stop breast feeding (5). The result of another study indicated that physical or psychological traumas in mothers during and after childbirth reduced oxytocin and led to a delay in the onset and continuation of breast feeding (27). These results are in agreement with our findings of the impact of psychological and physical traumas on breast feeding. The use of supporting methods in the form of psychological consultation techniques effectively reduces the effects of traumatic and stressful events that

may lead to negative emotions and reduce an individual's self-efficacy. These supporting techniques are used along with direct breast feeding training techniques, such as correct breast feeding instructions, advice on the benefits of breast feeding, etc. A study about the effect of midwives' consultation on traumatic childbirth suggested that such interventions reduce the symptoms of anxiety and fear and increase self-esteem and self-efficacy of mothers in caring for newborn babies and accepting the maternal role (10).

Although various counseling methods, such as CBT, have been used as effective methods to reduce the effect of traumatic childbirth and improve the physical and psychological conditions of mothers, DBT is used for the first time in this study as a new method for traumatic childbirth. CBT was influential in the reduction of posttraumatic stress symptoms in traumatic childbirth (28). The results of the research suggested that positive emotions using CBT could replace functional, emotional, and behavioral disorders in mothers with traumatic deliveries (29).

The cognitive-behavioral approach has recently been explicitly used to improve the state of exclusive breast feeding (12, 30). As a complementary method for CBT, the dialectical method acted differently. The main difference between these two approaches is that the DBT

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increases accreditation based on pain, suffering, and negative emotions and then eliminates them.

Dialectical behavior therapy consists of teaching the four skills of mindfulness, emotion regulation, distress tolerance, and interpersonal communication skills (31). Mindfulness education takes into account the psychobiological processes of pregnancy, labor, delivery, nursing, postpartum adjustment, and the newborn's psychobiological requirements. Motherhood is related with a variety of feelings, both pleasant and bad. Women's emotional control techniques may have an influence on their general well-being and connection to their children (32).

New parents' ability to be calm and in control of their emotions is enhanced as a result of distress tolerance as a mediator of emotion regulation may develop with time, allowing them to participate in healthy dyadic relationships with their newborn (33). All of these studies are consistent with our findings.

Higher breast feeding self-efficacy in mothers has a strong association with the time of exclusive breast feeding, according to research findings. (34). The results are consistent with the findings of another study. In the present study, exclusive breast feeding in the control group with no intervention was almost low (one-third of mothers) after four months of childbirth, which is the same as the mentioned study. Some similar studies with relatively identical results is available (35).

In a study on 159 mothers, the researcher demonstrated that although most mothers started breast feeding, the breast feeding rate six months after birth decreased to about half, and mothers with high self-efficacy in breast feeding emphasized the continuation of breast feeding (36).

The average weights of infants in the intervention group, who had stronger self-efficacy and commitment to exclusive breast feeding, were higher than those of infants in the control group, who were formula-fed or supplemented. A few more studies have indicated that the weight gain of infants who were exclusively breastfed during the first trimester after birth was higher than those who had nonexclusive nutrition with supplementary food or formula-fed (37). These results match those observed in an earlier study.

Limitation

The number of sessions held was one of the study's limitations. Because mothers who attended this study were in their postpartum period, they could not participate in many sessions.

However, the purpose of the sessions for the target group was a type of preventive intervention with DBT-style skills rather than the formation of therapy sessions. This justified the possibility of holding fewer sessions.

Conclusion

DBT is an effective method for controlling emotions, thoughts, and adverse actions during unpleasant events

like traumatic childbirth and its negative consequences like a disturbance in breast feeding. This method effectively increases breast feeding self-efficacy and exclusive breast feeding as two important breast feeding success factors in primiparous mothers.

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Conflict of Interest

None.

References

- 1. Beck CT. Middle range theory of traumatic childbirth: The ever-widening ripple effect. Glob Qual Nurs Res. 2015;2:2333393615575313.
- Elmir R, Schmied V, Wilkes L, Jackson D. Women's perceptions and experiences of a traumatic birth: a meta-ethnography. J Adv Nurs. 2010;66 (10):2142-53.
- Taghizadeh Z, Arbabi M, Kazemnejad A, Irajpour A, Lopez V. Iranian mothers' perceptions of the impact of the environment on psychological birth trauma: A qualitative study. Int J Nurs Pract. 2015;21 Suppl 2:58-66.
- Greenfield M, Jomeen J, Glover L. What is traumatic birth? A concept analysis and literature review. Br J Midwifery. 2016;24 (4):254-67.
- Beck CT, Watson S. Impact of birth trauma on breast-feeding: a tale of two pathways. Nurs Res. 2008;57 (4):228-36.
- Al-Matrafi HB. Knowledge and attitude of breastfeeding among future parents attending premarital investigation clinic in Makkah City. Int J Med Sci Public Health. 2014;3 (5):564-72.
- Watkins S, Meltzer-Brody S, Zolnoun D, Stuebe A. Early breastfeeding experiences and postpartum depression. Obstet Gynecol. 2011;118 (2 Pt 1):214-21.
- Haga SM, Ulleberg P, Slinning K, Kraft P, Steen TB, Staff A. A longitudinal study of postpartum depressive symptoms: multilevel growth curve analyses of emotion regulation strategies, breastfeeding self-efficacy, and social support. Arch Womens Ment Health. 2012;15 (3):175-84.
- Dennis CL, Hodnett E, Gallop R, Chalmers B. The effect of peer support on breast-feeding duration among primiparous women: a randomized controlled trial. Cmaj. 2002;166 (1):21-8.
- Gamble J, Creedy D, Moyle W, Webster J, McAllister M, Dickson P. Effectiveness of a counseling intervention after a traumatic childbirth: a randomized controlled trial. Birth. 2005;32 (1):11-9.

- Nardi B, Laurenzi S, Di Nicolò M, Bellantuono C. [Is the cognitive-behavioural therapy an effective strategy also in the prevention of post partum depression? a critical review]. Riv Psichiatr. 2012;47 (3):205-13.
- Rahman A, Haq Z, Sikander S, Ahmad I, Ahmad M, Hafeez A. Using cognitivebehavioural techniques to improve exclusive breastfeeding in a low-literacy disadvantaged population. Matern Child Nutr. 2012;8 (1):57-71.
- Duncan LG, Bardacke N. Mindfulness-Based Childbirth and Parenting Education: Promoting Family Mindfulness During the Perinatal Period. J Child Fam Stud. 2010;19 (2):190-202.
- 14. Miri N, Nayyeri M. Comparison the Effectiveness of Dialectical Behavior Therapy, Drug Therapy and Their Combination Methods on Depression and Irrational Beliefs in Women with Postpartum Depression. Iranian Journal of Psychiatric Nursing. 2019;7 (2):1-9.
- 15. Narimani M, Salehi M, Kazemi N. The effectiveness of dialectical behavior therapy on stress reduction and increasing self-efficacy among nurses. Journal of health and care. 2016;17 (4):270-80.
- Abolghasemi A, Jafari E. The effectiveness of dialectical behavior therapy on body image and self-efficacy in girls with bulimia nervosa. J Clin Psychol .2012;4 (2):29-37.
- KARBALÁEI MMA, Ahadi H, Sharifi H, Jazayeri S. Effects of dialectical behavior therapy with medical therapy vs. medical therapy alone in reducing suicidal thoughts in patients with major depressive disorder and recent history of attempted suicide. J Appl Psychol. 2011;4 (16):25-41.
- Ramezani S, Khosravi A, Motaghi Z, Hamidzadeh A, Mousavi SA. The effect of cognitive-behavioural and solution-focused counselling on prevention of postpartum depression in nulliparous pregnant women. J Reprod
- Suppe F. The diagnostic and statistical manual of the american psyciatrics association : Classifying sexual disorders; CA, USA, Springer; 1987
- Taghizadeh z, Jafar Bm, Arbabi M, Faghihzadeh S. The effect of counseling on post traumatic stress disorder after a traumatic childbirth. hayat. 2008; 13 (4): 23-31.
- 21. Dennis CL, Faux S. Development and psychometric testing of the Breastfeeding Self-Efficacy Scale. Res Nurs Health. 1999;22 (5):399-409.
- 22. Bandura A. Self-efficacy: toward a unifying theory of behavioral change. Psychol Rev. 1977;84 (2):191-215.
- 23. Dennis CL. The breastfeeding self-efficacy scale: psychometric assessment of the short form. J Obstet Gynecol Neonatal Nurs. 2003;32 (6):734-44.
- 24. Petrozzi A, Gagliardi L. Breastfeeding Self-Efficacy Scale: Validation of the Italian Version and Correlation With Breast-feeding at 3

Months. J Pediatr Gastroenterol Nutr. 2016;62 (1):137-9.

- Amini P, Omani-Samani R, Sepidarkish M, Almasi-Hashiani A, Hosseini M, Maroufizadeh S. The Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF): a validation study in Iranian mothers. BMC Res Notes. 2019;12 (1):622.
- Mortazavi F, Mousavi SA, Chaman R, Khosravi A. Do maternal quality of life and breastfeeding difficulties influence the continuation of exclusive breastfeeding? Int J Pediatr. 2014;2014:156049.
- 27. Dewey KG. Maternal and fetal stress are associated with impaired lactogenesis in humans. J Nutr. 2001;131 (11):3012s-5s.
- Ayers S, McKenzie-McHarg K, Eagle A. Cognitive behaviour therapy for postnatal posttraumatic stress disorder: case studies. J Psychosom Obstet Gynaecol. 2007;28 (3):177-84.
- 29. Kendall-Tackett K. Intervention for mothers who have experienced childbirth-related trauma and posttraumatic stress disorder. Clinical Lactation. 2014;5 (2):56-61.
- Zamani N, Habibi M, Darvishi M. To compare the effectiveness of dialectical behavior therapy and cognitive behavioral group therapy in reducing depression in mothers of children with disabilities. Journal of Arak University of Medical Sciences. 2015;18 (1):32-42.
- McKay M, Wood JC, Brantley J. The dialectical behavior therapy skills workbook: Practical DBT exercises for learning mindfulness, interpersonal effectiveness, emotion regulation and distress tolerance.New Harbinger Publications,Inc; Ocland, CA; 2010.
- 32. Marques R, Monteiro F, Canavarro MC, Fonseca A. The role of emotion regulation difficulties in the relationship between attachment representations and depressive and anxiety symptoms in the postpartum period. J Affect Disord. 2018;238:39-46.
- Russell BS, Lincoln CR. Distress tolerance and emotion regulation: Promoting maternal wellbeing across the transition to parenthood. Parenting. 2016;16 (1):22-35.
- Lau CYK, Lok KYW, Tarrant M. Breastfeeding Duration and the Theory of Planned Behavior and Breastfeeding Self-Efficacy Framework: A Systematic Review of Observational Studies. Matern Child Health J. 2018;22 (3):327-42.
- 35. Arora A, Manohar N, Hayen A, Bhole S, Eastwood J, Levy S, et al. Determinants of breastfeeding initiation among mothers in Sydney, Australia: findings from a birth cohort study. Int Breastfeed J. 2017;12:39.
- Hoff CE, Movva N, Rosen Vollmar AK, Pérez-Escamilla R. Impact of Maternal Anxiety on Breastfeeding Outcomes: A Systematic Review. Adv Nutr. 2019;10 (5):816-26.
- 37. Corr TE, Schaefer EW, Paul IM. Growth during the first year in infants affected by neonatal abstinence syndrome. BMC Pediatr. 2018;18 (1):343.