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ABSTRACT

Background: The goal of this research was to determine the effects of intensive short-term dynamic psychotherapy (ISTDP) on emotional facilitation of emotional expressiveness and defense mechanisms of women with breast cancer.

Methods: This was a quasi-experimental study. The statistical population of the study included women with breast cancer who had completed the course of chemotherapy and were referred to Raj psychodynamic center to receive psychological services. Six eligible patients were selected to enter the psychodynamic therapy program based on the Davanloo treatment approach. The participants were selected through purposive sampling and volunteered to be part of the study. Measurement instruments included the Emotional Expressiveness Questionnaire (EEQ) and Defense Style Questionnaire-40. Pre-post data were analyzed using a t test, Bonferroni correction, and one-variable covariance analysis.

Results: ISTDP led to facilitation of emotional expressiveness (expression of latent feelings), reinforcement of mature mechanism, and adjustment of neurological and immature mechanisms in patients with breast cancer.

Conclusion: This psychological approach can be used as a non-pharmacological treatment to improve mental health and quality of life of women with breast cancer.

Introduction

Breast cancer is the most common cancer among Iranian women and accounts for 25% of all cancers in this population, according to the Iranian Cancer Institute.1-7 The incidence of breast cancer is often a very stressful event. In addition to a high death rate, breast cancer has significant negative effects on emotional and mental health of women and affects different aspects of their lives.8-10 Many breast cancer patients end up losing one or both breasts, causing a feeling of being an amputee in some women. The partial or complete removal of the breast as an important body part is likely associated with a drastic change in body image, decrease in feminine emotions, decrease in sexual attractiveness, anxiety, depression, lack of motivation, embarrassment, rejection, and thoughts of death.6-7 After being diagnosed with breast cancer, many women show a high level of inability and disappointment in adaptation to cancer in their personal and family life.5 These patients need help in adapting to their condition and meeting their disturbed needs to return to their normal lives.7 Cancer patients often use spiritual methods, cognitive reconstruction, hope, and social support to adapt to and accept their illness.10 Given the severe psychological stresses in female patients with breast cancer, coping
mechanisms are necessary for adaptation to the disease. The use of various coping mechanisms in these patients requires their adaptation to the disease, while many women have problems in this regard and are not able to adapt to the conditions of their illness and thus suffer from more problems.24

One of the psychological variables important for cancer patients is emotional expressiveness. Kring and colleagues defined emotional expressiveness as external expressions of emotion regardless of its value (positive or negative) or method (verbal or physical).11, 12 Some people express their emotions more freely and without much fearing the consequences; others tend to be conservative in expressing their emotional states.13 Some people do not express their emotions, yet feel comfortable about it. There are also people in whom the suppression of emotions will increase the risk of psychological distress and physical health problems. Emotions have four main functions: balancing the arousal, developing self-understanding, improving coping skills, and enhancing interpersonal relationships.14 Furthermore, sharing negative emotional experiences is one way to restore emotional balance and protect the health of individuals.15

Being familiar with Freud’s classical psychoanalysis and the defense mechanism, Habib Davanloo developed a series of emotion-focused interventions to mobilize emotions and challenge defense mechanisms to achieve balanced levels after a stressful emotional experience.16 Research indicates that long-term emotional disclosure improves anxiety, insomnia, depression, negative mood, and inhibition,17, 18 psychological health, physical problems, social abilities,19 and self-esteem.20 Among psychological variables that should be considered in patients with cancer is the utilization of defense mechanisms. Davanloo has paid special attention to these mechanisms in his dynamic approach. The system of operationalized psychodynamic diagnosis considers defense mechanisms as one of the important factors in relation to the vulnerability of individuals to psychological problems. The *Diagnostic and Statistical Manual of Mental Illness* (DSM) also discusses them as an axis that can be considered in the future. For this reason, the role of defense mechanisms in pathologies, diagnostic processes, therapeutic interventions, and therapeutic outcomes has been identified as one of the reconciliation.20, 21 Defense mechanisms is considered one of the sides of the conflict triangle.22 They are subconsciously active as internal processes20 and are initiated in response to intense internal (impulses) or external factors (intermediate situations or real dangers). In addition, distortion of reality modifies the level of anxiety resulted from the conflict between different parts of the character; this anxiety can create psychological distress so great and intense that self-awareness or consciousness would be unable to withstand. Reality distortion is the price a person pays for her feeling of coherence.24 Vaillant classifies defense mechanisms hierarchically based on the maturity, from the most mature defenses at the higher to the most immature defense mechanisms at the lowest levels.21 This hierarchical model provides the basis of the works of Band and Vaillant.20, 22 Additionally, the mechanisms mentioned in the DSM-7 are distinguished by Andrews in three styles: mature, neurotic, and immature.20 Mental health is correlated with mature and adaptive defense styles, and immature and neurotic defensive styles are associated with pathology and disturbance indices.21, 22 Despite the importance of the role of psychological variables in cancer patients, especially emotional expression and defense mechanisms, not enough attention has been paid to this issue. The provision of any psychological services to promote adaptation to and acceptance of the disease requires the identification of emotions and having a working knowledge of the disease and the ways to deal with it. Also, as cancer brings about a series of changes to the path of one’s life (long-term physical admission, frequent visits to the doctor, various treatments, and high financial costs) and causes countless social, physical, psychological, economic, and family problems, it is crucial to study the psychological factors in order to be able to provide more effective psychotherapy services for these patients. Gates believes that providing counseling to cancer patients will reduce their psychological stress; therefore professional consultation is well received by the patients’ support system and can be very effective in helping patients adjust to the range of emotions they experience.23 In a study on a group of cancer patients, the patients believed that counseling and psychotherapy could be the key to admitting the reality of the disease and to coping more effectively with the psychological problems associated with the illness. In some research interviews, about 29% to 50% of patients find counseling and psychotherapy to be beneficial.24 In addition to increasing the range of relationships among patients, psychotherapy increases awareness, engagement, and effective decision-making, eases worries, and increases self-esteem.25

Intensive short-term dynamic psychotherapy (ISTDP) is rooted in Freud’s psychoanalytic theory and evolved through the studies of Malan, Mann, Sifneos, Strap, Binder, Davanloo, Polack, Horner, and Diyang.26 The prominent features of this therapeutic approach are the deep emotional experience during the treatment session, the level of therapist activity, the encouragement of the patient to cooperate, and the active attention to time constraints, as well as the focus of treatment and special selection criteria.26-37 ISTDP has yielded positive results in reducing symptoms and reducing disturbances in interpersonal and social/occupational domains. Given the fact that ISTDP has proven its usefulness in
the treatment of psychological disorders and some chronic physical conditions, it might be reasonable to hypothesize that it can also reduce the psychological symptoms of patients with breast cancer. Therefore, the present study aims to investigate the effect of ISTDP on emotional expressiveness and defense mechanisms employed by women with breast cancer.

**Methods**

This was a quasi-experimental study, with the statistical population of women with breast cancer who had completed the course of chemotherapy and were referred to Raj psychodynamic center to receive psychological services. Six eligible individuals were chosen to enter the psychodynamic therapy program based on Davanloo’s approach. The participants were analyzed for emotional expressiveness and the use of defense mechanisms at baseline and after the intervention. The pretest and posttest values were compared using a t test, Bonferroni test, and single-variable analysis of covariance, in addition to Wilks’ Lambda test.

**Measurements**

**Emotional Expressivity Questionnaire (EEQ)**

The questionnaire was developed by King and Emmons to examine the emotional expressivity in three components of positive emotional expression, intimacy, and negative emotional expression. It consists of 16 items rated on a 5-point scale, with the overall score varying between 16 and 80. The correlation between the scores of the EEQ and the Minnesota Multiphasic Personality Inventory and the Bradburn Positive Affect Scale scores are positive. The Persian version of the scale had a Cronbach’s alpha coefficient of 0.68, and alpha coefficients for subscales of positive emotional expressivity, expressive intimacy, and negative emotional expressivity were, 0.65, 0.59, and 0.68, respectively. Reliability of the scale in our study was 0.83, which is accepted as statistically significant.

**Defense Style Questionnaire (DSQ)**

This questionnaire is based on the defense hierarchy model by Andrews *et al.* and consists of 40 questions rated on a 9-point Likert scale (I totally agree = 1 to I totally disagree = 5). This scale evaluates 20 defense mechanisms in three categories of “mature,” “neurotic,” and “immature” styles. Reliability and validity of the scale were evaluated and determined by Heidarinasab *et al.* Cronbach’s alpha coefficients for the scale were 0.71 and 0.78 in precollege and college students, respectively. The correlation coefficient obtained from the split-half method was 0.54. Reliability of the scale in our study was 0.76, which is acceptable.

**Intervention**

The participants received 15 two-hour sessions of therapy, twice a week, based on Davanloo’s intensive short-term dynamic psychotherapy (ISTDP-D) method in the following seven steps (Table 1).

**Results**

According to Table 2, the age of the participants was between 36 to 51 years, and four of them had used psychotherapy and/or psychiatric medications during their survivorship. Four of the patients had a university education, while two had a high school diploma. Moreover, two of the subjects were housewives, one was a teacher, one a student, one worked as a salesperson, and one was an accountant.

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**Table 1. The intervention protocol used in the study**

1. **1. Asking about the patient’s problem:** Searching for symptoms of a disorder; emphasis on objective and specific responses; focus on feelings.
2. **2. Pressure:** Asking for a more detailed and objective explanation; focusing on defenses; awakening transitional feelings; regulating anxiety; stimulating commitment therapy, etc.
3. **3. Challenge:** Identifying and clarifying defenses; stimulating the patient against his own defenses.
4. **4. Transitional resistance:** Challenging with transitional resistance; direct involvement with transitional resistance; targeted commitment therapy against resistance; emphasizing the refusal of the patient from emotional proximity to the therapist, emphasis on the patient’s need for self-defeating in the treatment process to withstand resistance, etc.
5. **5. Direct access to the unconscious:** Direct experience of transitional feelings and the first breakthrough; experience of feeling in cognitive/physiological and motor dimensions; creating a relationship between transitional feelings and the patient’s far and near past.
6. **6. Transition analysis:** Association and analysis of similarities and differences between the patient’s communication patterns in the individual’s relationships in their current/past life and transition; creating a relationship between the triangle of conflict (defenses, anxiety, feelings) and the triangle of personality (transition, current relationships, past).
7. **7. Dynamic examination of the unconscious:** Systematic and deeper exploration of the sides of the conflict triangle and the personality triangle; exploring the family life of the patient; consolidating the insight
Also, there was a significant decrease in the overall score of defense mechanism from baseline to postintervention (215 vs 98.33). Except for the mature defenses, the decrease was observed in the immature and neurotic defensive styles. In other words, ISTDP enhanced the expression of the emotions and strengthened the mature defense styles on the one hand, and, on the other hand, reduced the immature and neurotic defense styles in patients with breast cancer (Table 3). Before using the parametric test, an analysis of variance with repeated measurement was performed using Mauchly’s test of sphericity and Greenhouse-Geisser test to check for violation of assumptions of the technique.

There was a significant increase in overall emotional expressivity scores from baseline to postintervention (36.17 vs 62.83). All the components of emotional expressivity displayed this increase except for the negative emotion component, which decreased after the intervention.

Also, there was a significant decrease in the overall score of defense mechanism from baseline to postintervention (215 vs 98.33). Except for the mature defenses, the decrease was observed in the immature and neurotic defensive styles. In other words, ISTDP enhanced the expression of the emotions and strengthened the mature defense styles on the one hand, and, on the other hand, reduced the immature and neurotic defense styles in patients with breast cancer (Table 3). Before using the parametric test, an analysis of variance with repeated measurement was performed using Mauchly’s test of sphericity and Greenhouse-Geisser test to check for violation of assumptions of the technique.

Based on the findings presented in Table 4, the Multivariate Lambda Wilks statistics are statistically significant at 95% confidence level. Therefore, the null hypothesis is rejected and it is determined that the dependent variables are in fact influenced by the independent variable. More precisely, the results of this experiment show that ISTDP was effective in improving the participants’ emotional expressivity and defense styles. Effect sizes for defense styles and emotional expressivity were 0.912 and 0.992, respectively.

The results of the within-subjects test in Table 5 show that ISTDP had a significant impact on emotional expressivity and defense styles. Therefore, it can be said that this treatment approach facilitated the expression of emotions of the participants and developed more mature defense mechanisms. Effect sizes for defense styles and emotional expressivity were 0.912 and 0.992, respectively.

### Table 2. Descriptive characteristics of the participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
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<tbody>
<tr>
<td>Age, year</td>
<td>36</td>
<td>47</td>
<td>40</td>
<td>51</td>
<td>45</td>
<td>39</td>
</tr>
<tr>
<td>Morbidity duration, year</td>
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<td>3</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>2</td>
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<tr>
<td>History of psychotherapy</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>History of using psychiatric drugs</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Education</td>
<td>Bachelor</td>
<td>Master</td>
<td>Diploma</td>
<td>Diploma</td>
<td>Bachelor</td>
<td>Bachelor</td>
</tr>
<tr>
<td>Job</td>
<td>Teacher</td>
<td>Student</td>
<td>Seller</td>
<td>Housewife</td>
<td>Accountant</td>
<td>Housewife</td>
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### Table 3. Pre-post comparison of emotional expressivity and defense styles and their components

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Paired-Samples t Test</th>
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<th>P Value</th>
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<td>Emotional Expressivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Positive emotion</td>
<td>6</td>
<td>36.17</td>
<td>5.30</td>
<td>62.83</td>
<td>17.5</td>
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<tr>
<td>Intimacy expressive</td>
<td>6</td>
<td>13.7</td>
<td>11.17</td>
<td>21.67</td>
<td>1.21</td>
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<tr>
<td>Negative emotion</td>
<td>6</td>
<td>15.67</td>
<td>1.37</td>
<td>7.5</td>
<td>2.29</td>
</tr>
<tr>
<td>Defense Styles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature defenses</td>
<td>6</td>
<td>30.17</td>
<td>7.76</td>
<td>30.17</td>
<td>7.76</td>
</tr>
<tr>
<td>Neurotic defenses</td>
<td>6</td>
<td>46</td>
<td>9.55</td>
<td>12</td>
<td>1.41</td>
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<tr>
<td>Immature defenses</td>
<td>6</td>
<td>138.83</td>
<td>37.73</td>
<td>138.83</td>
<td>37.73</td>
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</table>

### Table 4. The results of Wilks’ Lambda test for emotional expressivity and defense styles in women with breast cancer

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>P Value</th>
<th>Partial Eta Squared</th>
</tr>
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<tbody>
<tr>
<td>Defense Styles</td>
<td>0.088</td>
<td>52.03</td>
<td>1</td>
<td>5</td>
<td>0.001</td>
<td>0.912</td>
</tr>
<tr>
<td>Emotional expressivity</td>
<td>0.008</td>
<td>603.77</td>
<td>1</td>
<td>5</td>
<td>&lt;0.001</td>
<td>0.992</td>
</tr>
</tbody>
</table>

### Table 5. The results of Within-Subjects tests of difference associated with emotional expressivity and defense styles in women with breast cancer

<table>
<thead>
<tr>
<th>Variables</th>
<th>Main Effect</th>
<th>Df</th>
<th>df. Error</th>
<th>F Value</th>
<th>P Value</th>
<th>Eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional expressiveness</td>
<td>Time</td>
<td>1</td>
<td>5</td>
<td>603.77</td>
<td>&lt;0.001</td>
<td>0.992</td>
</tr>
<tr>
<td>Defense styles</td>
<td>Time</td>
<td>1</td>
<td>5</td>
<td>52.03</td>
<td>0.001</td>
<td>0.912</td>
</tr>
</tbody>
</table>
The findings in Table 6 show that the total postintervention scores for emotional expressiveness and defense styles are respectively higher and lower compared with baseline. This means that the intervention was effective in the participants.

**Discussion**

The goal of this study was to determine the effectiveness of ISTDP in improving emotional expressiveness and defense styles of women with breast cancer. The findings of this study showed that ISTDP treatment was effective in facilitating the expression of emotions, the development of mature defense styles, and the modification of immature and neurological defense styles. ISTDP also appears to help patients with their conflicts or emotions. Conflicts and emotional fluctuations are often a result of the losses and psychological damage that occur to people with breast cancer. These results are congruent with the findings of other studies regarding the effectiveness of this therapeutic approach. Kramer and colleagues showed that the clarifying of defense mechanisms and psychological symptoms improves the immune function, reduces sadness, increases adaptability, reduces resistance and defensiveness, and also reduces the phenomenon of resubmission of the disease in individuals. Johansson et al. showed that ISTDP can have a positive effect by improving emotional factors at a subconscious level. The findings of Angeletti et al. indicated that ISTDP had a significant decreasing effect on the levels of depression, anxiety, and suicidal thoughts, while its effect on the feeling of disappointment was relatively small. Hilsenroth et al. showed that ISTDP significantly improved depression and some interpersonal problems. The research by Mahdavi et al. found that ISTDP lowered mortality rates, feeling of loneliness, depression, and anxiety in women with breast cancer, consequently improving their quality of life. Beutel et al. also showed that ISTDP is widely used to treat depression and improve the quality of life in women with cancer. Leutritz et al. suggested that short-term psychosocial therapy has a significant effect on quality of life and physical and emotional functioning.

In explaining the findings of this study, it can be said that the activation of some rigid, extreme, and resistant beliefs in cancer patients causes rumination, often followed by symptoms of mood and anxiety disorders, eventually affecting the person’s attitudes and thoughts. Because of the diagnosis of cancer, these patients experience conflicting feelings about the doctor, family, and people around them. In a way, these women may think of them as the causes of their illness and thus try to punish them by social isolation and noncompliance with the treatment process. Therefore, instead of accepting the illness and receiving comprehensive help, they may try to distort the reality of their condition by using defense mechanisms in order to reduce their anxiety. They mostly use mechanisms that are very basic and immature. Since the use of these mechanisms is unconscious, they cannot see how these psychological mechanisms harm them. Patients with cancer using neurotic and immature defense styles cannot easily perceive and experience feelings of anger, guilt, and self-consciousness. Therefore, they are possibly unable to readily express emotions. On the other hand, when the mood and anxiety problems of cancer patients reach their highest levels, the patient may lose the ability to show appropriate emotional response and can get irritated more easily. This will lead to ambivalence in expressing emotions, and subsequently, metacognitive beliefs of the patient will also be affected. One of the main goals of dynamic psychotherapy is to increase the awareness and tolerance of patients about the highly mixed and conflicting feelings in their lives. The goal of ISTDP is to make patients able to accept, dominate, and integrate a wide range of human emotions. This approach uses techniques of unlocking unconscious and illustrating feelings mildly and empathically to help patients confront conflicts caused by cancer, past relationships, and relationship with the therapist. By acquiring insight into their emotions and the ways of inhibiting them, patients will be able to reconcile their emotional conflicts. Given that people with breast cancer suppress their emotions and avoid community involvement to prevent rejection, expressing emotions in a safe environment, without feeling uncomfortable in front of the therapist, can improve their social functioning. This process makes it possible for patients to abandon maladaptive styles that they use to communicate with themselves and others and adopt more developed and mature styles instead.

**Conflict of Interest**

The authors have none to declare.

**Acknowledgment**

Authors sincerely thank all the patients who participated in this study and those who patiently helped us during this study.

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**Table 6. Results of Bonferroni test for comparing emotional expressiveness and defensive styles in women with breast cancer**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Mean Difference</th>
<th>S. Error</th>
<th>P Value</th>
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<tbody>
<tr>
<td>Emotional expressivity</td>
<td>36.17</td>
<td>62.83</td>
<td>26.66</td>
<td>1.085</td>
<td>&lt;0.001</td>
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<tr>
<td>Defense styles</td>
<td>215</td>
<td>98.33</td>
<td>-116.67</td>
<td>16.173</td>
<td>0.001</td>
</tr>
</tbody>
</table>
References


30. Trief PM, Donohue-Smith M. Counseling needs