

# Conflicts women with breast cancer face with: A qualitative study

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## ABSTRACT

**Background and Aim:** The prevalence of cancer in women under 50 years of age has been increased in recent years. Cancer treatment methods can lead to infertility in women with cancer. Fertility and childbearing, as the most important conflicts in the life of women with breast cancer, significantly affect their quality of life. **Materials and Methods:** This research is a qualitative study of content analysis type. Purposeful sampling and semi-structured individual interviews were performed for data collection. The participants were women with breast cancer referred to the Breast Disease Research Center of Shahid Motahari Clinic in Shiraz. The data were saturated after 15 interviews. To assess the validity and reliability, we used the four criteria provided by Lincoln and Guba. The conventional qualitative data analysis and MAXQDA10 software were used to analyze the qualitative data. **Results:** Explaining the conflicts which women with breast cancer are faced has led to the extraction of four main categories: (1) paradox of decision-making to childbearing, (2) fear, (3) sinister emotions, and (4) challenges. The results showed that the paradox of decision-making on childbearing is the most important challenge with which the patients with breast cancer are faced, causing a state of fear, anxiety, and the emergence of sinister emotions in them. **Conclusion:** It seems that paying more attention to preserving reproductive capacity before starting the treatment plays an important role in solving the biggest conflict in the life of breast cancer patients.

**Keywords:** Breast cancer, conflict, fertility, parenting

## Introduction

The altered structure of human societies has led to changes in the pattern of diseases. At present, various types of cancer are considered a worldwide health problem.<sup>[1]</sup> The growing number of cancer patients throughout the world has introduced cancer as a global healthcare problem, placing fight against cancer as a top priority of the healthcare system.<sup>[2]</sup>

Like other countries, the prevalence of cancer in Iran is increasing, and women with breast cancer in Iran are nearly 10 years younger than those in the western countries. According to unofficial information, the incidence of this disease is 20 cases per 100,000 women.<sup>[3]</sup> Based on the latest statistics reported by the Cancer Research Center of Shahid Beheshti University of Medical Sciences, the incidence of breast cancer among Iranian women is 5.27 cases per 100,000 people, which means that >8000 new cases of breast cancer are diagnosed in Iran each year, from which nearly 7778 cases are reported among women.<sup>[4]</sup>

Among various types of cancer, breast cancer is the most common in women and is the second cause of death in

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women aged 35–55 years.<sup>[5]</sup> The importance of this record becomes clearer when we observe that almost one out of nine women suffers from breast cancer during her lifetime.<sup>[6]</sup> The diagnosis and treatment of breast cancer is an unpleasant experience associated with stress and anxiety. Treatments such as chemotherapy, radiotherapy, and surgery lead to several side effects and cause unpleasant events such as hair loss, nausea, and sexual problems. Long-term treatments and their associated complications threaten the ability of women to establish their social roles as employed women and as housewives in dealing with their spouses and children. The high level of stress along with toxicity of drugs, as well as the side effects of chemotherapy and radiotherapy has a long-term negative affect on fertility of women, which altogether have a significant effect on family function, marital status, and quality of life of couples.<sup>[7]</sup> In fact, a large number of such patients become infertile after treatment of cancer. Nowadays, advances in cancer treatment have increased the probability of successful treatment and survival of cancer patients, and the maintenance and improvement of the quality of life of these people after treatment is of high importance.<sup>[8,9]</sup>

The conflicts caused by the disease and its resulting stress lead to symptoms such as anger, disturbance in concentration, loss of appetite, distraction of senses, fear of death, and anxiety of incapacity.<sup>[10]</sup> In the face of this disease and the diagnosis of cancer, the patient undergoes different psychological stages as follows. The woman with cancer suddenly feels that her world has been depleted, observes her lost aspirations that have been faded versus large disappointments, and imagines a future full of pain and suffering to herself. In these conditions, several conflicts transform her life into a hotbed replete with challenges and ambiguity. The individual sees herself in need of support, while she feels that nobody understands her deeply and sees her family's structure at risk.<sup>[11]</sup>

Since a number of women with cancer are expected to improve after treatment or have long-term survival, attempts to recognize the unique challenges in their lives have greatly contributed to better understanding of the sufferers and could be a reliable guide to develop supportive structures. Regarding the above statements, the present study attempts to identify the conflicts of women with breast cancer through a qualitative study and deep interview with the participants.

## Materials and Methods

According to content analysis, this study is part of a qualitative–quantitative sequential combined research that was designed and conducted in 2016. This type of research is based on establishing a direct relationship with participants and observing their behavior. The design of this study was based on the search for conflicts with which women with breast cancer who have passed the disease phase and are at the stage of recovery are faced. These persons individually expressed their important challenges since the beginning of the diagnosis; therefore, the purposeful sampling method was used. Using this method, the researcher

attempted to select the sample members according to the study objectives designed on the basis of the information needed. In targeted sampling, the individuals enter into the study because of having specific information about the research subject.<sup>[12]</sup> The samples with the highest variation in terms of age, education level, and social class were selected. The criteria for participation in the study included women aged 18–40 years surviving from breast cancer, lack of hormone-related breast cancer, patient's satisfaction to participate in the study, and the absence of contraceptive indications. Semi-structured open interview was used for data collection. The participants in this study completed all the treatments, and at the time of study were referred to the Motahari Clinic's Research Center for Breast Diseases affiliated to the Shiraz University of Medical Sciences for follow-up.

Before formal start of individual deep semi-structured interview, oral explanations were presented to participants concerning the type of research and its objectives, and their consent was obtained for researchers to conduct and record interviews during a preliminary introduction session. Adequate explanations were given on the voluntary basis of participation, the confidentiality of information and the ability to withdraw from the study at each stage. Individual interviews were privately conducted with open questions, which on an average lasted for 45 min to 1 h. The interviews began with general questions and then gradually went deep into the subject, and the exploratory questions were asked based on the information provided by the participants. During the interviews, the researcher clarified the questions if needed and posed enquiries (like how?) for better understanding of the participant's response. The interview continued up to reaching saturation. In the present study, data saturation were achieved when 15 participants were interviewed.

After conducting the interview, the tape playback was written down and carefully checked several times to ensure the accuracy of the work. Subsequently, the significant units were characterized and summarized by a description that was attempted to have the closest meaning to the text. Then, a list of codes was prepared and placed at a more abstract level by reviewing the similar codes using a reductionist and inductive method. Subsequently, the classes and subclasses were determined through semantic comparison. The data analysis process were performed according to the steps presented by Granhiem and Landman. The researcher first prepared the manuscript of interviews and ensured their accuracy by continuous review, and was thus informed of the course of the study. The whole interview, all the paragraphs, sentences, and words were considered as semantic units. Then, with regard to implicit meaning of the semantic units, their abstraction level was identified and encoded. The codes received specific labels based on similarity and difference under more abstract classes.<sup>[13]</sup>

To ensure the accuracy and reliability of the results, dependability, conformability, transferability, and credibility methods were used. Also, the credibility of data were reinforced through interview feedback to the participants and request for review

and verification of the classes derived from the text of their interviews. The dependency method was used to achieve strength so that the interviews were submitted to academic faculty members to be studied (and if necessary revised), a task that was left to the readers to review the transferability. MAXQDA software (version 11) was used for classification, frequent review, comparison of different data, and citations.

## Ethic Committee Approval

Acquiring the necessary permissions and obtaining the code of ethics with the characteristic IR.SBMU.PHNM.1396.903 from the Ethics Committee of Shahid Beheshti University of Medical Sciences for the presence of the researcher and the necessary coordination.

## Results

In this study, 15 women with breast cancer and a mean age of 33 years were recruited. About 40% of them (six persons) had undergraduate education and 46% (seven persons) were employed. Around 93% of the participants (14 persons) were married and had one child on an average [Table 1].

The present research was a qualitative study conducted by a content analysis approach. The following four themes were obtained in the study of the results of interviews and data analysis: (1) paradox of decision-making to childbearing, (2) fear, (3) sinister emotions, and (4) challenges. Below each of these themes, relevant classes are described [Table 2].

### First main class: Paradox of decision-making to childbearing

The conflict between the mother's inner desire and her willingness for childbearing with the fear of disease relapse and

damage to the fetus led to a paradox in the minds of women with breast cancer. Ignorance of the effect of disease on reproductive capacity and fear of losing fertility on the one hand, and fear of disease relapse due to pregnancy, concern for damage to the fetus and inability to care for the baby that may result in a neglected child on the other hand turned childbearing to a big dilemma for the participants in the present study so that the participant F expressed this point as follows:

- “During the course of my disease, nothing has hurt me and my spouse as much as the concern for this matter, i.e. childbearing” (35 years old, housewife and disease duration of 4 years)
- Participant O: “To have a child is like keeping my life, which will be ruined if I have no child. However, I am so confused at present that I do not know how to make a decision: whether I can get pregnant, and if I can be pregnant, will my child be healthy?” (33 years old, teacher and disease duration of 3 years).

Participant D “I will take action whenever I know I can get pregnant, but I'm worried that if the cancer is not cured and I die, then what about the fate of my child?” (30 years old, housewife and disease duration of 4 years).

Diagnosis of cancer and its complications irritate the afflicted person to such an extent that it leads to nervousness and uncontrolled behaviors, even in relation to the spouse and child. The fatigue resulting from the long treatment period and its associated neuropathy has involved several families and disturbed their normal development. The stress and anger of the afflicted person and the fatigue of the spouse are fatal to the family; it might not be simply silenced and could lead to breakdown of the family, which complicates the matter with the desire of women to have a child. The participants stated this point as follows:

Table 1: Demographic profile of the participants (n=15)

Percent	Number	Number of children	Percent	Number	Age
13.33	2	Does not have	6.66	1	>40
60	9	1	40	6	40-35
26.66	4	2	40	6	35-30
			13.33	2	30<
Percent	Number	Husband's education	Percent	Number	Education
6.66	1	Less than diploma	13.33	2	Less than diploma
20	3	Diploma	26.66	4	Diploma
6.66	1	Assistant	13.33	2	Assistant
66.66	10	Bachelor	40	6	Bachelor
			6.66	1	Master of Science
Percent	Number	Husband's job	Percent	Number	Patient occupation
66.66	10	Clerk	26.66	4	Clerk
33.33	5	Free job	20	3	Free job
			53.33	8	Housewife
Percent	Number	Marital status	Percent	Number	Type of treatment
93.33	14	Married	66.66	10	Mastectomy
6.66	1	Single	33.33	5	Lumpectomy

**Table 2: Perceived conflicts in women with breast cancer**

Code	Sub-category	Category	Theme
1/fear of relapsing disease due to pregnancy 2/concern for damage to the fetus 3/inability to care for the baby 4/child abstinence 5/fear of harm to the child due to the breakdown of the family structure 6/worried about having a baby because of the mother's irritability	Unwillingness	Paradox of decision-making to childbearing	Conflicts
1/changing the structure of life 2/creating humor and emotional interaction 3/the symbol of motivation to survive 4/inducing health 5/taking wife's request	Tendency		
1/unaware of the effect of the disease on fertility 2/fear of losing pregnancy 3/concerned not having a child 4/fear of a lifelong sterility	Sterile dread		
1/heredity of the disease 2/recurrence in pregnancy 3/complications and treatment in breastfeeding 4/effect on pregnancy 5/decease 6/chemotherapy 7/radiotherapy 8/disability 9/unsuccessful marriage	Fear of unawareness	Fear	
1/the sense of ridicule of others 2/disorder of spouse's dreams 3/losing husband 4/fear of separation emotional 5/social stigma 6/feel sorry 7/irrational thoughts 8/feeling ineffective 9/isolation and withdrawal from the community 10/negative mental ruminations about themselves 11/stagnation 12/shame 13/be tired of life 14/feeling lonely 15/decreased emotional adjustment 16/decreasing matching power 17/mischief about yourself 18/riding with your own being 19/sleep disorders 20/loss of fighting spirit 21/frustration and hopelessness 22/confronting spirituality 23/disorder of emotions 24/pessimistic thoughts 25/fear of death 26/panic attack 27/interpersonal problems 28/anger 29/irritability	Dismal state	Sinister emotions	
1/fertility 2/childbirth 3/motherly scramble 4/use of fertility technology 5/corrupted body image 6/exposure to life-threatening illness	Physical impairment	Challenges	

*Contd...*

Table 2: Contd...

1/sexual attraction drop	Mental stress
2/defective problem solving skill	
3/disturbances in dealing with spouse and child	
4/contradictory beliefs about the use of prosthesis	
5/spiritual erosion caused by wandering	
6/particular role of the parent	

Participant M: “My spouse is tired; my life is on the verge of rupture. We have no relationship with each other, and our prospective child will be harmed in such conditions” (33 years old, housewife and disease duration of 3 years).

In addition to this group, there was another group of participants who considered childbearing as an opportunity and not a threat. Their attitude toward this subject was a change in the structure of their life and the creation of passion and emotional interaction. The viewpoint of this group on the issue of pregnancy was the induction of a sense of health, although the concern and anxiety of infertility, fear of death, and negligence of children were paradoxical in their minds.

Participant I: “The day the doctor allows me to become pregnant means I am healthy, I’m just afraid that the chemotherapy has deprived me of this opportunity forever” (18 years old, student and disease duration of 2 years).

Fear of lifelong sterility was a matter that not only preoccupied the minds of young participants, but even engaged those with a complete family structure.

Participant K: “I do not intend to get pregnant any more, but I have a bad feeling when I think that I have lost the ability to become pregnant forever” (44 years old, employed and disease duration of 5 years).

A number of participants in this study considered the conflict between the desire and lack of desire for childbearing as the result of their husbands’ attitudes and stated that:

Participant G: “If it was just my decision, then I would not choose to have a baby given my own physical conditions, the possibility of relapse and possible damage of drugs to my baby; however, my husband does not accept it at all, and because of him I have to accept any conditions” (32-year-old woman, employed and disease duration of 3 years).

### Second main class: Fear

Another subject categorized in this theme was fear, and fear of ignorance had portrayed an ambiguous future for the participants. The inheritance of the disease, relapse during pregnancy, complications of the disease, treatment during breastfeeding, and the effect on reproductive capacity were questions that occupied the minds of the sufferers, and the lack of information on these issues drove their lives into a halo of ambiguity.

Participant H: “I do not have any reliable information about cancer and its impact on pregnancy, fetus or breastfeeding. I have heard that cancer is a hereditary disease, and I have fears for my children. I’m afraid that they are also involved” (29 years old, housewife and disease duration of 5 years).

Fear of incapacity and death were other issues that made life difficult for the patients. Although chemotherapy and radiotherapy have increased the survival of patients, their complications have caused fear of incapacity in the hearts of the participants. The concern for treatment and its subsequent problems in patients, fear of death, and lack of awareness of the conditions were concerns that wavered uncertainties over the lives of patients.

Participant N: “Chemotherapy has exhausted me and I am afraid that my body will never recover” (39 years old, employed and disease duration of 3 years).

Participant I: “I have fear of death at any moment since I have been diagnosed with cancer” (18 years old, student and disease duration of 2 years).

### Third main class: Sinister feelings

The fears and concerns of cancer and its treatment led to the appearance of sinister feelings in the patients and dreaded their lifestyles. Feeling of sorrow, irrational thoughts, feeling of ineffectiveness, isolation and leaving the community, sleep disturbances, and negative mental ruminants were the conditions mentioned by participants in their conversations. Reduced adaptation power, phobic attacks, anger and irritability as the result of negative thinking, as well as a feeling of stagnation and disappointment were the predominant complaints of the majority of participants. Pessimism in dealing with other people would lead to interpersonal problems. A sense of militancy toward spirituality following the reduced ability to fight with the disease, sinister emotions, and mental disorder had turned the patients to a fireball ready to blast and tired of life. The reduced power of emotional compatibility created a sense of estrangement with their own existence in patients who claimed to have been severely persevering beforehand. Anger and irritability led to frequent clashes with their spouse and children, which caused the fear of losing the spouse in participants. Fear of social labels had secluded the patients and caused a sense of loneliness and emotional separation in them.

Participant B: “I am tired of living; wherever I go I feel that everyone is looking at me. I prefer to stay home and be alone.

I wake up a hundred times until the morning, and a host of negative thoughts come to my mind.” (30 years old, employed and disease duration of 3 years).

Participant F: “Before my disease, everyone told me that I was tolerant, but now I am very different from my previous character. I am easily irritated and ready to quarrel” (35 years old, housewife and disease duration of 4 years).

Participant I: “I am always arguing with God and I complain. I did my religious duties and had not annoyed anyone, why me?” (18 years old, student and disease duration of 2 years).

#### Fourth main class: Challenges

Another issue attracting the attention of the interviewees was the challenges with which they were faced, which were divided into physical disorders and psychological stress. Fertility and parenting, as the two main determinants of quality of life, along with the risk of disease relapse and damage to the fetus challenged the minds of patients and played a significant role in the formation of conflicts in their life. The interest in motherhood raised the big question of the possibility of using assisted reproductive techniques in the minds of patients; on the other hand, however, fear of damage to the fetus and anomalies, as well as premature death and neglected child had challenged this aspiration.

- Participant D: “Now assume that I can get pregnant; what if my child has a problem? If my disease recurred when my baby was born and I could not rear it?” (30 years old, housewife and disease duration of 4 years)
- Participant D: “I thought of choking my baby girl to die before losing her parents and be left to the mercy of others, how I can think of another child in such conditions?” (30-year-old, housewife and disease duration of 4 years).

Breast cancer is associated with the excision of an organ of the female body, which is a symbol of femininity and charm. Mastectomy along with cancer treatment distorts the image of female body, creating the impression that their beauty and femininity have been damaged. The challenge of complying with the treatment and overcoming a life-threatening disease on the one hand, and the destroyed female appearance and its toleration by the partner on the other hand were the issues that for a long time occupied the participants’ minds. The disagreement of the spouse with mastectomy, as well as subsequent looks and encounters were the other painful points that severely irritated some of the patients.

- Participant B: “It was a nightmare for me when they told me that I must undergo mastectomy; it was the most difficult decision of my life” (30 years old, employed and disease duration of 3 years)
- Participant L: “My husband could not help me with this subject and told me that he would divorce me if I remove my breasts; I cannot forgive him at all. I think it was his selfishness. Consider what he thought of when I was fighting for my life” (31 year old, housewife and disease duration of 3 years)

- Participant O: “I survived when my breasts were removed, but I had to stay at home” (33 years old, teacher and disease duration of 3 years)
- Participant E: “Facial appearance affects the relationship with the spouse and can aggravate it; my husband did not say anything at first, but now he wants me to ask about the prosthesis. his discomfort makes me more nervous” (37 years old, housewife and disease duration of 5 years)
- Participant G: “When I was diagnosed with cancer, I just thought about how to tell my husband and what his response was to my mastectomy. The complexion and appearance are very important for my husband. A first, he said nothing, but it did not mean he was not thinking about it anymore. At present, he sometimes hints and his reaction disturbs me” (32 years old, employed and disease duration of 3 years).

The use of prosthesis was another challenge in the life of the participants. Lack of awareness of prosthetic conditions, depression and lack of motivation, fear of relapse, and lewdness with husband were among the points mentioned as mental conflicts in the use of prosthesis by a number of participants.

- Participant L: “When I think of my husband’s selfishness, I do not want the prosthetic surgery at all” (31 years old, housewife and disease duration of 3 years)
- Participant E: “I do not know much about the conditions of using prosthesis; they speak of it in the clinic. Some people say it is good but others say that it can increase the incidence of relapse” (37 years old, housewife and disease duration of 5 years)
- Participant G: “I really like to have a prosthetic surgery, but I have no motivation for anything else” (32 years old, employed and disease duration of 3 years).

The emotional erosion from fatigue had caused difficulty in problem solving skills in most participants so that participant C expressed: “I cannot even solve the simple problems of my life” (35 years old, employed and disease duration of 4 years).

- Participant N: “The power to think about problems has been taken away from me” (39 years old, employed and disease duration of 3 years).

The effect of this disease on various aspects of life of patients is not limited to mental and physical problems; it also affects other aspects of life such as family and mental life, causing interruptions in the relations of the affected person with spouse and children. Some of the participants considered the problems in their appearance after treatment as a source of disagreement with their spouses:

- Participant L: “My husband believes that the beauty of a woman is dependent on her breasts. Before operation, he said, ‘If you remove your breasts, you should not have any expectations from me any longer; I cannot have any emotional relationship with you anymore...’. I am now in a position where my husband is not important for me at all, I do not like him anymore..... How can I love a husband who does not understand me and in these difficult circumstances only

sees my appearance? Now, only it is just important that I heal..... Now, our relationship has become such that if one night he does not come home, I do not ask where he has been. .... The day following my surgery, my husband's behavior gradually worsened every day, and we have a new situation and controversy every day" (31-year-old woman, housewife and disease duration of 3 years)

- Participant M: "After my surgery, my husband's behavior has deteriorated and he says: "I have been screwed up because you did not hear what I told you. I would take you overseas if you accepted what I said." Maybe, his behavior improves if I have prosthetic surgery" (33 years old, housewife and disease duration of 3 years).

Some other participants attributed the difficulty of communicating with their spouses to the fatigue due to the prolonged course of treatment and its resulting education.

- Participant N: "Our husbands are in a state of stress after surgery and their morale worsens after the surgery. This is a problem for the majority of women here" (39 years old, employed and disease duration of 3 years)
- Participant E: "Because of the high level of disease involvement, both of us have become frustrated; his bad behavior exhausts me. His conduct has worsened; he complains, criticizes, and makes excuses that are signs of his tiredness" (37 years old, housewife and 5 years of disease duration)
- Participant F: "My husband is nervous; seems that he is undecided; he is tired and continuously abusive" (35 years old, homemaker and disease duration of 4 years).

Some participants have also attributed their clashes to their own fatigue and nervousness:

- Participant O: "I think my husband is tired, maybe because of the prolongation of the treatment course, or maybe because of my complaints. My husband tries to pass fewer hours at home to have fewer clashes with me. I am nervous myself and I am bored. He is worse than me, and we are always quarreling" (33 years old, teacher and disease duration of 3 years)
- Participant B: "I misbehave my husband. I do not tolerate him at all. My husband has gone mad and we have a lot of disputes" (30 years old, employed and disease duration of 3 years).

Disputes and family problems are not solely related to the behavior with spouses, but the children are also affected by these problems:

- Participant G: "I am nervous and so I misbehave with my husband and child. I have clashes with my child; he has become naughty, so I am bored and punish him" (32 years old, employed, duration of illness 3 years)
- Participant O: "Because I have a lot of clashes with my daughter, she tries to go to her aunt's or grandmother's house. When she is at home, most of the time she spends time with her father (33 years old, teacher and disease duration of 3 years)

- Participant L: "I feel pity for my children; we no more enjoy rearing and caring for children. The child sees and understands this and is anyhow involved"(31 years old, housewife and disease duration of 3 years).

## Discussion

Despite considerable progress in medical science, increased incidence of breast cancer has placed it among the most prevalent malignancies among Iranian women, which affects them one decade earlier than their counterparts in the developed countries.<sup>[14]</sup> As an unpleasant and unbelievable experience, the diagnosis and treatment of breast cancer leads to altered sexual function, negative self-perception, hair loss, communication problems, fatigue,<sup>[15]</sup> severe psychological reactions,<sup>[16]</sup> feeling of sorrow, fear of death, confusion and anger,<sup>[17]</sup> feelings of social isolation, fear of spouse's reaction if married, concern about marriage if single, anxiety of death, and concern about infertility.<sup>[18]</sup>

In this study, 15 women with breast cancer were deeply interviewed. As mentioned, after scrutiny of the results, the perceived obstacles of these individuals in their own words included four major categories: (1) paradox of decision-making to childbearing, (2) fear, (3) sinister feelings, and (4) challenges.

The first and foremost conflict of the participants in this study was the paradox of decision-making to childbearing. Fear of disease relapse due to pregnancy, concern for damage to the fetus, inability in taking care of the baby, distress of the neglected child, and fear of harm to the baby due to disruption of family structure were among the factors that led to unwillingness to get pregnant in our participants. Besides these subjects, issues such as willingness of the husband, instilling the sense of well-being and motivation to survive reinforced the desire to childbearing in participants. Lack of access to timely and complete information, fear of infertility, and damage to the fetus in case of pregnancy caused painful concerns regarding pregnancy. The fatigue resulting from the long period of treatment and the complications during pregnancy caused unprecedented psychological effects in patients and their families. Anger, anxiety, aggression, and irritability caused communication problems for patients and their spouses, as well as plenty of confrontations and disputes in their lives. Negative thinking, low self-esteem, and lack of self-confidence together with fatigue and nervousness of the spouses strongly highlighted the fear of separation from the spouse and disruption of the family structure, turning all these issues to an extreme challenge in the field of childbearing. Parallel with these issues, the interest and willingness about childbearing on the part of the spouse caused even further challenges. On the other hand, inner interest of women in pregnancy emerged together with their womanhood sense by which they regarded the reproductive power as a component of health and sexual nature, causing an unprecedented ambiguous paradox in the minds of the participants. Concern over sterility and lifelong loss of childbearing capacity as a big anomalous fear along with a feeling

of dismay and despair embittered the life of the patients and their spouses, and fear of social stigma associated with infertility led to isolation and a sense of inefficiency in patients. Fear of sterility, followed by the loss of spouse and family disorganization, led the patients toward negative rumination on themselves, inconsistency, sleep disturbances, sense of helplessness and depression, making them irritable and affecting their quality of life in psychological and spiritual dimensions. Overall, their statements indicated that the psychological reactions and communication disorders associated with cancer turned childbearing to a big question mark in the minds of participants and their families.

Several studies have reviewed the fertility and childbearing tendency in women with breast cancer.<sup>[19–24]</sup> In line with our research, the results of these studies showed that pregnancy was a matter of concern in the lives of patients with breast cancer. In a qualitative study in 2011 on 20 patients aged 18–34 years with breast cancer by Gorman *et al.*, found that fertility and childbearing were the major concerns of patients, and consulting in the field of preserving the fertility power was raised as one of the most important requirements to help them resolve problems in their lives.<sup>[25]</sup> Also, the results of a study by Kim and Jeon in 2012 showed that dealing with the problem of fertility was very important from the patient's viewpoint in addition to cancer treatment, and most of the participants considered the review and follow-up of this issue as a basic therapeutic necessity.<sup>[26]</sup>

Maintaining the reproductive capacity is an indicator of health and efficacy for women with cancer,<sup>[27]</sup> and not giving priority to this issue in the treatment process and lack of notification poses this problem as a major challenge in the minds of patients.<sup>[28]</sup> In a study conducted by Pivetta *et al.* 6044 patients with cancer were examined during the period 1960–1998. In this study, marriage and childbearing were identified as two indicators of the quality of life. The researchers suggested that a systematic program for cancer survivors should be developed to resolve the problems caused by reproductive and childbirth problems to improve the quality of life of patients.<sup>[29]</sup>

Also, in 2009, Zebrack conducted a study aiming at assessing the information and service needs of young people with cancer aged 18–39 years. In this study, 879 subjects completed an online questionnaire. Establishment of information services for solving the problem of infertility, psychological counseling, and relaxation camps were stated as the most important requirements of participants.<sup>[30]</sup>

Another issue that preoccupied the minds of our participants was the sense of impending death that caused a lot of anxiety in the patients. Impending sense of death is an important psychological component, and the anxiety of it has been likened to rolling of a large stone in to a peace full body of water.<sup>[16,31]</sup> Anxiety of death and its associated emotional and behavioral consequences are among the factors contributing to the paradox of decision-making to childbearing. The concern of a shorter life expectancy, anxiety about the treatment complications, and

fear of neglected offspring cause conflicts for cancer patients regarding reproductive programs and parenting ability.<sup>[32]</sup>

Aghabarari *et al.* expressed the grief, anxiety of death, confusion, and anger as natural responses to psychological stresses in breast cancer patients.<sup>[17]</sup> A sense of confusion, together with frustration and disappointment, conveys the sense of uncontrollability of life to patients and their families,<sup>[33]</sup> causing decision-making challenges beyond description for life. The fatigue of the long treatment course, the terrible nature of cancer, and complications of the disease affect the marital relationships so that disturbed relationships between spouses, excessive fatigue, helplessness, loss of fighting spirit, and negative mental self-perception will turn the concern and doubt about the future into a new perspective in turbulent life of cancer patients.<sup>[34–37]</sup>

In these conditions, the decision to childbearing and care and maintenance of children creates a conflict in the minds of patients and their families, which, according to the participants in the study, imposes a stress equivalent to the diagnosis of cancer on them. New hopes have emerged for survivors of cancer given the importance of the issue of fertility and childbearing in the lives of breast cancer patients with respect to advances in cancer treatment, increased life expectancy of patients, as well as successful fertility preservation in patients.<sup>[8,9]</sup>

Paying attention to the importance of this issue for patients' families returns a higher life expectancy and a good sense of health to families, which revitalizes the light of hope and motivation in them. The physicians responsible for treatment play a very important role in this respect. The active role of physicians in guiding and counseling to reduce long-term ovarian complications, providing sufficient information to the patients to select the appropriate method to maintain fertility and timely action, relaxation, and supervision of patients and their families will promote the quality of life of women with breast cancer. In this regard, the collaboration of oncology and infertility specialists as well as psychologists can be beneficial.

## Conclusion

Fertility and childbearing are major concerns that greatly affect the quality of lives of cancer patients. The use of a variety of chemotherapy drugs in women with cancer can affect their fertility.

There are growing number of fertility preservation methods for young women with cancer. Considering the importance of fertility in women with cancer, it seems that paying more attention to preserving reproductive capacity before starting the treatment is one of the main points to improve the quality of life of breast cancer patients.

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## Conflicts of interest

There are no conflicts of interest.

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